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Analysing Collaborative Interaction In Learners' Task-Based Oral Discourse

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ABSTRACT

The aim of the study was to investigate how learners of English as a foreign language (EFL) interacted during task completion using two different communication task types i.e. jigsaw and decision-making. The focus of investigations was the dynamics of learner interaction and the kind of oral discourse generated by the participants. The data for the study comprised transcribed recordings of learner interactions working on given tasks. They were qualitatively analyzed focusing on the social processing. Findings revealed that the participants attempted task completion collaboratively. The collaborative interaction was characterized by argumentative episodes. However, close examination showed that the participants engaged in more intensive argumentative negotiations which were highly collaborative during decision-making task completion than during task completion of the jigsaw task type. The results suggest that communication task types elicited collaborative interaction episodes with argumentative negotiations and these kinds of interactions are believed to be important particularly for learners at the tertiary level.

Keywords: oral discourse, collaborative interaction, argumentative episodes, communication tasks

INTRODUCTION

According to Gerlach (1994), learning occurs through interaction with others. Linguists and psychologists concur that interaction is crucial as a channel of exchanging knowledge that would promote both development and learning (Franco, 1996). In second language learning, interaction has always been regarded as important in a language classroom as it is believed that language is best learned and taught through interaction. Numerous studies have revealed the importance of interaction for second language learning (e.g. Long, 1983; Pica & Doughty, 1985). When learners interact, they engage in various activities such as repeating themselves, providing explanations and giving details in order to ensure their ideas and messages get across (Olsen & Kagan, 1992). These activities contribute to gains in second language or L2 acquisition.

The notion of interaction is very much related to Swain's (1985) Output Hypothesis and Long's (1985) Interaction Hypothesis. The Output Hypothesis claims that when learners interact, they

produce language (output). Not only do they focus on the content of their output, they may be forced to focus on syntax and morphology of the target language as well. These activities provide opportunities for learners to modify their utterances so that they become grammatically accurate as well as sociolinguistically appropriate.

In the early version of the Interaction Hypothesis, emphasis is given to the importance of comprehensible input in language learning. It is argued that when input is comprehended, language acquisition is promoted. In its later version, Long (1996) recognizes the fact that negotiation for meaning may encourage learners to modify their output and he incorporates a role for 'pushed output' in L2 acquisition, as initially proposed by Swain (1985). He argues that second language acquisition is facilitated by conversational interaction. Conversational interaction provides learners with opportunities to receive the target language input, to produce output and make interactional modifications or adjustments during interaction.

Both the Interaction Hypothesis and Output Hypothesis support the use of communication tasks in the L2 classrooms in order to encourage learners to interact with one another. Studies have empirically shown that the use of tasks in language classrooms provides opportunities for learners to interact (Ellis, 2004; Kowal & Swain, 1997; Pica, Kanagy & Falodun, 1993; Swain, 1995, 1998; Swain & Lapkin, 1995, 1998, 2000, 2001).

LITERATURE REVIEW

Research in second language pedagogy advocates the use of tasks which require learners to produce output collaboratively (Kowal & Swain, 1997; Swain, 1995, 1998; Swain & Lapkin, 1995, 1998, 2000, 2001) as learner collaboration in groups or pairs promote language learning. It is believed that the use of communication tasks in the L2 classroom would promote the kind of interaction which leads to language learning opportunities as shown in Swain and Lapkin's (1998) and Swain's (2001) studies. In their research, learners worked together completing a collaborative writing task. When they encountered linguistics problems, they tried to solve them through negotiation and scaffolding. The learners used their knowledge about the language for their output, "*allowing them to reflect on it, revise it and apply it*" (Swain, 2001). Such tasks encourage learners to notice gaps between what they want to say and what they can say, externalize their knowledge (i.e. talk about it) and participate actively. These activities provide learners with language learning opportunities.

To encourage learners to produce output collaboratively, tasks need to be structured such that for task completion, learners need to be involved in collaborative interactions whereby they are engaged in problem solving and knowledge building. In other words, the tasks need to be structured so that learners use the language to jointly address a problem, and use the language to respond to language problems that might arise in their utterances as they engage in task completion.

Since tasks are seen as tools which have an effect on interaction and the process of negotiation of meaning (Ellis, 2004; Pica et al., 1993), it is useful to examine the interaction of learners engaged in different communication task types and how different or similar they are in terms of the dynamics of learner-learner interaction. Thus, the investigation of this study focused on how the participants interacted during task completion (jigsaw and decision-making) and examined the kind of oral discourse they generated as these would enable the researcher to identify language learning opportunities when learners engage in task completion.

METHODOLOGY

Participants

Eighteen EFL adult learners from a public university in Malaysia participated in the study. They were between 20 and 22 years old and shared the same L1 which was the Malay language. They all studied in religious secondary schools in various states in the country and they formally studied English as a subject for at least 11 years (6 years during primary education and 5 years during secondary education). For the study, the learners were placed in groups of three.

Tasks

The task types used for the study were the jigsaw and the decision-making task types. The tasks were chosen due to their different characteristics and capacity to elicit learner interaction. The jigsaw task type was considered as the type that would encourage learners to interact and be involved in activities that would lead to successful L2 acquisition. On the other hand, due to its characteristics, the capacity of the decision-making task type in encouraging interaction that would lead to L2 acquisition was reduced.

Procedure

This study adopted a qualitative approach both in the collection and analysis of the data. Learner interactions were gathered and transcribed verbatim. Transcribed data were examined qualitatively. By using the qualitative approach in the collection and analysis of the data, the researcher was able to gain in-depth understanding on how the participants interacted when they engaged in the two task types and the kind of oral discourse they generated.

Data analysis

The analysis conducted focused on the social processing aspect. It was adapted from Kumpulainen and Wray's (2002) three-level parallel analysis. When analyzing learners' social processing in learner-learner interactions, the emphasis was on the nature of learners' collaboration – how they collaborated or their mode of collaborative work. The social processing provided an understanding on how the participants interacted as they engaged in task completion which included whether there was evidence of collaboration in their learner-learner interactions and the kind of oral discourse they generated. The different modes of collaboration included collaborative, tutoring, argumentative, individualistic, dominative, conflict and confusion modes.

RESULTS

How do EFL learners interact using different communication task types and what kind of oral discourse is generated?

Social processing

Collaborative interactions.

Episodes of collaborative interactions were evident as the participants jointly made meaning in order to understand the information and negotiated ideas. However, the kind of collaborative interactions generated differed between one task type and the other i.e. jigsaw and decision-making tasks. The learner interactions generated during jigsaw task completion exhibited close collaboration with some negotiation as the participants tried to make meaning together. As seen in Excerpt 1, Mohd provided an explanation to Jani about the position of the lake, island and hill in the picture. Jani repeatedly asked questions to ensure correct understanding. Both Mohd and Jani jointly investigated the information they had and made meaning together. This

is an episode of joint investigation and joint meaning-making to achieve mutual understanding of the materials, an evidence of collaboration.

Excerpt 1 Jigsaw (Joint Meaning-making)

- Mohd: On the middle and around the hill.
Jani: Around the island has hill so there is a hill around the island?
Mohd: Yes.
Jani: Around the island *ke* around the lake?
Mohd: Around the lake.
Jani: *Seluruh tasik?*
Mohd: Lake like this, lake hill island on the middle.
Jani: *Ni* lake.
Mohd: Like this.
Jani: Ok, *ni* lake.
Mohd: Middle.
Jani: Where is the hill? (giggle) *Ni* hill.
Mohd: Oh no lake, I think, er, ok, there is an island *sana* island like this.
Jani: Ok, island.
Mohd: Ok, this is island. Ok, the middle of lake.
Jani: *Ni* lake?
Mohd: Ha, lake.
Hartini: Then the hill.
Mohd: Ha, the hill a big tree.
Hartini: *Tasik yang besar.*
Mohd: *Sini tasik sini* lake.

(J2/Brown/68-88)

A different kind of collaborative interaction could be observed when the participants engaged in the decision-making task completion. When the participants jointly made meaning, their learner interactions were exploratory and highly collaborative with evidence of intensive negotiation. They negotiated ideas and provided extended explanation in order to achieve mutual understanding. When compared to the jigsaw learner interactions, despite being collaborative when engaged in jigsaw task completion, their interactions were quite straight forward with some evidence of negotiation. Excerpt 2 illustrates the collaborative interaction generated by the participants when they completed the decision-making task. They negotiated their ideas and together they tried to make meaning. Hartini pointed out the picture which she thought showed air pollution. The rest of the participants in the team agreed after a short discussion. Then Mohd shared his opinion regarding the picture that showed water pollution. However, Hartini expressed disagreement and provided her explanation. Jani and Mohd shared similar understanding and tried to convince Hartini by explaining to her. However, Hartini was adamant about what she thought and she tried to convince the others in her team. Eventually, they all agreed to have two types of pollution, water and sea pollution, as suggested by Mohd (lines 49-50). Evidence of raising questions and investigation of the materials can be seen in their learner interactions as they explored them together. Their learner interactions were highly collaborative with episodes of intensive negotiation.

Excerpt 2 Decision-making (Joint Meaning-making)

- Hartini: The air pollution.
Mohd: Air pollution?
Hartini: Air pollution.
Jani: Where?

- Hartini: This picture.
 Jani: Ha!
 Mohd: Air pollution?
 Hartini: Yes.
 Jani: Because this something *apa*, we call that?
 Mohd: This is foreigner, eh, foreign.
 Jani: Factory *la*!
 Mohd: This is factory so I think foreign relate to air pollution.
 Jani: Ok, then I think this *ni* water because this in the water.
 Mohd: Yes, I think also, excuse me, are you sure this picture water pollution because this is water and fish.
 Jani: Then?
 Mohd: And then I think this also, excuse me, I think this also what we call, this water pollution because.
 Hartini: I think this water pollution. Sorry to interrupt, I think I don't agree with water pollution because this picture is good to water pollution.
 Jani: I think may be yes because it show that something they throw, something to the water.
 Mohd: Excuse me, sorry to interrupt, I think this is a water pollution and this like *air*, like at sea. (lines 49-50)
 Hartini: Sorry to interrupt, I think this picture is sea pollution.
 Jani: But this is impact of water pollution.
 Hartini: Sea pollution.
 Jani: Oh have two, water and sea pollution.
 Mohd: Ok, what do you think that relate with sea pollution?
 Jani: I think this sea, sea pollution because has *rumpai*, doesn't look like water pollution.
 Mohd: This water I think, this is water pollution. (DM2/Brown/27-58)

Argumentative episodes

Apart from being characterized by joint investigation and joint meaning-making, the collaborative interaction was also characterized by argumentative episodes. Argumentative mode did not imply that the participants argued with one another during their discussion. Instead, they negotiated their differences and resolved conflicts by arguing their points in a rationale way. They provided reasons and justifications in order to achieve a shared understanding of the situation. Judgments and justifications normally led to a shared understanding of the situation. The argumentative episodes were found in the participants' learner interactions when they engaged in both task types. When engaged in the jigsaw task completion, the argumentative episodes identified were short and straight forward with some explanations given. This was because what the participants wanted to achieve was to understand the input to ensure accurate completion of the tasks. As seen in Excerpt 3, Hartini tried to explain to her team what an anemone was. She tried to explain the meaning of the word to both Mohd and Jani but they could not understand. Mohd argued with her insisting that an anemone was not an animal as claimed by Hartini. She explained further (lines 109, 111, 113, 115 & 117) and finally Mohd understood and accepted her explanation (line 119).

Excerpt 3 Jigsaw (Argumentative)

- Hartini: Then the tide pool also has a sea anemone like look, like flower but they are animals that catch and eat other animals with their flower like part.
 Mohd: You mean the animal like flower?

- Hartini: No, in tide pool also have a sea anemone that like flower. (line 109)
Mohd: Oh, like *rumpai*.
Hartini: But they are animal. (line 111)
Mohd: This still *rumpai*, but not animal.
Hartini: No, like flower. (line 113)
Jani: Animal like flower.
Hartini: No, *rumpai laut*. (line 115)
Jani: [giggle]
Hartini: *Sejenis bunga*. (line 117)
Jani: *Tapi sejenis binatang*.
Mohd: Ok, I know. (line 119) (J1/Brown/106-119)

A different kind of learner interaction consisting of argumentative episodes was observed when the participants engaged in the decision-making task completion. Excerpt 4 illustrates an argumentative episode during decision-making task completion. Intensive negotiation and argumentative instances can be observed as the participants worked on the materials they had. They discussed the best possible way to present their ideas in writing. Faizal shared his idea on what to write first. However, Wan did not appear to agree, had different views and challenged Faizal's idea. They argued and negotiated intensively before reaching an agreement (e.g. lines 211, 212-213, 214-215, 216, 218 & 219). In this episode, instances of ideas or opinions being challenged with intensive negotiation could be observed. Arguments and disagreements led to ideas being challenged and explanations being sought by the participants.

Excerpt 4 Decision-making (Argumentative)

- Aina: Logging are divide. Logging...are divide...into...two.
Faizal: I think we should not mention two. We just logging are divide into legal and illegal activity.
Aina: Legal and illegal activity?
Wan: Effect the logging.
Faizal: Nowadays in Malaysia has many... (line 211)
Wan: Nowadays? Why should we do the first paragraph is effect, second paragraph is suggestion...to...rmmm (lines 212-213)
Faizal: I agree with you, Nowadays we must mention illegal activity in Malaysia. (lines 214-215)
Wan: I think nowadays is not suitable. (line 216)
Faizal: Ok.
Wan: Nowadays? (line 218)
Faizal: So what is your suggestion? (line 219)
Wan: No, no, not nowadays. What, what your sentence?
Faizal: Nowadays so many illegal logging activity at Malaysia.
Wan: At or in?
Faizal: At. This activity give many effect.
Aina: Ok, ok. We use this. Nowadays? What?
Faizal: Nowadays, so many...illegal.
Aina: [Activity]
Wan: So many illegal.
Faizal: I think before illegal activity is illegal logging activity.
Wan: Logging activities.
Faizal: In or at?
Aina: In.
Faizal: In Malaysia. (DM2/Red/206-232)

DISCUSSION

The research question concerned how EFL learners interacted using different communication task types and the kind of oral discourse they generated. When engaged in task completion for both task types, it was observed that close collaboration was evident throughout their learner interactions. The collaborative interaction was highlighted by episodes of joint meaning-making and was characterized mainly by episodes of asking for clarification and asking for more explanation. These episodes gave evidence of joint meaning-making among them in trying to build and achieve inter-subjectivity (Wells, 1987). The element of inter-subjectivity is very much related to collaboration and occurs through constant negotiation. However, when observed closely, during the decision-making task completion the participants' learner interactions were highly collaborative with evidence of intensive negotiation compared to when engaged in the jigsaw task completion. The participants negotiated ideas and provided extended explanation in order to achieve mutual understanding. Their interaction episodes were not straight forward as they took time to explain as seen in Excerpt 2. They generated complex patterns of interaction when they negotiated ideas. For this study, it was observed that the decision-making task type was the type that encouraged the production of complex patterns of interactions and the generation of more complex ideas.

Another significant finding was the existence of argumentative interaction episodes. These episodes were observed to occur when the participants tried to jointly make meaning especially while writing together. Instances of disagreement were observed. They argued on content, sentence structures and word choices. They also revised what they had composed by either changing or modifying it. The collaborative writing encouraged them to engage in interactional modifications and produced modified output during their learner interactions. This can be observed in both Excerpts 3 and 4. It is believed that when the participants in this present study engaged in argumentative mode and produced modified output during their learner interactions, not only did they push themselves, the whole process may assist them to "*control and internalize linguistic knowledge*" (Swain, 1995). However, when closely observed, during the decision-making task completion, the participants engaged in argumentative episodes with evidence of intensive negotiation more extensively compared to when engaged in the jigsaw task completion. The participants presented their arguments in a more explicit way and provided support to maintain their opinions. Strategies and solutions were also jointly created and tested. The participants' collaborative interactions, characterized by intensive negotiation and argumentative episodes reflected intensive task engagement where a lot of effort was put on exploring and communicating ideas, providing suggestions and explanations. During interaction, when there is a difference of opinion among the speakers, episodes of questioning, asking for clarification and reasoning emerge as they need to solve the difference of opinion. It is argued that clarification requests found in argumentative episodes are related to critical thinking and problem solving (Andriessen, 2006; Billig, 1987; Candela, 1997; Chin & Osborne, 2010; Rogoff, 1990). Further, argumentation which includes episodes of questioning and reasoning is an important feature of effective interaction (Cohen, 1994). In this study, it was the decision-making tasks that encouraged the production of interactional and linguistics modifications coupled with interaction episodes which were argumentative in nature with rigorous negotiations.

Understanding the dynamics of learner interactions during different task completion has crucial pedagogical implication as this knowledge can be used as a basis for informed pedagogical practice in the L2 classroom particularly in an EFL context. Findings revealed that when they interacted, they did not just produce language and make modifications. They engaged in collaborative interactions and explored ideas through dialogue. They produced

complex patterns of interactions and generated more complex ideas. Their collaborative interaction was also characterized by argumentative episodes. These collaborative interactions characterized by argumentative episodes generated more complex ideas to emerge and to be negotiated in interaction. Basturkmen (2002) argues that complex patterns of interactions are "*important in enabling students to develop their own ideas in discussion.*" When engaged in these complex patterns of interactions, learners are able to articulate thoughts and clarify thinking more clearly. It is these kinds of interactions that are important particularly for learners at the tertiary level. Based on the results of the present study, it was observed that the decision-making task type was the type that encouraged the production of complex patterns of interactions and the generation of more complex ideas as found in their interaction episodes. The participants were able to generate the kind of interaction episodes believed to be facilitative of their language learning. This was evident in the interaction episodes when they engaged in the decision-making task completion.

Findings also expand the understanding of the characteristics of communication language tasks. While requests for clarification can be encouraged using communication language tasks (e.g. Pica et al., 1993), findings from this study revealed that they can also be used and manipulated to encourage and develop argumentative skills particularly the decision-making tasks. Hence, pedagogically, the use of decision-making tasks should be encouraged more as they provide learners with opportunities to develop their language abilities to reason and argue. Engaging in the argumentative use of language encourages learners to think critically and evaluate their understanding as well as justify their opinions. These are highly valued in education (Cohen, 1994; Mercer, Phillips & Somekh, 1991) and are particularly important for learners at the tertiary level to develop.

CONCLUSIONS

Results from this study illustrate how the different communication tasks affect the dynamics of learner interaction and shape the kind of oral discourse they generate which in turn promote language development. The findings confirm the positive relationships that exist between communication tasks and instances of negotiation. They further illustrate the task type that encouraged the production of complex patterns of interactions and the generation of more complex ideas believed important particularly for learners at the tertiary level. While the findings from this study have its contribution, much more research is still needed. Firstly, even though the study is relevant to an EFL tertiary level context in general, the findings are specific to a given classroom context where the data were obtained. This is because the participants in this study shared several unique features/characteristics. All the participants were from the same ethnic group (i.e. Malay), shared the same L1 (i.e. Malay language) and were all Malaysians. On top of that, they also shared similar secondary school background, which was the Islamic religious secondary school background. Thus, given these unique characteristics, the results of this study cannot be taken to be representative of learners in other institutions of higher learning in Malaysia or other EFL contexts. The results also cannot be generalised to other L2 teaching and learning contexts. However, although generalisability of the study may be limited due to the unique composition of the groups, there are elements of the results which may be transferable to other research contexts such as the characteristics of the students. The result of this study can still be of benefit to other researchers. As highlighted by Guba and Lincoln (1989), the issue in qualitative-interpretive research is transferability rather than generalisability. Conducting similar study in different instructional contexts could provide more comprehensive results. Thus, for future research, other researchers may transfer what is applicable, suitable and relevant to their EFL contexts and situations rather than make generalisation.

Another matter that is related to the direction of future study is the framework of the study. In this study, the link between different communication task types and learners' language output could be understood in the light of an interactionist approach using Long's (1996) Interaction Hypothesis and Swain's (1985) Output Hypothesis. Both the Interaction Hypothesis and the Output Hypothesis place emphasis on the importance of interaction and output in second language learning and support the use of task-based activities in a language classroom. Hence, the focus of findings was within the interactionist perspectives. Future research can be conducted investigating learner interactions from another perspective which is the from the sociocultural (SCT) approach. It is believed that findings investigated from this approach would yield a more comprehensive understanding about the language learning that occurs through interaction and thus, would complement those from the interactionist approach. Additionally, by analysing data from learner interactions elicited during task completion of peers within the SCT framework, researchers would be able to understand how "*learners in a guided pair work interactive context move forward in their acquisition of the L2, sharing their strengths through the process of collaborative learning*" (Ohta, 1995).

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Challenges Facing Early Childhood Education in Ghana. What do Stakeholders Say?

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ABSTRACT

The study provides an overview of challenges confronting early childhood education in the Winneba municipality of the central region of Ghana. It looks at factors that might have contributed to such challenges and what measures could be put in place to address them. Using a descriptive survey research design, 17 participants consisting of early childhood educators, heads of early childhood centers, parents, and the National Coordinator of Early Childhood programmes in Ghana participated in the study. Findings revealed that challenges associated with early childhood education in the Winneba municipality include: public prejudice about the relevance of early childhood educational programs to the child's education and development, lack of parental involvement and commitment to early childhood education, lack of teaching staff and infrastructure, and institutional barriers. Reasons identified for such challenges included lack of education on the part of the public about the place and relevance of early childhood education in the total educational setup. To address the identified challenges, study participants recommend increasing public sensitization and education, partnership and commitment.

Keywords: Early Childhood Education, Challenges, Winneba Municipality, Stakeholders.

INTRODUCTION

In 2003, the government of Ghana through the Ministry of Education and Sports issued an Education Strategic Plan (ESP, 2003 -2015) to serve as a framework for the attainment of its educational commitment as stated in the Millennium Development Goals (MDGs). Key focal areas contained in this plan (ESP) are access, quality, and management of education as main policy drivers to meet Ghana's developmental aspirations. Critical to achieve these aspirations is early childhood education, which according to UNESCO, is foundational to each country's development.

The importance and relevance of early childhood education in national development is definitely not in doubt when it comes to the Ghanaian people (Morris, 2009). For example, the 1992 constitution of Ghana makes provisions for early childhood care and development (Article, 38); the children's Act of 1998 addresses the protection of the rights of the child, while the inclusion of early childhood education into main stream formal educational system are all indicative of Ghana's commitment to the advancement and promotion of early childhood education in Ghana. These commitments in addition to the above are reflected in Ghana's adoption of an early childhood educational policy (Ghana Early Childhood Policy, 2004).

LITERATURE REVIEW

In Ghana, early childhood education is a program that aims at improving the skills and competencies of the child. Indeed, the benefits of early childhood education in national development are well documented (see, Barnett, 2006; Connell & Prinz, 2002; Haskins, 1998;

McCartney, 1984; Reynolds et al, 2001). Barnett (1995) for example talks about the benefits of early childhood education in the cognitive development of the child in the long-term, whiles Campbell & Craig (2002) provide evidence of the positive benefits gained by adults with background in early childhood education vis-à-vis their counterparts who never had early childhood education. Craig, Campbell, Burchinal, Skinner, Gardner, & Ramey (2000), talk of positive cognitive effects of children participating in an Abecedarian project after an early intervention program. In fact, a number of studies have articulated the economic benefits of early childhood education not just to the individual but also to the society as a whole (see, Burchinal, 2000; Diamond, et al, 2007; Dillard, 2009; Yoshikawa, 1995).

Given the unquestionable benefits associated with early childhood education, it follows therefore that attention should be paid to some of the challenges that might affect its successful implementation. Hence, this study proceeds to unveil some perspectives of stakeholders involved in early childhood education and development on what they believe to be the challenges confronting that sector of the educational system. The study uses the Winneba municipality of the central region of Ghana as a case study. It categorizes the findings under four broad thematic areas; public prejudice about the relevance of early childhood education, lack of commitment and involvement of parents in early childhood education, lack of teaching staff and infrastructure; and institutional barriers. These themes were identified as major areas of concern for stakeholders who participated in this study. With the above challenges identified, recommendations and suggestions were sought on improving the system.

Research Questions

To carry out this study, the following research questions were examined:

- What challenges exist in early childhood education in Winneba municipality?
- What factors contribute to the challenges of early childhood education in Winneba municipality?
- What recommendations could be adopted to address the challenges that exist in early childhood education in the Winneba municipality?

METHODOLOGY

The study is a qualitative project, which used the phenomenological approach to elicit views and perspectives of stakeholders involved in early childhood education. Data was collected using semi-structured and open-ended interviews as well as focused group discussions. The research questions served as the basis of data analysis.

The study uses a purposive sampling approach in the selection of participants. 17 participants; consisting of the National Coordinator of Early Childhood Education in Ghana, heads/proprietress in early childhood education, teachers/early childhood educators, and parents participated in the study. All participants were selected from the Winneba municipality except the National Coordinator who as a matter of responsibility has oversight responsibility of early childhood educational administration in the Winneba municipality. Data was collected over a period of six weeks.

FINDINGS

Research question one looked at what challenges confronts early childhood education in the Winneba municipality. Stakeholders identified challenges in relation to the following:

Public prejudice about the relevance of Early Childhood Education

Findings of this study reveal that most teachers identified public prejudice about the relevance of early childhood education to the total educational development of the child as a challenge. Such prejudices according to early childhood educators involved in this study manifest in persistent societal stereotype about the essence, relevance, status and levels of intelligence of teachers involved in early childhood education. In fact all teachers or educators who participated in this study share this view; that there still exist public prejudice about early childhood education. For example, this is how some of the early childhood educators interviewed put it:

Early Childhood Educator One:

Once, somebody questioned me personally, this person is an important person at the education office here in Winneba. And the person said, upon all your degree you still teach at the KG (kindergarten)? What are you doing there, you should be at the JHS (Junior High School) or something because as for those children, what are you teaching them with all your qualification?

Early Childhood Educator Three:

They don't see why people should be trained with degrees to handle children in kindergartens. They believe we go there to sing songs and recite rhymes. For most people, early childhood educators can only sing and clap. People wonder why we should be wasting our time at that level when in actual fact we could be making productive use of our time at the higher basic levels.

Early Childhood Educator Four:

You know I did early childhood education with my husband, and upon graduation he was sent to the JHS because according to management at the district level, pupils at the JHS will be writing BECE (Basic Education Certificate Examination) exams and they need teachers to teach at that level. In fact, my colleague teachers at the higher primary level always think they are more intelligent than me because for them, all I do is to sing and clap.

Early Childhood Educator Six:

The problem is, people bring their wards to the school and the perception they have about the children they have brought to you is the problem. So they make the issues very difficult for us teachers to handle; my colleague teachers do not understand why you are paying much attention to a particular child, and the parents do not understand why you should say they should visit the school frequently to ask questions about the child. The educationist at the office also does not understand why you have an early childhood degree and you still sitting at the KG and that why don't you go to the JHS? So the problem is not coming from one angle, our education should be done right from the scratch. In fact, we should not see those at the office as people who know what goes on in early childhood education, instead, they should be educated themselves.

Pursuance to authenticating these assertions as expressed by early childhood educators involved in this study, heads of early childhood institutions were asked of their opinions on public prejudice about early childhood education. The following is a response by a head teacher:

Head Teacher Two:

You see my brother; you have to understand where we have come from when it comes

to early childhood education. If you remember, KG was known to be a place where working mothers use to drop off their children before leaving for work. And at these places we had only old women and most times pregnant women who never had any form of teacher training. So that mindset about people teaching at the early childhood level still persists. Unfortunately people do not know that practice of untrained teachers at the KG has changed. Currently we have four teachers who are all trained with three of them having Cert "A" and one having Bachelor of Early Childhood Education. The one who went for the early childhood programme is doing very well and I know it is because of the training she had in the early childhood education and because of that I have asked two of the other teachers in the section (early Childhood) to do the early childhood programme. So you see when people are trained they bring out their best. I think with time this perception will change.

Responses by other heads of early childhood institutions who participated in the study were not very different from those of Head Teacher Two. The underlying theme in their responses with reference to why such perceptions exist was the lack of education on the part of the public on the place of early childhood education in the total education and development of the child. And this according to them is informed by the historical practices of early childhood education in Ghana. This position was upheld by the National Coordinator of Early Childhood Education Programs of Ghana. The following is a response by the coordinator on the subject.

National Early Childhood Coordinator:

I think even though the country (Ghana) has a policy on early childhood care and development and that is from 0-8 years and this policy came into being in the year 2004 and has been in existence for about eight years now, but now it looks as if still people have not really understood the concept of early childhood education and that is why in the year 2011 we started to put a comprehensive programme in place setting up quality kindergarten education and the plan was completed last year (2012) December and the implementation was to start this year (2013).

Responses by parents on public prejudice about the relevance of early childhood education to the child's education and development were mixed. While all parents agree to the important role that early childhood education plays in the child's education and development, some concur to assertions by teachers of being stigmatized by the public. For example, this is how a parent puts it:

Parent Three:

One day, my son's madam was saying she wants to leave the KG to upper primary because her colleagues laugh at her because she teaches at the KG. And this she said is a problem for her because to teach at the KG you need to be tolerant, patient, and also have to know how to handle children. So you see, when people are teaching at the nursery it does not mean they do not know anything or cannot speak English fluently as most people think. It is because the teachers there have to speak the local language for the children to understand what they are teaching them. So I think the Ghana Education Service will have to advise the public about the work of the nursery teacher.

Lack of Parental Involvement and Commitment to Early Childhood Education

Apart from public prejudice about the relevance of early childhood education in the education and development of the young child, lack of parental involvement and commitment to early childhood education was also identified as a challenge. This challenge was mostly identified by

early childhood educators and heads of early childhood institutions. The following are some responses by early childhood educators on this subject:

Early Childhood Educator Two:

I will say that, if your question is about Ghana in general, then most people in our society do not attach more importance to the education of their children. Most parents think their children do not know anything and for them, they just send their children to school for somebody to occupy the child for the period of time that the child will be in the school. And this problem is very serious at the beaches; I mean the schools by the beaches in Winneba. Most of the parents of these children engage in fishing and because of that they are being taken care of by their grandparents who themselves are not educated.

Early Childhood Educator Five:

The situation is not different from my school. Most of the parents come and write the names of their children, and in no time you will not find the children again. And if you inquire from their mates, you will be told that, the child has been taken away to another place to be taken care of by another guardian. You will be there for two to three months and the child will pop up intending to come back to school.

Early Childhood Educator Three:

Sometimes the parents try to compare children in the private schools with government schools (public schools). And they argue that, those in the government schools are not doing well. How do you expect a child who comes to school bare footed, half belly filled to learn even how to hold a chalk? The child before coming to school is emotionally troubled and sitting beside a colleague who is wearing a shoe and socks and you think they do not have conscience? They know and remember that right from day one that they entered this school they never wore a slipper and you think such a child will understand anything, definitely no. So I think if the parents want us to perform magic for their children, they have to do their part by being responsible in their children's upbringing.

Early Childhood Educator Four:

Personally, I think the problem is even more serious with fathers. I hardly see fathers coming to the school. I cannot talk of 10 fathers for the past five years that I have been in my school coming to inquire about their children. Even when you send for them it is mothers who show up, and in most instances you will find the grandmother not the parents. So you find the child coming to school with nothing and not expecting much from you the teacher.

For heads of early childhood institutions reasons or factors that have contributed to the above challenge has been parental mobility in search of greener pastures, hence the shedding of responsibilities to grandparents. This is how a head teacher puts it:

Head Teacher Four:

I think one of the challenges that we face is that, most of the children are left in the care of their grandmothers and because they are not able to provide all the items the children are to bring to school, we are always confronted with a lot of problems. I am told most of the parents travel to Yeji (a fishing community in Ghana) to engage in fishing. And as you are aware because of government's policy on free education, no parent wants to pay any form of fees. Meanwhile, the capitation grant (government

subvention for basic education) takes forever when it comes to payment. So I think if parents contribute just a bit and work with us, early childhood education in Ghana will be the best in the world.

The above notwithstanding, all five parents who participated in the study did not see this as a problem or challenge. In fact all parents attested to attending Parent Teacher Association (PTA) meetings regularly, and have always engaged their respective early childhood educators involved in their children's education. The National Early Childhood Coordinator even though acknowledged such a challenge, however she saw it as a remnant of the perception and practice of early childhood education in the past, and thought it was a challenge that was being addressed.

Lack of Teaching Staff and Infrastructure

Lack of teaching staff as well as limited or no infrastructure was also identified as a major challenge associated with early childhood educational practices in the Winneba municipality. There was unanimity on the part of all participants on the issue of teacher quality in terms of training and teacher pupil ratio. In addition, large class sizes as well as lack of teaching and learning materials were also identified as major challenges. The following are responses by participants of this study to the question of class size and teacher student ratio:

Early Childhood Educator One:

I think one of the biggest challenges we have when it comes to early childhood education in Winneba is the problem of class sizes. A school in town has a population of 80 pupils at KG one and they are being handled by three teachers with no attendants. The school is called A.M.E Zion D preparatory school and it is closer to the hospital. I can say it may have the largest class size in town. The reason been that, our folks at the beaches have been told that if they do not send their children to school they will be questioned and because of that perception, the head teachers cannot tell them the place is choked and they have to admit them especially when education is free. And you cannot levy them to buy tables and chairs. Will you be surprised to know that there are some schools in this town where children are taught in churches? It is really a challenge.

Parent Two:

I think on the issue of class size it is a problem. Looking at where my baby is, when I go there I don't feel comfortable because the school has one big classroom with three different levels of pupils in the same classroom. When you enter the class there is total confusion because whiles one section is reciting a poem, another group is singing or counting numbers. I once asked the teacher in the school that do the children get or understand what she is teaching, and she said yes. Even though I did not want to argue with her I knew the children could not pay attention because of the noise.

Head Teacher Three:

As for classrooms, it has always been a problem and as you can see there are ongoing projects, but the challenge is when they will be completed. I am sorry to say that because of lack of space we are mostly compelled to put a number of pupils together even though they are not supposed to be in the same class. And this is because the policy says you are to admit every child of school going age, you cannot turn them away.

The National Early Childhood Coordinator even admitted to challenges associated to classroom facilities. She was however quick, to admit that such challenges are addressed in a policy framework that is being implemented to improve the quality of early childhood education in Ghana. The following is how the coordinator responded to the above challenge:

National Early Childhood Coordinator:

...the second phase also targets infrastructural development. As you will realize when you move into these kindergarten centers, you could see that most of the facilities they use are of very poor quality. Sometimes some of these children are put into dilapidated structures, some sit under trees, while others eat on bare floor and this does not augur well for these children...

As part of infrastructural challenges, lack of qualified early childhood educators was also identified. This challenge as stated by the National Early Childhood Coordinator is captured in a compact that aims at improving early childhood programs in the country. The following is the response of the National Early Coordinator on the subject of teacher background and training.

National Early Childhood Coordinator:

...the first phase is targeting professional teacher development. With this you realize that at the kindergarten level we have a lot of teachers who are not professionally trained. What I mean is that a lot of teachers who are at this level do not have enough training in the methodology on how to handle children at the kindergarten level. Also attached to professional training, includes teaching learning materials, involvement of the community, and family members.....

The question of teacher quality and training was also identified by parents as being a challenge, especially at private schools. The following are some responses by parents:

Parent One:

When you go to the private schools, it will be very difficult to get more trained teachers than in the public schools, and I think this is a problem. An example is where my daughter attends school; when I visit the school sometimes I just tell myself that these teachers are not professionals and they do not know how to handle children.

Parent four:

I think most of the teachers especially at the private centers are S.S.S. (Senior High School) graduates. Some time ago a lady whose son attends the same school with my son was complaining to me that her child nowadays when he comes home and when she is doing something the child picks up broom sticks and attempt to cane her. So I think the teachers in the school have been using cane at the children, and I don't understand which professional teacher will cane a four year old boy.

For most heads of early childhood centers and teachers, even though they acknowledged the lack of professional early childhood training on the part of some early childhood educators, their position has been that the challenge is more prevalent with private schools than that of public schools. A response by head teacher three of this study on the question of public prejudice about early childhood education in Ghana is in itself an acknowledgement of this challenge; lack of professional training on the part of some early childhood educators.

Institutional Barriers

A fourth challenge that was identified in the course of this study is what is described as institutional barriers regarding how early childhood education is practiced: personal or management of early childhood programs in the Winneba municipality: policies and programs put out by government with regards to early childhood education: and societal orientation about the whole concept of early childhood education. Responses by participants illustrate this point. On the question of how early childhood educational practices serve as a challenge to overall successful early childhood educational development, this is what some parents had to say:

Parent Five:

Once a colleague friend whose daughter is in the same place with my child saw me and was asking me if my child could write, and I said yes she could scribble something but it is not that clear. She said with her daughter she is not able to write at all and she is the same age as my child. What this friend of mine did at first was to go to the teachers and tell them her experiences so far as what she thinks is the problem. She said the teachers have been giving her child home work assignments, and when the child brings these assignments home, she realizes that they are too high for the child to do and was complaining to the teachers that the work was too high for her child but the teachers seemed not to care.

Parent Six:

I think most of the teachers do not understand what they are doing because it is true that they teach most of the children things that are higher than them. For example, my elder sister took her daughter to a school and at KG one, she could recite the times table (multiplication table). So one day I went to her house and she told me that the school her child attends is very good because her daughter could recite the times table. But I told her to be very careful of that school because at that level, the child should not be reciting times table. Now the girl is in class two and she finds mathematics very difficult and cannot work simple mathematics. Now it looks like she does not like mathematics. Meanwhile, from the beginning she could recite the times table well and her mother was happy.

Quite apart from the foregoing, some teachers identified the background of some management personnel at the municipality as a challenge to early childhood education development. For example, this is how a teacher describes the problem:

Early Childhood Educator Six:

You would be surprised to know that a municipality of this nature is having an early childhood coordinator who herself is not early childhood inclined, and so what is she going to imbibe into teachers in those centers if she herself does not understand what early childhood education is all about? I think this problem is not peculiar to just the Winneba municipality; there are other places that I know their coordinators are not early childhood trained. They are appointed there because there are vacancies, and if these problems are not addressed we will continue to have the problems that we are facing.

For most heads of early childhood centers, government policy on free education even though laudable, has not been helpful due to delays in the release of funds. For example, this is how a head of an early childhood center puts it:

Head Teacher One:

Generally, infrastructure and furniture is a major problem and these are also very important to help these children to learn very well in school. Besides, funds from the government to cater for these children are also a problem. Another problem has to do with parents; because the government says free education, parents do not want to supply their children with anything and this is a major challenge. These monies (government subvention) do not come at the time they are mostly needed for the up keep of these children, and this becomes a major problem for every headmaster or mistress (heads of schools).

Effective supervision of schools especially private institutions was identified as a major challenge. In fact, some private schools are seen as been engaged in the business of money making and that for most stakeholders is a problem. The following was the response by the National Early Childhood Coordinator on this subject:

National Early Childhood Coordinator:

You know some of these private people (heads of private schools) come in because of the money and sometimes when they are establishing the schools they do not even involve us. We as an office cannot go to the entire nation but rather it will be proper to turn to the right quarters and find out what is to go into let's say facilities, staff, and structures. You cannot just involve or get anybody to handle these children for you just because you want to make money. Currently, we have been collaborating with the private sector. They have an association and we have been talking with them and sometimes when we organize workshops and seminars we involve their executives. We want them to spread the message to their members about best practices of early childhood education. You know in Ghana, we are always confronted with financial problems, so organizing these programs have always been a challenge. UNICEF (United Nations Children Fund) has always been of help in these sensitization programs and we are very grateful to them.

As part of the objectives of the study participants were asked about research question two; what factors have contributed to challenges associated with early childhood education in the study area? Findings revealed that, most challenges as presented are in themselves factors that might have contributed to some of the described challenges. However, participants went further to specifically present reasons or factors that in their view have led to the current state of affairs when it comes to early childhood education and development in the Winneba municipality. On the question of lack of trained teachers and educators at early childhood centers, as well as public prejudice about the relevance of early childhood education, the following are some of the reasons assigned by participants.

Early Childhood Educator Three:

It is not because those with the requisite skills are not there to teach, it is because those who are suppose to post them to early childhood centers do not see the need to post them there. Because they think they will be wasting their time at the lower level they instead send them to the upper classes.

Early Childhood Educator One:

I think the whole issue has to do with the way society frowns on early childhood education. It will interest you to know that some of the trained teachers still do not want to come to early childhood centers. You know, there are a number of training colleges offering early childhood education programs in addition to what is offered by

the universities. However, when most of the teachers at the training colleges graduate from school scarcely will you find them posted to the KG. Through their own connections they work things out to get them posted to the JHS, because teaching there, society turns to see you as one who is good and intelligent. So every teacher trained in early childhood education especially from the teacher training college is anxious to be posted to the higher basic level.

The above assertion even though not affirmed by the National Early Childhood Coordinator, she shared a similar perspective. The following response by the coordinator illustrates this position.

National Early Childhood Coordinator:

I can say that there is this culture in Ghana where more or less children are supposed not to be heard and the priority is unfortunately not on them. Rather, the focus is more on higher levels and if you want to measure some impact at the early childhood level what are you measuring? Of course you will measure it may be at the end when these children are writing their Basic Education Certificate Examination (BECE) and that is what in my view has been a contributing factor to the emphasis on the JHS than at the KG level. So you can understand why much emphasis and resources are spent at the JHS level rather than at the KG level, when unfortunately people tend to forget that the early childhood level serves as the foundation of the educational process.

With regards to challenges associated with infrastructure, most participants attributed reasons to lack of resources. For instance this is how a head teacher puts it.

Head Teacher One:

I think one of the problems with infrastructure has to do with the release of funds. This problem has to do with the public schools. When you go in to ask for funds for any program, you should not be surprised to be told that either the capitation grant has not arrived or the money has already been spent. So the teaching and learning aids that you are suppose to use in teaching these children are even not there, so how would you expect to build that foundation?

With challenges associated with early childhood educational practices at the Winneba municipality captured, as well as factors that have contributed to these challenges identified, the study went further to answer research question three; what recommendations can be provided in addressing the identified challenges? Responses with regard to research question three by participants of this study centered on the need for education and awareness on the part of the general public. The following are responses by participants.

Early Childhood Educator Six:

It is all about awareness creation, sensitization, and education. For some of us, we have been fortunate to have had this training, I mean early childhood education, so we know the essence of early childhood education and so we would want to be there but those who do not know still believe that as it was yesterday is still what is practiced today. So for some people, the center is just to take care for their children whiles they go to work. So I think we need enough education and sensitization on the part of the public for them to be aware of the essence of early childhood education for them to attach a lot of importance to it.

Early Childhood Educator Four:

I will also share the same opinion and will say that the education should not be geared towards a group of people like parents but should start from the education directorate. I think a memo should be sent to the education directorate here in Winneba for them to understand the essence and relevance of early childhood education to the total educational development of the learner. Also, we should also organize periodic in service training not just for parents and teachers in early childhood education but also those in management positions. There is the need to organize workshops on early childhood education and also ensure that what is taught is put into practice. I remember sometime ago, we used to visit market places, radio stations, churches, mosques and so forth and I believe this will help.

Early Childhood Educator Three:

I think when teachers are posted to their districts, they should actually be placed at where they were trained for and not sent to upper classes. Sensitization as described by my colleagues is also very important because if a foundation is well laid, building on it will not be that difficult, so I think parents and all those involved in early childhood education should know that the course is something which is really going to help children.

In terms of recommendations, parents on their part saw the need for them to be involved in issues pertaining to school administration. The following was the concern of a parent regarding school – parent collaboration.

Parent Four:

I think one of the major problems that we have is the lack of education for us parents by the teachers. Usually, when we attend PTA meetings all what the teachers talk about are contributions from parents for this or that. Never will you hear of teachers wanting to explain to parents new developments on early childhood educational practices, and what we the parents can do to improve the education of our children. So when this is not done, how do you expect us to understand what is going on in the school? I think we need to be involved in what takes place in the schools.

On the question of lack of trained teachers at early childhood centers, some parents called for the posting of trained teachers to private institutions. For example, the following recommendation was suggested by a parent.

Parent Two:

I honestly do not know why teachers from the training colleges are not posted to the private schools. I think if that is done, this will improve the situation of untrained teachers at the private schools. I think the private schools will have to take the initiative by sending their teachers to training colleges or higher institutions for upgrade. This will help deal with the challenges of untrained teachers at the private schools.

In addition to the above, some parents called for free feeding at various early childhood centers. Below is the perspective of a parent on this subject.

Parent One:

I think government should be able to provide early childhood centers with enough teaching and learning materials as well as food for the children. You know, because

most schools do not provide food for the children, it is always the case when you find most children not going to school because of the long stay in school and the chances of being hungry. So when government makes it a policy of providing feeding to all early childhood centers in the country, it will serve as a motivational tool.

For her part, the National Early Childhood Coordinator stated that she believes certain policy initiatives already in place would in future go a long way in addressing certain challenges associated with early childhood education in the country. Below is a recommendation to that effect.

National Early Childhood Coordinator:

Currently we have a plan that aims at maybe changing the name of the profession and then also try to educate people to let them know that there is specialty, and that not only women get engaged in early childhood education even though they are the most passionate about things that concern children. I think men also have a vital role to play when it comes to early childhood education. They just need to be encouraged, educated to understand and accept their place in this important enterprise. In certain countries, you find out that men play very important roles in early childhood education, but here in Ghana maybe because of our cultural practices men seem to have a problem when it comes to child upbringing. I think the only way we can break this mindset is through education and sensitization.

For some Heads of early childhood centers, teaching and learning materials need to be made more readily available. In addition, the need for collaboration between various tertiary institutions and the Ghana education service in the provision of quality early childhood education programs according to Heads of centers is important. Below is the perspective of a Head teacher on this subject.

Head Teacher Three:

I think teaching and learning materials will have to be made readily available at the various centers. You know at the early childhood level, you cannot engage in any efficient teaching if the child cannot feel what is being taught. That is why government will have to strive hard to ensure that the various centers are provided with adequate teaching and learning materials. Besides, I also think the university, I mean the one here in Winneba will have to create an early childhood education center or unit to keep some of the samples of teaching and learning materials which will be like a resource center for schools to visit and take inspiration from. These materials can even be rented out to schools.

CONCLUSION AND RECOMMENDATIONS

Findings of this study indicate several important challenges that affect the efficiency and quality of early childhood educational practices in the Winneba municipality. Undoubtedly, as evidenced in responses by participants of this study, the whole concept of early childhood education regarding what it entails, its practices, and its relevance to the total education and development of the young child is still not well engrained in the psyche of the Ghanaian populace. Definitely, challenges revealed by participants representing public prejudice and stereotypes, as well as a lack of parental involvement and inadequate infrastructure can among other factors, be traced to a lack of education and understanding on the part of the public about early childhood education.

This study even though it is limited to a small geographical area, the Winneba municipality, its findings especially as evidenced in responses of the National Coordinator of Early Childhood programmes in Ghana could be applicable to most areas of the country. Recommendations by participants can be summed up as; the need for a robust educational and sensitization programme for the public about the important place of early childhood education in the educational development of the child. In fact recommendations as evidenced in findings of this study reveals a call by stakeholders to government to be more committed and supportive of early childhood programmes, and most importantly for parents to exhibit concern regarding their children's education especially at the early childhood level.

It is the suggestion of this study that more effort should be made to encourage parental participation and partnership in early childhood educational programs. Notwithstanding the benefits associated with free compulsory universal basic education as practiced in Ghana, as revealed in this study funding and support represented in capitation grants aimed at augmenting the non-payment of school fees by parents needs to be more timely and forthcoming. In addition, it is very important that individuals managing early childhood education programs at the district, regional, and national offices have a background of studies and experience in early childhood education. The Government of Ghana will definitely have place a greater priority on early childhood educational programs especially since they are still at an embryonic stage.

In light of the foregoing results, future research should look in greater depth at parental perspectives regarding the place and relevance of early childhood education in the totality of the child's educational development. Studies should also be conducted to identify alternative funding for early childhood educational programs. Again, studies on how to encourage and foster collaboration between local institutions such as the community and early childhood centers in the use of local resources would be very critical. Investigating the place and role of men in early childhood education would also be worth pursuing.

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Practicum Experiences of Prospective Teachers in Differentiating Instruction

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ABSTRACT

This study examined the experiences of prospective teachers in differentiating instruction during a two-week practicum assignment in an inclusive environment. Several school types were used ranging from denominational and government-led primary schools with students of low socio-economic status, to special schools for the physically handicapped and hearing impaired students whose first language is sign language. The study employed a mixed-method research design aimed at triangulating quantitative and qualitative data obtained from questionnaires, focus group discussions, field notes from classroom observations, and student reflections. The sample for the study comprised twenty-two year three students pursuing a Bachelor of Education degree in Special Needs Education; two practicum advisors; and nine cooperating teachers. Findings of the study revealed that prospective teachers achieved a measure of success in implementing differentiated instruction in their practicum classrooms. However, some attention should be given to cooperating teachers who may not provide the support expected of a mentor or coach due to a general lack of understanding of the philosophy of differentiated instruction.

Keywords: practicum experiences, prospective teachers, differentiated instruction

INTRODUCTION

Classroom practice obtained through practicum has been considered as the most critical component of any teacher preparation programme (Beck & Kosnick, 2002; Bates, Ramirez & Dritis, 2009; Parkinson, 2008). Some studies have documented positive feedback from prospective teachers regarding their practicum experiences (Ferman-Nemser, 2001; Smith & Lev-Ari, 2005). Yet, many prospective teachers report that their field experience does not adequately prepare them for their professional role in the classroom (Gregory et al., 2011; Grudnoff, 2011). There is a wide body of literature that points to various challenges such as transition shock that beginning teachers experience in the classroom (Achinstein & Barrett, 2004), as well as lack of support from school principals (Stokking, Leenders, de Jong, & van Tartwijk, 2003).

LITERATURE REVIEW

Studies show that many teachers also experience obstacles in attempting to integrate differentiation into the classroom. These include: a general lack of administrative support (Hertberg-Davis & Brighton, 2006); fear of lowering student test scores by deviating from the prescribed curriculum (VanTassel-Baska, 2006); challenge of dealing with student behavioural problems (Brighton & Hertberg-Davis, 2004; Knopper & Fertig, 2005; Westberg et al., 1993); teacher resistance to a change in teaching style (Tieso, 2004); lack of time to plan for differentiation (Brighton & Hertberg-Davis, 2004; Knopper & Fertig, 2005); and uncertainty

about parents' reaction to differentiation (Knopper & Fertig, 2005). Notwithstanding these obstacles, differentiation works best when teachers are motivated and when principals and school administrators provide the enabling environment to support the implementation of differentiation techniques in the classroom.

In a recent study, prospective teachers were exposed to differentiated instruction as an important teaching philosophy to be adopted in their practice. Almost all of these students (99%) expressed willingness to experiment with differentiated instruction in subsequent practicum sessions during their tenure at the university (Joseph et al., 2013). Part of the attraction to differentiation was the fact that instructors in the study were able to model how differentiated instruction can be achieved by modifying curriculum-related elements such as content, process, and product based on student readiness, interest, and learning profile (Tomlinson & Imbeau, 2010).

Strategies used in the study to differentiate content included the use of a variety of texts and resource materials for handling differences in reading readiness; grouping students according to interest levels and learning profiles; allowing students to work alone or with peers (Joseph et al., 2013). In the study, instructors also modelled strategies for differentiating process and product by using flexible grouping while providing various levels of scaffolding for students, as well as providing students with a variety of assessment choices (Joseph et al., 2013).

Instructors also modelled strategies for differentiating instruction according to student readiness, interests, and learning profile. These included the use of pre-assessment readiness data; allowing choices in various activities and grouping students based on common interests; varying the instructional format by sometimes offering the same experience for all students while sometimes purposely matching the students' preferences with particular activities.

While several studies have documented practicum experiences of pre-service teachers, few explore the experiences of prospective teachers in experimenting with differentiated instruction as part of practicum or field teaching experience. This study attempts to fill the gap.

Purpose of the study

The purpose of this study, therefore, was to examine the experiences of prospective teachers in differentiating instruction during a two-week practicum assignment in an inclusive environment. Three research questions served to focus this investigation:

- What are the experiences of prospective teachers in differentiating instruction while on practicum?
- What are students' reactions to differentiated instruction?
- What are the perceptions of the practicum advisors about the performance of prospective teachers while on practicum?

Practicum Overview

The practicum exercise is designed to deepen the field experience of year three students pursuing a four-year Bachelor of Education degree programme. It is part of a series of eight practicum sessions aimed at exposing prospective teachers to different classroom environments as part of their preparation for professional teaching. In this study, year three students in their fifth practicum session were exposed to a two-week teaching assignment in primary schools throughout the country where they worked in pairs for the duration of the exercise. Some of the objectives of this course were for students to make links between theory

and practice of teaching and learning in authentic classroom environments; build communities of learners who engage in critical self-reflection to improve professional practice; and explore a range of innovative instructional strategies and methods.

Context of the Study

Participants for this study were largely third-year students pursuing a Bachelor of Education degree with specialization in Special Needs Education at the University of Trinidad and Tobago. All of these students were exposed to differentiated instruction while in their second year of studies. As a matter of fact, these twenty-two (22) students formed part of an earlier study in which an attempt was made to model differentiated instruction for students pursuing a course in curriculum studies. These students indicated interest in experimenting with differentiated instruction in subsequent practicum sessions during their tenure at the university (see Joseph et al., 2013). Several school types were used for the practicum exercise. These schools ranged from denominational and government-led primary schools with students of low socio-economic status, to special schools for the physically handicapped and hearing impaired students whose first language is sign language. Practicum advisors made several school visits during the two-week practicum period to assess participants' performance in differentiating instruction in the various school settings.

METHODOLOGY

The study employed a mixed-method research design aimed at triangulating quantitative and qualitative data obtained from questionnaires, focus group discussions, field notes from classroom observations, and student reflections. The total population comprised fifty-two year three students pursuing a Bachelor of Education degree in Special Needs Education; twenty-four cooperating teachers, and five practicum advisors. The sample size comprised twenty-two students, nine cooperating teachers, and two practicum advisors.

Questionnaires were used to obtain student information regarding participants' experiences in preparing to teach in an inclusive environment; the reaction of students as well as the level of support obtained from cooperating teachers. The questionnaires also captured information about successes and challenges participants experienced in attempting to differentiate content, process, product, and the learning environment.

Focus group interviews were conducted to obtain qualitative data for the study. All focus group sessions were audio-taped and information from the recording was reviewed several times to obtain verbatim accounts of participants' experiences. This technique ensured creditability or validity of the process. Information from the focus group sessions served to triangulate information obtained from questionnaires. There were two focus groups comprising six persons each. Both groups were exposed to the same questions to facilitate consistency in analysis.

Field notes from classroom observation also served as important data for the study. During the two-week practicum period, practicum advisors made several school visits to assess participants' performance in differentiating instruction in an inclusive environment. Student reflections also provided useful insights into students' accounts of their classroom practice.

Procedures for data analysis included sorting or organizing the data; generating themes and patterns; checking the emerging theories, inferences and postulations against the data; and searching for alternative explanations (Marshall and Rossman, 2010). Frequency tables were developed for recording and tabulating demographic responses with the aid of the Statistical Package for the Social Sciences (SPSS) software. These demographic responses included

questions related to gender, teaching experience, level of teaching, and type of training. In this study, there were twenty females and two males with teaching experience ranging from 0–4 years to over 30 years (see Table 1).

Table 1. Years of Teaching Experience

Years of Teaching	No. of Teachers
0–4	15
5–10	5
11–15	1
16–20	1

Based on the distribution of years of teaching experience in Table 1, the majority of participants possess less than five years' teaching experience, while only one respondent has over fifteen years' teaching experience.

Table 2. Level of Teaching and Type of Training

Teaching Level	No. of Teachers	Type of Training	No. of Teachers
Primary	20	Pre-Service	9
Secondary	2	In-Service	13

Table 2 shows that the majority of the participants (20) teach at the primary level, while only two (2) of the teachers operate at the secondary level of the school system. The table also shows that the majority of the participants (13) are in-service teachers with some prior experience in teaching, while 9 are pre-service teachers without any prior teaching experience.

RESULTS/DISCUSSION

Twenty-two prospective teachers were asked to participate in a survey which required them to share their experiences in implementing differentiated instruction while on practicum. In Table 3 below, survey items 5-12 addressed the experiences of prospective teachers in differentiating instruction in an inclusive environment.

Table 3. Experiences of prospective teachers in implementing differentiated instruction in an inclusive environment.

Survey Items

5. What was your experience like in preparing differentiated instructional units and lesson plans for your practicum?

6. How receptive were students to your attempts to differentiate instruction?

7. In what ways did your cooperating teacher support your attempts to differentiate instruction?

Participants' Responses

Seventeen of the twenty-two participants indicated that the experience was challenging and time consuming, while only five described the experience as fun and exciting.

The majority of participants indicated that students were very excited about working in a differentiated instructional environment. Only two of the twenty-two participants reported low student interest.

The majority of the participants reported that support from cooperating teachers came in the form of providing assistance in developing materials; managing work stations; and participating in classroom activities. Two respondents reported, however, that their cooperating teachers were very critical of what they regarded as a new approach to teaching. Two other participants did not have any cooperating teacher present in the classroom.

8. What was your greatest achievement in attempting differentiated instruction? The majority of participants cited heightened student engagement as their greatest achievement in attempting differentiated instruction. One respondent explained that her greatest achievement was sharing with the cooperating teacher new ways to meet the needs of all learners in the class.
9. What challenges, if any, did you face in implementing differentiated instruction in your classroom? Some of the challenges reported included the following:
- ✓ time constraints
 - ✓ classroom discipline
 - ✓ high cost of teaching materials
 - ✓ lack of basic technology
 - ✓ limited classroom space
10. How often did your students work in groups? Seven of the twenty-two participants reported that students worked in groups some of the times, while the majority of respondents indicated that students worked in groups most of the times.
11. If your students did work in groups, how were the groups organized? Eight participants reported grouping students randomly, while ten indicated that students were grouped according to learning profiles. Four participants did not provide any response.
12. How often were students given choices in how they complete their assignments or projects? The majority of participants indicated that students were given choices either some or most of the times, while only two respondents provided choices all of the time.

Summary of Focus Group Findings

Two focus group sessions were conducted to probe deeper into the practicum experiences of prospective teachers over a two-week period of teaching in an inclusive environment. Each group comprised six participants who provided responses to the following five questions:

- What was your experience like in preparing differentiated instructional units and lesson plans for your practicum?
- In what ways did your cooperating teacher and the school principal support your attempts to differentiate instruction?
- How did you go about differentiating content, process, product, and the learning environment?
- What assistance do you need to improve your skills in differentiated instruction?
- What are some of the challenges in differentiating instruction in an inclusive environment?

In response to the first question, all of the students expressed satisfaction with the level of support and guidance they received from their practicum advisors in preparing differentiated instructional units and lesson plans for field teaching. However, participants reported several challenges regarding meeting the needs of each learner while at the same time trying to fulfil the requirements of the primary school curriculum which emphasized a new thematic/integrated approach to learning and teaching. Speaking on behalf of the group, one participant summarized the whole experience as very time consuming.

Participants reported different experiences regarding the level of support obtained from the cooperating teacher at the school. While some respondents obtained support from their cooperating teachers in setting up work stations and preparing visual aids, many participants found such support to be severely lacking. One prospective teacher stated that although her cooperating teacher graduated with a Bachelor of Education degree, she did not support any attempts to differentiate instruction. Another respondent indicated that her cooperating teacher could not understand the concept of differentiation as well as the value of using work stations as activity centres for students.

A few prospective teachers were impressed, however, by the level of support they received from the principal of the school. One respondent recalled feeling a sense of satisfaction when the principal complimented her work after observing one of her lessons. The principal later requested that the teacher return for another practicum session at the school. Even the students seemed to appreciate the new instructional approach used by the prospective teachers. One respondent observed that the students who habitually missed classes, started coming to school regularly during the two-week practicum period. The prospective teachers believe that this change in student behaviour was largely a result of the application of a differentiated instructional approach to classroom teaching and learning.

When asked to explain how they went about differentiating content, process, product and the environment, one participant admitted to experiencing some measure of difficulty when attempting to differentiate content, process, and product at the same time. She found product differentiation to be easy to manage, since she would engage students either in drawing, using technology or simply writing. Another participant recalled the excitement students experienced when she differentiated the surroundings by changing the classroom into a jungle to teach a lesson on the environment. She explained that there is a greater degree of student engagement when she transforms the classroom. She further explained that when she differentiates the surroundings, students get a better feel for their environment and they want to learn more.

Participants were also asked to identify some of the challenges they experienced when attempting to differentiate instruction in an inclusive environment. The following challenges were reported: space limitations; inability of cooperating teachers to practise differentiation; and a high level of absenteeism among students.

The final question asked participants to indicate what additional assistance they might need to improve their skills in differentiated instruction. Speaking on behalf of the group, one respondent quipped: *"We need more lecturers at the university who understand differentiated instruction."*

Based on responses provided through questionnaires and focus group discussions, it can be concluded that many of the participants had positive experiences in preparing differentiated instructional units and lesson plans, as well as obtaining student buy-in for the new approach to teaching and learning in an inclusive environment. While the majority of participants in the questionnaire reported that cooperating teachers generally supported their efforts in the classroom, further probing in focus group discussions revealed a different picture. It appears that several cooperating teachers did not readily support the efforts of prospective teachers to differentiate their classrooms. However, focus group discussions revealed that some school principals demonstrated support through encouraging words and actions.

Classroom Observation

During the two-week field teaching period, practicum advisors documented their findings of student performance based on observation of classroom practice as well as careful evaluation of lesson plans. These field notes also served as important data for the study. Prospective teachers were required to engage in team teaching working in groups of twos. The following comments were made regarding prospective teachers' ability to differentiate content, process and product, based on student readiness, interest, and learning profile. Using an appropriate rubric, practicum advisors rated prospective teachers on a scale of 0-4 in specific areas such as establishing a learner-centred classroom environment; grouping of students; teaching

materials; content, process and product differentiation. The following observations were made on a sample of four prospective teachers:

Prospective Teacher A: *This lesson was well executed. Both teachers worked well together. Although there was no cooperating teacher for this group, prospective teachers were able to use a systematic approach to adjusting the learning environment to fit the needs of their students. Two students in the class needed extra support in learning how to socialize with other students. These students used sign language as a means of communication. As part of their preparation for the field visit, both prospective teachers learned sign language in order to communicate with students.*

This group obtained an overall rating of 3.8 out of a total score of 4.

Prospective Teacher B: *"This lesson was planned to differentiate the content, process and product. Execution of the lesson was skillfully done. Teachers worked well together in pairs. They were able to have all students engaged throughout the lesson and were able to deal with the disruption from other students who wanted to participate in the lesson."*

This group obtained an overall rating of 3.6 out of a total score of 4.

Prospective Teacher C: *"Although this lesson was differentiated on content and process, there was need also to differentiate the product in order to meet the needs of two students in the class. Both teachers paid more attention to Jonathan (ADHD student) and very little attention was given to Brianna who seemed to be able to cope with the work well. Perhaps there was need to assess Brianna to determine whether she knew the sound of letter 'C' and to differentiate to her needs."*

This group obtained an overall rating of 2.8 out of a total score of 4.

Prospective Teacher D: *"This lesson was taught to a class of students ranging from 14 -18 years old. Some of the students were physically handicapped, while others had cerebral palsy. The objective of the lesson was for students to understand the concept of adjectives. However, much more thought should have been put into the actual planning of the lesson to ensure that the needs of all students were met. The physically handicapped students needed greater assistance in working independently. The prospective teachers need further coaching in differentiated instruction."*

This group obtained an overall rating of 1.6 out of a total score of 4.

Student Reflections

During the two-week practicum period, prospective teachers were asked to reflect on their classroom experience. The following reflections represent the views of students who completed their two-week field teaching assignment.

Student #1: *At the Enterprise Government Primary School, we had an opportunity to teach ten differentiated lessons at the infant two level. During this time, we discovered some of our strengths and weaknesses since we were presented with real life classroom challenges. Differentiated instruction offers flexibility in the content, process, and product of lessons, as a result, students appreciated the different activities they were engaged in during the lessons... Although most of our lessons were successful, there were some areas we must improve on as a team and individually. We observed that we worked well collaboratively since we were able to benefit from each other's strengths. However, individually, we need to become more confident in our*

delivery in order to be more effective. During future field teaching experiences, we must also learn to manage our time since most lessons exceeded the allotted time required for delivery.

Student #2: *Preparation for practicum really took a lot out of me. The instructional materials were costly and travelling wore me out. Yet, I was at the school every day ready to bring something new to the students. Hopefully for the next semester, I could learn to differentiate even better than I am doing now and be able to systematically and explicitly deliver all of my lessons.*

Student #3: *Our experience at Lady Hochoy School was rewarding since it showed us how to deal with special needs students in the classroom. It also showed us how exceptional these students are even though they have a disability. Yes we did have a lot of challenges with getting the right methods to teach our students as well as to control the class. Once we found a good method that worked with them we just stuck to it and we overcame the challenge. Our lessons had to be differentiated in many ways. In one lesson, we differentiated the content by using a lot of videos and visual representations. This was done because we had many different learning abilities but all responded well to the videos, and songs. Visual representations were incorporated into all of our lessons. We also had games and other activities for students to have fun and to have a more concrete approach to the lesson.*

Student #4: *During the practicum period, our attempt at differentiation was faced with many challenges. Children in our first year class had various learning abilities. Some of our students grasped the lessons as we were explaining it verbally, while others understood the concept better through the use of technology. The use of technology increased their enthusiasm to learn, and they became less distracted by what was going on outside of the classroom.*

Student #5: *Our experience in practicum was very fruitful. We encountered students who would forever remain in our hearts. They were students who despite their disabilities, performed above our expectations as well as those of the cooperating teachers. This experience for us opened our eyes to see that every student can learn... We maintained professionalism and control even when the students were a bit challenging. The students were all different, which means that our lessons had to be projected in multiple ways to meet their needs and ensure that learning was taking place. They were all special in their own ways, and it taught us that every child deserves the opportunity to reach their fullest potential.*

CONCLUDING COMMENTS

This study examined the experiences of prospective teachers in differentiating instruction during a two-week practicum assignment in an inclusive environment. Accounts of these experiences were obtained through questionnaires; focus group discussions; field notes from classroom observation; and student reflections of their practice.

Survey findings of the study revealed that the majority of respondents found preparation for field teaching to be challenging and time consuming. However, respondents were generally pleased with students' positive reactions to their attempts to differentiate instruction. These findings were confirmed in focus group discussions with all of the participants agreeing that preparation for differentiated instruction requires "a lot of work and it's time consuming."

The role of the cooperating teacher is important in supporting the efforts of prospective teachers while on practicum. Cooperating teachers are expected to act as the student teacher's model, mentor, coach, and evaluator. Seperson and Joyce (1973) reported that cooperating

teachers substantially influenced the classroom behaviour of student teachers either 'for good or for ill' (p.151). In this study, the majority of respondents in the questionnaire reported some level of support from their cooperating teachers. However, further probing in a focus group setting revealed that some cooperating teachers provided little or no support largely because of their limited understanding of differentiated instruction. In some cases, the cooperating teachers were the ones who benefitted most from the experience.

Field notes from classroom observations revealed that while there is room for further growth and development, prospective teachers made a successful attempt at differentiating instruction during their two-week field teaching assignment. This success came as a result of the initial support and guidance obtained from practicum advisors in assisting prospective teachers with differentiated instructional units and lesson plans for field teaching.

In their reflections, prospective teachers also pointed to successes achieved from attempts to differentiate instruction. However, they also highlighted a major challenge in terms of time for preparation. Brighton and Hertberg-Davis (2004) and Knopper and Fertig (2005) also identified in their studies, the problem of lack of time to plan for differentiation. Despite these challenges, efforts of prospective teachers can be strengthened if support is given by cooperating teachers and school administrators. In this study, one respondent reported "feeling nice" when the school principal took the time to observe and compliment her practice in the classroom.

RECOMMENDATIONS

Findings from this study revealed that prospective teachers are eager to hone their skills in differentiated instruction in a practicum setting. However, some attention should be given to the following:

- The need for more systematic and explicit instruction in key content areas to further bolster student confidence in the delivery of differentiated instruction
- The need for professional development sessions for cooperating teachers who may not provide the level of support expected of a mentor or coach largely because of their lack of understanding of the philosophy of differentiated instruction
- Further research should be conducted to determine the extent to which cooperating teachers continue to perform the traditional role of mentor and coach in the practicum setting, or whether there is a paradigm shift based on the level of training among cooperating teachers.

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Construction and Validation of Career Interest Scale for Senior Secondary Schools Students in Nigeria

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ABSTRACT

The construction and validation of career interest scale is borne out of the need to develop an interest scale that will be valid and reliable for the measurement of interest of any individual student who aspires to choose a direction of study that will enable him perform exceptionally well in any chosen field. The study is directed to the SSII students who are in their penultimate year of writing their final secondary school examination. A total of 1090 responses were processed. A multistage random sampling technique was adopted, and the population was the Senior Secondary Schools in the southwest Nigeria. The construct validity was established by convergent validity of the instrument "Student Career Inventory" (SCIn) with Career Interest Survey (downloaded from internet) and Vocational Interest Inventory developed locally by C.G.M. Bakare (1977) both with correlations of 0.63 and 0.58 respectively. Factor analysis was also employed to further confirm the content, construct, and the unidimensionality of the instrument. It also confirmed the criterion related reliability of the instrument with Holland's postulations. The result further proved that, apart from validity and reliability of the instrument, it revealed that there was significant difference in the choice of career interest between students in urban and rural locations; and between male and female students in south west Nigeria.

Keywords: Scale Construction, Career Interest, Secondary School Students, Nigeria

INTRODUCTION

Constructing and validating an instrument is essential to making available an instrument that can be relied upon to measure specific attributes of individuals to whom the instrument is directed. Career interest is the actual area of interest an individual may be eyeing as a result of internal or external motivations. If young adolescents are not guided in this all important area, he may end up choosing a career for reasons varying from mere aesthetics, societal approval, to other personal reasons that may end up being irrational or even bizarre. A test worthy instrument, if well handled, should bring out the permanent intrinsic interest of an adolescent, or take them out of the region of the temporary, to the realm of permanent interest. Most often, their interests do not correlate with their ability. If success must be recorded in any chosen career, interest must correlate with ability to be able to function most effectively in such field of endeavour. Ab Rahim & Samsiah (2007) cited Nuchols & Banduci (1977) opined that people might experience considerable anxiety if they fail to make appropriate career choices. This explains the researcher's interest in Holland's typology that places emphasis on the interplay of ability and environment. He states: "people can function and develop best and find job satisfaction in work environments that are compatible with their personalities. He classified these personality types into six thus:

The Realistic; Investigative, Artistic, Social, Enterprising, and the Conventional. This he codenamed 'RIASEC' This researcher however has classified his personality types into seven, introducing the Authority which he identified as a type of people that love to exert authority as uniformed workers, or law enforcement agents. This kind of people are found across the whole group of people. So, instead of RIASEC, we now have 'RIASOAC' which stands for the Realistic, Investigative, Artistic, Social, Outgoing, Authority and Convectional. The Enterprising subscale of Holland now yields way to the Outgoing (similar to the Enterprising) and the Authority (that cuts across the whole lot of all the subscales).

Statement of the Problem

In Nigeria today, students are getting less matured at the time they are expected to take career decisions. The modal class of SSII students in the southwest Nigeria falls onto age 16 on the average. They tend therefore, as a result of status immaturity, choose careers relative to influence of parents, friends, societal acceptability and other social factors to the detriment of personal ability. Many of them choose subjects for study because they usually have good scores in them but this may be deceptive.

This paper therefore aims at designing an intervention perspective in choosing careers, not only based on factors above, but emphasizing interest and the ability of an individual. It is essentially an attempt to orientate student's choice of career due to both internal and external factors or rather the extents to which the student at the level of SSII, knows himself. This is so important because right choice is "sine qua non" to self fulfillment and success in any chosen career. In fact, according to Salami, S O (2008), many of them have not yet reached the stage of identity status and therefore yet unstable in their choices. The scale "Students' Career Inventory" is based on personality typology likely to bring out from individuals, what type of personality he or she exhibits as that would help locate what type of career he/she could handle most efficiently, effectively naturally and easily.

Research Questions

The following questions were raised:

- Will the interest inventory so constructed have validity?
- Will the inventory have acceptable reliability?
- Will the inventory have acceptable psychometric properties?
- Will the scale be sex biased?
- Will the scale discriminate between rural and urban schools in the choice of career?

The following hypotheses were tested at 0.05 level of significance:

Ho1: the Student Career Inventory will not be valid.

Ho2: the Student Career Inventory will not be reliable.

Ho3: there will be no significant difference in career interest of male and female students.

Ho4: there will be no significant difference in career interest between students of rural and urban schools.

LITERATURE REVIEW

The need for construction and validation of a scale is sine qua non to meaningful measurement in all ramifications of life and more so in the field of education.

The need for measurement calls for diligent construction of scale for measurement purposes. Stephens (1946, 1951) discussed scales of measurement which he titled "On the theory of scale

of Mint", where he categorized all measurement in science into 4 types namely: the ordinal scale, the nominal scale, the internal scale and the ratio scale. Without good scale, it is impossible to advance in any field of human endeavour be it in the pure sciences or social sciences. In social sciences (and education), scales are much less precise than in the sciences. Alonge (1989), submitted that any good scale must measure fairly accurately and must have certain desirable properties. The acid test for such scale should include good proof of validity, reliability, unidimensionability, linearity, reproducibility and ease of administration. While validity speaks of truthfulness in measurement, i.e. it must measure what it is constructed to measure, reliability speaks of consistency in scores of a testee after two or more observations. It is the degree of confidence that can be placed on measurements for an individual or for a group. A reliable instrument is therefore dependable, predictable, accurate and exhumes confidence to return good and consistent results for the testee. When viewed from the angle of standard error, Alonge (2004) describes reliability as an idea of how much variation to expect in a test. Sidhu (2005) submitted that standard error enables an interpreter know the range of scores within which the test is accurate. Unidimensionality speaks about measuring one trait at an instant, in other words, an instrument designed to measure interest should not be used to measure anxiety. Linearity of a scale speaks of equal intervals within a scale i.e. same distance from the starting to the terminal point. Reproducibility ensures consistent measurement over time and space. Ease of interpretation also concerns the ability of any scale user to be able to interpret the result of a test based upon the validity, reliability, group of testee and the norm. In psychology, response scale must be designed. Prominent among such scale are the attitude scale like Likert (1932), Thurstone (1929 the equal appearing interval), Guttman and Borgadus (1925, this is the social distance scale. Each of these scales is credited with some unique qualities but for some reasons of ease of adaptation and ease of application, the Likert type scale is more widely patronized (Omirin 1999)). In social sciences, rating scales is popular because it elicits responses about a person's interest, feelings, beliefs and other attitudes which are either intrinsic or extrinsic interests. Interests, according to Sidhu (2005) are activities or objects that stimulates pleasant feelings in an individual. Fryer says it is a tendency to become absorbed in experience and to continue in it effortlessly. Interests can be acquired or genetic.

SCALE DEVELOPMENT METHODOLOGY

The value of any scale is dependent upon the degree to which the purposes of the assessment are fulfilled. A good scale must have good content, good response format and scoring procedure based on the purpose of the test, the domain to be measured and the intended test takers. (American , Research Association, American Psychology Association and National Council on Measurements in Education, 1999). Good scale development therefore involves definition of construct, and scale designs (Sax, 1980, Omirin, 1999). Definition of variables, Spector (1992) , a good item construction , item reviews, determination of response format, pilot testing of instrument, item review (as many times as possible), test re-test of instrument and data analysis are vital to good scale construction.

In this study, correlational and factor analysis were employed. Factor analysis (FA) has been confirmed to guarantee empirical validity, (construct and content). It also is essentially a data reduction instrument. It enables researcher to determine which item to discard and which to retain (Zurick and Velicer 1986). This is done by applying eigen value rule of greater than 1 ($KMO > 1$) (Kaiser 1960, Cattell 1966). The Barrlett test of sphericity (Barrelrtt 1950,1951). Low eigen value connotes low contributions of a variable to the explanation of the variance in the variables.

THEORETICAL FRAMEWORK

The theoretical frame work is based on Holland (1959, 1992) Typology. Holland developed six personality types as follows:

The Realistic (denoted by R), the Investigative (I), the Artistic (A), the Social (S), the Enterprising (E) and the Conventional (C).

From the personality angle, Holland (1959) identified six groupings viz: the Realistic, Investigative, Artistic, Social, Enterprising and Conventional. This approach was referred to by Holland as the heuristic theory of personality.

This researcher, after careful considerations of the above, has identified seven personality groupings namely: Realistic, Investigative, Artistic, Social, Outgoing (instead of Enterprising), Authority (new grouping), the Conventional. The rational actually is the view that the social environment and the personality situation in the Europe of his time still holds sway for the present day, while the psycho-social environment remains as same.

Having proposed the six types of Personality groupings, he organized them into a hexagonal shape and each angle bears the first letter of each group in a clockwise direction starting with the 'R' in that order to produce R-I-A-S-E-C. He explained that the personality type adjacent to each other are more related to each other e.g. R-I are more related to each other than the one diametrically opposed to each other like R – S.

Interest, is a very important trait that has relationship with many other variables in the affective domain. Such variables have been identified by many authorities as inclusive of personality traits like attitude, aptitude, motivation, self-concept, career aspiration, attention and values.

Methodology

A multistage random sampling method was adopted for the study. Data were analyzed using both descriptive and inferential statistics to answer the various questions and hypotheses. Charts and graphs were used to answer the questions while t-test was used to test the hypotheses.

The following procedure for item generation was followed:

- Consulting experts, students, teachers textbooks and research works;
- Preliminary item development;
- Experts inputs and scrutiny;
- Reviews as many times as possible;
- Determine the item and response format;
- Trial-testing the resulting instrument;
- Administer the scale and analyse the response pattern;
- Ascertaining the preliminary validity and reliability co-efficient;
- Determining the standardization time
- Determining the norms, (Spector, 1992; De Vellis, 2003).

372 items were initially generated. They were subjected to experts' scrutiny . The items were then reviewed to pinpoint and remove items that looked ambiguous, invalid, irrelevant and duplicated. Badly worded ones were re-worded, or restructured to make them better. 123 items were removed leaving 249. The 249 items were subjected to item-total correlation analysis. The co-efficient ranged from 0.174 to 0.806 but most items vary from 0.30 to 0.07 connoting high homogeneity.

When the scales were initially subjected to reliability test, the cronbach alpha of each of the subscales ranged from 0.66 to 0.89. 20 items per subscale were selected for factor analysis using the coefficients generated by item- total correlation analysis. The correlation matrix and the factor analysis were used to delete items due for deletion, while those considered good enough were retained.

Population

The population consists of senior secondary school class two students (SSII) across southwest Nigeria who are in the penultimate year to writing their Senior Secondary School Certificate Examination. 1300 students were targeted but only 1090 of the questionnaires were valid and were used. Data generated were from Students Career Inventory (SCIn) developed by the researcher. The Likert type scale was adopted. Responses were from dislike very much, (1), dislike, (2), undecided, (3) like, (4), to like very much.(5). The section A aspect of the questionnaire was designed to elicit information on the personal data of individual respondents, while the section B will be used to examine the hypotheses.

Will the Instrument be Valid?

The question of validity was answered by the following:

Construct Validity

The construct validity was established by testing the instruments against:

- A downloaded instrument called "Career Interest Survey" (CIS) and "Vocational Interest Inventory" (VII) by Bakere CGM. (1977)
- The correlation of SCIn with CIS yielded cronbach alpha of 0.63 while it yielded 0.58 with VII which was reported to have 0.89 reliability coefficient.
- The Pearson Product correlation analysis was used to determine the concurrent validity between the SCIn and CIS on the one hand, and SCIn and the VII on the other hand.

Validation Processes

The Validity of the Instrument

As stated earlier, the construct validity of SCIn with two other instruments of CIS and VII yielded cronbach alpha of .63 and .58 respectively. Further validity was confirmed by the intercorrelation analysis yielded by the communality which indicated high level of interaction with other items of each subscale. These points out the items are relevant to the construct.

The intercorrelation matrix of the subscales are highly significant and mainly from 0.40 to 0.60, suggesting a good cluster of items. No item has a value of lower than 0.280. Only two items have value above 0.70

The factor analysis itself is one of the most acceptable means of validating an instrument as it guarantees content, construct and unidimensionality of an instrument,(Nunally, 1978) and also addresses the empirical validity of such scale. (Anderson and Bouake, 2009). It sieves items by selecting the most valid ones for a scale.

The scale validation started at the construction stage when items were constructed relative to the subject matter – choice of career interest. Care was taken to ensure that all items were related to each subscale of interest.

Expert's validation of the items was also a guarantee of item relativity to the construct under consideration.

The item- total correlation also confirmed the homogeneity of the items because the correlation indices ranged from low to medium values in general. Only very few items reflect indexes with values below 0.30 and few items still above 0.75. The bulk of the items were within the range of 0.30 to 0.75. None of the items had negative value.

The intercorrelation of the subscales reflects something like the submission of Holland.

Table 1: Intercorrelation matrices of the seven subscales.

	B1	B2	B3	B4	B5	B6	B7	
B1 sign. 2t	1							Realistic
B2 sign. 2t	0.717 0.000	1						Investigative
B3 sign. 2t	0.174 0.217	0.011 0.941	1					Artistic
B4 sign. 2t	0.466 0.000	0.363 0.008	0.569 0.000	1				Social
B5 sign. 2t	0.486 0.000	0.361 0.009	0.461 0.001	0.446 0.001	1			Outgoing
B6 sign. 2t	0.372 0.007	0.248 0.076	0.462 0.001	0.613 0.000	0.409 0.003	1		Authority
B7 sign. 2t	0.463 0.001	0.434 0.001	0.049 0.729	0.375 0.006	0.258 0.065	0.559 0.000	1	Conventional

P=0.05 level of significance.

N.B: All values are positive.

On this table, subscales 1 and 2 correlate highly at .717, and this confirms construct correlation in agreement with Holland's (1959) submission that the Realistic and the Investigative should correlate highly. This is a proof of criterion related, content and construct validities.

Subscale 3, Artistic correlates poorly with subscale 1 and 2 because the subscale is expected not to be at par with the Scientific. This also is another congruency pointer to Holland's postulation. It correlates well with three other subscales of 4, 5 and 6 which also is possible but again correlates poorly with the conventional which is in line with Holland's submission.

Subscale 4, [the Social] correlates fairly with 1, and 2, moderately with 3 [Artistic] and Authority, and significantly also with 5, and 6, which are the out-going and the authority. This is also understandable, since a person could be a combination of several personalities combined. However, one of his interests would be more prominent than the others. The Conventional [subscale 7 bvii] correlates highly with subscale 1, 2, and 6 fairly well.

In the Table 2 on next page, subscale 2 item 1 could be rounded up .300. while item 10 of the same subscale could be rounded down to .750. Another proof of validation is the factor analysis (F A) conducted on the 140 item instrument. F A has been confirmed to be a veritable tool in the hand of researchers to establish the validity of instruments (Kimberly 2009). The validity of an instrument is the guarantee the test constructor looks for in his work. It is the degree of confidence the test has to produce a result that can be relied upon concerning the intended construct. Factor analysis guarantees this by its ability to find the interrelationships of one variable with every other variable . The resultant principal component that results yields factors that are measured by the eigen values. Any factor which eigen value is not

greater than one ($KMO < 1$) is rejected. The factors that were chosen were those with eigen values greater than-1 ($KMO > 1$).

Table 2: Intercorrelation Matrices of the 7 subscales

S/N	1	2	3	4	5	6	7
1	.433**	.280*	.603*	.510**	.650*	.389**	.552**
2	.624**	.741*	.642*	.450**	.677*	.597**	.670**
3	.571**	.418*	.529*	.520**	.582*	.679**	.615**
4	.618**	.736*	.678*	.631**	.671*	.538**	.640**
5	.687**	.579*	.455*	.592**	.506*	.411*	.635**
6	.515**	.586*	.515*	.385*	.498*	.504**	.558**
7	.441**	.658*	.447*	.497*	.652*	.648**	.511**
8	.642**	.507*	.407*	.623*	.547*	.634**	.575**
9	.580**	.687*	.620*	.315*	.687*	.546**	.667**
10	.570**	.772*	.660*	.388*	.572*	.559**	.632**

Subscale 1 = all significant at $p < 0.01$,

Test Administration.

After validation, the instrument was tested in schools in four out of the six states of Nigeria using the multistage random technique. The population is the SSII classes of all types of secondary schools in the four states in the southwest Nigeria viz: the federal government secondary (unity) schools, the state government schools and the private secondary schools. Both rural and urban schools were investigated.

Reliability

The cronbach alpha is a tool in the hand of researchers to indicate how well items hang together or complement each other. It is a measure of quality or the togetherness of the items generated to measure a construct.

The overall reliability of the instrument at the initial stage was 0.913. Each subscale was subjected to reliability statistics i.e. scale cronbach alpha if item-deleted, and the overall alpha improved to 0.966. from 0.913. The final scale reflects high internal consistency. (.966) The test-retest reliability of 0.66 was established after the scale was crafted. Time lag was seven weeks apart. This is also a proof that the test has acceptable reliability coefficient because testees were not likely to have remembered everything about the responses they gave seven weeks earlier.

Table 3: Subscale Reliability Statistics

Subscale	Before Correction	After Correction
1	.704	.918
2	.705	.864
3	.847	.868
4	.818	.848
5	.813	.917
6	.862	.919
7	.913	.937

Table 4: Scale Reliability Statistics

Before Correction	After Correction
.913	.966

Reliability Statistics

Each subscale was subjected to reliability statistics in order to remove items that contribute least to the reliability of the subscale. It gives the scale mean if- item- deleted.

Item Deletion

Criteria For Item Deletion

- The following criteria were adopted for items deletion:
- All items not significant on the correlation matrix;
- All items that correlates less than 0.30 on correlation matrix;
- All items that correlate above 0.75 on correlation matrix;
- All items that fail to load on any factor on the rotated component matrix;
- A cutting point of .500 on the rotated component matrix was adopted, (even though those that load at .400 are generally acceptable).
- All items that explain least variance on the reliability statistics (their removal enhanced the reliability coefficient of the subscale/scale even if slightly);
- Trimming was employed to make for uniform number of items on each subscale.

Population and Sample

The population consists of all the SSII students in the southwest geopolitical zone of Nigeria A sample of between 25 to 30 students per school were randomly selected from the secondary school system. 19 secondary schools to cover the three senatorial districts were sampled per state, and a total of 76 secondary schools randomly selected to cover the entire southwest zone. A Federal secondary school per senatorial district was purposively selected. About 1,300 testees were targeted, but only 1093 responses that returned valid responses were used. They consist of almost equal number of both male and female testees.

The Instrument

The instrument named Students Career Inventory (SCIn) was developed by the researcher. It is a 70 item instrument constructed along the line of Holland's typology or simply, the Holland's six. Instead of Holland's typology of six personality models, the researcher identified the seventh personality model which he called the Authority. Holland had the six classes of personalities codenamed RIASEC- the realistic, the investigative, the artistic, the social, the enterprising and the conventional.

The authority aspect identified by the researcher is an off-shoot of the enterprising, but also reflects traits of all personalities here typified. So instead of the Holland's RIASEC, we now have RIASOAC, which decoded means the realistic, the investigative, the artistic, the social, the outgoing, the authority and the conventional.

The scale is a 70 items instrument, 10 per subscale. The 20 items per subscale selected from the correlation matrix generated by item-total correlation analysis were subjected to factor analysis to select the final 70 items that made up the scale. Items selected for factor analysis were those with cronbach alpha coefficient of 0.30 to 0.75.

Before factor analysis was conducted, the instrument was subjected to Kaiser-Meyer-Othion (KMO) measure of sampling adequacy and the Barlett's test of sphericity. Kaiser recommended a coefficient of 0.6 to be considered good enough for factor analysis (Kaiser, 1970, 1974). The seven subscales reflected values of between .686 to .820 except for subscale 4 that yielded 0.505 and the reason could not be ascertained. While the Bartlett's test of sphericity expects that the chi test should be significant at $p < 0.05$ for factor analysis to be appropriate, (Tabanechnich & Fidell, 2007; Barlett, 1954). The Barlett's test produced chi (X) values significant at $p = 0.000$. (see table 5 below).

Table 5: KMO and Barlett's Tests

	KMO'S measure of sampling adequacy	BARLETT'S test of sphericity
Realistic	.726	X ² 526.238 df 190 sig. .000
Investigative	.801	X ² 789.175 df 190 sig. .000
Artistic	.820	X ² 672.470 df 190 sig. .000
Social	.505	X ² 422.805 df 190 sig. .000
Outgoing	.775	X ² 626.981 df 190 sig. .000
Authority	.686	X ² 503.997 df 190 sig. .000
Conventional	.755	X ² 631.829 df 190 sig. .000

All the subscales were significant beyond 0.01. $p < 0.01$ ($p=0.000$)

RESULTS

The question of whether the instrument will not have enough psychometric properties is answered by the analysis below:

Psychometric Analyses

The internal consistency was assessed using cronbach alpha. Item analysis include item total and inter item correlations to examine the homogeneity (or multi-co linearity) of the items. Acceptable co-efficient for item – total correlations should be from 0.30 to 0.80 (Taberchnich & Fidell 2007)' Correlations of above 0.80 indicate redundancy of item as a result of multi-co linearity (Taberchnich and Fidell 2001).

- PCA (using varimax rotation) revealed factors ranging from 4 to 8 per subscale. The scree plot was employed to examine number of factors. In some cases the scree plots agree with the total variance explained while in some there were no agreement. Total

factors explained range from 65.9,67.1,67.1,68.3,70.1,70.7 to 74.0.

- From the result of the PCA and eigen values, total variance were extracted. A cutting point of .40 of factor loading was used to retain or delete items among others.

The pattern matrices indicate that most of the items were fairly distributed on most factors, while in subscale II, they load on only one factor mainly. This cluster is another proof of homogeneity of the items. The corrected item-total correlation for the instrument is an indication of high reliability of the instrument. Corrected correlations were all greater than .30

Hypothesis 1: the Student’s Career Inventory will not be valid.

The hypothesis that the instrument will not be valid was rejected since the construct validity of the instrument was confirmed by the intercorrelation of the subscales crafted in the pattern of Holland’s typology. The intercorrelation follows the pattern of Holland’s submission. (see table 1) It therefore is a proof of content, construct and criterion related validity. The item deletion approach also attests further that the validity is improved. (Froman, 2001)

The factor analysis is yet another proof of validity (factorial validity) for scale development. Nunally, (1978) submitted that it guarantees content, construct and unidimensionality. Anderson and Bourke (2009) submitted that it guarantees the empirical validity of an instrument. It is also confirmed to be a veritable tool for item reduction.

On the intercorrelation matrix, no item has coefficient below .30 except one, which had a mtrx of .280 which can either be rounded up or even accommodated (Odeyemi 2011). The one that has a correlation of .772 can also be rounded down or also accommodated since it is bellow the acceptable norm of .80.

Hypothesis 2: The Student’ Career Inventory will not be reliable.

The reliability of the instrument was established by the crombach alpha method of finding internal consistency. The reliability of each subscale was first examined using item – total statistics i.e. scale variance if item deleted. For instance, the item total statistics for subscale 1 is as below:

Table 6: Scale and Subscales reliabilities

Source of variability	No of items	Df	r cal	r tab	Result
Realistic	10	9	0.803*	0.602	Significant
Investigative	10	9	0.864*	0.602	Significant
Artistic	10	9	0.868*	0.602	Significant
Social	10	9	0.848*	0.602	Significant
Outgoing	10	9	0.917*	0.602	Significant
Authority	10	9	0.919*	0.602	Significant
Conventional	10	9	0.937*	0.602	Significant
Overall	70	69	0.966*	0.233	Significant

* P < 0.05

The above table shows the summary of the scale and subscale reliabilities by subscale and the overall reliability of the entire instrument. The hypothesis that the instrument 'Student's career inventory will not be reliable is hereby rejected.

Hypothesis 3: There will be no significant difference in career interest of males and females students.

Table 7: Test of significance of sex bias-ness by the scale [ScIn]

	Sex	N	Mean	Df	T _{cal}	t-tab	Significance level
Realistic	Male	581	32.1736	1080	6.683	1.96	.000*
	Female	501	28.5289				
Investigative	M	581	35.1015	1080	4.989	1.96	.000*
	F	501	32.0299				
Artistic	M	581	32.5577	1035	950	1.96	.342
	F	501	31.9681				
Social	M	581	31.8158	1049	1221	1.96	.222
	F	501	31.0758				
Outgoing	M	581	31.3494	1080	3.773	1.96	.000*
	F	501	29.3074				
Authority	M	581	36.7504	999	2.540	1.96	.011*
	F	501	34.9760				
Conventional	M	581	37.8864	1080	3.291	1.96	.001*
	F	501	35.4830				
Students Career Scale Interest	M	581	237.6351	1080	14.070	1.96	.000*
	F	501	223.3693				

*P < 0.05

From the table above, it was observed that the scale is sex biased. All the subscales are significant except the artistic and the social which were not significant. The level of significance is beyond 0.001(p < 0.001).

Hypothesis 4: there will be no significant difference in career interest between students in urban and rural schools.

According to Table 8 on next page, while the t-tabulated were 1.96, t-calculated for all subscales from subscale 1 to 7 are as follows: 3.231; 2.229; 2.140; 2.320; 3.043; 3.002; 2.341; 3

Table 8 on the next page shows that there is significant difference between choice of students career interest between the students of rural and urban locations. While the r-tabulated is 1.96, the r-calculated were all above r-tab. The confidence level is p < 0.001.

Table 21: Test of significance between Rural and Urban Schools in the choice of Students Career Interest.

	Place of location	N	Mean	Df	tc _{al}	r _{tab}	Significance level
Realistic	Rural	68	30.9412	1091	3.231	1.96	.001*
	Urban	1025	30.2507				
Investigative	Rural	68	36.3382	1091	2.229	1.96	.026*
	Urban	1025	33.4810				
Artistic	Rural	68	34.8088	1091	2.140	1.96	.033*
	Urban	1025	32.0888				
Social	Rural	68	34.1471	1091	2.320	1.96	.021*
	Urban	1025	31.2615				
Outgoing	Rural	68	33.5441	1091	3.043	1.96	.002*
	Urban	1025	30.1512				
Authority	Rural	68	39.9265	1091	3.002	1.96	.003*
	Urban	1025	35.6683				
Conventional	Rural	68	40.0735	1091	2.341	1.96	.019*
	Urban	1025	36.5493				
Students Career Scale Interest	Rural	68	252.7794	1091	3.219	1.96	.001*
	Urban	1025	229.4507				

P<.05

DISCUSSION AND CONCLUSION

From the above, it is obvious that the instrument, SCIn, has content, construct, concurrent, and criterion related validity. It is therefore valid. It was also found out that the instrument has high internal consistency depicted by the measure of reliability. It is therefore reliable. It was found out that there is significant difference in the choice of career interest of students between the rural and the urban locations. All the t-calculated were greater than the t-critical. While the t - critical for all subscales was 1.96, t-calculated ranged from 2.140 to 3.231, which were all greater than 1.96. That indicates that the hypothesis that there will be no significant difference in career interest between students of rural and urban locations is hereby rejected. This is in line with the findings of Mohammed (2008), Babatunde (2008), Oluwatimilehin (2011). It was also found that the scale is sex - biased. The t-calculated for each subscale was significant except for the Artistic and the Social subscales. While the t-critical for all subscales were 1.96, the t-test for the subscales ranged from 2.54, 3.291, 3.773, 4.989, and 6.683 and are therefore significant. However the social and the artistic subscales were not significant because the t-calculated were less than the t-critical. The scale therefore exhibits the same traits as most interest inventories. The major attribute of most interest inventories hereby resurfaces i. e. sex bias-ness. Even when efforts had been made to eliminate those factors that promote sex bias-ness from the inventories, the sex role mentality still manifests in inventories, even this just tested one. The overall scale biase-ness is significant beyond $p < .001$ tested at 0.05 level of significance. While the t-cal. for the overall scale is 14.070, the t-critical is 1.96. (Holland, 1959, UNESCO, 1977, Zunker, 2002, Babatunde, 2008, Owuamanam & Babatunde, 2008).

It is therefore recommended that the instrument could be used for measuring the career interest of secondary school students who need to be guided in the important task of choosing a career that is most realistic for future working bliss.

A longitudinal study of student's choice of career interest could be done to see how far the choices made by students are followed.

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Influence of Religiosity and Organizational Commitment on Organizational Citizenship Behaviours: A Critical Review of Literature

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ABSTRACT

In an attempt to cultivate and promote organizational citizenship behaviours, many scholars have sought to identify factors that engender these highly coveted behaviours. Some of the identified factors include organizational characteristics (such as working conditions, organizational policies and procedures, leadership style and work environment), employee characteristics (such as personal attributes, beliefs, attitude and dispositions) and work characteristics (such as job content and design). This paper reviewed literature on the influence of religiosity and organizational commitment on organizational citizenship behaviours, and further accentuated the connection among these variables. It was observed that religiosity and organizational commitment are important variables that have been linked with organizational citizenship behaviours. Religiosity was associated with enhanced team work, greater kindness, fairness, honesty, trust, concern for others and organizational citizenship behaviours. Also, most studies claimed that organizational commitment enhances the performance of organizational citizenship behaviours. However, organizational commitment and organizational citizenship behaviours are very similar constructs, with one viewed as a behavioural demonstration of the other. This paper concluded that organizational commitment and organizational citizenship behaviours share similar antecedents such that any construct or variable related to one is ultimately related to the other. Therefore, religiosity is related to both organizational commitment and organizational citizenship behaviours, and does exert influence on each of them. Finally, since most of the reviewed literatures were foreign, it was recommended that an empirical research be conducted to further validate this claim especially in the Nigerian work context.

Keywords: Religiosity, Organizational Commitment, Organizational Citizenship Behaviours

INTRODUCTION

The competitive nature of the global market has placed a demand on organizations to retain relevance in their respective industries. Organizations have to constantly improve on their people, products, processes and productivity for them to remain in business. All the other components of the organization (products, processes and productivity) depend on the people component for their effectiveness; therefore the human resource of an organization may be referred to as its most important asset in its fight for survival. In support of this claim, Coetzee (2005) affirmed that the rapid changes in the world market have compelled organizations to continuously strive for survival and global relevance through the effective use of human resources.

Owolabi (2012) associated employees' feeling, thinking, attitude and behaviour with the achievement of organizational goals and objectives. This implies that successful organizations require employees who constantly display positive attitudes and work behaviours. Organizational citizenship behaviour (OCB) is the term used to describe employees' positive

attitude towards job roles and the organization. Jahangir, Akbar and Haq (2004) posited that organizations' success and survival depend on the positive behaviours of their employees; these behaviours were considered as characteristic of good organizational citizens. Therefore, many researchers have sought to identify factors that engender these set of behaviours among categories of employees. The factors that influence the occurrence of organizational citizenship behaviours are referred to as its antecedents (Jahangir *et al*, 2004; Khalid, Jusoff, Hassan, Ismail, Kassim & Rahman, 2009; Davoudi, 2012; Alizadeh Darvishi, Nazari & Emami, 2012). Zhang (2011) noted that the antecedents of organizational citizenship behaviours explain the factors that affect the engagement in organizational citizenship behaviours in the workplace. Newland (2012) also referred to the antecedents of organizational citizenship behaviours as the factors that cause or increase the occurrence of organizational citizenship behaviours.

Alizadeh *et al* (2012) opined that the commonly studied antecedents of organizational citizenship behaviours are job satisfaction, perceptions of organizational justice, organizational commitment, personality characteristics, task characteristics, and leadership behaviour. These antecedents of organizational citizenship behaviours may be grouped into three broad categories which include: organizational characteristics (such as working conditions, organizational policies and procedures, leadership style and work environment), employee characteristics (such as personal attributes, beliefs, attitude and dispositions) and work characteristics (such as job content and design). Organizational citizenship behaviours have been posited to be a response to organizational environment (Jacqueline, Shapiro, Kessler & Purcell, 2004). However, researchers have found that these positive behaviours (OCB) are also influenced by certain employee characteristics such as personal attributes, beliefs, attitude and dispositions (Neale & Griffin, 2006; Roundy, 2009). Consequently, the present paper aims to examine the influence of religiosity and organizational commitment on organizational citizenship behaviours and also to accentuate the connection among these variables.

LITERATURE REVIEW

The literature review included the theoretical explanation of organizational citizenship behaviours; conceptual definitions and empirical studies on the influence of religiosity, organizational commitment and organizational citizenship behaviours.

Social Exchange Theory (SET)

The social exchange theory was considered as the theoretical foundation for organizational citizenship behaviours (Blau, 1964). Researchers (Gouldner, 1960; Blau, 1964; Cropanzano & Mitchell, 2005) have attempted to explain work behaviours as an exchange relationship founded on trust. The social exchange theory posits that employees engage in positive workplace behaviours as a reaction to goodwill extended to them in their work relationships. Gouldner (1960) described this exchange relationship as one based on the norm of reciprocity. Employees tend to reciprocate positive experiences in the organizational environment by behaving in ways consistent with organizational goals and processes. Social exchange theory is marked by mutual exchange of benefits by relational partners on the basis of trust; there is no agreement on what, when, where and how the exchanges will take place. This type of exchange is initiated by one party spontaneously offering something of value to another party who in turn feels obligated to reciprocate or return the gesture.

In the employment relationship, desired employee behaviours are products of enabling organizational environment. The social exchange theory explains organizational citizenship behaviours as a response to positive organizational environment in terms of equitable rewards, supportive leadership, favourable organizational policies etc. Like organizational citizenship behaviours, organizational commitment is another way employees reciprocate

favours extended to them by the organization. Employees often have a positive perception of organizations that encourage workplace spirituality and respond to such gestures through their commitment and citizenship behaviours. By implication, workplace spirituality is often perceived by employees as goodwill from the organization and employees usually feel obligated to reciprocate such gestures through positive attitudes (organizational commitment) and behaviours (organizational citizenship behaviours).

Definition of Concepts

The definition of concepts involved a description of organizational citizenship behaviours, religiosity, organizational commitment and the relationship among them.

Organizational Citizenship Behaviours (OCB)

The word "citizenship" in this regard may be described as employees' identification with their organization through behaviours that are compatible with set organizational goals, rules and procedures. Kılıç (2013) noted that the term organizational citizenship behaviour (OCB) can be traced to the work of Barnard in the 1930s when he proposed the concept of extra role behaviours. Extra-role behaviours were conceived as employees' selfless actions towards the achievement of organizational goals. Katz and Kahn (1977) as cited in Kılıç (2013) highlighted examples of such behaviours to include: employees assisting their colleagues, employees' acceptance of new members of staff without any objection and employees' attempts to reduce conflicts within the organization.

Organ (1988) defined organizational citizenship behaviour as "behaviours that are discretionary, not directly or explicitly recognized by a formal reward system and that in aggregate promotes the effective functioning of the organization". Farooqui (2012) referred to organizational citizenship behaviours as extra-role behaviours marked by innovative and spontaneous actions exhibited by employees. On the other hand, he described in-role behaviours as the formal roles and responsibilities of the employees. Different contexts and cultures define work behaviours as in-role and extra role based on their value systems. According to Organ and Lingl (1995), in-role and extra-role behaviours are inspired by different factors. While in-role may be a consequence of organizational compliance based on transactional and contractual employment relationship, extra role reflects organizational commitment as a consequence of organizational environment. Definitively, organizational citizenship behaviours refer to all forms of discretionary behaviours performed by the employees which culminate in organizational effectiveness. Behaviours must be exhibited willingly and also lead to organizational effectiveness to qualify as OCB. Therefore, the key words in organizational citizenship behaviours are discretionary (voluntary) behaviours and organizational effectiveness.

Researchers have postulated several dimensions or types of organizational citizenship behaviours (Smith, Organ & Near, 1983; Organ, 1988; Williams & Anderson, 1991). Smith *et al.* (1983) originally proposed organizational citizenship behaviours to include two types of employee behaviours labelled as generalized compliance (voluntarily behaving in ways expected of a good employee) and altruism (helping and showing kindness to co-workers and relevant others). Dipaola and Tschannen-Moran (2001) considered the generalized compliance dimension of OCB as a form of conscientiousness marked by the judicious use time, consistency in attendance and complying with organizational rules to a degree that surpassed enforceable minimum standards.

Organ (1988) played down the generalized compliance dimension, replaced it with conscientiousness and added other new dimensions. He reconceptualised OCB to consist of five types of behaviours namely: Altruism (benevolent and helping behaviours towards persons in the organization), Conscientiousness (surpassing expected standards of performance), Sportsmanship (accepting the inevitable inconveniences of work with a positive attitude), Courtesy (selfless behaviours that involves considering the welfare of others before taking actions) and Civic Virtue (behaviours that suggests the employees as ambassadors of the organization). These are the most widely accepted dimensions of OCB that may be considered as the benchmark for others. For instance, Williams and Anderson (1991) classified courtesy and altruism as behaviours directed at specific individuals in the organization (OCBI) and conscientiousness, sportsmanship and civic virtue as behaviours concerned with benefiting the organization as a whole (OCBO).

Podsakoff, MacKenzie, Paine and Bachrach (2000) highlighted the benefits of OCB to the organization to include: increased performance at employee and organizational levels; effective co-ordination of human efforts; optimal use of resources; increased ability to attract and retain competent and resourceful employees; and increased organizational ability to adapt more effectively to environmental changes. These explain the inevitability of OCB for organizations' competitiveness in the constantly changing global market. Murphy, Athanasau and Neville (2002) further noted that the growth, success, effectiveness and productivity of any organization depend on the behaviours of its employees. Likewise, several other researchers have supported the impact of OCB on organizational effectiveness and outcomes (Organ & Konovsky, 1989; MacKenzie, Podsakoff & Fetter, 1993; Podsakoff & MacKenzie, 1994; Walz & Niehoff, 1996; Podsakoff & MacKenzie, 1997; Podsakoff, MacKenzie & Bommer, 1997; Koys, 2001) culminating in several attempts to identify the antecedents of these highly coveted employee behaviours.

The quest for organizational effectiveness goes beyond ensuring good organizational climate and work content, it also involve having a good person-organization (P-O) fit. Similarly, Branson (2008) as cited in Rust and Gabriels (2011) observed that in a bid to harmonize efforts in the pursuit of organizational success, companies now instil their culture, vision and goals in their employees. Rust and Gabriels (2011) also noted that the behaviours of employees can be influenced in an intended direction through institutionalized organizational values. Employee characteristics such as personality dispositions, beliefs and value system must be in agreement with organizational values and goals if these goals are to be achieved. Roe and Ester (1999) suggested that individuals have different values and belief systems which exert considerable influence on their work behaviours. Similarly, McGhee and Grant, (2008) observed a link between personal values and behaviours. Religiosity and organizational commitment are important employee characteristics that have been linked with values, beliefs and attitudes which have corresponding influence on workplace behaviours such as organizational citizenship behaviours (Roundy, 2009; Allameh, Amiri & Asadi, 2011).

Religiosity

Man is a triune being, possessing a spirit, a soul and a body; these three combine to influence human behaviour in and outside the work context. In support, Khanifar, Jandaghi and Shojaie (2010) observed that "in the past people were expected to put their spiritual existence behind the door before entering the workplace, but nowadays, separating work life from spiritual life reduces employees morale and these two cannot be separated because people like being with their whole (physical, mental and spiritual) at their workplace". Similarly, Morgan (2005) as cited in Roundy (2009) noted that religion is no longer treated as a clothing to be removed before entering into the workplace because the barricade separating faith from work is fast

diminishing.

Sanoubar and Moghadam (2013) emphasized the indisputable effects of religion on human behaviour. Religion was further implicated in the values and behaviours of humans. In corroboration, Allameh *et al* (2011) suggested that people's behaviours are products of their beliefs, expectations, values and other mental perceptions. Similarly, Ueda (n.d) observed that employees sometimes interpret and execute their job roles in accordance to their religious affiliations and beliefs. Consequently, Fernando and Jackson (2006) observed the effectiveness of the world's major religions in organizing and coordinating human behaviours, and suggested that the values inherent in those religions may be relevant to the management of modern organizations. Further, Rust and Gabriels (2011) opined that man is a triune being; therefore companies should encourage people to bring their "whole being" to work. Gyekye and Haybatollahi (n.d) affirmed the impact of religion on social behaviour has resulted in several researches to further validate the relationship between these two constructs.

Roundy (2009) observed that religion regulate human behaviour through institutionalized norms and principles. Likewise, Othman and Hariri (2012) also claimed that specific religions like Christianity, Islam and Judaism have divine rules for their followers to which they adhere. This has implication for employees' demonstration of OCB. For instance, Christians may exhibit organizational citizenship behaviour based on the biblical injunction in the book of Colossians 3 verses 22–25 which states "*Servants, obey in everything those who are your earthly masters, not with eye service, as men pleasers, but in singleness of heart, fearing the LORD. Whatever your task, work heartily as serving the LORD and not men, knowing that from the LORD you will receive the inheritance as your reward; you are serving the LORD Christ. For the wrongdoer will be paid back for the wrong he has done, and there is no partiality*". Similarly, Obaid (2005) as cited in Salam and Agil (2012) claimed that "Islam provides principles which constitute both the law and ethics connected with work, and that Muslims are required to work and conduct business in accordance with these principles". Thus, religious employees believe that God is their ultimate employer; and that He will reward whatever they (employees) do within their organizations. Empirical evidence posits that the interpretation of work roles and OCB is unique to individual role-holders (Neale & Griffin, 2006) based on their beliefs and/or judgment of another's job role (Roundy, 2009).

Religiosity may be defined as a set of behaviours and practices powered by certain institutionalized beliefs and conviction which serve to give meaning to human life. It symbolizes individuals' identification with and commitment to the values and principles of a religion. According to Park and Smith (2000), religiosity refers to a set of behaviours that show the worth of one's religion or faith. Lewis (1978) as cited in Holdcroft (2006) asserted that religiosity was found in Roget's Thesaurus to be synonymous with such terms as religiousness, spirituality, orthodoxy, faith, belief, piousness, devotion, and holiness. Allport and Ross (1967) conceptualized religiosity as a two dimensional construct; these dimensions are extrinsic religiosity and intrinsic religiosity. They opined that individuals are either extrinsically religious or intrinsically religious and are thus motivated in their behaviours. Extrinsically religious individuals are motivated to get involved in religious activities simply because of what religion offers them. This category of people have a utilitarian approach to religion and maintain their membership of religious groups just to gain approval, promote their well-being and enhance their social status. Conversely, intrinsically religious individuals truly believe in their religious values, internalize them, and use the doctrines as a guide in all other aspects of their lives. This set of people engage in religious activities mainly as an expression of personal conviction and beliefs.

The term spirituality by definition refers to intrinsic religiosity, the selfless acceptance and commitment to the tenets of one's religion. Spirituality, like intrinsic religiosity connotes "living" one's religion, which means making religion a lifestyle. In corroboration, Neck and Milliman (1994) described spirituality as a process of living out one's set of deeply held personal values stimulated by the desire to find meaning and purpose in life. McCormick (1994) as cited in Bhunia and Mukhuti (2011) defined spirituality a behavioural demonstration of individuals' subjective inner experiences. Moore and Casper (2006) also noted that spirituality is relates to intrinsic characteristics that underlie human behaviour.

Marschke, Preziosi and Harrington (2008) observed that spirituality involves being fully commitment to established values. They further noted that engaging the hearts and minds of employees in the workplace has implication for organizational success; and that far above pay checks and performance reviews, religious employees need enabling work context that will continuously energize their inner man. Incidentally, Rust and Gabriels (2011) found that employees incorporate their values and beliefs into their work life; and that these values were compatible with those of their organization. Mitroff and Denton (1999) posited that "workplace spirituality involves the effort to find one's ultimate purpose in life, to develop a strong connection to co-workers and other people associated with work, and to have consistency or alignment between one's core beliefs and values of their organization".

Organizational Commitment

Organizational commitment is a term that explains employees' positive disposition and devotion to their organization. It refers to the extent to which individuals identify with and are involved in a particular organization (Steer, 1977). Roberts, Coulson and Chonko (1999) opined that "organizational commitment include employees' attachment to the organization as a result of compliance caused by reward and punishment; affiliation with the referent organization; and internalization of the organization's goals and values as one's own". Further, Bateman and Strasser (1984) described organizational commitment as involving employees' loyalty to their organization; employees' willingness to exert effort on behalf of the organization; the compatibility of employees' and organization's interests; and employees' desire to remain with the organization.

Meyer and Allen (1991) posited that organizational commitment comprises of: affective commitment, continuance commitment and normative commitment. The affective commitment refers to employees' emotional attachment and involvement and identification their organizations (Meyer, Paunonen, Gellatly, Goffin & Jackson, 1989). Ueda (n.d) considered affective commitment to be the most important form of organizational commitment which has an impact on employees' behaviour within their organizations. According to him, employees tend to accomplish more for their organizations when they have a strong emotional attachment to them. The continuance commitment is related to the tendency to remain with the organization based on the cost of exiting or benefits of staying (Meyer & Allen, 1997). Employees who display continuance commitment remain with their organizations because they could not afford to leave based on limited choices. Allameh *et al* (2011) noted that continuance commitment is the kind of loyalty that employees' demonstrate when they need the job.

Normative commitment may be described as a type of commitment in which employees voluntarily decide to remain in an organization as the reasonable way of reciprocating the goodwill enjoyed in the organization. This type of commitment is caused by the fact that employee has the feeling that the organization treats him well and therefore he has an

obligation to reciprocate such gestures (Herscovitch & Meyer, 2002). Employees who display normative commitment see their attitude towards the organization as a rational reaction to a good organization, and so they show a sense of responsibility as members of the organization. The most productive components of organizational commitment in terms of positive workplace behaviours and outcomes is the affective commitment followed by the normative commitment and lastly the continuance commitment (Murphy, 2009).

Affective commitment is regarded as the most advantageous commitment component for organizational success (Sinclair, Robert, Tucker & Cullen, 2006; Murphy, 2009); and a significant predictor of organizational citizenship behaviours (Rifai, 2005, Feather & Rauter, 2004). Similarly, many studies have found a positive correlation between affective organizational commitment and organizational citizenship behaviours (Van Dyne & Ang 1998; Kuehn & Al-Busaidi, 2002; Kwantes 2003; Chen & Francesco, 2003; Cohen, 2006; Chughtai, 2008). Bakhshi, Sharma and Kumar (2011) asserted that raising the affective commitment of employees will help in raising their extra role behaviour within the work context. According to Karim and Rehman (2012), employees who are affectively committed devote their time and energy to the organization; those with continuance commitment remain with their organization because they have no better option, and those with normative commitment remain with their organization because they feel obligated to do so.

The relationship among Religiosity, Organizational Citizenship Behaviours and Organizational Commitment

Religiosity and organizational commitment are established antecedents of organizational citizenship behaviours related to employees' beliefs and value system. Since employees' beliefs have been woven into their work lives, it serves as the standard for interpreting and reacting to many organizational experiences including the perception of justice and leadership style. Therefore, religiosity has been found to be foundational to many workplace behaviours including organizational commitment and organizational citizenship behaviours. For instance, Veechio (1980) reported that religious beliefs and values predicted organizational commitment and job satisfaction.

Similarly, Allen and Meyer (1996) found that religiosity exerts influence on employees' perception of organizational goals and their desire to retain membership in such organizations; therefore religiosity has been implicated in employees' affective commitment to their organizations. Studies have found that employees' job attitudes have been influenced by their religiosity (Sikorsa-Simmons 2005; Kutcher, Bragger, Srednicki, & Masco, 2010). Similarly, Ntalianis and Raja (2002) associated intrinsic religiosity with positive work attitudes such as co-operation and loyalty, obedience, commitment and dedication to their organizations. Also, scholars have linked religiosity with positive workplace behaviours and limited counterproductive work behaviours (Ntalianis & Raja, 2002; Gyekye & Salminen, 2008; Kutcher *et al*, 2010).

Organizational citizenship behaviours may be considered as an outgrowth of organizational commitment; it is the behavioural demonstration of organizational commitment. Employees who are committed to their organization usually express their commitment with some form of citizenship behaviours. Similarly, Meyer and Allen (1997) opined that organizational commitment can totally affect the employees' behaviours. Foote, Seipel, Johnson & Duffy (2005) asserted that extra-role behaviours are the consequences of organizational commitment. Consequent upon this relationship between organizational commitment and organizational citizenship behaviours, both variables share common antecedents or causes.

This implies that all variables related to OCB are naturally related to organizational commitment. Therefore, religiosity is both an antecedent of organizational commitment and organizational citizenship behaviours. This relationship is depicted in the fig.1 on next page:

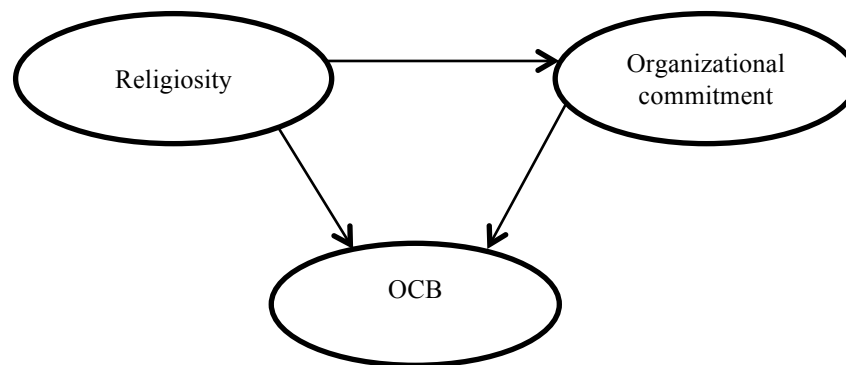


Figure 1: Relationship between Religiosity, OC and OCB

Empirical Studies

Several studies had been conducted to ascertain the influence of religiosity and organizational commitment on organizational citizenship behaviours. A sizable number of these studies were reviewed in the current paper.

Religiosity and Organizational Citizenship Behaviours

A review of literature by McGhee and Grant (2008) indicated that spiritual individuals in the workplace are more likely to demonstrate enhanced teamwork, greater kindness & fairness, increased awareness of other employees' needs, increased honesty and trust within their organizations, higher incidences of organizational citizenship behaviour, express more servant leader behaviour, perceive the ethical nature of business issues more clearly and are more sensitive to corporate social performance. Khanifar *et al* (2010) highlighted the dimension of workplace spirituality to include team sense of community, alignment between organizational and individual values, sense of contribution to the community, sense of enjoyment at work, opportunities of inner life and a sense of God supervision. Likewise, Rastgar, Zarei, Davoudi and Fartash (2012) suggested that the most important agents that described workplace spirituality include: benevolence, generativity, humanism, integrity, justice, mutuality, receptivity, respect, responsibility and trust. These agents form the values and basic principles to which religious individuals adhere. They are consistent with the dimensions of OCB, and can therefore be theorized to influence its occurrence. Religious persons are more likely to exhibit these citizenship-like behaviours in any context they find themselves. Rastgar *et al* (2012) noted that work place spirituality impacts employees positively to work hard and engage in extra-role behaviours.

Khalid, Rahman, Madar and Ismail (2013) examined the role of religiosity on organizational citizenship behaviours among 237 undergraduates from an institution of higher learning located in the north of Peninsular, Malaysia and found that intrinsic religiosity ($\beta = 0.24$, $P < 0.01$) was a significant predictor of OCBO, while extrinsic religiosity ($\beta = 0.29$, $P < 0.01$) was a significant predictor of OCBI. Affeldt and MacDonald (2010) studied the relationship between spirituality to work, organizational attitudes and behaviours in a sample of 446 employees from multi-site religiously affiliated health care system. They opined that the influence of spirituality on employee and organizational performance can best be assessed in healthcare settings. Further, they found significant relationship among spirituality, job satisfaction, work ethic, organizational commitment and organizational citizenship behaviours.

Previous studies have implicated workplace spirituality in employee positive emotional state and improved performance (Rego & Cunha, 2007; Giacalone & Jurkiewicz, 2003; Moore & Casper, 2006). Marschke *et al* (2008) reported the findings of Harvard Business School on the comparison of companies based on the strength of their spiritual culture. A significant relationship was reported between an organization's spiritual culture and its profitability; companies that encourage workplace spirituality were found to enjoy increased employee retention and organizational profitability. Further, Mitroff and Denton (1999) cited in Marschke *et al* (2008) indicated that "organizations which identify themselves as spiritual have employees who: are less fearful of their organizations; are less likely to compromise their basic beliefs and values in the workplace; perceive their organizations as being significantly more profitable; and, report that they can bring significantly more of their complete selves to work, especially their creativity and intelligence". McCullough and Willoughby (2009) noted that studies (e.g., Bergin, Masters & Richards, 1987; French, Eisenberg, Vaughan, Purwono & Suryanti, 2008) have associated general religiousness and intrinsic religious motivation with higher self-control.

Organizational Commitment and Organizational Citizenship Behaviours

Organizational commitment and organizational citizenship behaviours are two inseparable constructs closely related to employee and organizational performance. Therefore, attempts at improving employee performance have culminated in several researches on organizational commitment and organizational citizenship behaviours (O'Reilly & Chatman, 1986; Organ & Ryan, 1995; Williams, Pitre & Zanuba, 2002). Organizational commitment has been found to be an important antecedent of organizational citizenship behaviours (Rehan & Islam, 2013). It may be posited that organizational commitment precedes organizational citizenship behaviours because the voluntary positive employee behaviours are borne out of employee loyalty and identification with the organization.

Chen and Francesco (2003) found that affective commitment related positively to in-role performance and OCB, while continuance commitment was not associated with in-role performance but negatively correlated with OCB. In addition, normative commitment moderated the relationship between affective commitment and in-role performance as well as OCB. The linear relationship between affective commitment and in-role performance/OCB was stronger for those with lower normative commitment. Also, Gautam, Dick, Wagner, Upadhyay and Davis (2001) reported a positive relation between affective and normative commitment on the one hand and both citizenship factors altruism and compliance on the other. Continuance commitment was negatively related to compliance and unrelated to altruism.

Literature indicated that highly committed employees enjoy greater levels of job satisfaction, productivity, motivation and job involvement (Boyle, 1997; Caldwell, Chatman & O'Reilly, 1990; Eisenberger, Fasolo & Davis-LaMastro, 1990). Balci (2003) cited in Karim and Rehman, (2012) reported that "employees with greater level of organizational commitment are more productive, compatible, have more loyalty towards his work, possesses more responsibility and satisfaction resultantly cost lesser to the organization". Similarly, O'Reilly and Chatman (1986), LePine, Erez and Johnson (2002) and have associated organizational commitment with increased organizational citizenship behaviour.

Chang, Tsai and Tsai (2011) examined the influence of organizational citizenship behaviours and organizational commitments on the effects of organizational learning in 12 companies in

the north, central and south of Taiwan and came up with three findings: 1) organizational citizenship behaviours positively influence the effects of organizational learning 2) organizational commitment positively influenced the effect of organizational learning and 3) organizational commitment positively influenced organizational citizenship behaviours. They also asserted that these findings supported the three hypotheses stated in the study and are in line with previous findings. Similarly, Yilmaz and Bokeoglu (2008) conducted a study on organizational citizenship behaviours and organizational commitment among 225 teachers in public primary schools in Ankara, Turkey. They reported a general moderate level positive and significant relationship between teachers' perception of organizational citizenship behaviours and organizational commitment ($r = 0.33, p < 0.01$). Further, they reported a general moderate level positive and significant relationship between teachers' perception of organizational citizenship behaviours and continuance commitment ($r = 0.36, p < 0.01$) and a general moderate level positive and significant relationship between teachers' perception of organizational citizenship behaviours and affective commitment ($r = 0.27, p < 0.01$).

Kilic (2013) investigated the relationship between organizational commitment and organizational citizenship behaviour involving 251 call center employees in İstanbul. The findings revealed a positive relationship between affective commitment and organizational citizenship behaviours ($r = 0.447, p < 0.01$), a positive but weak relationship between continuance commitment and organizational citizenship behaviours ($r = 0.238, p < 0.01$) and a positive but weak relationship between normative commitment and organizational citizenship behaviours ($r = 0.384, p < 0.01$). In another study, Kashif, Khan and Rafi (2011) examined the determinants of OCB in the telecommunication sectors of Pakistan and found a significant positive correlation between job satisfaction and organizational commitment of employees with organizational citizenship behaviours in the telecoms sector of Pakistan ($r = 0.232, p < 0.01$).

Al-Sharafi and Rajiani (2013) examined the role of leadership practices in promoting organizational citizenship behaviours among 160 non-managerial employees from main branches of 16 commercial banks. They found that organizational commitment partially mediated the relationship between leadership practices and organizational citizenship behaviours ($\beta = 0.797, p < 0.01$), leadership practices were significantly related to organizational citizenship behaviours ($\beta = 0.981, p < 0.01$). Also, they reported a significant positive relationship between leadership practices and organizational commitment ($\beta = 0.893, p < 0.01$). It was observed that when organizational citizenship behaviours was regressed onto both organizational commitment and leadership style respectively, the beta weight associated with organizational citizenship behaviours showed a decrease from ($0.981, p < 0.01$) to ($0.797, p < 0.01$). In a previous study, Noor (2009) examined organizational citizenship behaviours as the outcome of organizational commitment among 134 university teachers in Pakistan. She found a significant positive correlation between organizational citizenship behaviours and organizational commitment ($r = 0.800, p < 0.01$).

Ueda (n.d) investigated the effects of job involvement, affective organizational commitment and collectivism on organizational citizenship behaviours using data collected from 131 Professors and clerical workers in a private University. The result revealed that job involvement had significant positive relationship on civic virtue ($\beta = 0.540, p < 0.01$) and helping behaviours ($\beta = 0.217, p < 0.05$). Similarly, affective commitment had significant positive effect on helping behaviour ($\beta = 0.382, p < 0.01$) and sportsmanship ($\beta = 0.353, p < 0.01$). Finally, collectivism was reported to positively influence civic virtue ($\beta = 0.146, p < 0.01$) and helping behaviours ($\beta = 0.258, p < 0.01$). Interestingly, the effect of affective commitment on civic virtue was moderated by collectivism such that affective commitment had a stronger

effect when collectivism was weak than when collectivism was strong.

Contrary to the findings of most researches on the relationship between organizational commitment and organizational citizenship behaviours, Allameh *et al* (2011) conducted a study to examine the relationship between organizational commitment and organizational citizenship behaviours using 300 employees of Mazandaran Regional Water organizational. They found that there is no significant correlation between organizational commitment and organizational citizenship behaviours ($r = 0.207, p > 0.05$). Further, they found no significant relationship between affective commitment and organizational citizenship behaviours ($r = 0.28, p > 0.05$), between continuance commitment and organizational citizenship behaviours ($r = 0.16, p > 0.05$) and between normative commitment and organizational citizenship behaviours ($r = 0.05, p > 0.05$). However, they concluded that these findings are beyond expectation, contrary to others and require further investigation.

CONCLUSION AND RECOMMENDATION

Organizational citizenship behaviour is an important key for organizational competitiveness, profitability and survival in the rapidly changing global market. In a bid to cultivate these highly coveted behaviours, scholars have found its antecedents to include organizational, employee/personal and work variables. Religiosity and organizational commitment are important variables that have been linked with organizational citizenship behaviours. However, both organizational commitment and organizational citizenship behaviours are related to employee and organizational performance, with organizational citizenship behaviours viewed as a behavioural demonstration of organizational commitment.

The emotional state of employees has been implicated in their work attitudes, behaviours and performance. Employees who have emotional attachment to their organizations have been found to behave in ways consistent with organizational goals and strategies. Affective commitment was found to be the most significant predictor of employees' OCB because it involves employees' emotional attachment to their organization rather than some form constraints in their choice to leave the organization. This is evident in continuance and normative commitments. For instance, the fear of the unknown, the cost of living the organization and benefits that accrues to long serving employees often force some employees to remain in the organization, resulting in continuance commitment to such an organization. Similarly, pressure from others to stay in an organization and reciprocating actions on the part of the employee for organization's investment in his/her career development may also force such employees to remain in the organization, leading to normative commitment to such an organization. Both normative and continuance commitments emanates from employees' obligations and needs, these are marked by forced compliance to organizational rules, procedures and processes and at most results in average performance.

Khalid *et al* (2013) found intrinsic religiosity to be a significant predictor of OCBO and extrinsic religiosity to be a significant predictor of OCBI. This may be linked with the fact that extrinsically religious employees use religiosity for personal gains and so they engage in OCBI because of the hope that persons to whom OCBI was directed would reciprocate such gestures in the near future. On the other hand, intrinsically religious employees perform OCBO because of their personal values, conviction and commitment to the organization. Such employees seem determined to ensure the achievement of organizational goals and success.

It can therefore be inferred that intrinsically religious employees are more likely to develop affective commitment to their organization because religion for them is a lifestyle and they

remain with their organization as a result of their beliefs and conviction, whereas extrinsically religious employees are more likely to develop continuance and normative commitments to their organizations because religion for them is a means to an end and so they remain with their organizations because of what they stand to gain.

Finally, it has been observed that organizational commitment and OCB share similar antecedents such that any construct or variable related to one is automatically related to the other. Since most of the reviewed literatures are foreign, it is recommended that an empirical research be conducted to further validate this claim especially in the Nigerian work context.

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Trade Unions and the Tudeh (mass) Party Iran

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ABSTRACT

The Tudeh worked widely amongst the working classes to awaken their class consciousness, encouraging them to fight for their rights by establishing a trade union movement, and urging them to support the Tudeh as the only party concerned for their welfare. Their party platform indeed makes clear how deeply committed to the workers' cause the Tudeh party actually was, a point illustrated particularly by their concern for female workers, an especially vulnerable group. The fragmentary nature of cottage industry in Iran was harmful to the workers conditions so the Tudeh believed, and they accordingly encouraged the formation of unions, to remove the need for exploiting middlemen between the workers and consumers, giving the employees themselves more control over their work situation ²⁵.

Keywords: Tudeh Party, Trade Unions, workers, welfare, conditions, industrial.

INTRODUCTION

The fragmentary activity of both Trade Union and Communist groups (Muhammad Sahimi, 28 jun 2011) during the first two decades of the twentieth century was eventually co-ordinated and organized into the central Council of Federated Trade Unions in 1921. He Council produced its own newspaper called Haqiqat (Truth) and restructured the regional unions of small groups – such as textile and oil workers, as well as arranging demonstrations and strikes. The unions mainly represented small, less-developed trades only 6 unions out of 32 were in progressive industry. Riza Shah ruthlessly suppressed all of the unions' activities in 1926 (5 of their leaders died in prison), but his economic measures which included road construction, the building of railways which included road construction, the building of railways, ports and factories, acted as a spur to the remnant of the movement, since these modernized methods increased the industrial labour force fifty-fold.

The growth of the proletariat was also assisted by the 50% expansion of the oil-related workforce and the amalgamation of small workshops to form larger units; by 1941 hereby industry alone employed 170,000 workers. The conditions, under which they labored, however, were appalling, resembling slave labour. With no organized unions, workers' reaction was very disjointed and most often on a spontaneous basis. For example, a strike called at the Abadan oil refinery to demand better conditions resulted not only in an agreed wage increase, but also drew a British gunboat and 500 arrests. This 'transitional' period was one that weakened union activity, since it meant the loss of a personal relationship between workers and employers, which led to the disappearance of moral responsibility on the part of the owners for the working people, while no substitute had been created to replace the old system.

Behind the movement however were leaders who truly believed in socialism – including Pishavary from its formal formation in 1941, the Tudeh encouraged the trade Unions which supported this movement. The Party was the political expression of the communist revival, set up by the Arani Circle (Zabih. S., 1966), who were ex-prisoners (Sepehr Zabih, 2011) , and its

aims, under its opposition to colonial imperialism, were directed towards the restructuring of the political economy in a democratic form (Demonstrated of provisional statute).

Thus the Central Council of Trades Unions (E., Abrahamian, 2010) represented an attempt by experienced trade unionists together with Tehran workers to rebuild the unions. The labour-emphasis of the Party increased its support throughout Iran, especially in the textile-dominated areas around Isfahan, where much demand was made for improved wages and conditions. The Tudeh succeeded in transforming aggrieved workers into a considerable political force and during 1942-3, unionist tactics widened popular support, with each victory strengthening the movement's appeal.

Although the elections of 1943-4 left the Tudeh with only 8 out of 120 seats, efficient organization and unique backing from a mass political movement proved a great source of support. The Central Council of United Trades Unions (CCUTU) grew to 200,000 strong within a year and 400,000 by 1946 (Abrahamian, E., 1941-53). The struggle became somewhat more bitter (Sykes, E., 1946) during the inflationary period in the four years to 21st march, 1945. Fifteen years before, a strike in the largest textile mill in Isfahan had ended with the imprisonment of the leaders, and in the Khuzistan oil fields, first affected in 1922, a general strike in 1929 had paralysed the industry, and five of its instigators were still in prison in 1941 (Abrahamian, E., 1941, et al., Zabih. S., 1966) . This four year period saw Isfahan plagued with strikes and a lockout which drove starving workers into factories and granaries. The rising was quelled in July 1943 by Bakhtiyari and Qashqai tribesmen on government orders. The oil-fields avoided much of the trouble as the trades union movement respected the Allies' efforts against the Axis powers. The first activities of the underground movement were not until May 1946, despite its existence in Khuzistan for some length of time previously; the CCUTU had been or was a stabilising factor, an encouraging influence upon the war-effort and denouncing walk-outs and wage disputes. This spread to other regions as well, - especially manufacturing plants in Tabriz (H. Ladjevardi, 1985), the textile and coal industries and railways in Gilan and Mazandaran, in Tehran's light industry, in the mills of Isfahan, Shiraz and Yazd, and in the Khuzistan oil fields (Dr. Stephanie Cronin - 2004, Reformers and Revolutionaries in Modern Iran.) . The unions in these centres, whose members numbered tens of thousands by 1946, also sponsored strikes as early as 1942, and in 1946 were supporting several genera strikes.

Contrary to Lenczowski's view (Lenczowski, G., 1949, p.234) that many misguided individuals realized the truth, when the Tudeh pressed home the Soviet position during the 1944 crisis in the oil industry, Abrahamian offers opposing evidence, on Constitution Day, 1945, of 20 mass meeting. The one in Tehran alone drew 40,000 people in May 1946; 80,000 people marched in Abadan alone (London Times, July 16, 1946, et al., Jones, J., 1947); and in October 1946, 100,000 people celebrated 5 years of the Party's existence in Tehran, and American estimates set communist support at 40% (New York Times, June 15, 1946).

The march in Abadan ultimately led to a three-week strike, beginning in Agha Jari on May 14th. This was preceded by a strike on April 15th, during which the General Manager conceded the demand for the reinstatement of 7 workers made by the 2000 strikers and the plant manager had a change of attitude. At the same time, a wage demand for double pay was put forward at Gach Saran. The Tudeh's influence among the workers (public record office 1946, Aug. 10) was demonstrated in early June, when they organized to construct a barrier around Khorramshahr to prevent its submergence by foods. Although the oil company in Abadangave technical advance, they were unable to control the work-force as were the Tudeh, who commandeered company vehicles and regulate traffic, etc (public record office 1946). the workers at Agha Jari were agitating for improved housing as far back as 1938, and the strike in which 10,000 men

participated in May was in support of demands for medical facilities, the provision of midwives ice and drinking-water, special allowances, and Friday pay. The company, adopting a stiff attitude, called for military intervention (which was made available) on the grounds of the political nature of the demands, and the drastic step of cutting off the vital water supply. A government commission was able to persuade the company to settle, however, and in fact it (the company) paid the workers wages for duration of the strike: an unprecedented act which was nevertheless disguised as a beneficial payment *ex gratia* to its employees. This had the effect, naturally, of encouraging other workers to adopt similar action.

Isfahan at this time was a city of some significance, having alone escaped the two-pronged Allied invasion and having suffered various strikes earlier the same year. The workers in Isfahan came out in sympathy with those striking at Agha Jari, and a procession estimated at 7000 took place. A success here would clearly have been indigenous, i.e. free from Allied intervention. The Tudeh's influence in the mills and town advanced considerably with the appointment of a Tudeh supporter to the post of Governor-General. It was also affirmed by a series of shorter strikes - at an Ahwaz spinning factory on June 3rd, at the port of Bandar-i Shahpur on June 6th, and in the Abadan bazaar on June 11th, as well as such unionist backwaters as Bushahr. The union was in fact recognized as a result of the Itimadiyya mills strike of June 11-17th.

On July 8th came the alarming incident of a meeting of Ali Umid with 40 non-commissioned incident from the Ahwaz garrison, and on the 14th, the CCUTU demanded from the AIOC the recall of the Governor-General Khuzistan, Misbah Fatimi, the disarmament of the tribes, an end of the AIOC's interference in internal Iranian affairs, and wages for Fridays. With only an hour's notice, 22,000 men from the refinery alone (excluding those in essential services) struck at 6.00am. it was a very well organized and peaceful affair. The strike-leaders, who effectively controlled Khurramshahr, commandeered transport and confined Europeans to their homes; committees for food, and security and propaganda were set up under a directing Committee. Meanwhile, martial law was declared and police and gendarmerie forces were reinforced. Telegrams were sent to the party heads of Tehran adding to the previous demands for better conditions of employment and living standards in general.

The reply was a promise that the Chief of Staff guaranteed no further military intervention (Ibid). At 5.00pm, local Arabs opposed to the strike clashed with demonstrators marching past the HQ of the Arab Union, and an Arab merchant who was a contractor for the AIOC was killed. The violence swelled, during which a second Arab contractor died (both bodies were mutilated (Skirine, k., 1962)), and shooting began, involving fire by troops, and lasted until late into the evening: in all a total of 25 people were killed, and 173 injured.

The Arabs had secret encouragement from local officials: it is known that a consultation with the Sheikhs was held on the 14th; the Governor-General considered arming them and the next day, suggested that the Arabs should set fire to the Tudeh HQ and assemble their tribesmen, who were already gathering. The left-wing Iranian press, with substantial Soviet press support, accused the Britain and the AIOC of conspiracy, although this was unlikely to have true.

The British Ambassador warned the Consul of Khurramshahr against interference with the Arabs, and suggested that similar advice be given to the AIOC (public record office 1946, July 14): the British were determined to give no grounds for accusations against them on such an account - on July 27, the Arabs against indeed claimed that the British had restrained them from acts of vengeance (public record office 1946, July 27), and on the 15th, counsellor Sir

Clarmont Skrine, in an investigation of the Indian artisans' grievances, also urged restraining of Arab retaliation on the Governor (public record office 1946, July 15); the latter, Major Fatih, was probably using the Arabs to pressurize the government. On Willoughby's arrival in Abadan, he warned that if Prince Muzaffar Firuz ordered the release of the Tudeh ringleaders, Arabs might retaliate with the murder of all Persians, regardless of whether they were members of the Tudeh or not, and this was born out by the war-like assembly of Arabs at the Governor's house. The central government was torn between a desire to carry out the British recommendation that it assert its authority, and its wish to avoid alienating the Soviet Union and much Iranian support by treating the Tudeh Party and Iranian nationals too harshly. They decided upon sending reinforcements to the Governor-General on July 15, together with a telegram ordering the arrest of Tudeh members, and the drawing up of a list of suspected agitators to be passed on to the government, who would either arrest or expel them from Khuzistan. Prime Minister Qavam instructed the Governor-General to use discretionary measures to prevent further disturbances. Misbah Fatimi remarked to Mr. Northcroft of the Company, that this was not the expected propitiation of the Tudeh, regardless of coat, but he was in fact proved wrong within a few days (public record office 1946, July 15). Firstly, a delegation which included Muzaffar Firuz on the Prime Minister's behalf, Radmanish, acting Minister of Commerce, and 3 Tudeh members, arrived on July 15. They inspected the damage, interviewed many of the wounded, and released some of the strike leaders. Firuz then called a meeting with the AIOC to discuss ways of ending the strike: this strange meeting took place with the government delegation and AIOC leaders in one room, and five strike leaders with Iskandari and some others as mediators in another. The AIOC had made some minor concessions over pay of Friday wages, and by 1.00 am it was agreed that the strikes would end at dawn (Skrine, k., 1962, p.244). The AIOC resented the Tudeh's management of the issue, and wished to break the leaders of the Union, a move which, apart from being undiplomatic, would have helped neither the Company, nor the closely-linked British Government.

By this time, fear of the Arabs had killed the strike, and all that was being sought was the release of imprisoned Tudeh leaders, and extrication of the Party by attaching blame to the British and Arabs (Ibid). Firuz, according to Skrine, tried to persuade the AIOC that some concessions on their part would end the strike, for which they were partly responsible, claiming that he himself had ordered the end of the supposedly 'illegal' strike. Release of Tudeh leaders was useless, he said. In the meantime, however, he told Tudeh members elsewhere that the Prime Minister was indeed urging an end to the strike, promising release and assistance towards the defeat of Fatimi and Fatih, and in holding the British and Arabs responsible for the violence which had occurred, he also threatened them that they would be embarrassed, and the Party would collapse when he workers returned to work voluntarily.

That same night, Firuz also warned the Sheikhs of Khorramshahr from instigating further disturbances, and the next morning assured 30,000 workers in Abadan of Qavam's interest in their welfare, as well as the Company's good intentions. The work-force returned to work on July 17, with no damage to AIOC property or installation, and a week's production was the only thing lost. Qavam also received, at the same time, a congratulatory message from the British Foreign office, stating how successful had been the efforts of the Governor-General and the authorities in maintaining peace. The day following, the British Ambassador tried on the Government's behalf to stem the tide of representation arriving from Tehran, which threatened political stability (public record office 1946, July 18). Le Rougetel reported to the Foreign Office the anti-authoritarian and non-industrial nature of the strike, and Qavam's apparent inability to exercise governmental authority in Khuzistan, and enforce his will over Firuz and others – hence the situation was still 'incalculable' (Ibid). Le Rougetel recognized the undesirability of Firuz who was the main obstacle to any improvement: this was in accord with the US

Ambassador, Allen, who warned against any hasty counter-productive action.

On July 23, Col. Zargami of the war Ministry, Turaj-Amin, and two officials from the Ministry of Justice, arrived to investigate the causes of the riots. According to Le Rougetel (public record office 1946, Oct. 20), this was a pro-Tudeh commission, who distorted the evidence (Azerbaijan crisis 1945-48, 2011) to show that the disorders were due to the British, and the AIOC, who were also responsible for organizing Arab resistance against the central government and the Tudeh Party.

The Tudeh were particularly popular with the Union movement at that time, and the British were consequently especially anxious to counteract their influence through the creation of an oil workers union (Elwell-Sutton, C.P., 1955). By July 14, the British were negotiating with the Tudeh, which nonetheless did not prevent the strike breaking out. Indeed, the major contributory factor for the strike was the party's fear that the British sought to destroy the CCUTU through repression, or incitement of the Arabs. When the strike ended, the Company had agreed to pay a minimum daily rate of 35 rials, including wages for the rest day (Friday). It was pointed out to the Prime Minister that this agreement, costing 1\$ million per year to the company, was in violation of the Labour Law, which laid down that wages were to be fixed by the High Labour Council. British workers in the Company, as well as politicians and experts, complained that the Company was badly organized and needed strengthening and more discipline, and this call was taken up by the Britain Foreign Office. The Labour Cabinet was forced to choose between improving condition in order to stem Tudeh influence, and its ideology (David Sylvan, et al., Stephen Majeski, 2009), which of course, espoused the Union movement.

The British response also extended to the positing of two Navy ships to Abadan, off the Shatt, al-Arab, an act to which the Iranian government reacted with suspicion, declaring it to be an unfriendly act if it was connected with the strike, and the Iranian press was similarly hostile. Foreign Secretary Bevin considered the evacuation of British and Indian personnel, or alternatively occupation of the area to maintain continued production (Bevin, E., vol.11, .269). Plan were mooted to send Indian troops to Basra, within easy reach of Abadan, the present threat to the city being seen as more important than an Egyptian or Iraqi reaction. The risk was also considered to outweigh the possible of Soviet intervention. The move would be disguised under the pretext of the replacement of British troops awaiting repatriation. The troop dispatch was announced as a precautionary measure of protection for the AIOC, which gave rise to much concern within the Iranian government and press over the mention of protection of Arab lives, a reference probably inserted by the British to appease Iraq. Iranian demands for the removal of the troops were met with reassurances from the British that they had full confidence in the government's authority. Indeed, the presence of the Indian forces increased popular support and greater official influence in the area, as well as that of the Company and the Arabs. The discordant note between the Indian claim to have a safeguarding role, and the Foreign Office statement that they were replacement troops was in fact picked up by the State Department in Washington, who were afraid of a violation of the UN Charter. The action, according to Iran, was a threat to her security, the prestige of the government, and also a weakening influence on the UN. America forestalled an Iranian outcry in the Security Council, but avoided taking on the role of mediator with Britain (public record office 1946, Aug.13).

By this stage, the Tudeh was finding it necessary to convince its supporters through publications that it was not merely making political capital out of a communal antagonism, but that it in fact favoured the Arabs, and all provincial minorities (Zafar, July 30, 1946). Iraq was

entertaining hopes that Khuzistan might become part of Iraq, and this idea was formulated by the Arab League early in August. Antagonism toward the Tudeh in Khuzistan was primarily tribal, with the Sheikhs forming the tribally tight-knit Arab community into the Sad Party, in opposition to the Tudeh (Blake, K – 2009), whose appeal was principally to non-Arab wage earners. British relations with Iraq further strengthened her feelings of protectiveness towards the Arabs in Iran as well, so that the combination of all these factors encouraged the nationalist element of the Tudeh's attitude, with a strong anti-immigration polemic, and accusations against Khuzistan that it was seeking independence and of conspiracy between Britain and Iraq.

Whereas the British had previously turned to the Tudeh Party in the South, they now began to strengthen Qavam's position in order to prevent Soviet infiltration and hence the Tudeh's power (Milani, A, 2011). On June 29, Qavam formed the Democrat Party to contest the general election and defeat the Tudeh (Binder, L., (1964), p.206) and towards this end he enlisted the support of some former Tudeh organizers. When he invited the party to send a representative to the Cabinet they dispatched three of their best members – Iraj Iskandari, Faraydun Kishavarz, and Murtaza Yazdi. In spite of their hostility, the Tudeh supported Qavam (Bogle, L.L., 2001) in order to achieve three goals: one, to combat imperialism; two, to resolve their difference; and three, to increase the chances of democracy (Rahbar, Summer 1946). Much reform was initiated through the work of Iskandari as Minister of Economy, Kishavarz as Education Secretary and Yazdi in the Department of Health, and indeed, the coalition significantly strengthened Qavam. However, it is important to notice that Qavam's ulterior motive in inviting Tudeh co-operation was to undermine the Party's influence in the union movement as a means to control labour unrest.

A period of turbulence ensued following upon the end of the strike, including the suppression of the trades unions in the South by the British and the central government. The Tudeh's objections about this to Qavam fell on deaf ears as he was in fact one of its instigators. In hat ear, there were also disturbances in the Fars region in which many people were killed. Many party members, including the Tudeh, recommended to the government that it should crush the rebellion and maintain the integrity of Iran. The revolt seems to have been a plot between the British and Iranian governments, and when the central government concluded peace with the tribes and called it a 'patriotic revolution', the Tudeh was incensed. Due to this, and other reasons, an official split opened between the coalition: Qavam argued that the Democrat Party ought to have a body which would supervise the approaching general election, but it was clear that this was an idea designed to prevent the election of the Tudeh. In the ensuing break, the three Tudeh ministers refused to attend Parliament, and the coalition collapsed (Bayaniyya yi Kumita yi Markazi yi Hizbi Tuda, Summer 1946). Qavam's attitude towards the communist movement suddenly shifted, and all union activity – in particular the strike in Tehran on Nov. 12 – was stopped, and hundreds of union and party members were arrested throughout the country. The party press was disbanded, and none of the Tudeh's members were safe with the threat of prison and other oppressive measures hanging over them, while at the same time their freedom of meeting was restricted which virtually curtailed all their activities (Stephanie Cronin, 2004). There were several reason behind this policy: Firstly, the Tudeh had tried in the interval of some years after World War II to awaken the political awareness of Iranians with respect to their rights. The central government was naturally apprehensive of too much popular knowledge, since it would expose their repressive methods. Secondly, it knew that the Tudeh was almost sure to win the elections to the 15th Majlis, and so determined to discredit the Party's leadership, and warn the population against the dangers of a communist regime. It was not alone in this attitude, since other "imperialist" governments, like the British or America, were also anti-communist. Thirdly, Qavam needed to increase his personal

popularity, which was at a low ebb, and he thus justified his orders for mass arrests by claiming that he was protecting the country from such communist threats.

While Qavam's policy may have been effective in Tehran, it was still necessary to subdue the provinces. One example of the government's methods was the imposition of martial law in Mazandaran, where army and police officers were moved in, occupying all the towns en route from Tehran, and many people were arrested, tortured and killed (Shamshiri Imruz, Bayaniyya yi Kumita yi Markazi yi Hizbi Tuda, Autumn 1946). The excuse given was the country-wide one day railway strike.

The Tudeh's complaints reached the international Trades Unions' Federation through the channels of the press, and the Federation wrote in strong protest to the central government, advising them that this was an action in violation of their treaty with the Allied powers. The Iranian government, seeking to retain its prestige, invited a delegation from the Federation: the commission at once saw through the design of the government, and recognized the fact that the ruling Democrat Party (Limbert J. W. , 2009) had no popular base in Iran, since the workers supported the Trades Union movement and the Tudeh Party (Ibid).

Following the repression instigated by Qavam, the Tudeh went underground, although their electoral candidates, such as A. Qasimi in Gurgan, were arrested. In a press interview, Qavam, answering questions concerning the Party, said that the Tudeh was frightened of the common people, who did not want the Communist Party in Iran (Shamshiri Imruz, Autumn 1946). The government's condemnation of the Party as responsible for the creation of a class-struggle was inaccurate, since in fact aggravation of the class conflict was the result of the dictatorship of Riza Shah, who made the majority poorer, and a minority richer.

CONCLUSION

One of the most important features of the period under study is that Iranian policy was determined, and produced, by an interaction between the country's internal troubles and her external relations.

On the positive side of occupation of Iran by allies was that Iran achieved her goal of freeing the country from Riza Shah's regime and enormous freedom was suddenly granted to the political parties and trade unions.

Departure of Reza Shah was the introduction of 'fractions', discussion groups which were very like parties in all but name, for example, conservative, liberal and radical; these fraksiyuns supported different foreign powers. These groups, however, did not represent significant political growth throughout Iran or the blossoming of many new parties, which followed on the political hiatus which existed from 1925 until 1941. Of the many new groups formed during this new period of relative freedom of association, the most important was the Tudeh Party.

Although the party itself catered for minorities in various dependent groups, it had an ambitious appetite for its allies, trying to swallow each collaborating party into the Tudeh itself, and achieving 'take-overs' of this sort by control of the newspapers of the Anti-Fascist Society and Freedom Front of the Press, for example, which directed its activities against "class reaction" and "royal dictatorship". By such manoeuvres, support was won particularly in the North and the South-West, amongst the intelligentsia and the urban working-class.

The Tudeh Party in reality failed because of the ignorance of the population, their willingness to believe the central government, and the weakness of the democratic process in Iran, and it took five years for the Tudeh Party to finally reorganize itself (Bayaniyya yi Kumita yi Markazi yi Hizbi Tuda, Mar. 1946).

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چکیده:

حزب توده در راستای آگاهی طبقه کارگر فعالیت های وسیعی انجام داده و سعی می کرد با بالا بردن سطح آگاهی سیاسی آنها، طبقه کارگر را برای احراز حق و حقوق خود و تشکیل اتحادیه های کارگری تشویق کند. مجدانه از طبقه کارگر می خواست که از حزب توده که (برای رفاه کارگران تلاش بسیاری می کرد) پشتیبانی کنند. از مرام و برنامه حزب توده کاملاً مشخص بود که این حزب چه اندازه به طبقه کارگر وفادار بوده و از حقوق زنان کارگر و بخصوص از افراد آسیب پذیر پشتیبانی می کند.

در صنایع خورد شرایط کارگران نامساعد بوده و هیچگونه رفاه نسبی وجود نداشت بنابراین حزب توده تلاش می کرد که کارگران را برای تشکیل اتحادیه ها ترغیب و رابطه کارفرما و کارگر را بهبود بخشد، و رفاه کارگران را از طریق اتحادیه ها تامین کند. بنابراین برای حزب توده اتحادیه های کارگری بسیار مهم بوده و برای تشکیل اتحادیه های متعدد در صنایع مختلف اقدامات موثری انجام داد.

واژگان کلیدی: حزب توده، اتحادیه های کارگری، کارگران، رفاه، شرایط، صنایع.



Study on Cross-cultural Conflict Management in Sino-foreign Joint Ventures in China

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ABSTRACT

Ever since the mid-1990s, with the rapid development of economic globalization and information, a new wave of transnational business operations has been engulfing the world. However, the operation of cross-board business is never as smooth as people think it might be. The common challenges that confront transnational companies stem from cultural difference, conflicts and unfamiliar cultural environment, pushing the science of transnational management into a new phase-Cross-cultural Management. In an era when China's economy has been burgeoning and its interaction with the rest of the international community has been on an unprecedented scale, cross-cultural management has become an inevitable and inescapable issue facing managers of Sino-foreign joint ventures. This paper aims at analyzing the plights such as cultural difference, cultural conflicts and cross-culture management patterns that confront Sino-foreign joint ventures, in the hope of providing some suggestions and implications for Sino-foreign joint ventures, particularly Sino-U.S joint venture operating in China and Chinese companies involved in international operations.

Keywords: Sino-foreign joint venture, Cross-culture management , Cross-cultural Conflict management ,Transnational operation

INTRODUCTION

As China is becoming more and more involved in the international community in terms of politics, economy, culture etc., cross-cultural interaction and communication with other countries have become a lot more common than ever. However, problems do emerge during the process of interaction among people from different countries with different cultural backgrounds. Sometimes we have misunderstandings that may result in unpleasant feelings, and sometimes we can expect conflicts that may exert serious consequences, ruin business, and even cripple Sino-foreign joint ventures as well as Chinese or foreign MNCs doing business in China or in another culturally different host country. As diverse workgroup pose several challenges (Egan and Tsui, 1992; Ayoko and Hartel, 2002), for managers who have businesses in a culturally foreign country, how to manage employees with different cultural backgrounds, ideologies, values and views towards conflicts well takes real patience, time, energy and most importantly tactics. This paper takes Sino-foreign joint ventures as target and tries to seek out some solutions to cure these headaches for managers managing in such companies.

THEORETICAL FRAMEWORK

Hofstede's National Cultural Dimensions

Geert Hofstede (1980) argues that people carry "mental programs" that are developed in the family in early childhood and reinforced in schools and institutions, and that these mental programs contain a component of national culture. And they are most clearly expressed in the different values that predominate among people from different countries. And it is exactly these different "mental programs" that complicate the cross cultural management business and practices and result in cultural conflicts. Hofstede (1980) identifies five main dimensions along

which dominant value system in the more 50 countries can be ordered and that affect human thinking, feeling, and acting, as well as organizations and institutions, in predictable ways.(Hofstede, 1980). And these five dimensions are power distance, uncertainty avoidance, individualism and collectivism, masculinity and femininity, and long- verse short-term orientation, which are yardsticks that can measure internal cultural differences in Sino-foreign joint ventures whose employees are often culturally heterogeneous.

Thomas's Conflict Resolution Approaches

K. Thomas applies the Management Grid Theory of behavioral scientists Robert R. Blake and Jane Mouton (1964) to the analysis and resolution of interpersonal conflicts. He proposes five conflict resolution options: forcing, avoidance, accommodation, compromise, and collaboration upon which managers can draw. The five resolution models are presented in the following figure.

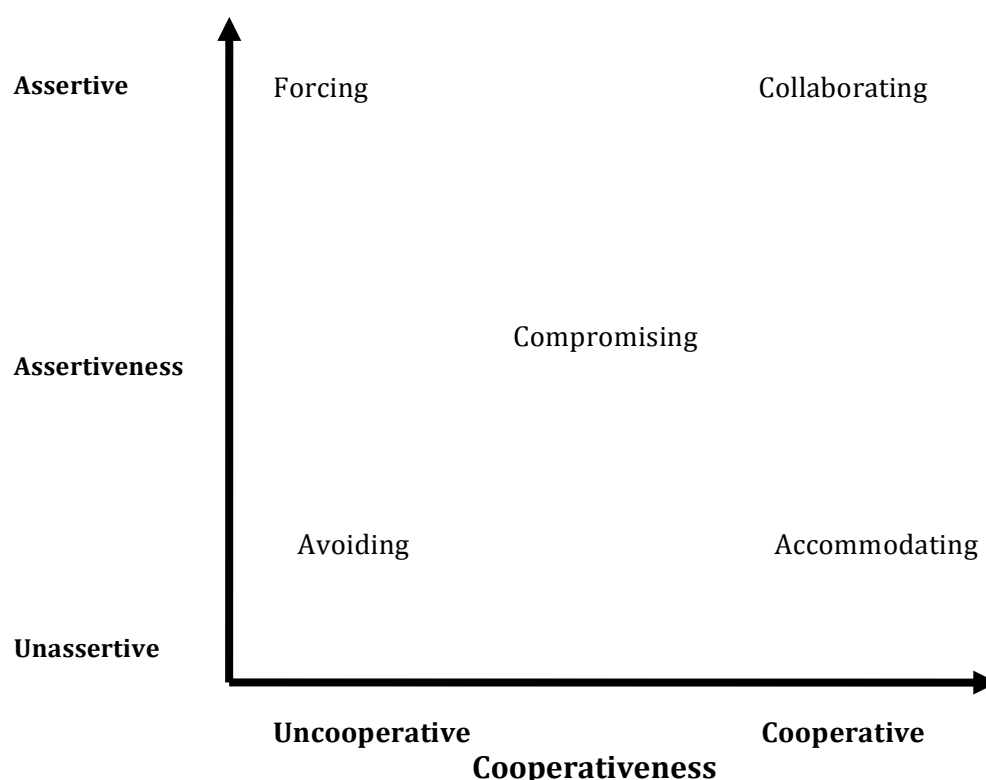


Figure 1. Thomas' Conflict Resolution Model

Source: K. Thomas, "Conflict and Negotiation Processes in Organizations," in Stephen P. Robbins et, al., *Management* 5th ed., 1997, Pg 635.

CULTURAL CONFLICT IN SFJVS IN CHINA

Introduction

Geert Hofstede(1980) argues that people carry "mental programs" that are developed in the family in early childhood and reinforced in schools and institutions, and that these mental programs contain a component of national culture. And it is exactly these "mental programs" in people from different cultural backgrounds that result in cultural conflicts in SFJVs.

The patterns of cultural conflicts in SFJVs are mainly demonstrated in the following aspects: Explicit cultural conflict, the commonest conflict in SFJVs, results from the differences in the symbol and signal systems of the parties involved, i.e. it is a kind of conflict stemmed from the

different connotations of the ways culturally diverse people use to make themselves understood. These ways of expressions are demonstrated by one's language and behavior. And language, as a communicative tool, not only divides human being into different groups but also makes them starkly different. Besides, language is the vehicle that carries people's thoughts which are the core elements that consist of and determine the characteristics of a culture, therefore language is the vehicle of culture and the conflicts result from lingual differences are important demonstrations of cultural conflicts. Evidence of language behavioral differences is convenient to grasp. For example, when two Chinese employees meet they usually grant each other by asking: "Where are you going?" or "Have you had your meal?" These questions are in themselves empty, and nobody really wants to know where you are going or whether you have had your meal, however there are indispensable. The reason lies in that the two want to maintain good relation and the asking of such questions is equivalent to saying Hello to each other. Strange as it is to foreigners, this is the Chinese way of granting. When it comes to Americans, such questions can be annoying, because they may take it as interfering others' private businesses. And they use "Hello", "How do you do?", "Nice to meet you!" etc. as greetings.

The collision of values is another source for cultural conflict. Kluckhohn (1951/1967) argues that a value is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means and ends of actions. As a result, people from different cultural background have different attitudes towards working targets, interpersonal relationship, wealth, time, risk etc. And investigations show that western people tend to work hard to gain more materials and satisfactions from their effort, and then they go to enjoy what they got; however Chinese workers lack initiatives, swiftness, and take working time as the time to interact with colleagues. These differences in working attitude may potentially give rise to conflicts. Western managers are usually innovative and willing to take risks, while Chinese managers usually lack such capability and spirit. In western enterprises employees have the right to make suggestions and comments on strategies formulated by higher management; however in Chinese enterprises such things are rare. All these and other differences in values form a sound breeding ground for conflicts.

Institutional culture demonstrates itself in the external operational institutional environment such as laws and rules and regulations, and internal organizational institutions of an enterprise. How can we forge a common standard for those culturally heterogeneous people working in the same environment to follow? Managers from developed countries usually manage in an environment with sound legal system and they usually act according to the items and provisions of law; however Chinese manager, particularly those in state-owned enterprises, usually act according orders and directives given by their superiors other than law. And it is no easy for managers of different cultural backgrounds with different managerial philosophies and experience to coordinate and cooperate when facing tough problems, creating another potential for conflict.

Apart from what is mentioned above, there are conflicts in thinking and management patterns, conflicts in human resource management, conflicts in working conditions etc., making cross cultural enterprises including SFJVs a conflict-ridden entity if not managed well.

Features of Sino-U.S. Cultures and Management Patterns

Features of Chinese Culture and Management Patterns

The Chinese culture, as the representative oriental culture, and American culture, the representative western culture, do have some stark differences which are shown in people's thinking patterns, values, behaviors, organizations, management patterns etc. It is widely

acknowledged that differences create the potential for conflicts, and understanding differences is of great help to prevent and resolve conflicts. Therefore the author made a brief introduction to the differences and features of the two cultures and their different management patterns.

The Chinese culture is one of the most excellent cultures in human history. And it is a condensation of the brave nature and wisdom of generations of people of nationalities within its borders. The Chinese culture is essentially a hybrid culture with its backbones being the Confucianism and Taoism, and the former mainly finds its influence in political ethics and the latter in philosophies, literature and technologies. The characters and temperaments of Chinese people can find their sources in the two, i.e. Confucianism and Taoism combines to form the characters and temperaments of Chinese people, which demonstrate in the following aspects:

(1) Value people

The Providence that traditional Chinese culture values is in fact the value of people, this view places people in the center of universe and regards people as the most excellent creature. The act of respecting God is another way to prove the importance and credibility of people.

(2) Principle of feudal moral conduct

Chinese care much about their children, act over-subserviently to their superiors, and seem to speak too indirectly with perhaps too much "false" modesty. The Chinese value group loyalty, respect for hierarchy and age, and harmony. What's more the Chinese care more about the face stuff, and not preserving others' face is equivalent to insulting them.

(3) Golden Mean

The Chinese culture values the Golden Mean with its basic principle of 'doing too much is as bad as doing too little' and 'harmony'. This is not only quintessential of oriental thinking pattern but also an ideal personality.

Management patterns have their roots in the culture in which it forms, operates and develops, and are dominated by social values, traditions and customs. China is country with a long history and profound cultural foundation, and its people's mentality and behavior are formed under the influence of its culture. The oriental cultural accumulation and the philosophical thinking based on it give us enough confidence and reason to reflect on the unique characteristics of Chinese management styles. The paper summarizes the features of Chinese management styles based on relevant literature in the following:

- The government pays much attention to the control and regulation of the macro-economy;
- The value orientation of management philosophy always put people first;
- Moral education is much emphasized in corporate management; and
- Face plays a significant role in deal with relations inside and outside the enterprise. The following shows how Chinese employees are attached to their enterprises

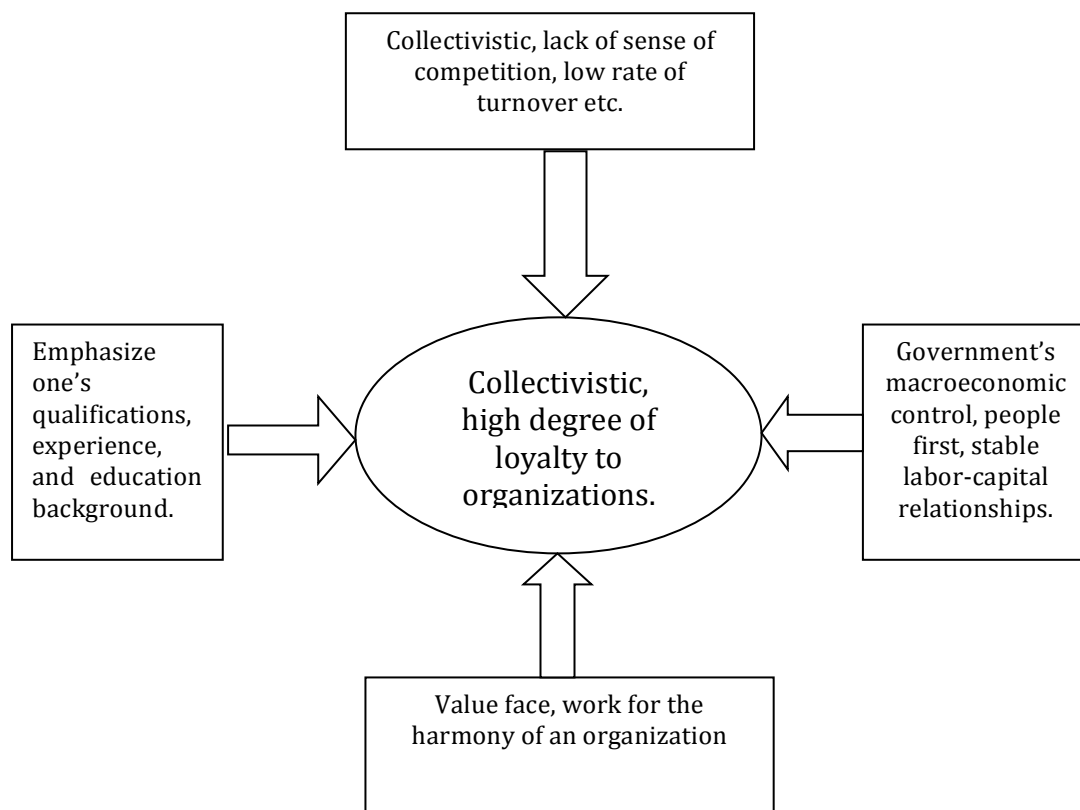


Figure 2. How Chinese Employees Attach to Their Organization

Features of American Culture and Management Patterns

The American culture is representative of western cultures with its materialism world view of dominating the nature, individualism and autonomous motivation based sense of self-worth, and equality of opportunity and adventure based social ethical orientation. The traditional American culture worships achievement and treasure, demonstrating a strong sense of utilitarianism and pragmatism. Besides, the U.S is a country which preaches pragmatism and emphasizes the maximization of profit, organizational effectiveness and productivity. And it is also individualistic oriented, low uncertainty avoidance, and high patience for risks; it adopts the achievement and demand pattern, asserts self-achievement, values democratic leadership, is prone to collective decision-making and participation, has low power distance, moderate masculinity and unilateral communication pattern is negated. Americans believe in self-decision-making which is based on spirit and precise data and reward institution based on performance is deemed appropriate.

(1) Emphasize the realization of self-value and values competition and adventure

Both entrepreneurs and ordinary workers think that personal interests are above all the most important thing, and enterprises encourage personal adventure and innovation, displaying a strong sense of individualistic characteristic.

(2) Values the constraint of rules and regulations and contract and promote tough management

The relationship between American enterprises and the employees is maintained and adjusted by a series of complete game rules in which the division of labor is clear and the working efficiency is high. The rules and regulations in the institutional frameworks of American enterprises are not only rigorous and stable but also flexible, and they also place much weight on the strategic goal of the business operation.

(3) In terms of leadership, American enterprises emphasizes the managers should be qualified not only in the traditional abilities but also in handling changes. When it comes to human resource management (HRM), American enterprises regard employee loyalty as the basis for the development of an enterprise.

(4) In terms of the relationship among owner, manager, and employee of an enterprise, the separation of responsibility, power and interest is criticized and the integration of the three is promoted.

(5) When it comes to stimulation of employees, American enterprises criticize material incentive while advocate the spirit incentive as the 'inexhaustible source'; in terms of the distribution form the traditional wage system is becoming less popular and the 'sharing system' is highly advocated.

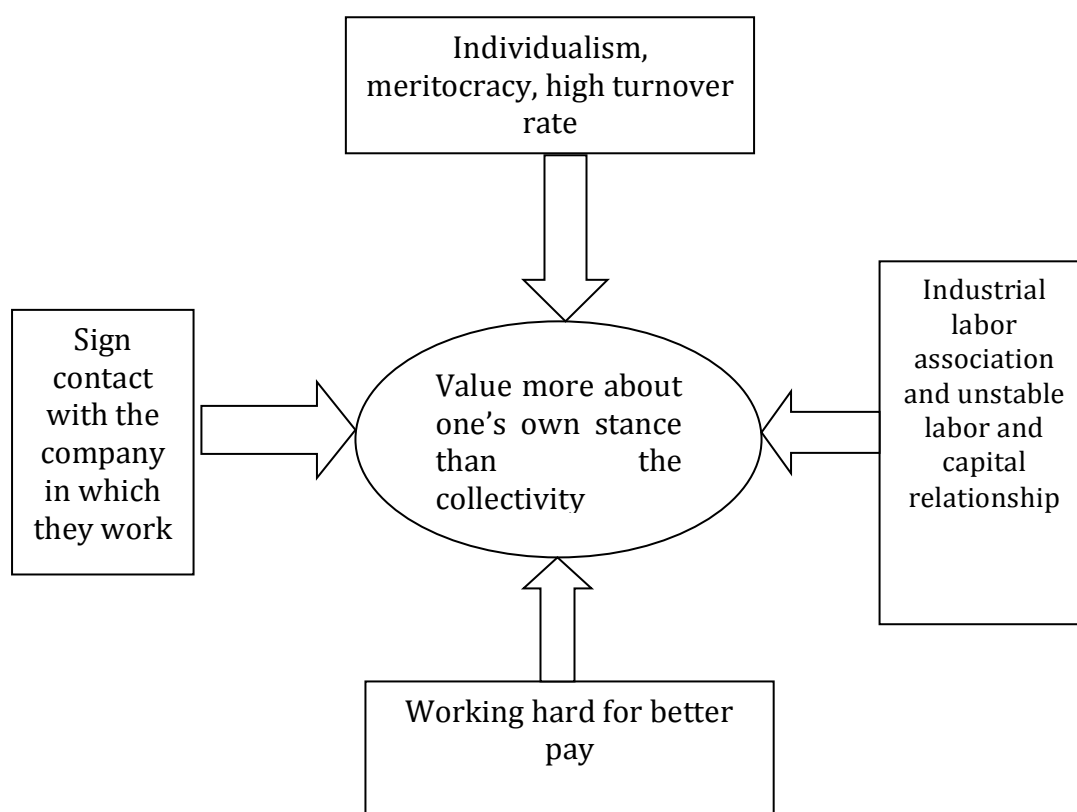


Figure 3. How American employees attached to their organization

Through the above analysis, it becomes clear that there are substantial differences existing between the Chinese and American corporate cultures, which will undoubtedly pose great challenges to Sino-U.S cooperation. In fact, an investigation on cross-cultural management of SFJVs shows that cultural difference is the convenient cause for some cross-cultural communication problems such as misunderstanding due to language barriers and imprecise translation or interpretation; a lack of understanding of the other party's social environment and cultural self-awareness; inadequate knowledge on the marketing environment of the other party etc. As a result, analyzing the Sino-foreign cultural differences and the factors that influence cross-cultural conflict management in SFJVs becomes an issue of great importance. The diversity of cultural patterns and organizational philosophies determines the diversity of management patterns and as each nation has its own development history, cultural tradition, values, organizational philosophy etc. which are premises for the formation and development

of management patterns, the development of management patterns in turn consolidate the differences of national cultural and organizational philosophies. Therefore analyzing the differences of management patterns from the perspectives of cultural patterns and organizational philosophies provides a better way to study the cultural differences of SFJVs, which may help accelerate the cultural recognition and integration process.

Influential Factors on Conflict Management

Culture's influence on conflict management strategies can be extremely great, and Sino-foreign cultural difference can lead to different comprehension and management strategies of intra-organization conflict. Thus to achieve harmony and success, Chinese and foreign employees must have some knowledge about what kind of behaviors is acceptable to the other party and the reasons in conflicts. In this chapter the author will focus on the four interactive factors in the process of conflict management, and will take American employees representatives of western culture as examples to analyze these elements.

(1) Attitude towards Conflict

The first stage of conflict management is the attitude toward conflict and how one views conflicts influences what strategies s/he will employ to deal with them. The Chinese believe that man is an integral part of the nature and value the principle of living in harmony with nature. As a result, for the Chinese conflict is regarded as detrimental to harmony and therefore should be avoided. In addition the traditional Chinese management pattern honors the principle of avoiding interpersonal conflict and creating social stability by maintaining a harmonious social environment. In China the development of an organization is deemed as depending on the unity of its members, thus without harmony people cannot unite and there can be no development of the organization. In all, the Chinese value harmony and unity, try to avoid conflict and disagreement and regard conflict as threat and undesirable. However, the Americans may think differently and in fact they believe they can conquer and guide nature's power to their own use. As early as the immigration to the U.S, the American thought that nature can and must be conquered and controlled, thus they believe intra-organization conflict is a natural phenomenon instead of a threat. Besides, the U.S is a low uncertainty avoidance country which tends to tolerate and accept different and uncommon views and they may even regard conflicts as opportunities to exchange different views and create innovative ideas, thus is beneficial to the development of an organization.

(2) Comprehension of Conflict

Ting-Tomey (1999) argues that people from individualistic cultures can separate "conflict from individual", which means for Americans conflicts are not necessarily people-oriented. And they will not regard conflict as personal problem instead they will consider it for a relational perspective. However Ting-Tomey (1999) also points out that people from collective cultures tend to attach conflict as personal problem, which means collective cultures do not distinguish conflicts and personal factors clearly. America is a typical individualistic country and China is a typical collective country as indicated by Hofstede's research. This may mean that when it comes to conflicts American managers may tend to separate conflict from the person causing the conflict while Chinese managers may tend to seek reasons from the person whom they may deem as the "trouble maker", thus showing fundamental differences of opinions due mainly to cultural differences.

(3) Conflict Resolution Strategy

Though different kind of conflict resolution strategies are referred for actual conflict, the author employs Hofstede's national cultural dimension and other relevant theories to try to make prediction of the common strategies that manager may refer to when conflict emerges.

Individualism & Collectivism and Conflict Resolution Strategy

As has been discussed earlier, America and China are two countries with substantial differences in terms of the relation between the self and others. The U.S is an individualistic country and its people tend to consider things from the perspective of the 'self' and for them personal interests are always more important than others' or the collectivity's interests. As a result, they rarely adopt compromising strategy to deal with conflict, the reason of which can be traced to an individualistic culture. Besides Americans value competition and action and they usually regard life as a kind of contest in which everyone is supposed to take part and to compete with others in order to win. Thus during conflict Americans tend to assert their own opinion and stick to their own ideas, and they want to make their own ideas understood clearly. What's more Americans regard 'Avoidance' as somewhat pessimistic and thus undesirable. They thus tend to publicly discuss the conflict subject and get their views and ideas across to others, and they also tend to use their knowledge and expertise to gain persuasive power to influence others. Viewed from this perspective, it can be said that Americans tend to employ autocracy strategy to deal with conflicts.

While on the contrary China is a collective country and its people tend to think things starting from the concept of 'We'. For the Chinese the harmony of interpersonal relationship is a symbol of its collective traditional culture and they believe a sound relation between managers and the employees will play a positive role in resolving conflict. As a result conflicts are to be avoided and even if they become irresolvable they should at least be minimized. As a result Chinese managers usually choose to avoid direct confrontation when it comes to conflict management. In addition the value of interpersonal relationship also dictates the Chinese to ignore their own short-term interests to maintain interpersonal relationship that may potentially generate long-term benefits. So it is safe to say that Chinese managers and employees tend to resort to compromise and accommodation strategies to deal with conflicts.

Power Distance and Conflict Resolution Strategy

Power distance is yet another significant element when it comes to opting conflict resolution strategy. In most U.S companies which cherish the principle of equalitarianism superiors and subordinates regard one another as equals, the cast system is in fact a system that designated the different roles of the members of a company. Besides the roles are not set once for all, which means today you are my boss and probably tomorrow you will become my subordinates. Thus the value of equalitarianism results in the fact that each party of the conflict has the opportunity to voice their own different ideas and views. However in stark contrast with the cases in the U. S, the Chinese society is a typically highly hierarchical one in which inequality among individuals is widely recognized and accepted. As a result Chinese managers usually adopt autocratic strategy while low level staff opt avoidance and submission strategies when it comes to conflicts.

Uncertainty Avoidance and Conflict Resolution Strategy

As conflicts stem from differences which in fact exhibit different degrees of uncertainty, people's attitude towards uncertainty influences the strategies they employ to deal with conflict. The Chinese tend to believe 'what is different is dangerous'. And when confronted with different opinions and ideas, they usually demonstrate a sense of worry and try to avoid confrontation. The Americans, however, usually put the dimension of uncertainty avoidance into a secondary place, which means they are more tolerable of uncertainty and for them 'difference signifies potential new knowledge'. And in fact they are willing to know others' views in order to obtain a more justifiable and comprehensive perspective. In the U.S people generally accept the public discussion of difference even if the result is unpredictable. As a

result American managers and employees tend to resort to integration strategy when dealing with conflicts.

Masculinity & Femininity and Conflict Resolution Strategy

According to Hofstede's investigation in the 53 three countries surveyed, America's masculinity and femininity dimension ranks the 11th which indicates that the American society is a male dominated one in which material success and achievement are mainstream values. Meanwhile equality and competition are encouraged among people. Besides "members of masculine cultures tend to resort to aggressive act to win over rivals" (Hofstede, 1997). Combining the above mentioned characteristics of Americans, it can be said that American managers usually resort to autocratic strategy when it comes to conflict management. While the Chinese society is more feminine than that of the U.S, and consideration and implication are considered virtuous. Man and woman are both supposed to maintain a good relationship with other. As a result Chinese managers and employees are more prone to adopt indirect strategies such as accommodation and comprise when it comes to conflict management.

(4) Face View in Conflict Management

Face is an universal concept, common social phenomenon and an issue related to culture. People from any country try to maintain and gain face during any social exchanges. For Chinese the term face has significant psychological and sociological implications. In a society which regards the value of harmony and collective interests as the standard social and moral value, face essentially reflects the fame and reputation one gains through others' comment on him. As a result the quantity of face one has is determined by the recognition of other people. Having no face means one has no weight to bargain in conflicting situations or simply the refusal windfall interest. Thus even in conflicting situations the Chinese are trying to maintain the other party's face to prevent further damage to the relationship because they believe preserving each other's face may potentially become their accumulated face resources in the future. The Chinese accumulate face resources the maintaining or establishing sound relationship with others, the Americans however gain face mainly through personal performance. For the Americans face lies mainly in self-realization, self-performance and the ability to accomplish missions, besides they also regard face as an independent concept, which indicate one's face has nothing to do with others'. As a result in conflicting situations the Americans tend to only concern about their own face while ignore others' face.

SUGGESTIONS ON CROSS-CULTURAL CONFLICT HANDLING

It is clear that substantial differences do exist in how Chinese and foreign employees view and comprehend conflicts and how they see things differently because of cultural differences. These differences can easily cause misunderstandings in this times when cross-cultural communications in becoming increasingly frequent. And it is just in the current situation where cross-cultural communication is on the raise we need to deal with cross-cultural conflict with a positive attitude.

Enhancing Cross-cultural Communication

Identifying Cultural Differences

Different measures should be taken to deal with cultural differences. Chinese and foreign employees are suggested to develop mutual understanding and recognize their respective differences. And conflicts stemmed from different management styles, techniques and expertise can be changed through communication and mutual learning. Though it can be a long lasting process, living style and custom differences can also be reconciled through cultural exchange. The fundamental value differences are generally difficult to change, and it is suggested that such differences should be sorted and then treated accordingly.

Strengthening the Cultural Sensitivity Training

This kind of training is aimed to enhance people's responsiveness and adoptability to a new environment. And the specific methods include gathering employees with different cultural backgrounds to receive professional cultural training, to do field work, situational dialogue, role play etc. to break the cultural barriers and role constraints in their minds.

Enhancing Communication and Cooperation

Mutual respect, trust and understanding, equality etc. are key factors in the smooth running of a joint venture, as a result after the identification of each party's cultural characteristics and differences frequent communication and coordination are required to avoid differences and seek common ground and interest between Chinese and foreign partners. Communication can enable the two parties to learn from the goods points of each other's culture, absorb each other's management philosophy, which may help to generate novel management techniques, eliminate misunderstandings and strengthen mutual trust. In addition communication is of great help in the generation of new managerial ideas and methods, in the release of the advantages of cultural diversification, in the improvement of an enterprise's management and in the enhancement of its performance.

4.1.4 Refusing Ethnocentrism

Strengthening communication will necessarily entail the rejection of ethnocentrism the essence of which is a prejudice and bias against other cultures and nations due to a lack of understanding of them. Ethnocentrism serves as an obstacle that impedes employees' willing to learn other nations' characteristics, thus is harmful to cross-cultural management. And what's worse ethnocentrism is generated under the influence of a nation's culture and is difficult to eliminate and get over. Therefore the prevention of the side effects brought by ethnocentrism and staying alert to the bad effects it brings in cross-cultural enterprises is primary priorities.

Establishing Normalized Institutional Management System

Establishing Complete Rules and Regulations

A series of complete rules and regulations are vital to ensure the daily management and operation of an enterprise. Rules and regulations on business behaviors, employee stimulus policy, vocation policy, punishment etc. can be passed on to the employees through employee manual. For enterprises which have no rules and regulations management personnel should formulate them according to the situation of their enterprise and discuss with foreign partners before their implementation.

Strictly Implementing Rules and Regulations

Once the rules and regulations are set, nobody can go against and those who do violate them must be punished accordingly. Meanwhile employees are given the right to give suggestions on rules and regulations which most of them think improper or unreasonable to help the management level make some modifications to accommodate to most of the employees' demands. Institutionalized management mode can ensure the smooth running of an enterprise and the stability of its production and operation. Particularly, this management method can bring Sino-foreign enterprises other benefits for their business operations. Firstly, this method can identify the responsibilities of each managers and such identification can help manager to do their work within their own responsibilities, thus conflicts stemmed from doing their job without clear borders can be avoided. Secondly, this can avoid the enterprise to be governed by 'people' instead of by 'law'. Once an enterprise adopts this method everything in the enterprise

is supposed to run by rules and regulations, which may help in enhancing its overall performances which include management.

Cultivating Qualified Cross Cultural Management Talents

The purpose of providing employees of Sino-foreign enterprises cultural training is to cultivate their cultural difference awareness, to impart them cultural factors that influence people's behaviors, to teach them how to deal with cultural differences and to enlighten their cultural sensitivity and skills to promote cultural coordination.

Cultivating Foreign High Level Management Staff

It is in fact unrealistic to demand an expatriate from abroad to possess all the elements required to carry out business operations in China. What's more, there are no effective and widely acknowledged criteria to determine whether a foreign manager or other working staff who is up to a position. However the success of a Sino-foreign enterprise has largely to do with the qualities, experiences and individualities of foreign management staff. And the qualities, personal experience and their familiarities with Chinese language and culture are also key elements. Generally ,expatriates sent to Sino-foreign enterprises are supposed to possess the following capabilities:

- Social Adaptability apart from working environment, foreign management staff in China has to face a different social environment. It is suggested that foreign management staff should learn about Chinese laws and policies to get used to the Chinese society and economic environment to facilitate their formulation of operational strategies to better run an enterprise. In the fiercely competitive environment enterprises should make adjustments according to their external environment change to their operational orientation to fend off external risks, seize opportunities and enhance their competitiveness.
- Working Adaptability high level foreign management staff in Sino-foreign enterprises in China must establish brand new working relations in the Chinese cultural and must learn about many characteristics of Chinese cultural environment. These cultural characteristics have direct influences on how these management staff make decisions on issues raised by local Chinese and how locals take orders and guidance from them. They have to deal with Chinese employees with different cultural backgrounds, languages, attitudes and values to accommodate their professional skills and management techniques to the Chinese environment and they have to cope with more complex political and economic problems compared with those of their own countries.
- Business Ability the purpose of the employment and appointment of foreign management staff is not geared at making them come to terms with local environment but to achieve the operational targets of Sino-foreign enterprises. As a result it is of great significance to assess their business operation capability. Generally, there are several criteria which include independence, expertise, educational background, working experience, management awareness, behavioral competence etc against which management staffs are assessed and selected.

Cultivating Middle and High Level Chinese Management Staff

It is suggested that enterprises should put some talented management staff on some positions to give them the opportunities to practice, and after sometime when they acquire enough cross cultural management experience these enterprises can consider putting them on some key positions to assume major tasks. This method can only be carried out step by step to cultivate

them into advanced management staff. The training of the Chinese management staff should always keep in mind to equip them with the following skills.

Innovative management skills.

In Sino-U.S enterprises, innovative skills refer to the skills for managers to accommodate new internal and external environment to achieve effective management performance. These skills include the capability to getting used to changing environment, the realization of the enterprise to which they are devoted, the resolution of problems with different skills in Sino-U.S enterprises, the capability and flexibility to continuously carry out operation and management while gaining more assistance and information from the other party etc.

Marketing Management Skills.

Managers of Sino-foreign enterprises should take the modern marketing concepts as their guidance and establish marketing and business management systems correspondingly, based on which strategies for enhancing productivity, lowering cost and ensuring product quality should be formulated to capture foreign and domestic market for Sino-foreign enterprises. Meanwhile specific marketing strategies should be devised on account of their international market and the actual situation of the early stage of the enterprises.

HRM Skills

The competition of among modern enterprise is in fact the competition of talents which is vital to the failure or prosperous of an enterprise. Due to the particularity of management mode in Sino-foreign enterprises and the complexity of market environment, cultivating talents with innovative and competitive awareness, professional skills and high degree of adaptability to international environment is the strategic guarantee to the long-term development and prosperity of Sino-foreign enterprises.

Conflict Management Skills

In the business operations of enterprises Sino-foreign enterprises are confronted with not only the common problems of interpersonal and interdepartmental conflicts of ordinary enterprises but also conflicts stemmed from the differences of information sources, attitudinal and value differences, individual and behavioral differences, and knowledge and thinking patterns differences. Conflict management is directly connected to the high quality working environment, the efficiency of management and even the survival of an enterprise, as a result management staff of Sino-foreign enterprises are supposed to possess high level conflict management capability.

Localizing Talents

In their initiating stage, a large number of Sino-foreign enterprises usually employ many foreign management staff, which is for the time being beneficial for the operation of such enterprises. However such HR policy is not without its deficiencies. Firstly, it may exert a serious blow to Chinese management staff, which is because such policy indicates that high level positions are closed for the local employees. And what this HR policy amounts to is an open and escalation of cultural differences and contradictions. Secondly, such HR policy may run the risk of letting high level foreign managers transplanting their own management methods in their own country to the enterprise, which may not be appropriate to the Sino-foreign enterprise. Thirdly, it may increase the operational cost. The payment of foreign managers usually tens or even hundreds of times more than that of Chinese managers, and sometimes only the payments for foreign managers may cripple the competitiveness of a Sino-foreign enterprise.

Currently localizing talents is a tendency for successful Sino-foreign enterprises, which has many evident advantages. Firstly, this strategy can largely eliminate language barriers and it is no longer necessary for enterprises to spend large amount of money on language training for employees, besides it can also resolve the problems of cultural differences and social adaptability which has been obsessing Sino-foreign enterprises. Secondly, retaining talents is a great challenge for Sino-foreign enterprises and localizing talents is a vital strategy to prevent this from happening. Viewing from the perspective of Sino-foreign enterprises this strategy helps in the reduction of operation costs, in the swift integration into the local culture, in the improvement of its internal and external environment and its further development. Many Sino-foreign enterprises in China has been adopting this strategy to localizing talents and established various training programs to accommodate different requirements. Such effects has achieved great outcome.

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Determinants of the extent to which the operational and running cost affect competitive performance of textile SMEs in Kenya.

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ABSTRACT

Small and Medium sized entrepreneurial Enterprises (SMEs) play an important role in economic development of many countries in the world. This is because they have potential of employing many people in environments where formal and full wage employment may be scarce or unavailable. SMEs within EPZ are entrepreneurial as they apply creativity and innovation to add value so as meet the needs of their clientele. There is limited information on the factors that determine their performance. The purpose of this research was to establish the determinants of the extent to which the operational and running cost affect competitive performance of textile SMEs in Kenya. This research was conducted using descriptive survey employed both qualitative and quantitative designs. Given the small number of firms operating these businesses, an adjusted sample size from small target population was used to select a representative sample of the study using Saunders & Thornhiel formula. This study used interview for owners (IO) and employees in addition to questionnaire for managers (QM) for data collection to achieve the objectives of this study. The statistical analyses were facilitated by the use of Statistical Package for Social Sciences (SPSS). The estimate results on average of $R^2 = 72.4\%$ and adjusted average value of $R^2 = 55.7\%$ indicated that all the independent variables tested were significant determinants of competitive performance of EPZ textile SMEs in Kenya. The study found that credit availability and affordability is essential for their competitive performance, growth and continued profitability. The study therefore recommends that quick interventions by the relevant authorities to address the operational and running cost affect to ensure competitive performance of textile SMEs in Kenya.

Keywords: Small and Medium Enterprises, Export Processing Zones, Internationally, Performance, Competitive Performance, Policy and Regulatory Framework.

INTRODUCTION

Entrepreneurship is generally conceived as enterprise development in which the main goal is to create and manage own business. The entrepreneurial process involved in business creation is based on the entrepreneur's knowledge, skills and attitudes, which can initiate innovation, new enterprise and employment through renewal of trade and industry and new forms of organizations. The entrepreneurial businesses may be created in Small or Medium sized businesses and is found in all sectors of economy such as trade, manufacturing, tourism, clothing and textile and other sectors. Thus these businesses have come to be known popularly as Small and Medium Enterprises (SMEs). This study focused on textile SMEs within the EPZ in Kenya.

SMEs are key generators of local employment opportunities and enhance the use of local and appropriate technologies thus conserving scarce capital resources; and help prevent migration of young people from rural areas to urban centres (Gibb, 1988, Matlay 2005 and World Bank, 2011) looking for employment. It is very difficult for textile industries in Kenya to compete with similar industries in other countries because of increased cost of production locally and high costs of raw materials unless they are highly subsidized and operate within some protected zones such as the EPZs (USSA, 2009). This seem to offer entrepreneurs who invest in these businesses some cushion and incentive to continue in these businesses. However, there is no study that has been done to establish their competitive performance. The purpose of this research was to establish the determinants of the extent to which the operational and running cost affect competitive performance of textile SMEs in Kenya.

Unless strategic measures are taken, the textile/apparel SMEs will cease to exist. To be able to play an optimal role, the SME sub sector needs to grow and expand. This growth and expansion is threatened by stiff competition and globalization which the SMEs especially in the garment sector seem not prepared to meet. According to Republic of Kenya (2007), Economic Review, the SMEs in garment businesses recorded mixed performance in 2006 with the total sales increasing by 4.4 %. The businesses also have been facing additional challenges since the AGOA Quotas ended in 2005 although now renewed to 2015. Furthermore, direct employment of Kenyans in EPZ declined by 3.6% in 2006 to stand at 36,667 persons (Republic of Kenya, 2007). Much of these jobs were generated by garment/apparel enterprises with a total of 30, 813 or 86.7% of the total employment in EPZ.

The performance of SMEs within the EPZ in the era of liberalization in terms of exports has decreased according to Economic Survey (2007). The SMEs in garment recorded a mixed performance in 2006 with total sales increasing by 4.4% while total imports declined by 5.0 %. This implies that the programme faced several challenges and key among them is increased competition and high cost of production when AGOA quota ended in 2005. There is need for more inquiry into textile SMEs sub sector to ensure growth and survival to a vibrant business in Kenya in the era of globalization and stiff competition. This was the gist of this study.

Statement of the problem

There is a gloomy picture on the future of these businesses in Kenya despite the support the textile SMEs have been getting from the government (Republic of Kenya, 2007). The AGOA initiative supported textile SMEs within the EPZ. Through this arrangement, these SMEs firms would benefit from tax exemptions, waivers of industry regulations and exemptions from imports and exports duties to enhance their competitiveness and growth (EAC Report, 2009). However, these SMEs are seemingly facing the challenges of competitive performance and effects of internationalization despite the support from the government. (McCormick & Kinyanjui, 2003). There is little information to explain causes of these challenges. According to the Kenya Vision 2030, there is low investment and the overall lack of competitiveness by textile SMEs especially those within the EPZ in Kenya. Their lack of competitiveness has seemingly reduced their performance drastically (McCormick, 2009). The reduction in the number of workers in the textile firms over the last few years has resulted in these firms scaling down and others shutting down their operations while others shifted to other countries. This has resulted in massive unemployment, loss of income and revenue thus contributing to economic decline in the country brought about by among others operational and running costs (Evelyn, 2005 and EPZ Performance Report, 2009 and 2010).

Research Questions

- To what extent do operational and running costs affect competitive performance of textile SMEs in Kenya internationally?
- What recommendations are necessary for textile SMEs in Kenya to enhance their competitiveness in the global market?

This study also used hypothesis to determine the significance of the relationship between various variables of the study. For this paper the hypothesis was on the relationship operation and running costs and competitive performance.

Hypothesis

- Ho5: There is no significant relationship between operation and running costs and competitive performance of textile Small and Medium Enterprises in Kenya internationally.

This Hypothesis was tested using multiple regression and conceptual analyses to determine the relationships between variables. This is in conformity with what Kothari (2008) argues that, multiple regressions is used in determination of established relationships between two or more variables as it allows the researcher to understand them better. Multiple regression analyses was chosen as it allows an opportunity to learn more about the relationships between the independent and dependent variables and also allows verification of findings through simultaneous analysis of relationships of predictor variables (Kothari, 2008). Multiple regressions are determination of established relationships between two or more variables (Saunders *et al.*, 2009). A conceptual analysis allows clarification of concepts and assumptions before making conclusions.

LITERATURE REVIEW

The Theoretical Framework for this study has been informed by literature findings, gaps and indicators in the past studies in this area and gaps identified in literature review. The theoretical development of entrepreneurship has its foundations in many disciplines such as sociology, psychology and economics. This makes the entrepreneurship study require multi-disciplinary approach in order to appreciate its contributions to the economic development of any country (Kibas, 1995). The theories that are relevant to this study are now discussed in this section.

The economic dimension of entrepreneurship theory indicates that entrepreneurship theoretical competitive performance framework is founded in economics. The ideas of capital provision, risk bearing, creativity, innovation, growth and expansion, and profit making, all have a bearing to economics but entrepreneurs turn them around to enhance the entrepreneurial growth of their businesses. In Schumpeter's (Swedberg, 2007), ground-breaking theory of economics development and developed further as Business Cycles (1939), Schumpeter refers to an entrepreneur as innovator. In his argument, he introduces- "new combinations"- new products, new production methods, markets, sources of supply – shaking the economy out of its previous equilibrium. Thus, Schumpeter sees an entrepreneur as a necessary innovator and risk bearer. Entrepreneurs through their innovation and creativity can enhance competition and bring about successful performance in their businesses.

Kirzner (1982), just like Schumpeter, argues that, and entrepreneur should be able to notice the unnoticed business opportunities. He asserts that these opportunities exist because of the

existing un-coordinated non-equilibrium state in which previously unappreciated demands are not yet satisfied or not yet fully exploited. The action of an entrepreneur is to coordinate them for better growth and performance. The Kirznerian entrepreneur, like the Schumpeterian entrepreneur changes the future from what it would have been in his/her absence to a better state. However, Penrose (1959) mentions a number of limitations that would limit a good performance of an enterprise. These include: Uncertainty of the life of the business, the managerial abilities, the availability and sustenance of the market. When these are catered for, an enterprise should be able to perform competitively well both locally and internationally.

Kirzner (1973 and 1979), again describes competition among enterprises as a discovery process. He argues that the source of entrepreneurial profit is superior foresight- the discovery of something (new products, cost-saving technology) unknown to other market participants. In more typical case, he states that an entrepreneur is alert to a new product or superior production process and steps in to fill this market gap before others. This means then, for Kirzner, success of an entrepreneur does not only come from a well specified maximization problem, but from having some knowledge or insights that one else has and the entrepreneur maximizes on it competitively.

Resource based dimension: This theory is about sustainable competitive advantage. It makes sense in the study of entrepreneurship because entrepreneurship focuses on idiosyncrasies and differences that characterize entrepreneurs and the founding of their firms. It treats entrepreneurs as important, unique resource to the firm that cannot even be bought by money. The resource –based theory contests the assumptions of the purely economic theories of individual organization and strategy by assuming that resources distributed among firms are heterogeneous and immobile i.e. firms have different endowments of resources (heterogeneous) and others cannot get them (immobility).

This theory values creativity, innovation, uniqueness, entrepreneurial vision, and intuition and the initial conditions under which the firms are created. This is what makes theory relevant entrepreneurial business that performs in a competitive environment. This study, therefore, proposed the use of this theory by textile SMEs within the umbrella of EPZ in Kenya to make use of their valuable resources and opportunities available, add value and innovation to improve on quality and standards in order to improve on their performance and growth in this competitive and globalised economy.

The SMEs historical background, their economic importance in the country, the AGOA agreement and the establishment of EPZ are some of the opportunities that the textile SMEs should exploit for their development, growth and thus consequently contribute the country's industrialization towards the achievement of the Vision 2030. Thus the gaps which this literature review has identified need to be addressed by the entrepreneurial SMEs.

Entrepreneurial competitive performance: Entrepreneurship, although appears a fairly recent development, is not a new phenomenon because entrepreneurs have existed throughout the history of mankind. According to Dollinger (1994), the entrepreneurs of the past years pursued non industrial modes of wealth creation whereas the entrepreneurs of today pursue new venture creation and industrial development even in a very competitive environment. But what is entrepreneurship?

Many scholars and researchers in the field of entrepreneurship have not agreed on a generally accepted definition of entrepreneurship and in fact, there appears to be as many definitions of entrepreneurship as there are the writers and scholars in this field of study (OECD, 1998;

Lumpkin and Dess, 1996). Their definitions seem to largely focus on research being undertaken. Knight (1921) explains entrepreneurship from the view point of profit from bearing uncertainty and risk; Schumpeter (1934), views entrepreneurship as carrying a new combinations of firm organizations – new products, new services, new sources of raw materials, new methods of production, new markets, and new forms of organizations. Hoselitz (1952) sees entrepreneurship as uncertainty bearing coordination of productive resources, introduction of innovations and provision of capital. Cole (1959) partakes of entrepreneurship as a purposeful activity to initiate and develop a profit oriented business while McClelland (1961) views it as moderate risk taking in business.

Casson (1982) partakes of entrepreneurship to do with decisions and judgments about the coordination of scarce resources and creation of new organizations respectively. Stevenson, *et al.* (1996) and Kirzner (1997) view entrepreneurship as pursuit of opportunity and profit taking activity. Richard (2007) takes of entrepreneurship as involving the process of change that consists of new combinations that result in goods and services.

Thus entrepreneurship can be arguably said to be innovative economic process (organization) for the purpose of gain or growth under the conditions of wish and uncertainly. The individuals who are the movers in this process are entrepreneurs. According to Schumpeter (1934) and McClelland (1961), an entrepreneur is an innovator who starts a new business or changes the existing products and services to set up new ones driven by need for achievement (N-Arch) and thus he or she is energetic and risk taker. In conceptual entrepreneurship therefore, Markku (2009) argues that it is important to understand the conceptual terms that are applied in entrepreneurship. He asserts that an entrepreneur who is an individual actor in the market, the entrepreneurial which is the behaviour in the market, the entrepreneurship which is the combination of the entrepreneur and the market behaviour and the entrepreneurial process which puts together the time dimension and behaviour in the market, although without commonly accepted definitions are important concepts to understand in entrepreneurial research.

Pickle and Abrahamson (1990) explains an entrepreneur as the one who organizes and manages a business understanding, assuming the risks, for the sake of profit. He evaluates the perceived opportunities, competition and strives to make the decisions that will enable the firm to realize sustained growth. These are what all entrepreneurs ought and strive to achieve. Adding to the debate on definitions of entrepreneurship, Timmons (1994) indicates his perception on entrepreneurial mind as that which portrays the attitudes and behaviour of a successful entrepreneur. This is supported by Murray (1989) when she says” Entrepreneurs work hard and are driven by an intense commitment and determined perseverance; they see the cup half full, rather than half empty; they strive for integrity; they burn with competitive desire to excel and win; they are dissatisfied with the status quo and seek opportunities to improve almost any situations they encounter; they use failure as a tool for learning and eschew perfection in favour for effectiveness; and they believe they can personally make an enormous difference in the final outcome of their ventures and their life”. This implies that entrepreneurs are there to succeed and grow in their business.

Ronstadt (1982) explains entrepreneurship from growth oriented perception that: “Entrepreneurship is the dynamic process of creating incremental wealth. The wealth is created by individuals who assume the major risks in terms of competition, equity, time and/or career commitment or provide value for some products or service. The product or service may

or may not be new or unique but value must somehow, be infused by the entrepreneur by receiving and allocating the necessary skills and resources”.

RESEARCH METHODOLOGY

This study used descriptive design of a mixed method consisting of both qualitative and quantitative approaches in which the researcher will use multi-stage selection of subjects. There were 30 apparel/textile businesses within and /or under the umbrella of EPZ in Kenya from which the sample size was selected. The target population of this study was small consisting of 30 textile SME enterprises therefore conventional determination of the sample size of the large targets was used. The study used the adjusted sample size from small target population, hence the formula by Saunders & Thornhiel (2009) was used. Since each business had a manager and a director, every purposively selected textile business had each of their manager and director selected. The researcher sampled 380 employees out of approximately 30,000 using systematic random sampling procedure.

The study used interview guide for the directors, questionnaire for managers and questionnaire for employees as data collecting instruments. The pilot test was also done to refine the questionnaire so that respondents had no problems in answering the questions and that there were no problems in recording data. The researcher cleaned and coded the data using Statistical Package for Social Sciences (SPSS) out of which graphs and tables were drawn for analysis and discussion. Regression analysis was used to test research hypothesis.

FINDINGS AND DISCUSSIONS

Operational and Running costs

This study has established that operational and running costs on production determine competitive performance of EPZ textile SMEs in Kenya and are higher compared with its close competitors such as South Africa and China. The study has also found that the cost of electricity in Kenya is four times the cost in South Africa and more than thrice in China. It is even made worse by power outages/rationing and fluctuations which have lead to reduced output and damage of equipment of the textile SMEs in Kenya. The statements in Table 1 are about the cost of textile on SMEs in textile enterprises at EPZ. The statements indicate the extent to which production costs affects competitive performance of SMEs of textile businesses in EPZ. Their responses are summarized in Table 1.

Table 1: Operational and Running costs

OPERATION COSTS							
Y		S.A	A	S.D	A	N	TOTAL
1	Custom prohibits low cost import	10.2	21.4	30.5	20	17.9	100
2	High cost of imports negative effect	10.7	22.5	10.7	25.9	30.2	100
3	Adverse macroeconomics environs	10.7	39.9	21.4	0	28	100
4	Lack of Govt. operating outside EPZ	10.8	0	35.6	25	28.6	100
5	Inadequate supply of trained labour	20.5	29	0	20.4	30.1	100
6	Poor infrastructural network	7.1	47.3	25.3	10.1	10.2	100

From this table 1, 33.2% of the respondents agreed that the cost of imported raw materials impacted negatively on their competitive performance while 10.7% strongly agreed with this fact. The respondents, who in some firms are directors and managers as well, also indicated other factors whose costs affected their competitive performance such as poor infrastructural networks and cost of electricity 47.3 % inadequate supply of trained labour 29 %) adverse macro economies environment in whose cost of capital and fiscal policies reduce their

international competitiveness (78.6%). These facts are supported by McCormick (1991) who affirmed that the cost of production among garments Small and Medium Enterprises is one of the major impediments to competitiveness and growth. These findings are also supported by EPZ Performance Report (2010 and 2011) which concludes that the cost of production within the national economy besides international scene constraints needs to be addressed.

Regression Analysis Findings

The regression model in this study was used to test the hypothesis which shows that there is a linear relationship between dependent variable (Competitive performance) and the Independent variable (Operational and running cost). This is shown by the R square which is 0.932 or 93.2%. The adjusted R which is a good measure of fit explains that holding all other factors constant, operational and running costs explains 0.965 or 96.5% of all the variations in the changes associated with performance in the SME's. Since there is a positive correlation between the independent and dependent variables, the correlation is significant and thus the null hypothesis H₀: There is no significant relationship between operational cost and competitive performance for small and medium enterprise in textile internationally, is rejected and an alternative hypothesis is formulated. H₁: There is significant relationship between operation cost and competitive performance for small and medium enterprise in textile internationally.

Performance of EPZ textile SMEs in Kenya

The study has established that although a lot remains to be done for better competitiveness by EPZ textile SMEs, these businesses are fairly doing well. In addition, the study reveals some gaps that these businesses need to address to boast their sales turnover. These include, better pricing of their products, quick responses to their customers, enhanced quality and customer retention and more exposure through trade fairs and exhibitions for greater networking. The statements in Table 2 are about the performance of textile on SMEs in textile enterprises at EPZ. The statements indicate the extent to which performance affects competitive performance of SMEs of textile businesses in EPZ in relation to the vision 2030. The respondents were asked the extent to which they strongly agreed or not agreed to the statements relating to various factors that may affect their competitive performance at EPZ. Their responses are summarized in Table 2.

The table 2 on next page shows the respondents rating competitive performance issues as they affect their competitive performance. Most respondents (82%) said that although they responded to customers in a rapid manner and their pricing (71.4%) is competitively good, their sales turnover was rated as 46.4 percent with only 24.1% rating it as very good. This shows their competitive performance is not very good and therefore needs improvement. This concurs very well with what World Bank studies (World Bank, 2011) stated that the Sub-Saharan African countries including Kenya adopted Economic zones only recently with most programs in the 1990s. The report says that consensus from previous research is that African zones have generally underperformed, with significance exception of those in Mauritius, and partial exception of those in Kenya, Madagascar and Lesotho.

Table 2 Performance of EPZ textile SMEs in Kenya

To what extent do you agree with the following performance statements (SA=Strongly Agree, A= Agree, D= Disagree, SD=Strongly Disagree, N= None of the above

	SA	A	D	SD	N	Total
	%	%	%	%	%	%
1. The quality of our textile products are high and standardized	28.6	71.4				100.0
2. The pricing is competitively good	28.6	64.3	7.1			100.0
3. We are flexible and responsive to our customers requirements	17.9	71.4	10.7			100.0
4. We observe punctuality in delivering to our customers	17.9	60.7	21.4			100.0
5. We participate in local shows and exhibitions	14.3	28.6	39.3	17.9		100.0
6. We participate in international trade fairs shows and exhibitions	21.4	46.4	32.1			100.0
7. Our sales turn over are very good		25.0	57.1		10.7	100.0
8. Decisions and activities in our organization are customer-based.		50.0	39.3		10.7	100.0
9. Departments within the organization are able to work together effectively and facilitate responses to customer needs	7.1	82.1	10.7			100.0
10. Our business can respond to customer needs in a rapid manner.	21.4	78.6				100.0
11. Our sales turn over are very moderate		57.1	32.1	10.7		100.0
12. Our profit and sales goals have been achieved through product quality and customer retention	14.3	39.3	35.7	10.7		100.0
13. Our sales turn over are very poor						

On participation in the international trade fairs and exhibitions there was strange reactions from the respondents with only 14.3 percent strongly agreeing on their participation in trade fairs and exhibitions, 62.2 percent disagreeing and yet over 80 percent participate in local exhibitions. This shows how most entrepreneurs in this sub-sector seem to be ignorant about the importance of networking and linkages which are important in improving their sales turnover through their participation in trade fairs and exhibitions. Thus there is a need to create more awareness on the importance of such events. An entrepreneur view of competition in business is healthy as it brings about sharpness in time management, quality control, flexibility and innovation which are necessary for business survival. Through this way entrepreneurs are motivated to invest in Small and Medium Enterprises for sustainable livelihood, poverty alleviation and job creation in a competitive performance and success. The factors expressed by many of them mainly touched on pricing of their products, flexibility and responsiveness to their customers requirements. In addition, they also mentioned quality and customer retention, sales turnover, coordination and organization, profit and sales goals and their participation in trade fairs and exhibitions and their contributions towards the Kenya Vision 2030.

Views on Performance by Employees

This study has established from employees that although the issues they highlighted had lower scores according to their responses, they are significant in terms of performance. This includes continuous retraining and upgrading on relevant emerging skills, training on job in specifics skills as may be required, need for rapid respond to customers' needs, involvement of workers in decisions that affect their core duties, more exposure to both local and international trade fairs and exhibitions, improved safety regulations of workers and observation of labour laws that impinge on workers' rights. The study observes that when these issues are effectively addressed will greatly improve on the working morale of workers thus their retention and

productivity. This is supported by earlier studies and reports by Kobonyo (Kobonyo, 1998, Lipsey, 2007, USSA, 2009 and McCormick et al, 2009). A good performance of EPZ textile small and medium enterprises, their growth and competitiveness is the ultimate goal of the investors. One of the hypotheses of this study was that adequate and supportive policy among other factors would enhance motivation of employees raising their productivity. Towards this end, the employees were asked their opinion on a number of statements pertaining their performance at EPZ in Kenya. Their responses are summarized in Table 3.

Table 3: Views on Performance by Employees.

To what extent do you agree with the following performance statements (SA=Strongly Agree, A= Agree, D= Disagree, SD=Strongly Disagree, N= None of the above		Employee Responses				
		SA	A	D	SD	N
		%	%	%	%	%
1.	The quality of our textile products are high and standardized	30.6	62.3	4.5	.8	1.8
2	We are flexible, timely and responsive to our customers requirements	34.8	53.7	8.2	1.4	1.9
3	We observe punctuality in delivering to our customers	17.3	40.7	18.1	18.9	5.1
4	We participate in local shows and exhibitions	16.3	38.8	17.9	17.7	8.3
5	We participate in international trade fairs shows and exhibitions	19.7	54.4	16.7	7.5	1.6
6	Decisions and activities in our organization are customer-based.	19.1	49.6	19.9	9.8	1.6
7	We are always involved in business decision making with regard to our core work	19.1	49.2	20.2	9.8	1.6
8	We are not always involved in business decision making with regard to our core work	23.3	53.8	16.4	4.5	1.9
9	Departments within our organization are able to work together effectively and facilitate responses to customer needs	23.7	55.0	14.5	4.5	2.4
10	We coordinate very well with our supervisors for effective delivery of our products	24.3	52.4	17.5	4.0	1.9
11	We are always ready to respond to our customers needs in a rapid manner.	15.8	39.7	26.3	13.7	4.5
12	We are trained very well on our jobs	14.6	42.4	26.0	13.0	4.0
13	We are retrained on emerging skills to improve our performance and quality in our production	21.2	56.9	15.6	6.1	.3

The study established various reactions from the respondents. According to this table, majority (92%) of respondents did not have a problem in producing quality and standardized products as required by their clients. 87% also agreed that they are flexible and timely in responding to their customers needs with 78% agreeing with the statement that they are well coordinated to work efficiently to meet their customers' needs. However, a significant number (68%) said they are not involved by the management in decisions with regard to their core work. 39% said they are not trained well on their jobs. Although the table shows that the employees are fairly doing well with existing policy, pertaining their performance, the

management will require addressing issues raised by the employees in order to improve on their quality, timeliness in delivery of their products, improve their motivation in work and reduce overworking. This will overall improve the competitive performance.

The study shows that there is significant relationship between operational and running costs on performance for small and medium enterprise in Kenya. It is therefore important for this costs to be addressed for them to perform better in relation to others in the region and internationally. There is significant relationship between EPZ's and competitive performance for small and medium enterprise in textile internationally. Thus availability of cheap local raw materials for textile SME's in Kenya will enable them to do better competitively.

CONCLUSIONS

From the findings and discussions afore mentioned, it can be concluded as follows:

Operational Costs on performance.

The regression model in this study was used to test the hypothesis which show that there is a linear relationship between dependent variable (Competitive performance) and the Independent variable (Operational and running cost). This is shown by the R square which is 0.93.2 or 93.2%. The adjusted R which is a good measure of fit explains that holding all other factors constant, operational and running costs explains 0.96.5 or 96.5% of all the variations in the changes associated with performance in the SME's. Since there is a positive correlation between the independent and dependent variables, the correlation is significant and thus the null hypothesis H_0 : There is no significant relationship between operational cost and competitive performance for small and medium enterprise in textile internationally, is rejected and an alternative hypothesis is formulated. H_1 : There is significant relationship between operation cost and competitive performance for small and medium enterprise in textile internationally.

Research Questions and Hypothesis

The researcher had five questions and five hypotheses which were asked as follows. The research posed on how credit accessibility, local cotton production, policy, internationalization and cost affected competitive performance of textile SMEs of EPZ in Kenya. The hypotheses were posed as follows:

H_0 : There is no significant relationship between operation and running costs and competitive performance of textile Small and Medium Enterprises in Kenya internationally. There is no significant relationship between operational cost and competitive performance for small and medium enterprise in textile internationally, is rejected and an alternative hypothesis is formulated. H_1 : There is significant relationship between operation cost and competitive performance for small and medium enterprise in textile internationally.

The study concludes that in order to enhance EPZ textile SMEs competitive performance, there is need to improve or remove barriers on imported textile raw materials as these impact negatively on their competitive performance and profitability. There is need to enhance the existing infrastructural networks and cost of electricity to improve these SMEs profitability. There is a strong need to re-focus on provision trained labour for these SMEs to enhance the parity and timely provision of services. There is also need to address adverse macro economics environment to reduce the cost of capital and fiscal policies and thus enhancing their international competitiveness.

Recommendations

Operational and Running Cost

- With regard to the cost of production, the study recommends removal of barriers on production cost experienced by EPZ textile SMEs for example cost of power, cost of transportation, inefficient port operations, and high wage rates and so on in comparison with the main competitors, for them to enjoy competitive performance and also promote foreign investments.
- The study too recommends revival of local cotton production to enhance cheap supply of local textile raw materials for these SMEs as an alternative to expensive textile raw materials imports which will also save the country's foreign exchange.

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Communicative Behaviour Retrospective Patterns Among Students During Lab Practice

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ABSTRACT

The aim of this work is to detect the existence of communicative interaction patterns among Biology students during lab practice. This, based on the analysis of the conversations held among them. Observational methodology was used. An iterative and detailed category system thoroughly was developed as an observation tool, and was later put through a process of re-categorization. A total of six sessions were observed; each one lasting one hour. The intercessional sequential analysis was used with the aid of the program SDIS-GSEQ. The results show that it is highly important for the students the use of question-answer (IAE) in its different modalities: first, in probability of occurrence, are the categories of Persuading and Proposing, the next significant sequential probabilities are: Evaluating, Confirming, and Confusing; followed in sequential occurrence order by: Arguing, Classifying, Correcting, Clarifying, and Suggesting. Last in sequential inhibitory occurrence are: Creating an Opinion, Directing, and Evaluating. These are the particular ways in which students encourage participation during lab practice, opening their minds to their classmates' feedback, leading to questions and answers that create new discussion topics and increase learning opportunities.

Keywords: Learning, evaluation, patterns behaviors, categories, SDIS-GSEQ program.

INTRODUCTION

Student-teacher interaction is one of the main ways in which we learn. In classroom practice, this interaction takes on a special role as it is both a way of learning and the object of study of pedagogy. The first works of research regarding interaction and learning from a socio-cultural perspective based on the description of typical classroom interaction patterns were conducted by Barnes (1992), Cazden (1988), and Mehan (1979). One of the first descriptions was provided by Sinclair & Coulthard (1975). They describe what turned out to be the basic unit of classroom interaction: the IAE (Intervention, Answer and Evaluation). It is the teacher's duty to obtain information (I) from every student, to determine if each one of them knows the material. This is accomplished with a previously known question-answer to which a brief answer (A) from the student is expected. The teacher then proceeds to evaluate the student (E) with common phrases, like "Okay", "That's correct" or "No, that's not okay". After completion of a sequence with a determined student, the teacher is expected to begin a round of follow-up questions directed to the same or a different student. Many subsequent investigations regarding classroom interaction have revealed the ubiquity of the IAE pattern in Western education, from pre-school to college (e.g., Barnes, 1992; Cazden, 1988; Gutiérrez, 1994; Green & Dixon, 1993; Mehan, 1979; Nystrand et al, 1997; Smagorinsky & Fly, 1993).

Aside from describing the common speech patterns in the classroom, this research group has tried to establish links between the IAE language use pattern and the development of language.

It was Kelly Hall (1988) who, in a study of speech in basic classroom linguistics, revealed how the use of IAE often favored the teacher's control over the interactions instead of favoring the understanding of the whole topic. In the same way, Barnes (1992) found that the frequent use of the IAE pattern of interaction didn't benefit complex means of communication between the teacher and the students. It was the teacher who decided who would participate, when there could have been better feedback had the decision been taken by the student. Barnes reached the conclusion that the extended use of the IAE heavily limits the students' chances to speak with their own words and test their ideas regarding the topic, and, in general, to be more competent during their Language classes.

In what looks like the most thorough study of classroom interaction to this date, Nystrand et al. (1997) found that in eighth and ninth grade English classes, in the U.S. the use of IAE worked very poorly within the learning process. In all classes where the IAE pattern was used, it was found that students were less capable of remembering and understanding the actual topic, in comparison to those students who participated in more complex interaction patterns. Besides, it was found that the use of the IAE pattern prevailed among inferior grade classes. This made the author comment on the significant disparities in the students' opportunities to develop complex knowledge and intellectual skills. The latter leading to the question about the link between IAE and student communication in the classroom.

Although most of the research regarding classroom interaction has been carried out mainly on Language courses, some recent studies have confirmed the ubiquity of the IAE pattern in Foreign Language courses and have highlighted their learning limitations. For example, Hall (1995) found out that the teacher uses the IAE pattern more often with junior-high students.

Lin (1999a, 1999b, 2000) presents similar results on his study carried out on English classes in Hong Kong. Just like Nystrand et al. (1997), Lin found that the IAE interaction pattern happened more frequently in classes formed mainly of low socio-economic levels. Aside from limiting the students' learning opportunities, Lin states that, "It took away from them every chance of developing a real interest in the study of English as a language and culture for communicative and socio-cultural purposes" (2000, p. 75).

In an attempt to discover the specific links between classroom interaction and learning, Wells (1987) decided to give a closer look to the three main components of the IAE pattern. While his classroom interaction observations revealed an enthusiastic participation of the students in class discussions, his first analysis shed light on what seemed to be an important number of IAE sequences. After a closer look, however, subtle changes were found in the standard pattern, especially in the third part. More specifically, it was found that when the teachers question the students, they tend not to close the sequence with a limited evaluation of their answers. Quite on the contrary, a follow-up by them is often required, asking the students to create or clarify concepts, taking the students' answers as a valuable contribution to the ongoing debate.

Wells (1987) reached the conclusion that when the third part of the IAE sequence contains a teacher's evaluation (E) to the students' answers, the pattern severely limits their learning opportunities. Nevertheless, if, in the third part, the teacher favors the continuity of the students' answers, making them think, clarify their opinions, commenting on someone else's contribution, or linking the new knowledge with their personal experience, there's a chance of them improving their learning through interaction. Therefore, he concluded that the typical three-part pattern in classroom interaction is not completely good or bad. It depends on the kind of approach by the teachers and the feedback from the students. From the above, here is

considered important to understand the use of IAE among students to perform the task, Nassaji and Wells (2000) offer a deeper analysis on the different options of the parts that conform the IAE. Data comes from a six-year research project in which nine elementary and middle school teachers were involved, along with three college researchers.

This project's main focus was the teachers' contributions regarding the third part of the sequence. It was found that teachers who evaluated the students' answers instead of encouraging them, tended to decrease student participation. On the other hand, teachers who invited their students to enrich their initial responses opened the door to a new debate and new learning opportunities.

In this way, whenever the students' contributions were limited to short answers to the teacher's questions, classroom interaction was not likely to lead to active participation and complex communicative development. On the contrary, student participation would be limited to simple tasks, like memorizing, listing, and labeling. Nevertheless, when the teachers' questions and comments are open, and the students can make significant contributions to the interaction, not only do they answer the teacher's question, but they also create a more efficient learning environment.

Purpose

The objective of this research is to detect IAE communication patterns with the use of SDIS-GSEQ among Biology students during lab practice.

METHOD

Participants

The study group was formed by third semester Biology students from Universidad Nacional Autónoma de México. The admission criteria for participants were as follows: a) Being regular Biology students at the University, b) Interest in becoming part of the study group c) Being enrolled in the third semester of the Biology career.

Tools

Two video cameras and two microphones were used as recording tool to guarantee the best accuracy possible regarding data collection. The two cameras along with the two microphones were installed in the classroom where the study group met. According to the ethical rules approved by the American Psychological Association, the students knew they were being filmed and were pointed out the exact location of the recording devices, which were carefully and discretely placed according to the furniture distribution in the room with the aim of minimizing unnatural reactions from the participants.

The computer program SDIS-GSEQ (Bakeman&Quera, 1992,1995)which includes two advanced computing systems as its initials suggest – was also used for this project. On one hand, the SDIS provides a standardized, general format to the sequential data, and on the other, the GSEQ provides a strong description and analysis of the sequential data.

The SDIS-GSEQ is based on an analytical technique developed by Bakeman (Bakeman, 1978; Bakeman y Gottman, 1989) and by Sacket (1980,1987) inspired by the background laid in the work of Bakerman and Dabbs (1976). Two perspectives then emerge: prospective (contemplating the “forward” sense, just as the behavior occurrence is produced) and

retrospective (“backwards” sense) that provide us with a speculative image of the behavior pattern, which allows us to contemplate both aspects of sequential diachronic intensive design. The observation tool, just as it is perceptive according to the observational methodology standards, was appropriately developed in the way of a category system along with a field format. With the aim of the category systems adjusting to the exhaustiveness and mutual exclusivity (E/ME) requirements, the development of the tool initially involved the transcription of all verbal/vocal emissions of the participants, and later completed with incidental notes taken from the observation of the recordings. A lengthy process of verbal dimension categorization was then initiated; this process resulted in an important number of different versions of the tool, which were progressively adjusted towards congruence between the name and content of each category and the E/ME conditions (Arias i Pujol, 2003). The result was a tool in which 8 dimensions and a total of 19 categories were articulated. All the categories were defined separating the category nucleus and the level of openness or plasticity, and examples as well as counter-examples of the recordings were extracted for each one.

Once the tool was developed, it was put through a re-categorization process, consisting of a category regrouping for each of the eight field format dimensions. The final version being the following: Negotiation= (Persuasion PERS, Proposition PROPOS), Intentional= (Argumentative, ARGUM Control & Suggestion SUGES) , Recapitulation = Reminder, RECOR Recovery, RECU) Acceptance= (Conditioned, CONDI) , Correction= (Confirmation, CONF and Imposition IMPOS) Response= (Value VALOR Evaluation, EVAL and Formation FORM) Question= Information, INFO Clarification ACLARA and Confirmation CONF) Instruction= (Direction, DIRE Correction, CORRE, and Description, DESCR)

Procedure

To reach the aim established, observational methodology has been used, which is supported by the spontaneity of the behavior being studied and the regular environment in which the lessons took place. The observational design (Anguera, Blanco y Losada, 2001) to which this work is adjusted, is /ideographic/ tracing / multidimensional (I/T/M). To reach the purpose, the application of the delay sequential analysis was planned, in order to detect de possible existence of behavioral patterns. The sequential analysis stands out as one of the most appropriate techniques for the analysis of data obtained from human interaction studies. It is a type of microanalysis. It was developed by Sackett (1979,1987) from the work of Bakerman and Brown (1977). There are numerous publications in different ambits, like sports (Gorospe, Hernández-Mendo, Anguera y Martínez de Santos, 2005), space analysis (Pérez-Tejera, Valera y Anguera, 2011) clinical psychology (Roustan, Izquierdo&Anguera, in press), or human communication (Gimeno, Anguera, Berzosa y Ramírez, 2006) as in this case, being the interaction of the college student during lab practice.

RESULTS

Since the objective of this work is to detect the existence of possible patterns of behavior in communicative interaction among students during the lab, through conversation analysis, technical analysis is the inter ideal sequential data analysis. This analytical technique proposed by Bakerman (1978) and Sackett (1978, 1979), and widely used in the scientific literature over the last quarter century, aims to detect the existence of stable structures of behavior that have a higher probability of occurrence than only the expected from the effect of the random act.

Upon selecting delay sequential analysis adjusted residuals excitatory ($P > 1.96$) and inhibitory ($P < -1.96$) in R1 to R5 delays (see Table) found that the criterion behavior generates an association PROPOS consistent with PERS, and other alternating with PROPOS and CONF, following the criteria behavior ARGUM and SUGES a linear pattern at delays 1, 2 and 5 PERS is

place and then generates PROPOS. At delay 1 and 3. The criteria behaviour SUGES has a significant positive relationship with the delay PROPOS 3 and CONFI in the delay 4. So the criterion behaviour RECOR significant predictive alternation RECU, CONF, ACLARA is observed alternately IN delays 1,3,4 and 5, respectively, in the same sense, the behaviour given RECU, alternating with EVAL predictive sequences are observed and ACLARA at delays 1 and 4 on. In predictive behaviour given CONF alternation is observed with PERS, RECU, RECORD, EVAL delays 1, 2, 3, 4 and 5. The criterion VALOR behavior shows a statistically significant inhibitory conditioned behaviour regarding FORM, indicating that delays 1 and 2 it never will generated by VALOR. Subsequently positively related VALOR, CONFI and EVAL respectively, delays 3, 4 and 5.

The EVAL category-criteria is positively related to CORRE, EVAL and ARGUM at delays 1,2, 3 and 4 and statistically significant inhibitory manner FORM and RECO in delays 1 and 2. The next category is WAY criterion relates predictively with INFOR, FORM, VALOR, CONF ACLARA and at delays 1 and 5 respectively and EVAL in delays 1 and 2 statistically significant inhibitory manner. Below is the category criteria INFOR is positively related to PROPOS FORM and delays in 1,2 and 5 and the delay in DIRE 4 inhibitory probabilistically negative way. Then the criterion this category DIRE positive sequential prediction INFO conditioned behavior, and DESCR CORRE 1, 2 and with DIRE INFO probabilistically how negative inhibitory delays 2 and 5. The penultimate category CORRE criterion is presenting a significant predictive relationship with CONFI, CORRE, CORRE in DIRE and delays 2, 3 and 5 last respectively. The DESCR category to discuss is presenting a significant positive relationship with DIRE at delay 5. Based on these results is that it is important for students to use the Question-Answer (IRE) in its various forms, the first categories by significant occurrence are, Persuade and Propose the following position significantly probabilistic occurrence are: Form and evaluate, and significantly following are succession occurrence; Confirm, confuse, inform, argue and directing. Finally, the categories are probabilistically negative occurrence that are inhibitory; Report, Assess, Evaluate and directing. You are the particular ways in which students encourage their participation during the course of his practice at the laboratory, opening the contributions of their colleagues who invite them to expand or clarify their answers to initial questions and further discussion, and provided more opportunities for learning.

We agree with Wells (1987), who look more closely at the three parts of the IRE pattern found an enthusiastic student participation, widespread in class discussions, and concurs with what appeared to be a significant number of IRE sequences. Upon closer inspection he found subtle changes in the standard IRE pattern, especially in the third part. More specifically, he found that when teachers ask students and do not close the stream with a limited assessment of student responses, there is greater participation.

In this sense the work of Coll and Onrubia (2001) presents a series of discursive strategies and resources used by teachers and students in performing activities and the development of educational content. In all these strategies made explicit the role of language not only to represent and communicate meaning, but as a tool to negotiate, ask, answer and develop their own systems of shared meanings progressively richer and more complex. The importance of joint activity that students develop for the construction of new meanings extends to the whole process of learning where the educational value of the speech of the participants in the classroom is also evident in the process of evaluating the results of learning.

This confirms the hypothesis that when the student contributions are limited to short answers, communication in the classroom is not likely to lead to the active complex communicative development and participation. Conversely, student participation will be limited to simple tasks, such as memory, listing and labeling. But here we find that when students work including comments are open, making significant contributions to interactions by extending the discursive interactions, becoming the most effective learning environments.

Table 1: Global Analysis (retrospective patterns obtained with delays 1 to 5)

Conduct Criteria	Delay 1	Delay 2	Delay 3	Delay 4	Delay 5
Pers	Pers [6,28] Propos [2,28]	Pers [2,24] Propos [6,26]	Pers [2,19] Propos [4,04]	Pers [3,29]	Pers [3,19] Propos[2,06] Argum [3,19] Conf [3,19]
Propos	Pers [4,40] propos [5,28] conf [3,72]	Pers [6,40]	Pers [3,02] Propos [2,53]	Pers [4,27] Conf [2,31]	Infor [2,39] Conf [2,07]
Argum	Pers [3,66]	Pers [3,43]	Propos [4,47]	Propos [5,14]	
Suges	Dire [3,12]		Propos [7,98]		
Recor	Recu [22,23]	Eval [2,65]	Conf [13,89]		
Recu	Eval [2,62]	Conf [12,08]			
Cond					
Conf	Pers [3,10]	Pers [2,90]			
Valor	<i>Forma</i> [-2,42]	<i>Forma</i> [-2,19]	Valor [2,13]	Conf [2,86] Conf [-1,98]	Conf [2,05]
Eval	Corre [2,22] Eval [3,15] <i>Forma</i> [-2,83]	<i>Forma</i> [-2,03]	Argum 2.90	Eval [2,59] Conf [2,88]	Valor [1,99]
Forma	Infor [2,03] <i>Eval</i> [-2,30]	Forma [3,47]			Forma [2,47] Dire [-1,97]
Infor	Forma [2,03]	Argum [2,43] <i>Dire</i> [-2,08]			
Aclara				Recu [3,45] Forma [2,44]	Recor [3,6]
Confi	Argum [2,84]	Corre [2,19]		Suges [4,20] Valor [2,06]	
Dire	Infor [2,23] Corre [2,77]	Dire [2,26]		Infor [-2,08]	Dire [2,59] Corre [2,16] Descript[2,16] Forma [-2,55]
Corre		Dire [3,07]	Corre [5,55]		Dire [3,23]
Descr		Aclara [2,33] Dire [2,16]			Aclara [2,62]

[in regular font: adjusted excitatory remainders]

[in italics font: adjusted inhibitory remainders]

From selecting adjusted excitatory remainders ($z > 1.96$) and the inhibitory ($z < -1.96$) in delays R1 to R5.

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Could Physical Activity Improve Healthy Lifestyles and Psychological Well-Being?

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ABSTRACT

It is clear the role that physical activity plays in psychological well-being and health. The main aim in this paper is evaluate the influence of the practice of regular physical activity in the adoption of healthy lifestyles and psychological well-being, in a sample of 183 students of the University of the Algarve, 94 regular physical activity practitioners and 89 who don't. For the collection of data was applied a battery of instruments consisting of a Demographic Questionnaire and Physical Activity; by the Lifestyle Questionnaire (Carvalho & Cruz, 2006) and the Ryff's Scales of Psychological Well-being (Fernandes, 2007). Our results show that the subjects who practice regular physical activity adopt healthier lifestyles, as well as provide superior results in environmental mastery dimension in the psychological well-being. The analysis of the interaction between the values of the lifestyle, organized into three levels, and the psychological well-being, reveals that participants with higher scores present superior rates of psychological well-being, globally and in dimensions (environmental mastery, purpose in life and self-acceptance).

Keywords: physical activity, lifestyles and psychological well-being

INTRODUCTION

Reflex of the signs of the time, our society is constantly changing, causing changes in the quality of life of all people. Consequently each person is, more comfortably, addressed to risk or less healthy behaviours, as a result of sedentary lifestyle, inadequate food choices, and the lack of time for leisure. It's a priority in scientific agenda to promote healthier living habits, in particular those related to a more careful eating and, especially, the practice of physical activities, such as strategies for improving the health status of each person.

The definition of health suffered over the years some modifications. Currently health is, beyond a situation of absence of disease, a state of equilibrium of the various systems and the individual with himself (World Health Organization, 2002). Not being a very stable and easy to reach, it is evident the need to acquire, reconstruct and protect the health and constantly throughout life (Mota, 1995).

Good physical condition is interpreted often as a positive indicator of health at that physical activity plays a protective role in relation to risk factors, current and future time for each

person. Today, there is ample evidence that physical activity through regular and moderate exercise, is one of the most effective strategies to acquire, protect and maintain health throughout life (Cid., Silva & Alves, 2007), along with undoubted benefits to physical, psychological and social. Thus, all actions that might encourage increased physical activity and sports practice, constitute valid forms and with the potential to significantly improve the quality of life of populations. In this context, several studies (e.g., Alves, 2005; Berger, Pargam & Weiberg., 2002; Biddle & Mutrie, 2001; Bueno, 2002; Buckworth & Dishman, 2002) confirm and highlight the importance of physical activity in the development of healthy lifestyles and well-being of people in all ages.

The relevance of this study arises from the growing interest in research in this area, which led International Society of Sport Psychology, to publish a special issue in 1992, relating to physical activity and psychological benefits. In this publication it is stated that physical activity is generally associated in the long term, to a reduction in levels of anxiety and stress, to decrease depression, increase self-esteem and how to factor positive emotional effects producer. Nevertheless, the knowledge spread positive health effects that regular physical activity may increase, an overwhelming percentage of the population in industrialized societies are sedentary (ie about 70%) or abandon the practice in the first six months (ie about 50%), implying that these benefits are not sufficient reasons to undertake physical activity (Cid et al., 2007). In summary, it is curious to note the plethora of health problems, which usually struggle with people living in more developed countries.

Considering the importance of the adoption of health behaviors at younger ages, to promote health at older ages, the literature has demonstrated the central role of lifestyles in the adoption of health behaviors, and the psychological well-being describes the positive psychological functioning, put up the following question: the practice of regular physical activity is positively associated with psychological well-being and the adoption of healthy lifestyles of students in portuguese higher education?

Physical activity is defined as any bodily movement produced by skeletal muscle that results in increased energy expenditure above resting level, constituting a complex and dynamic process. During life, the individual goes through phases that show different levels of physical activity, determined by several factors (Caspersen, Powell & Christenson, 1985). Shepard (2003), recognizes that the consensus around the definition of terminology is recent physical activity and highlights that it undertakes all kinds of muscle activity that substantially enhance energy expenditure. Thus, exercise is a subcategory of regular physical activity, structured and repeated, deliberately and executed with the specific purpose of improving some aspect of health or preparation, improvement or maintenance of athletic competence (Delgado, 2006). Therefore, exercise is repeated and stereotyped physical activities, aimed at achieving a concrete goal, therapeutic or physical condition. For instance, we can speak of abdominal exercises, physical therapy exercises, exercises to prepare for childbirth exercises to acquire a given technique, strengthening exercises member had surgery, among others.

According to Delgado (2006), sport is also considered a subcategory of physical activity, specialized, competitive nature and that requires physical training, regulated by institutions and with the main objective, not to improve or maintain health, but with intended to competition.

So the practice of sport activity involves competition, between teams or individually, in dispute with others or to himself. This conception of sport activity applies to both the recreational sport as the competition, be it amateur or professional. These scenarios also include rules that

define your practice and goals to achieve, there are winners and losers (and often draws). In the context of this research we adopt the concept of physical activity defined as any muscle or motor activity that a person performs, or any action that involves movement, strength and posture maintenance. We also felt that this action is considered regular when implies a frequency of at least twice weekly.

The lifestyles are described as patterns of behavior, habits, attitudes and values that are relatively stable typical of a particular group or person (Matos, Simoes, Canha, & Fonseca, 2000). For the World Health Organization (1993), the lifestyles are associated with values, the motivations, opportunities, and also the specific issues related to cultural, social and economic. According to Matos (2005) there is not just one but several types of healthy life. The variety of styles is established according to the group where the individual is inserted and their own individual characteristics.

The literature has emphasized the importance of lifestyle to health, given the importance that the adoption of certain patterns of behavior can have on disease prevention and health promotion (Pais & Cabral, 2003). These patterns contribute to several factors, such as diet, exercise, tobacco use, alcohol and drug use, risky sexual behavior, among others, which form an integrated whole that is, probabilistically associated, to a greater or less likely to suffer from a disease and also to survive since patient (Matos et al., 2000).

The concern with the inclusion of physical activity in lifestyles is based, fundamentally, on the supposed benefits this could have for health and especially the fact that it is now recognized that no physical activity is a risk factor for health (Matos & Sardinha, 1999; Matos, Carvalhosa & Diniz, 2001). Since mode, and according to Torre (1998), physical activity should be considered as a critical component of a healthy lifestyle, to the extent that the realization of systematic physical activity and with some intensity is a protective factor of health and prevention of various disorders thereof by the important physiological and psychological benefits associated with exercise. In short, maintaining an active lifestyle should be understood as one of the keys to a healthy aging (IDP-LVAP, 2011).

As regard to the concept of well-being, several authors in recent years, through their research, were able to install it in the scientific field of psychology, and to assign specific psychological meaning and transform it, into a more emphatically discussed the constructs and invested in understanding the quality of life and healthy living. The construct of Psychological Well-Being described by Carol Ryff (1989), advocates a multidimensional model of positive psychological functioning consisted by six dimensions (autonomy, environment mastery, personal growth, positive relations with others, purpose in life and self-acceptance). For its formulation, the author searched in modern currents of Psychology, linked to development, clinical and mental health, the crucial elements that could best describe the well-being as an expression of positive psychological functioning (Ryff & Keys, 1995). For Fernandes (2007), the construct thus defined, the dimensions agree obtained from the analysis of the convergence of existing theories about the functioning positive psychological and since its formulation as claimed diverse, and alternative, however, the formulations coexistent wellness previously developed (eg, Diener, 1984; Warr, 1978, 1990).

There is scientific evidence that regular physical activity has unquestionable benefits for the physical and psychological health that, in turn, cause a significant impact on the general welfare of the subject at all ages (e.g., Cid et al., 2007).

On the other hand, the demand for well-being and emotional balance, makes more and more people subscribe to physical activity. These behaviors are consistent with approaches that emphasize the importance of physical activity on mental health, especially those resulting from physical exercise and improved physical condition, leading to feelings of psychological well-being (Cruz, Machado & Mota, 1996).

Considering the review that we made, where it was clear the role that physical activity plays in psychological well-being and health, it seems justified that studies the relationships of these dimensions in a population of higher education, which aims to identify the healthy behaviors and indicators of possible better health at older ages. The characteristics of this population and the meaning of the construct lifestyles justify, further work to assess the extent to which these students physical activity may be associated with the adoption of certain lifestyles.

We present five goals that we propose to answer in this research:

- Describe the contents of lifestyles and psychological well-being of study participants.
- Assess why practitioners of regular exercise have better lifestyles more positive and more positive indices of psychological well-being.
- Verify why the psychological well-being varies in function of different class lifestyles.
- Assess why scores of lifestyles and psychological well-being depending on the pattern of physical activity.
- Analyze the relationship between lifestyles and psychological well-being in individuals practicing and non-practicing regular physical activity.

METHOD

Participants

The sample of this research consisted of 183 students enrolled at the University of Algarve, in the academic year 2011/2012, 95 (52%) female and 88 (48%) of males. Their ages are between 18 and 38 years, with a mean age of 22.15 years for a standard deviation of 3.58 years.

The sample is composed of 35 representatives of the Algarve University courses, and the courses in Psychology and Sport are the most representative, each contributing 21 (11.5%) participants. For the academic degree the sample includes 162 (88.5%) students attending a course in Degree and 21 (11.5%) studying in a Master course.

Regarding the manner of daily travel between home and the University we check, that most of the participants moving in own car ($n = 80$; 43.7%), followed by those who move on foot ($n = 55$; 30.1 %) and 23.5% ($n = 43$) in public transport. Of the remainder, only one refers to move by bicycle. Crossing the variables means of travel with regular physical activity, it appears that the percentage of students who move on foot to university is about the same among those who practice or not practice. We found identical distribution when referring to movements in own car and public transport.

Regarding the characteristics related to physical activity shows that the majority of students ($n = 94$; 51.4%) said that practice regular physical activity, while 48.6% ($n = 89$) declares not practice. The crossing of the variables gender and found that regular physical activity, 57.9% of participants in males and 45.3% of females participating in regular physical activity.

From the analysis of sample data, we did not identify a type of regular physical activity dominant. Participants distribute their interests in physical activity for very different

modalities. However, Football with 14 (7.7%) and Futsal 11 (6%) form the modalities more marked.

Instruments

We applied a set of specific measures to collect specific information about physical activity, life styles and psychological well-being, in addition to demographic data to characterize the nature of the sample, which we present in detail. To collect data from a demographic questionnaire which was applied requested information about age, gender, and education degree course, as well as other indicators related to mobility of individuals between their home during the classes and the university, in particular through displacement used and the distance between two places.

The questions related to physical activity were drawn from an original questionnaire of Neto (1994). In it were considered questions that assessed the physical activity, including frequency and type of weekly physical activity, in this instrument was also requested information on participation in sporting competitions and for the pattern of physical activity, percencionado by the subject, with the reference standard moderate physical activity, solved based on international guidelines for regular physical activity, which suggests that this is performed for at least 30 minutes with moderate intensity, with a frequency of 5 or more times week.

The *Lifestyle Questionnaire* [Questionário de Estilos de Vida; QEV] from Carvalho & Cruz (2006) was the instrument used to assess the lifestyles of the study participants. It's a one-factor questionnaire consisting of 31 items, designed to measure the quality of certain behavior, through the manifestation of the answer choice in five different alternatives, a Likert scale consisting of five degrees, from one point to five points for Never always. These items assess the quality of lifestyle of individuals in various dimensions of life, such as eating habits, sleeping habits, consumption of licit and illicit substances, physical activity, sexual behavior, safety behaviors, and social integration social support, and consumption of culture.

To evaluate well-being, we used a shortened version of the 30 items Scales of Psychological Well-being (SPWB) of Ryff, adapted for the Portuguese population by Fernandes (2007). This version integrates six independent scales consist of indicators for each of the dimensions of wellness model Carol Ryff. The participant is asked to express their level of agreement or disagreement with each of the statements in a Likert scale of five points (1 = strongly disagree to 5 = strongly agree). The total score for each group of items allows analyzing the index of well being in each dimension, while the addition of six partial scores gives rise, according to Fernandes (2007) the indicator of overall psychological well-being.

Procedures

The sample was obtained by convenience sampling method and not random, there is concern that it was homogeneous, the distribution of participants in relation to gender and practice (or not) of regular physical activity. All participants were students at the University of Algarve and expressed their willingness for informed consent to participate in the study.

The collected data were treated statistically and organized by the Statistical Package for Social Sciences (SPSS - version 18) for Windows. The data collected were subjected to exploratory analyzes, descriptive and correlational, to achieve the goals of this research, and has assumed a significance level of 95%, since it is the value used in scientific investigations in this area. In particular, regarding the statistical treatment, we used descriptive statistics to present the results of different statistical parameters considered (eg, mean and standard deviation for

numerical variables and frequency and percentage values for the respective variables in nominal scale). In order to analyze the differences between groups, the various independent variables, we turn to inferential statistics, including variance analysis by One Way ANOVA and T-test.

RESULTS

In Table1, we present the mean, standard deviation, maximum and minimum of the variables of lifestyles and psychological well-being. We observed that the results obtained in items QEV have an average overall 115.64 (SD = 12.63) and with the values vary between a minimum 75 and a maximum of 144. Note that these values are very similar to those observed in the study instrument validation (Cruz & Carvalho, 2006), with a sample of 514 participants.

Table 1 Descriptive analysis of sample results in scales QEV and SPWB.

Variables	Mean	Standard Deviation	Minimum	Maximum
Lifestyles	115.64	12.63	75	144
Overall PWB	116.92	11.12	62	142
Autonomy	18.96	2.91	10	25
Environment Mastery	18.00	2.42	10	25
Personal Growth	21.47	2.32	12	25
Positive Relationships with Others	19.91	2.61	7	25
Purpose in Life	18.99	3.08	11	25
Self-Acceptance	19.59	2.90	8	25

Secondly, we observe that the results obtained by participants in the variables of psychological well-being (PWB) are tend to score closer to the maximum that was possible. Even the maximum theoretical variance is achieved in the six dimensions of PWB. The two dimensions that have lower minimum results are positive relationships with others and self-acceptance. The highest mean score is obtained in the size of personal growth (M = 21.47, SD = 2.32) and lowest in environment mastery dimension (M = 18.00, SD = 2.42). As global wellness has an average score of 116.92 (SD = 11.12), for a minimum 62 and a maximum value of 142.

Comparing the results obtained by our sample with the results observed in the validation study of the reduced version of the SPWB, we find the average measure of overall psychological well-being of the participants in our study is slightly higher than that observed by Fernandes (2007), 116.9 against 115.3. Identical result is observed in the dimensions of personal growth and life goals, while the values are slightly lower in our study participants on the dimensions of autonomy and the environment mastery.

Aiming to verify the extent to which different levels of lifestyles influence and interact with the psychological well-being, we divide the total results in QEV into three different groups. We considered that the group with results below 100 points corresponds to the low level; the group with scores between 110 and 125 points corresponds to the medium level; and the group results with more than 125 points with high, the highest level of lifestyles. The Table 2 shows the distribution of the results of psychological well-being in terms of three levels of Lifestyles. Overall, we can see that the highest values of the variables of psychological well-being are in marked tend representative group of lifestyle considered more healthy.

In detail we can see that the group of participants with the highest score in lifestyles (over 125 points) presents higher scores on the global measure (M = 123.00, SD = 10.40) and in all dimensions of psychological well-being - autonomy (M = 19.4,; SD = 2.84), the environment mastery (M = 19.05, SD = 2.08), the positive relations with others (M = 20.56; SD = 2.61), the

purpose in life (M = 21.15, SD = 2.26) and self-acceptance (M = 20.74, SD = 2.82) - except for the dimension of personal growth, in which the highest value is observed in the intermediate group (M = 21.40, SD = 1.90).

Table 2: Mean, standard deviation and variance analysis of results of psychological well-being in terms of three levels of scores in lifestyles.

PWB	Total scores in QEV							
	Below 110 points (n = 36)		Between points 110 and 125 (n = 98)		Over 125 points (n = 39)		F	p
	M	SD	M	SD	M	SD		
Overall PWB	113.41	13.97	116.15	8.82	123	10.40	9.149	.000
Autonomy	18.78	3.50	18.84	2.63	19.49	2.84	.807	.448
Environment Mastery	17.20	2.75	17.96	2.24	19.05	2.08	6.606	.002
Personal Growth	21.15	3.08	21.40	1.90	22.03	2.23	1.598	.205
Positive Relationships with Others	19.63	3.51	19.79	2.05	20.56	2.61	1.604	.204
Purpose in Life	17.80	3.07	18.69	2.97	21.15	2.26	15.568	.000
Self-Acceptance	18.85	3.66	19.48	2.36	20.74	2.82	4.862	.009

The comparative analysis of the means and standard deviations, by applying the One Way ANOVA test, confirms the existence of statistically significant differences in overall psychological well-being (F = 9.149, $p \leq .000$), the environment mastery (F = 6.606, $p \leq .000$), the dimension of life goals (F = 15.568, $p \leq .000$) and in dimension of self-acceptance (F = 4.862, $p = .009$).

Using the contrast method for multiple comparisons, Bonferroni test, we found significant differences at $p < .05$ in all possible dimensions and in all cases in favor of the representative group of lifestyles with higher score. Specifically, the dimensions of the field of environment ($p = .001$; $p = .045$), goals of life ($p \leq .000$; $p \leq .000$) and overall measure of psychological well-being ($p \leq .000$; $p = .002$) between the representative group of lifestyles with the highest score and the other two groups (respectively, below 110 points, and between 110 and 125 points). In the dimension of self-acceptance among the representative group of lifestyles with higher score and representative group index lifestyles lower ($p = .007$).

In the Table 3 is presented the distribution of results in psychological measures studied as a function of practice, or not in regular physical activity. Overall, we found that participants practicing regular physical activity have higher scores on the variables of psychological well-being and lifestyles, compared to participants who do not practice.

Table 3: Mean, standard deviation and variance analysis results in lifestyles and psychological measures in the light of regular physical activity (RPA).

Variables / Dimensions	Practice RPA (n=94)		Does not practice RPA (n=89)		Variance	
	M	SD	M	SD	t-test	p
Lifestyles	119.73	10.82	111.31	13.01	4.767	.000
Overall PWB	118.10	11.87	115.68	10.19	1.476	.142
Autonomy	18.95	3.02	18.98	2.82	-.071	.944
Environment Mastery	18.50	2.44	17.47	2.30	2.929	.004
Personal Growth	21.69	2.31	21.24	2.33	1.326	.186
Positive relationships	19.9	2.8	19.9	2.3	-.157	.876
Purpose in Life	19.27	3.02	18.71	3.14	1.222	.223
Self-Acceptance	19.82	3.07	19.35	2.69	1.099	.273

Abbreviations: RPA - regular physical activity

However, the comparative analysis of values for physical activity, by applying the t-test, we found only two statistically significant at $p < .05$, favorable to participants practicing regular physical activity. A measure of the lifestyles ($t = 4.676, p \leq 0.000$) and another in the environment mastery dimension ($t = 2.929, p = .004$) of psychological well-being,

Although variations between those who practice regular physical activity and those who do not practice, they are not very expressive, and therefore not statistically significant (except environment mastery, cited above), we should not underestimate the tendency for an average superiority of those who practice activity physical regularly, either in overall PWB or most of its dimensions.

Cid et al. (2007) reported that, nowadays, there is ample scientific evidence that regular physical activity has unquestionable benefits for the physical and psychological health, which in turn are causing a significant impact on the welfare Overview of the subject, regardless of age. Moreover, Brownell (1995), states that, besides the physiological benefits, exercise generates positive psychological effects such as improved mood state, reduce stress, increase self-esteem due to improved self-efficacy and cognitive schemes that favor reasoning optimistic.

Our study is based on the relationship between three sets of variables: the practice of regular physical activity, life styles and psychological well-being, together with its various dimensions. As such, the study of the correlations of these variables it is essential to try to be able to better understand the nature and magnitude of the associations between these measures in our sample.

Continuing the analysis of results, we consider necessary to assess the associations between variables under study, even at the level of its dimensions. Accordingly, we used the Pearson correlation coefficients, since these ratios reflect different degrees of association and allow us clarify the characteristics of the relationships observed.

By reading table 4 we verified that for the group of participants in the sample who claims to practice regular physical activity, the variable lifestyles presents moderate correlation coefficients with the dimension of purpose in life ($r = .49, p \leq .000$), and with the weak overall PWB ($r = .35, p = .001$) and with dimensions: environment mastery ($r = .20, p = .049$), positive relations with others ($r = .23, p = .024$) and self-acceptance ($r = .24, p = .020$). In terms of relationships between the various dimensions of psychological well-being found that associations go in the expected direction, however, with some higher intensity in the sample of practicing regular physical activity.

In particular, we note the following: the extent of autonomy has strong correlations with the overall PWB ($r = .68, p \leq .000$), with moderate dimensions self-acceptance ($r = .56, p \leq .000$), the environment mastery ($r = .50, p \leq .000$), personal growth ($r = .41, p \leq .000$) and weakly with purpose in life scale ($r = .28, p = .006$); the size of the field of medium correlates strongly with the overall PWB ($r = .78, p \leq .000$) and with the self-acceptance dimension ($r = .64, p \leq .000$) and moderately with personal growth ($r = .56, p \leq .000$) and purpose in life ($r = .50, p \leq .000$), the dimension of personal growth correlates strongly with the overall PWB ($r = .73, p \leq .000$), moderately with self-acceptance ($r = .52, p \leq .000$) and positive relationships with others ($r = .40, p = .024$) and with low intensity with purpose in life ($r = .32, p = .002$), the magnitude of positive relationships with other correlates moderately with the overall PWB ($r = .52, p \leq .000$) and with weak intensity with the purpose in life ($r = .27, p = .009$) and self-acceptance ($r = .26, p = .012$), the size of the purpose in life correlates strongly with the overall PWB ($r = .70, p \leq .000$).

.000) and moderately with self-acceptance ($r = .57, p \leq .000$), and the extent of self-acceptance is correlated with a coefficient very strong with the overall PWB ($r = .84, p \leq .000$).

In the analysis of the same table, but now as to the results obtained by participants who do not practice regular physical activity, the overall PWB, nevertheless correlate strongly with all its dimensions, but this has not made a significant association with the lifestyles what happens, and also individually with each of the dimensions of psychological well-being, with the exception of the relationship of purpose in life ($r = .27, p = .009$) with the lifestyles. The dimension of self-acceptance is a behavior similar to that observed in the overall PWB. All other dimensions of the PWB show a general reduction in correlation coefficients between the different dimensions of the PWB, despite some associations continue to show statistically significant coefficients with indices.

Table 4: Matrix of correlations between variables of the psychological well-being and the lifestyles: the relations in the sample of practitioners of regular physical activity and non-practitioners.

	1	2	3	4	5	6	7	8
1. Lifestyles	-	0.18	.20*	.11	.23*	.49***	.24*	.35**
2. AU	-.00	-	.50***	.41***	.12	.28**	.56***	.68***
3. EM	.11	.18	-	.56***	.18	.50***	.64***	.78***
4. PG	.12	.29*	.22*	-	.40***	.32**	.52***	.73***
5. PR	.04	.03	.29**	.28**	-	.27**	.26**	.52***
6. PL	.27*	.15	.40***	.34**	.26*	-	.57***	.70***
7. SA	.19	.36***	.48***	.50***	.38***	.48***	-	.84***
8. Overall PWB	.20	.53***	.64***	.66***	.54***	.70***	.82***	-

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

Abbreviations: Lifestyles = total scale lifestyles; dimension AU = autonomy; EM = Environment Mastery; PG = personal growth, PR = positive relations; PL = Purpose in life; SA = self-acceptance; Overall PWB = total scale psychological well-being.

Note. Practice Physical Activity Regular: $n = 94$; Not Practice Physical Activity Regular: $n = 89$

Correlations of Sample Practitioners of regular physical activity are shown above the diagonal. Correlations of the non-practitioners group are shown below the diagonal.

Table 5 shows the means and standard deviations of the results by standard physical activity. We distribute participants' responses into four groups: the group of participants who did not perform physical activity or intends to do so, the group of participants who do not realize but ponders come to perform, the group of participants who already perform a physical activity but so casual, and the group of participants who have regular physical activity.

Looking at Table 5, we note regarding the relationship between physical activity pattern above and the average value achieved in lifestyles, it grows depending on the pattern of physical activity requires greater amounts of physical activity. It is observed that the lowest value is recorded by students who said they did not carry out any physical activity nor intend to come to realize it ($M = 108.50, SD = 14.75$) and the highest for the group of students who said physical activity regularly ($M = 122.19, SD = 10.34$). The application of parametric test One way ANOVA confirms the statistically significant difference between these variables ($F = 10.398, p \leq 0.000$). Using the contrast test for multiple comparisons Tukey HSD, in order to verify the relationships of the different possibilities, we realized that whoever does not practice and does not intend to come practice any physical activity have statistically significant differences in the results of lifestyles, who performs occasionally ($p = .034$) and for those who regularly performs ($p \leq .000$)

Table 5 : Mean, standard deviation and variance analysis results in lifestyles and in psychological measures as a function of the standard physical activity.

Variables	Does not perform, nor intends to do so (n=34)		Not done, but considering coming to perform (n=64)		Performs occasionally (n=33)		Performs regularly (n=52)		F	p
	M	SD	M	SD	M	SD	M	SD		
	Lifestyles	108.50	14.75	113.48	11.37	116.85	11.09	122.19		
OPWB	113.94	14.03	117.20	10.15	115.60	10.81	119.38	10.01	1.856	.139
AU	19.12	3.54	18.86	2.69	18.15	2.71	19.50	2.81	1.508	.214
EM	17.91	3.03	17.77	2.20	17.39	2.09	18.73	2.31	2.544	.058
PG	20.53	2.82	21.66	2.12	21.61	2.49	21.77	1.98	2.364	.073
PR	19.15	3.00	20.20	2.23	20.30	2.36	19.81	2.87	1.521	.211
PL	18.15	3.42	19.13	2.94	18.94	3.05	19.42	3.03	1.234	.299
SA	19.09	3.06	19.59	2.79	19.21	2.97	20.15	2.85	1.185	.317

Abbreviations: Lifestyles = total scale lifestyles; dimension AU = autonomy; EM = Environment Mastery; PG = personal growth, PR = positive relations; PL = Purpose in life; SA = self-acceptance; Overall PWB = total scale psychological well-being.

In the measures of psychological well-being observed a tendency distribution identical result, however, according to the statistical tests applied the differences were not statistically significant.

DISCUSSION

The data we obtained in terms of daily commuting between home and campus, seem to indicate that the transport type or form of displacement of the study participants in this path, may be more associated with the distance between the two locations, as well as socio-economic status the students to be a behavior associated with a particular lifestyle or suggest any bearing on whether or not to exercise regular physical activity. The results observed at sample seem to indicate satisfactory levels of Lifestyles more positive, as well as for positive index of overall psychological well-being.

The results in the distribution of rates of psychological well-being by the three levels of lifestyles that define seem to indicate unequivocally that the participants in our study with healthier lifestyles show better psychological well-being. Already Blasco, Capdevila, Pintanel, Valiente & Cruz (1996), addressing this issue, we are told that the demonstration, in several studies, the positive correlation between maintaining active lifestyles and the availability of better health status and well-be fostered a growing interest of the scientific community in the development of aspects relating to knowledge and understanding of the factors that determine which individuals maintain active lifestyles.

The analyzed data also appear to show that the participants in our study who practice regular physical activity adopt lifestyles more positive as opposed to those who do not practice regular physical activity, and suggest that individuals who practice regular physical activity show improved capabilities for handle situations related to the domain of the environment where they operate. Implicit, then, a greater ability to develop a set of complex activities, at work, family and personal, ie describes individuals with more ability to develop a range of interests beyond their own personal sphere.

The analysis of correlation coefficients suggest a statistically more relevant between the lifestyles and psychological well-being in a sample of participants who reported regular physical activity. This correlational analysis seems to support the assertion Tower (1998), which argues that physical activity should be considered as a critical component of a healthy

lifestyle, to the extent that the realization of systematic physical activity and with some intensity, is a factor of protection of health and prevention of various disorders thereof by the important physiological and psychological benefits associated with exercise.

Overall our results seem to go in the same direction as observed in other studies. In other words seem to suggest a positive association between maintaining active lifestyles and healthy with the existence of better psychological states of welfare and affirmative answer to the fundamental question of our study: the practice of regular physical activity is positively associated with well-psychological wellbeing and the adoption of healthy lifestyles of students in Portuguese higher education?

In summary, the results seem to suggest that the participants in our study who practice regular physical activity adopt lifestyles more positive, as opposed to those who do not exercise regularly, have higher levels of psychological well-being and best environment mastery. Given the positive relationship observed between physical activity and lifestyle and psychological well-being of college students, the psychological well-being describes structural features of positive psychological functioning, and that describes the lifestyles and behaviors tend to be stable sustainable, then our results seem to suggest that for the older adult, maintaining an active lifestyle should be understood as one of the keys to healthy aging.

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Bringing Behaviour Back In “Why a behavioural perspective is needed to provide theories of action with a theory of agency”

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ABSTRACT

It is noted that sociology is commonly described as a discipline that studies ‘action’ as opposed to ‘behaviour’. However it is argued that this position is untenable given that ‘action’ is itself a form of behaviour, and hence that a ‘behavioural’ perspective needs to be incorporated into an action or interpretivist paradigm. Two common objections to such a proposal are then considered: first that ‘behaviour’ is too insignificant a portion of human conduct to be of concern to sociologists, and second that behavioural and action theory perspectives are incommensurate. The latter claim embracing the related assumptions that a behavioural analysis of human conduct ‘from the outside’ is incompatible with an ‘interpretivist’ analysis ‘from the inside’, and that an understanding of conduct in terms of stimulus-response is incompatible with one that presumes actors to be free agents. It is then demonstrated that neither claim is tenable given that actors are also self-observers while voluntarism does not preclude action being understood as a response to a stimulus. The paper ends with a plea for sociologists to recognise that a behavioural perspective supplies just that theory of agency that is missing from most theories of action and that in restoring it they would be implementing Weber’s recipe for a discipline that seeks to gain an “interpretive understanding of social action in order thereby to arrive at a causal explanation of its course and effects”.

Keywords: behaviour, action, agency, behaviourism, interpretive analysis

INTRODUCTION

Does the study of behaviourⁱ have any place in the discipline of sociology? A reading of sociology textbooks would suggest not; for sociology is commonly presented as not simply a discipline that rejects behaviourism but also as one that does not study behaviour. Thus Lee and Newby, in their textbook, feel that it is important ‘to stress that sociology is concerned with the study of social action *alone*. *Other forms of behaviour - for example, reflex behaviour - are not the proper object of sociological analysis*’ (1983:174; italics added.) While more succinctly, if no less categorically, David Silverman has claimed that ‘Sociology is concerned with understanding action rather than with observing behaviour’ (1970:126). This then would seem to be the prevailing orthodoxy, to wit that ‘action’ and ‘behaviour’ are to be regarded as two contrasting forms of human conduct and that while sociologists study ‘action’, others, presumably psychologists (albeit of a certain theoretical persuasion) are the ones who study ‘behaviour’. A first glance this might seem an acceptable division of labour. But there is a problem. This is the simple fact that these two categories do not exclude each other. ‘Action’ is not a separate and distinct form of human conduct, one that can be set over and against ‘behaviour’. It may differ significantly from respondent behaviour, if less so from conditioned forms, but it remains a form of behaviour none the less, something that Weber’s classic definition suggests with its claim that ‘action’ should be regarded as ‘all human *behaviour* when and in so far as the acting individual attaches a subjective meaning to it’ (1964: 88; italics added.) What this strongly suggests is that ‘action’ should not be regarded as ‘behaviour’ that has been transformed, through some magical alchemy, into a different phenomenon altogether, but that it is simply a distinctive form of behaviour, and as such retains the basic

characteristics of all behaviour. What is more, the assumption of a simple division of labour in which sociologists study 'action', while the non-sociological 'behaviourists' study 'behaviour' leaves sociologists with the obvious problem of a very circumscribed subject-matter. For while the behaviourists can claim (rightly or wrongly) that their paradigm encompasses all of human conduct, sociologists who consider their subject-matter to be limited to the study of 'action' are forced to admit that theirs does not embrace all of human conduct, omitting as it does whatever falls under the heading of 'behaviour'. Clearly it would be preferable if sociologists could include the study of behaviour alongside the study of action and therefore not merely expand the scope of their discipline but also deepen and extend the study of action itself. However, if this is to happen, then sociologists must find a way of accommodating, if not integrating, the study of behaviour into their existing paradigms.

Sociology and Behaviourism

The study of behaviour has not always been excluded from sociology. Indeed there have been some sociologists, such as G. A. Lundberg (1964), R. Emerson (1972) and George C. Homans (1974), who were prepared to call themselves 'behaviourists', while this self-description was also employed by members of the Chicago School, more especially by Dewey and Mead, with the latter consistently describing himself as a 'social behaviorist'. Indeed, there are those who have advocated a distinct perspective called 'behavioural sociology' (see Burgess and Bushell 1969; Molm 1981), which is one that clearly does not see the study of behaviour as excluded from the discipline. But then a good case can also be made in support of the claim that behaviourism continues to be a significant element in many schools of sociology to this day. The most obvious candidate here is symbolic interactionism, where Mead's style of behaviourism, although down-played by later interactionists, still exerts an influence. But then, as both Homans (1987) and Turner (1988) have argued, both utilitarian economics and rational choice theory can also legitimately be regarded as behaviourist in their fundamental orientations, with Jonathan Turner also suggesting that this is true of modern exchange theory, Marxism and critical theory (1988). However, despite this, if behaviourism is mentioned at all in contemporary sociology textbooks, it is most likely to be simply in order to dismiss it, with the result that any 'sociological significance' that it may be deemed to possess is said to be because it 'it conflicts with basic sociological assumptions about human behaviour' (Johnson 2000:26). A statement that rather suggests behaviourism's usefulness is merely that of a negative reference point, enabling sociology to be presented as a discipline that is 'not behaviourism'.

Now it is understandable that some sociologists should reject behaviourism. For this is a tradition of inquiry that has been as concerned with studying animal as human behaviour, while traditionally denying that consciousness has any relevance to the understanding of human conduct, and has consequently concentrated on studying only observable behaviour. This position, as developed by the likes of Thorndike, Pavlov, Watson and Skinner, emerged as a reaction against introspection, and consequently tended to treat consciousness and mental states as epiphenomena, preferring to study observable behaviour since this was apparently measurable and hence open to 'scientific' inquiry.ⁱⁱ Regarded in this light it is un-surprising that the interpretive and action theory traditions within sociology should be represented as involving the rejection of behaviourism, given that these perspectives typically take as their subject-matter precisely those very features of human life that behaviourism itself rejects.ⁱⁱⁱ However it is hard to see quite why this should lead, in turn, to a rejection of the study of behaviour. The assumption that appears to justify this conclusion is that since action is not behaviour and sociologists are deemed to be those people who study the former there is therefore no need for them to concern themselves with the latter. In this way a behaviourist indifference to action is matched by a sociological indifference to behaviour. Yet, as stated

above, the two positions are not equivalent. All sociologists are justified in rejecting is behaviourism's dismissal of the concept of action. For while behaviourists may refuse to recognise the reality of the phenomenon of action, sociologists can hardly argue that behaviour does not exist. Indeed, it is hard to see how they can escape conceding that behaviour, in addition to action, needs to be studied, even if they do decline to undertake the task themselves. Consequently while behaviourism cannot by definition involve the study of something called 'action', it does not logically follow that sociologists who study action cannot, in addition, study behaviour.

Behaviour as Insignificant

One possible explanation for the sociological neglect of behaviour is that while recognising that behaviour is a legitimate object of study many sociologists may consider that it is one that they can safely ignore. For they might argue that although sociology does not necessarily imply a rejection of behaviourism, that category of conduct falling under the heading of behaviour is essentially trivial and hence has so little bearing on action that it can quite reasonably be ignored. This argument appears more than plausible given that the legitimate subject-matter of behaviourism is typically represented as being limited to the study of reflex actions. Indeed it has become common practice among sociologists to cite simple reflex movements (such as blinking, or the knee jerk) as examples of that category of conduct covered by the term 'behaviour'. However by consistently using examples of simple respondent behaviours in this way and then contrasting them with examples of complex, purposeful and meaningful conduct - designated 'action' - sociologists necessarily give the impression that behaviour refers to only a small, as well as an essentially trivial, proportion of all human conduct. However it is unjustifiable to limit the concept of behaviour to its simple respondent form. For, although sociologists rarely mention it, there is an operant as well as a respondent form of behaviour, and this operant or learnt form not only constitutes a considerable part of human conduct as a whole but is not obviously equatable with action as that term is conventionally understood. Consequently the representation of behaviourism as exclusively, or even predominantly, concerned with reflex responses is deeply misleading.

Indeed, even from the perspective of sociology itself this limitation of behaviour to reflex actions, with the accompanying suggestion that everything else humans do is accompanied by subjective meaning, is unjustified. It is worth quoting Weber at this point. For he not only defined behaviour as action "when and *in so far as* the acting individual attaches a subjective meaning to it" (1964: 88; italics added), but went on to observe that, as far as the categories of behaviour and action are concerned, "*a very considerable part of all sociologically relevant behaviour is marginal between the two*" (1964:90; italics added); comments that hardly suggest that the proportion of human conduct lacking subjective meaning is small, or limited to reflex responses. On the contrary they suggest that the two categories should really be considered as ideal types and that human conduct is typically hybrid in form, comprising part behaviour and part action.

Accepting the truth of this statement suggests that sociologists should not only reject the idea that behaviour refers to a small and trivial portion of human conduct. They should also abandon their tendency to adopt a simple binary mode of thinking, whereby items of conduct are either judged to be reflexes or full-blown actions, and recognize instead that the reality is rather more complex, with much human conduct being effectively 'mixed' in character; that is, possessing some of the characteristics of the ideal-type of behaviour and some of ideal-type of action. Looked at from an interpretive or action theory perspective this hybrid category is best identified with that form of conduct conventionally known as habit (although Weber tended to

use the term 'tradition'). That is to say, with those items of conduct that manifest intentionality and are in most cases performed voluntarily (to this extent they conform to ideal-type action), but that, on the other hand, individuals typically undertake without any prior planning, deliberation or, in most cases, monitoring (and to this extent resemble the automatic and involuntary responses characteristic of the ideal-type of behaviour).^{iv}

There is however an even more powerful argument in favour of regarding behaviour as an important phenomenon for sociologists to study in addition to the observation that most conduct is of a hybrid form and hence has a behavioural ingredient in addition to its actional qualities. This is the fact that action is itself a form of behaviour. This simple truth is all too often forgotten by sociologists. However the fact that ideal-typical action possesses qualities not present in simple respondent behaviours - qualities such as rationality, voluntarism and reflection - this does not mean that it ceases to be behaviour. All it means is that it should be treated as a special category or class of behaviour; one that may indeed require different methods of study, but not one that can simply be excluded altogether from the general overall heading of 'behaviour'. Indeed, it is important sociologists recognise that although action may be contrasted with simple behaviour, strictly speaking the true opposite of behaviour is not action but complete inactivity, such as may characterise unconsciousness or death. In that sense all the relevant categories of human conduct should be thought of as varieties of behaviour: these being respondent behaviour, conditioned (or learnt) behaviour, and action-behaviour.

These self-evident truths are routinely obscured by the common practice of contrasting action with behaviour as a whole, when it should be contrasted just with its simple or respondent forms, making it clear - as Weber does - that action is itself a form of behaviour. Unfortunately, few contemporary sociologists take the trouble to do this, although earlier generations usually did. Thus Ludwig von Mises, one of the founders of action theory, defined action as a form of behaviour. He writes that 'human action is purposeful behavior' (1949:11), while David Martin also defines action as 'purposeful behaviour' (1970:6). Classic definitions like these that make it clear that action is a type of behaviour do not create any problems. These derive from those, more contemporary, definitions that set out to represent action as 'not behaviour'. The crucial point here is the inclusion of a suitable qualifying adverb; thus those definitions that make it clear that action is not *merely* behaviour, or not *simply* behaviour, are accurate and not misleading. Unfortunately, all too often the qualifying adverb is missing, with the result that action is presented as if it were not a form of behaviour. Recognising that action is a form of behaviour makes it impossible for sociologists to argue that behaviour is a trivial, insignificant form of conduct not worthy of their attention.

One final reason why behaviour cannot be treated by sociologists as a marginal phenomenon, of little relevance to the study of action, is that the two categories of conduct are not immutable. Individual items of conduct are not fixed forever as either respondent, conditioned or action-behaviour, but can change their status over time, either from less to more simple forms, or in the reverse direction. This should be obvious enough, as biographically all action has developed out of more 'primitive' forms of behaviour (just as all conditioned behaviour has developed out of respondent behaviour). But then it is also the case that an action-behaviour may 'degenerate' back into a primitive form at any time. If therefore sociologists are serious in their efforts to understand human action, and consequently embrace diachronic as well as a synchronic forms of analysis, they can hardly escape the necessity of studying the relationship between action and the other categories of behaviour.

Incommensurate Perspectives

However even if sociologists were willing to acknowledge that behaviour is far from being a trivial component of people's everyday conduct it is still more than likely that the majority would argue against the adoption of a behavioural perspective. The grounds for this rejection being the widespread assumption that the premises embodied in the latter, as well as the methods typically employed, are so at odds with those that guide the study of action that the two perspectives could not possibly be combined. In other words, the claim is that the two theoretical perspectives, or more particularly the epistemological assumptions that underpin them, are so different that they effectively exclude each other. This would certainly seem to be Alan Johnson's position, as noted above, while it is fairly usual to encounter behaviourism and action theory described as 'incompatible' or 'mutually exclusive' perspectives or paradigms (see, for example, Harre and Secord, 1972:29; and Burrell and Morgan 1979:25). But then crucially, this claim of a basic opposition between the two is frequently supported by means of a very particular argument. This is the suggestion that precisely the same item of human activity can legitimately be the object of study by either paradigm.

The importance of this argument is that it appears to suggest that social and human scientists have to make an a priori commitment to one or other of the two paradigms; that they are in effect required to choose between them. As long as it is possible to believe that the choice of paradigm is dictated by the nature of the phenomenon under investigation then no such choice need be made. On the contrary, the careful investigator would ensure that it was the nature of the phenomenon that dictated the choice, such that items of behaviour would be studied employing a behavioural paradigm and items of action an action one; thereby leaving open the possibility of an integration, or least a reconciliation, of the two approaches. However, if it is indeed the case that any one item of conduct can be examined - with equal justification - from either perspective, then any such a necessary link is broken and the possibility of any integration lost. So, how convincing is this claim?

What is usually suggested is that 'the same movements', may be either behaviour or action depending simply on the framework of analysis that is applied. Thus 'the same' movements of the muscles round the eye may be judged to constitute either a blink or a wink depending on whether a behaviourist or an actionist paradigm is applied. Similarly, 'the same' movements of the finger against the side of the nose may be either 'making a bid at an auction' or 'scratching an itch', depending again on whether an action or a behaviourist paradigm is applied (see Cuff and Payne 1981:118; Brandstadter 1984:116; and Doyal and Harris 1986: 53-4). Although in some cases the writers who cite these examples merely seek to illustrate the difference between the two paradigms, some also appear to assume they are demonstrating that whether an item of conduct is deemed to be behaviour or action is not dependent on any quality intrinsic to the conduct itself but derives solely from the framework of analysis which is applied. In this they are unsuccessful. For there is little evidence to suggest that such genuinely ambiguous events actually exist in reality; that is, ones that can be dubbed either behaviour or action with equal justification. Certainly the fact that, on occasion, people may make mistakes in their identification of items of conduct is not evidence for such a contention. Indeed, as Giddens (1976:73) has noted, there are not two alternative and 'equally correct' modes of describing behaviour. An item of conduct is either a blink or a wink, either a bid or a scratch, and the fact that some observers may have mistaken the one for the other does not imply that human or social scientists are free to apply whichever mode they fancy. On the contrary, they have an obligation to establish whether the behaviour in question was a willed action or an involuntary (or automatic) response to stimuli and so label it correctly.

There is however a more important point. The assumption contained in the above cited examples is that the items of behaviour identified as 'the same' are indeed behaviourally identical, only being distinguishable by the presence or absence of a mental component; that is to say, one known to the acting subject but invisible to an observer. Consequently it is only action theorists in their capacity as 'interpretivists' who are in a position to claim that such acts are indeed different as behaviourists, with their commitment to studying only that which is observable, would be unable to distinguish one from the other. Yet such an assumption is unwarranted, for it is simply not true that items of conduct performed with self-conscious intention are behaviourally identical with those that are performed instinctively or involuntarily, even if, to the casual observer, this may sometimes appear to be the case. In reality willed behaviour, that is action, differs from respondent and conditioned forms in its physiological as well as its mental characteristics. For action is not merely behaviour plus a mental component; it is a different form of behaviour. Thus the voluntary eye-blink or wink 'differs both in form and latency from the involuntary conditioned blink' (Kimble and Perlmutter 1970:363) as well as involving different parts of the brain. This clearly suggests that the two forms of conduct are indeed distinguishable by an observer - at least in principle - without the need to ask the subject. Hence there is no justification, even from a behaviourist perspective, for judging these to be examples of identical items of conduct, nor for failing to recognise actions as a special class of behaviours.^v Hence the suggestion that the 'same' item of conduct can be studied with equal justification from either paradigm is untrue. For what it is suggested constitutes 'the same item', turns out, under closer scrutiny, to be quite different. Hence there are not two different ways of looking at the same phenomenon; only two different ways of looking at different phenomenon. Respondent behaviour and willed action are two different forms of human conduct; and they remain different whether viewed from a behaviourist or an action paradigm. There is therefore no justification for sociologists to dismiss behaviourism on the grounds that it is intrinsically unable to distinguish action from behaviour

The Actor as Self-Observer

It is now time to turn to the question of how behavioural insights might be integrated into an action theory framework and the main obstacles here would appear to be first that the former takes the standpoint of the observer while the latter adopts that of the acting subject, and second, behaviourism assumes that human conduct should be understood as consisting of responses to stimuli while actionism treats the person as an autonomous conscious agent purposively directing his or her own conduct.

We can start by observing that although behaviourism is typified by the adoption of an observer's standpoint, while the sociologist (or more properly the interpretivist or action-theorist), being concerned to elicit the subjective meaning, characteristically adopts the actor's frame of reference, this choice - given that some conduct consists of respondent or operant behaviour - does not always exist. In this respect, as already noted, the two positions are not symmetrical. For although the behaviourist can adopt the role of scientific observer with respect to all aspects of human behaviour, the sociological interpretivist or action-theorist can only adopt the actor's frame of reference when the conduct concerned does indeed possess meaning. When it comes to behaviour that lacks subjective meaning, the latter option no longer exists. Clearly in these instances the sociologist really has little alternative but to adopt the stance of an observer.

This observation offers the possibility of a degree of integration, suggesting an approach that might offer some reconciliation between the two perspectives. Because it is not just the sociologist who is forced to study behaviour 'from the outside' as it were, rather than via the

actor's subjective understanding; this is also the perspective that actors themselves must adopt. Sociologists, by generally failing to acknowledge the significance of non-action behaviour in human conduct, have tended to avoid confronting the question of how actors regard their own behaviour. Focusing exclusively on meaningful action they have not asked themselves what attitude actors take toward their own 'meaningless' conduct. The answer, of course, is that actors are also necessarily observers of their own conduct; especially of that portion that of it that 'happens to them' rather than the portion they 'do'. Acknowledging the truth of this observation leads to the intriguing realisation that, in this instance, adopting the actor's frame of reference is essentially the same thing as adopting an observer's frame of reference. Or, rather, one is in effect adopting the one through the medium of the other, via the actor's role as self-observer. This suggests the possibility of moving some way toward accommodating a behaviourist stance into an action framework by adopting the actor's stance as an observer of his or her own conduct.^{vi}

To stress that the actor must also be a self-observer is not to re-iterate claims about 'taking the role of the other', still less is it to imply the relevance of such concepts as introspection or reflexivity. It is simply to observe that when it comes to behaviour - whether in the form of respondent or conditioned responses - the behavior has no option but to observe and understand these actions in roughly the same manner as would any bystander or experimental psychologist; the simple fact being that although he or she is the performer of the behaviours in question this confers no privileged or special insight concerning precisely 'what is happening'. From the perspective of the actor such events are of an 'environmental' character; that is to say, they have the status of being 'out there' and hence can only be studied as if they were separate from the actor as agent. Of course, this is not to suggest that actors necessarily adopt the same degree of scientific detachment that might characterise the behaviourist; it is simply to suggest that the character of their approach is fundamentally the same.

To illustrate this point we can take as an example the phenomenon of 'the sneeze', one of that category of simple reflex actions that sociologists typically refer to when illustrating behaviourism. This is an unintentional and involuntary behavioural response that, having no subjective meaning, cannot be judged to count as 'an action'. Consequently when it comes to understanding sneezing the individuals who are subject to it are no better placed than are any observers of the event. If, therefore, someone sneezes several times in succession both the sneezer and any observers of the sneezing are equally well placed to interpret it, and, if possible, grasp its significance; if indeed it has any. Say, for example, by forming the hypothesis that the sufferer is developing a cold.^{vii} Having said this, in practice individuals are more likely to be continually engaged in this process of monitoring their own behaviour and drawing inferences from it than are most observers. Unless, that is, their role is one, like that of a nurse in a hospital or the mother of a young child, which carries with it a clear obligation to monitor and interpret someone else's behavioural 'condition'. The reason why individuals engage in this monitoring is not egoism or self-concern; it is simply that the scrutinizing one's own behaviour is usually a necessary condition for the successful performance of most actions.

Indeed, there is an excellent reason why actors need to be engaged in a continual process of self-observation or the monitoring of their own respondent and conditioned behaviour, as opposed that is to simply reflecting on their actions; for unless they do, they will not know what they are doing. It may well be a central presumption of action theory that actors do indeed know what they are 'doing'. Indeed in the interpretive tradition generally it tends to be the case by definition that actors are doing what they know themselves to be doing. But this cannot be taken as given as far as their behaviour is concerned. Since behaviour is something

that 'happens to us', rather than something we 'do', it follows that we can only discover the nature of our behaviour through a process of careful self-observation. Indeed actors frequently discover that they are 'doing' things that they did not know they were doing, or alternatively become aware of events and processes in their body that they did not intend or desire. Thus one may 'discover' oneself scratching an itch or twiddling one's hair, or 'discover' that you have just spoken aloud, or that you are too tired to stand up, or that you need to go to the bathroom, or are too full to eat any more. As these examples illustrate, an observer orientation toward their own bodies - in the sense of a continual monitoring of self-states and self-behaviour - is an essential part of the repertoire of skills required of all actors.

Naturally individuals do not simply observe their own behaviour, they also strive to understand it, and in so doing they reveal a remarkable propensity for behaviourist-style explanations. That is to say, individuals often adopt a behaviourist position vis-a-vis their own conduct, offering causal explanations of their behaviour. Consequently whether or not sociologists acknowledge the relevance of behaviourism to an understanding of human behaviour it is important that they recognise that the individuals they study commonly do. This is to say no more than that individuals commonly draw upon assumptions about the importance of environmental influences and the role of stimuli in accounting for the things they 'do'. For example, individuals may account for their mistakes by observing that they 'were too tired' to get it right, or note that they jumped back out of the way 'instinctively', or excuse their failure to climb any further up the mountain by observing that they 'lacked the effort'; or alternatively, they will attribute their renewed energy to continue a task to the 'stimulus' provided by the hot coffee and its constituent caffeine. All of which is to say no more than that individuals recognise only too well that they are organisms and, just like all living things, are subject to the dynamic influences exerted on them by a wide variety of internal and external stimuli.

However unlike behaviourists ordinary individuals are motivated to understand their behaviour by something more than mere scientific curiosity. They need this knowledge if they are to be successful in achieving their goals. The fact that as far as behaviour is concerned all individuals are necessarily self-observers, noting the way in which they respond to stimuli and taking this into account when formulating or monitoring their action-plans, has largely been overlooked by action theorist, even though it is clearly critical to the successful performance of all action. Strangely, action theorists, although quick to see the importance of accurate, 'scientific' knowledge for the performance of successful 'rational' action, seem to have presumed that this was largely a matter of being well-informed about the environment in which the action was to take place; discussion of the norms governing the choice of means to attain desired ends or goals being generally couched in these terms. Or, if the competence and ability of the actor is recognised as entering into the equation, then this matter is typically assumed to be dealt with under such headings as 'socialisation' or 'pattern-maintenance and tension-management'. The truth, however, is that self-observation, in the form of a continual monitoring of one's own behaviour, is a necessary condition of the successful performance of any action. It is in that respect a key prerequisite of the power of agency. Thus, it is not simply in relation to their respondent and conditioned behaviour that individuals typically take on the role of self-observer. They also need to do the same in relation to their action-behaviour. For the fact that what the individual is 'doing' is being done consciously, voluntarily, attentively and with a distinct purpose in mind, does not mean that self-observation is no longer necessary. On the contrary, the behavioural features of the action engaged in still need to be monitored in this way. Consequently an observer perspective on conduct is an integral feature of the actor's frame of reference and should therefore also be part of the sociologist's. It follows that if the action-sociologist or interpretivist genuinely seeks to 'understand' the actions of

individuals then the information he or she needs to elicit from the subject will include material derived from self-observation as well as introspection and reflexive consideration. In that respect the old debate over whether human conduct is best understood 'from without' (i.e. through observation), or 'from within' (i.e. through eliciting the subject's understanding) fails to recognise that whilst 'from without' cannot include 'from within' the reverse is not necessarily the case.

Action as a Response to a Stimulus

It is now time to move on the second of the major differences between behaviourism and action theory, the fact that the former asserts that human conduct should be understood as consisting of responses to stimuli, consequently laying stress upon association and conditioning, while the voluntaristic action theory model tends to stress meaning, and in particular goals and the rational choice of means to achieve these goals, thus presenting the person as an agent consciously and purposively directing his or her own conduct. Since it is often assumed that these two models are in direct conflict with each other it is important to note that there is in fact no *logical* conflict between them. One reason why this is the case is that they actually address different aspects of conduct. Most self-designated action theories, for example, despite their name, do not actually have much to say about the accomplishment of action. Indeed the majority are theories of choice or decision-making (see Campbell 1996). However to identify the intention or intentions embodied in an act, the goals toward which it is directed, or the reasons why that act was selected from possible alternatives, still leaves open the question of how the act itself was initiated and carried through; which is to say no more than that most theories of action fail to include a theory of agency. And it is precisely this lacuna that a behaviourist perspective is able to fill. For by contrast with theories that concern themselves exclusively with 'meaning' behaviourist accounts directly address the question of the forces that enable acts to occur, whilst generally not addressing such questions as why alternative but equally possible actions were not performed, or in what way meaning was involved. In other words, the interpretive mode of analysis tends to address the question of why that particular action was performed rather than any other, whereas the behaviourist mode tends to address the question of how it was (that is to say through what dynamic processes) the action in question came to be accomplished.^{viii}

What this difference between the two modes of analysis strongly suggests is that there is no good reason why an act cannot be regarded as both a means to an end and a response to a stimulus, even if the reverse is not always the case. Because to claim that an action is a response to a stimulus does not necessarily mean that the actor had no control over its occurrence. Indeed 'action' is best conceived of as behaviour with meaning added; not as behaviour in which meaning has been substituted for a response to a stimulus. The problem here, as indicated above, is the consistent equation of behaviourism with respondent or reflex actions and hence the consequent assumption that, if an act is assumed to be a response to stimuli then it must also be involuntary. Yet there is no reason why willed actions cannot also be regarded as responses to stimuli.

The self-evident truth of this assertion can be illustrated by considering the simple, if not paradigmatic, case of control over the bladder and defecation. There is no doubt that in all animals urination and defecation are reflex responses to physiological stimuli, while human beings start life, as most animals continue theirs, responding involuntarily and immediately to these stimuli. However, as babies become toddlers the process of toilet training begins and, when eventually successful, children can be said to have acquired control over these responses, such that they now only urinate and defecate when and where they will these acts to occur.

However, the acquisition of voluntary control does not mean that these acts are no longer responses to stimuli. On the contrary, they remain, as they always were, responses to certain internal physiological processes that involve the actor becoming aware of distinct stimuli. All that has changed is that the actor has gained an ability to delay the response, such that it does not immediately and automatically follow the onset of the stimuli. Consequently willed action in this case is still a response to stimuli; it is simply that it is a controlled, and hence a delayed, one.

This example indicates that individuals often have a degree of choice over when they respond to stimuli. But at the same time the capacity to exercise this choice also implies the existence of a capacity to decide which stimuli to respond to. For human beings are bombarded by a range of stimuli at all times. As it is impossible to respond to all of them there is a process of selection involved. Babies, as well as animals, generally allow this process to be decided by a kind of natural selection in which the stronger stimuli win out over the weaker. Adults however, by virtue of having gained a degree of control over the automaticity of their inherited responses, can generally choose which stimuli will win this competition, at least in the short term. This is achieved by exercising the will, usually through a process of diverting attention away from the stimuli that are to be ignored and toward those that they wish to respond to.

It should be clear from the above that, instead of presenting responses to stimuli as a form of conduct fundamentally opposed to willed action, all actions should be seen as, in effect, *merely responses that the actor consciously decides to allow to happen*. It is interesting in this context that Ludwig von Mises, although rightly renowned as an action theorist, described action as 'the ego's meaningful response to stimuli and to the conditions of its environment' (1949:11). However some sociologists may still feel that even if it is accepted that adults have the capacity both to delay their responses to stimuli and to select which stimuli to respond to, this perspective remains one that still presents the environment, rather than the individual, as the primary initiating agent, or 'cause' of conduct. In order to counter this impression it is necessary to go one step further and note that in the case of human beings what is referred to as 'the environment' - that is, the source of the stimuli that they experience - is not a fixed and unalterable given, outside of their control, but that, on the contrary, individuals have considerable power to modify and alter this environment and thereby the stimuli they experience. Thus if the S-R model of human behaviour carries with it strong implications of environmental determinism, then we must note that, in the case of humans at least, the environment that individual actors inhabit is one over which they typically have considerable control. Thus, just to take a few examples, we may close the window to shut out that distracting noise; or possibly open it, and turn down the heating, in order to stop ourselves sweating. Similarly, we may take pills to eliminate our sea-sickness, put on sun-glasses to prevent having to screw up our eyes, wear extra layers of clothing in order to stop ourselves shivering from the cold, or hold our nose so that the strong stench does not make us sick. In each of these cases the respondent behaviours involved (turning toward a loud noise, sweating, being sea-sick, closing our eyes against a bright light and shivering, the overpowering smell making us sick) are all direct and involuntary reactions to environmental stimuli. Individuals can, however, block their operation by the simple device of modifying the environment.^{ix}

But of far more importance than the simple fact that humans have a degree of control over their environment in this way is the fact that the original behaviourist claim that people respond to stimuli requires modification in one vital respect. Generally speaking, individuals do not respond to stimuli, but rather to *the meaning* of stimuli. The reason why, in Pavlov's original experiments, the dogs came to salivate when the bell was rung was because the bell had previously been associated with food. In other words this particular sound-stimulus had

come to 'mean' food to the dogs. The same, of course, is true of human beings, except that they have the power purposely to create their own associations or 'meanings'. Thus while it is still true that all human beings will jump involuntarily if startled by a loud noise, if that noise is a bell, then this sound may 'mean' different things to those who hear it, and hence produce rather different responses. For example, if this is a fire-alarm then it may produce fear and panic; alternatively, if it signals the end of school-lessons for the day it may produce celebration and delight.^x

Finally it is important to note that cognitions, that is to say, ideas or thoughts, can also serve as stimuli producing behavioural responses. There is no good reason why it should be assumed that a stimulus cannot be a mental event any more than it must originate outside the organism concerned. As Cautela expresses it, 'stimuli presented in imagination have similar functional relationships to covert and overt behaviour as do stimuli presented externally.' (1971:111). This means, not only that an actor's 'environment' should be considered to include the content of consciousness, but also that describing conduct as the outcome of conscious control is quite consistent with claiming that it is a response to a stimulus.

We have reached the point of being able to see that in viewing the conduct of individuals as responses to stimuli we are not adopting a position that necessarily rules out either voluntarism or the understanding of conduct in terms of its meaning for the actors concerned. For, once we accept that individuals respond to the meaning of stimuli, whilst accepting that human beings are themselves the principal source of that meaning (and also, very often of the stimuli themselves), then we have come a good way toward an integrated position; one that effectively brings a stimuli-response model into line with a meaningful-agency model of human conduct. What this discussion clearly demonstrates is that a behaviourist, observer-based, stimulus-response view of human conduct, far from being at odds with an actor-based, interpretive one, is a critical part of such a model, and the way in which the two can perhaps best be integrated is by recognising that actors are themselves lay behaviourists.

They are behaviourists for the simple reason that they have to understand their own behaviour, and they do this by drawing upon a body of knowledge that is itself derived from observations of humans and animals going back many thousands of years. Pavlov may have gained his understanding of the process of conditioning through a series of experiments on dogs conducted in the 1920s, but shepherds have been controlling the behaviour of their dogs through a common-sense understanding of the same processes for generations. As Homans observes, the behaviourists' 'law of effect' has been known to mankind 'intuitively' throughout history (1987:55). But then individuals have also long recognised that they too are animals and hence that this law also applies to them. Consequently there is a kind of 'folk-law behaviourism' embodied in the common-sense knowledge that individuals use to guide and control their own actions. For example, that counting sheep may aid the onset of sleep, or that concentrating one's gaze on the horizon helps to avoid sea-sickness. These rough and ready rules of thumb reveal a basic knowledge of human behaviour - that is the way the body reacts to different stimuli - as well as ways of coping with or eliminating unwanted responses. Indeed, it is the very application of this knowledge, gained through a behaviourist understanding, that is critical in enabling individuals to engage in voluntaristic action.

§The simple truth is that actors know only too well that their conduct consists of responses to stimuli. Or rather, their behaviour reveals that they understand this 'law' well enough to employ it constantly in the control of their own conduct, even if they are not able to articulate it using the terms that would satisfy the professional behaviourist. However they do not make

the mistake, so common among sociologists, of assuming that its widespread applicability implies that human conduct is not voluntaristic. On the contrary, they understand that action is merely behaviour that is allowed to happen. If therefore the acting subject's world-view incorporates behaviourist assumptions how can interpretivists - committed as they are to being true to the subjective world-view of the actor - avoid incorporating these self-same assumptions into their theories?

CONCLUSION

The complete and unqualified rejection of behaviourism that currently characterises much of sociology is unjustified, and sociologists should cease presenting their disciplinary perspective as fundamentally opposed to behavioural-style analysis. Instead they should distinguish clearly between the legitimate refutation of behaviourism's dismissal of interpretive forms of analysis, and the rejection of behaviourism *per se*. The fact that behaviourists reject a view of human conduct that is fundamental to sociology is not in itself a good enough reason for sociologists to reject behaviourism, and certainly not a good enough reason to ignore the study of behaviour. For not only is simple behaviour - that is conduct that lacks subjective meaning - a real and not insignificant part of all human conduct, but that form of meaningful action that is of primary concern to sociologists is itself also a form of behaviour. Finally, when one adds to these observations the fact that much human conduct comprises a complex mixture of both simple and meaningful forms, whilst an analysis of the dynamic relationship between the two is probably the key to an understanding of individual human conduct in general, then it is clear that sociologists must make room for the study of behaviour within their discipline.

The truth is that interpretive, action-theory style perspectives have been over-applied, with reflective models of human conduct - that is, ones that present human beings as deliberative, purposive, reflective individuals - frequently being extended to cover conduct that is clearly unreflective. One is tempted to observe that such schemas have been employed unreflectively, as if all human activity was necessarily of this kind. For, as Camic has noted, those who use these models 'rarely provide a reasoned defence, or even an explicit justification, for their practice of uniformly casting human conduct into this one mould' (1986:1041). It is as if sociologists have over-reacted to behaviourism, using their stereotyped representation of that perspective as a means of justifying the adoption of an equally extreme position of their own. For just as radical behaviourists made physiological responses all there is to study in human beings, so many sociologists have responded by making reflective conduct all that they study. Both positions are, of course, equally absurd. As Don Mixon represents them, the one explains conduct in terms of the person as object responding to the push and pull of forces exerted by the environment, while the other explains it in terms of the person acting as agent directing their own behaviour. That is 'One camp seems to believe that we can do anything we choose to do, the other that we cannot choose to do anything. Both notions violate common sense and everyday experience' (1984:169). Or, as Mischel & Mischel represent the consequences of such an extreme polarisation of positions: 'To present causal powers either for the person or the environment exclusively ... seems to guarantee incomplete explanations and assures an exercise in futility' (1977:57).

Consequently sociologists need to recognise that all human conduct consists of behaviour and, as such, is subject to behaviourist laws. This is true of action-behaviour no less than of the respondent and operant forms. In this basic sense all conduct can be said to constitute responses to stimuli. Recognising this truth does not mean, however, that sociologists must abandon *verstehen* or cease investigating the role of meaning in conduct, still less that they must assume that individuals are not capable of voluntary, willed action. For a response to a stimulus can also be a deliberately chosen means to an end, just as actors may adopt an

observer perspective when viewing their own conduct. Nor is there any good reason why sociologists should continue to contrast interpretive understanding with causal explanation, as if these two modes of inquiry were irreconcilable. Indeed they would do well to remind themselves that Weber's definition of their discipline referred to "the interpretive understanding of social action in order thereby to arrive at a causal explanation of its course and effects" (1964:88).

Footnotes

¹ Sadly the term 'behaviour' is not used in a standard fashion within sociology. Sometimes it actually appears in definitions of the discipline's subject-matter (e.g. 'the study of human social behaviour' www.thefreedictionary.com). This is clearly a very loose usage of the kind that embraces both action and behaviour as they are conventionally understood. Where the terms 'action' and 'behaviour' appear together however, as is often the case with entries in sociology dictionaries or encyclopaedias or in introductory discussions in textbooks, one can be fairly certain that the meaning is much more circumscribed; indeed in this context it is far more likely that the term refers to that which is *not* considered to be the subject-matter of the discipline.

² If the rise of behaviourism in the 1920s and 1930s can be said to have caused psychology to have 'lost its mind', then it 'found it' again in the 1960s and 1970s following the 'cognitive revolution' in the discipline (Dember 1974). This movement, in part a reaction against behaviourism, was influenced by phenomenological and action theory perspectives. However, in one respect it is little more than an extension of behaviourism, one that recognises mental events (i.e. cognitive events), yet treats these more as items of behaviour than manifestations of consciousness.

³ Paul Lazarsfeld has observed that, as a consequence of the influence of Dilthey, there existed in Germany a tradition that assumed that 'some kind of 'action-language'' is mandatory for the discussion of the human sciences (1972:83). It would seem that, in contemporary British sociology, a similar assumption prevails.

⁴ One unfortunate consequence of the dominance of behaviour-action binary mode of thinking favoured by sociologists is that these hybrid forms of conduct - and habit in particular - have tended to remain overlooked and unstudied (see Camic 1986).

⁵ This is true even if one ignores the arguments in favour of treating mental events as 'behaviour', something that even Skinner was prepared to consider seriously (see Skinner 1968:242).

⁶ It is true that actors may also have access to data concerning their behaviour not available to observers; or at least, not available to the casual observer. These data relate to the monitoring of what are predominantly internal processes. Thus events and processes that are all too apparent to the actor, such as indigestion, cramp or migraine, may be difficult for an observer to detect. However this really makes little difference to the argument since in these cases, just as much as those where the behaviour is overtly discernible, the individual has no choice but to adopt the stance of an observer.

⁷ Porpora (1983:130) notes that Schutz uses this very example to criticise Weber's definition of action, saying that merely because an actor 'attaches subjective meaning' to a behaviour like a sneeze this does not make it an action. But then a sneeze would not qualify as an action in Weber's terms anyway because it is not a voluntary act. In addition, 'attaching a meaning' to an event like a sneeze is equivalent to interpreting a natural event occurring in the environment. Hence there is no way that the meaning it was given could sensibly be described as 'subjective' as it was neither motivated nor selected as a means to a goal.

⁸ This issue is usually referred to as the 'reasons as causes debate.' The position adopted here, as can be seen, is that the debate is largely spurious given that reasons logically relate to decisions rather than actions; hence while a reason may serve as a 'selector' determining which act is undertaken, only motives can be the causes of actions.

⁹ Psychologists called activities like these 'stimulus control' (Kanfer and Philips 1970).

¹⁰ That there is a process of interpretation between stimulus and response was a central part of George Herbert Mead's theory of action (see Baldwin 1988:145). Hence the stress placed by symbolic interactionists on the fact that individuals do not react to each other's actions but rather 'interpret' or 'define' the actions of others before reacting. However this is, of course, just as true when individuals interact with their environment.

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Open or Delete: Decision-makers' Attitudes Towards E-mail Marketing Messages

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ABSTRACT

Organisations make use of e-mail marketing messages, with Swedish companies spending SEK40 million on this form of marketing communication. The purpose of this paper was to examine the attitudes of decision-makers in the Swedish manufacturing industry regarding e-mail marketing messages received. The authors used a quantitative research approach with an online-survey in order to collect the necessary data. The population was decision-makers within the manufacturing industry in Sweden and 1777 responses from decision-makers were received and analysed. The majority of decision-makers tend to have negative attitudes toward e-mail marketing messages. Differences in attitudes exist between those of different ages and positions within companies. While respondents indicated that they check their e-mail frequently, no significant differences in attitudes to e-mail marketing messages could be identified. Marketers can attempt to improve attitudes among recipients by building relationships with the recipients prior to sending e-mail marketing messages, and paying attention to the layout and content of the e-mails.

Keywords: e-mail marketing; attitudes; B2B; e-mails; decision-makers; Sweden

INTRODUCTION

It can be said that people today live in a network civilization where technology has made increasingly more information available through the Internet (Rust & Espinoza, 2006). The most common daily activity among Swedish Internet users according to a recently conducted report (Findahl, 2011) is the sending of e-mails. By using the Internet and e-mails as a marketing channel, geographical location is no longer an issue for marketers, since people and companies all over the world can be easily reached at a lower cost than offline marketing techniques (Gordon & De Lima-Turner, 1997). In the US, research indicated that 60% of American companies increased their e-mail marketing budget for 2012 (marketingcharts.com, 2012b; Strongmail, 2011) and this is expected to continue in the future (Anon, 2013). Spending this amount of money makes it important that the message is read by the receiver, and that action is forthcoming based on the message received.

Research has been conducted on the subject of attitudes towards marketing as early as the 1930s (Xiaoli, 2006). Several studies have been conducted about people's attitudes towards advertising on the Internet (Wang & Sun, 2010a; Wang & Sun, 2010b; Cho & Cheon, 2004; Mehta & Sivadas, 1995), unsolicited e-mails (SPAM) (Gordon & De Lima-Turner, 1997) as well as e-mail marketing in a B2C context (Cases, Forniers, Dubois & Tanner, 2010; Chowdhury, Parwin, Weitenberner & Becker, 2006; Korgaonkar, Lund & Wolin, 2002; Gordon & De Lima-Turner, 1997), but in the case of attitudes towards e-mail marketing in a B2B context, there is a gap in the research. Much of the research with respect to e-mails has focused on the senders and their perspective (Renaud, Ramsay & Hair, 2006) creating the opportunity here to investigate the recipients' attitudes.

Research that has been undertaken in this context has focused on the B2C marketing, but little research has been done in the B2B context as decision-makers in organisations have not been the focus of the research. Consequently, the study seeks to investigate the attitudes of decision-makers in the Swedish manufacturing sector towards this form of marketing communication.

This paper will start out by examining the theory that explains attitudes and the nature of e-mail marketing and then discuss the methods used in the study. The findings as well as the implications and conclusions will be presented.

THE RESEARCH PROBLEM AND RESEARCH OBJECTIVES

Radicati Group (2013) estimated that 182.9 billion e-mails were sent and received in 2013, of which 100.5 billion were business e-mails. According to the IRM report (2011), companies in Sweden spent approximately SEK 40 million in 2012 on e-mail marketing, so there is still a vast amount of money spent on e-mail marketing each year by these companies. According to Forrester (2011), attitudes toward e-mail marketing have improved over the last few years with the number of e-mails being deleted without being read down from 73% to 59%. Organisations send marketing messages to clients and prospective clients to advertise products and services, but the question remains: how are these e-mails received? A vast amount of money is spent by organisations on sending these e-mails, but what are the attitudes of the recipients to these e-mails? What do the recipients of e-mails think and feel when they receive advertising e-mails?

The purpose of this paper is to analyse attitudes of decision-makers in the Swedish manufacturing industry regarding B2B e-mail marketing and the e-mail marketing messages they receive. The analysis will investigate the components of attitudes, as well as determining whether any specific demographic factors influence the attitudes towards e-mail marketing.

LITERATURE AND HYPOTHESIS DEVELOPMENT

The Nature Of E-Mail Marketing

E-mail marketing can be regarded as the promoting of products or e-mails through the use of e-mail (Marketing Terms, 2012). It is used to get consumers' attention to one's product, service or need and ultimately to get them to act in a specific way. E-mail marketing has a number of advantages that other marketing methods do not offer. The main advantage of using e-mail marketing is that it is very cost effective and exceptionally easy to customise and target (Hosford, 2011; Malhotra & Birks, 2007) and so the advertiser is able to reach a large population (Merisavo & Raulas, 2004). E-mail marketing can be used for different purposes including sharing information, strengthening the brand, directing potential customers to a website while also promoting products and services (Merisavo & Raulas, 2004). The recipient

of the e-mail marketing message would then be encouraged to make contact with the organisation in a number of different ways to contact.

Attitudes

Attitudes in general are regarded as important as they affect future behaviour that is exhibited (Solomon, Bamossy, Askegaard, & Hogg, 2010). For this reason, organisations seek to develop positive attitudes towards their products, services and communication.

This study is based on the Tri-component model (or ABC) theory of attitudes developed by Bagozzi, Tybout, Craig, and Sternthal (1979) which examines the three components of attitudes, namely affect, behaviour and cognition. This approach makes it possible to determine an overall attitude as well as measure the individual components. *Affect* describes how a receiver feels about attitude objects comprising the emotional component of an attitude which can be either positive or negative, depending on the individual's cognitions (opinions) about the item. *The behaviour aspect* component is concerned with the person's tendency to react to the object and the reactions will be different, depending on how receivers are influenced by what they know about the object. *The cognitive component* refers to the beliefs and thoughts that a receiver has toward the object. While they may not be based on an objective assessment or be true, they still play a vital role in how the person perceives reality and furthermore, the attitude of an object. The cognitive component is likely to be more conscious than the other elements of attitudes, and is more vulnerable than others to logic-based persuasive techniques (Solomon *et al.*, 2010). In the case of e-mail marketing messages, the affective or emotional component articulates how people feel (either positive or negative) towards the e-mail marketing messages, the behavioural component is how people act or perform towards the e-mail marketing messages, and the cognitive component is the belief about the e-mail marketing message.

Attitudes Towards E-Mails

E-mails are regarded as an integral part of life, having transformed both work and personal activities (Renaud *et al.*, 2006). It is a nearly instant form of communication, with many recipients answering their e-mails almost immediately (Renaud *et al.*, 2006). For organisations sending e-mails to their customers, e-mails are a cost-effective way of communicating with a large number of people simultaneously. This convenience for the sender has an impact on the receiver, including stress to answer a large number of e-mails (Demiridjian, 2005).

Attitudes to e-mails have improved over the past four years (Forrester, 2011). These positive attitudes are seen in a reduction in the number of e-mails being deleted without being read, more e-mails being forwarded and buying intentions having remained constant.

Attitudes Towards E-Mail Marketing

E-mail marketing messages can be personalised (as in the case of direct mail) yet are able to be received immediately. According to Smith and Swinyard (1983), attitudes serve as a dependent variable when it comes to studies of promotional effects. Xiaoli (2006) mentions that an attitude towards a specific advertisement can lead to a specific attitude towards the brand, as well as affect a customer's purchase intention. The attitude will be influenced by the perception of the perceived value of the advertising (Ducoffe & Curlo, 2000). In 2006, 73% of the consumers said that they deleted most of the e-mail marketing messages without reading them; in 2011 this number was down to 59% (Forrester, 2011).

How recipients react when an e-mail is delivered

The initial reaction is founded on past experience with the media and similar messages. When

an e-mail marketing message arrives at the receiver, a rapid oblivious decision is made whether or not it is of potential interest. The decision is primarily based on previous experience with e-mail marketing with the sender, and with the perceived relevance of the e-mail subject line (Renaud *et al.*, 2006). It is suggested by Micheaux (2011) that there are three possible actions that can be taken:

- *Route A* means that the receiver will choose to ignore or delete the marketing e-mail message if it is classified as valueless. In this route, the recipients will, without effort, immediately make a decision and there is no elaborative process leading to that decision.
- *Route B* means that the receiver finds the marketing e-mail relevant and interesting, the recipient will open the e-mail to inspect the content. This also leads to a further engagement with the marketing messages by behavioural reactions.
- *Route C* is a destructive route which is regarded as the opposite to route B. It builds up perceived pressure and has a destructive consequence for the sender of the e-mail marketing message. After the receiver has decided that the e-mail marketing message has relevance and is worth opening, the receiver makes excessive efforts by evaluating the content, finding it to be irrelevant and thereby producing a negative attitude. This negative attitude may vary depending on the intensity of the effort and can furthermore result in massive avoidance behaviours, for example unsubscribing or even complaining to the Internet service provider (ISP) which can cause problems for the sender of the e-mail marketing message. The negative attitude towards the e-mail marketing message can be generalised from the message to the organisation itself.

The sender of e-mail marketing messages clearly aims for route B, but Micheaux (2011) states that it is much better for the recipient to choose route A instead of route C if he or she believes that the message is of no potential interest. By choosing route A, the receiver is more likely to remain available to future e-mail marketing messages from the sender.

The Pressure Of E-Mail Messages

An important factor relating to e-mail is the perceived pressure associated with receiving them. This pressure comes from the amount of e-mails received in a specific time period, affecting the recipient's perceived ability to cope (Micheaux, 2011). Micheaux (2011) also studied the advertisement sent by a single company in order to understand the perceived pressure by the receiver. The result of the study was that the perceived pressure relates more to the receiver's past experience of e-mail marketing, personality, state of mind and the attitudes towards the brand or company, than to the actual volume of messages received from a company. It is crucial for companies to deal with the perceived pressure to avoid attitudinal and behavioural effects that in the long run will hurt the brand or company.

Hypotheses

In the case of e-mail marketing messages, they are directly sent to the mailbox of the recipient, and thus the attitude to the e-mail marketing message is important. The importance of a positive attitude towards a product or advertisement is the goal of many a marketer, based on the view that a positive attitude will influence the behaviour exhibited in the future. Hypothesis 1 thus reads:

Decision-makers in Swedish organisations have positive attitudes towards e-mail marketing messages

It is suggested that there may be differences between different groups regarding their attitudes towards technology and e-mail marketing messages as it is believed that older people are not as comfortable with technology (Czaja & Sharit, 1998). Thus, Hypothesis 2 reads:

Demographic factors influence the attitudes of Swedish decision-makers towards e-mail marketing messages.

Various researchers have investigated the number of times people check their e-mails every day. Researchers describe e-mails as an "addiction" (Demiridjian, 2005) or the tyranny of e-mail (Eichhorn, 2003). While figures vary, it has been suggested that 40% of people check their e-mails between 6 and 20 times per day (Cummings, 2012). The checking of e-mails has also been affected by the proliferation of smartphones which have unrestricted connectivity. If people check their e-mails more often, it could be inferred that they are positive to the receipt of e-mails, and e-mail marketing messages. Thus, Hypothesis 3 reads:

Decision-makers who check their e-mails more often are more likely to have positive attitudes towards e-mail marketing messages.

RESEARCH METHODOLOGY

Use was made of a quantitative research method. The *population* was decision-makers within Swedish manufacturing organisations who were chosen as the target group, based on the fact that they have the power to make financial decisions and do business, and are thereby targeted by e-mail marketing messages. Sweden had the majority of the population on the Internet by 2001 (Geens, 2012), making it a suitable country to target for this research. The authors had an available registry of e-mail addresses to the target group, which did serve as the foundation for the research. To be a part of the population in this study, a total of seven criteria needed to be met. The company had to have at least 10 employees, have a turnover which exceeds 10 million SEK, be a manufacturer and be established in Sweden. Furthermore, the respondent must have a valid e-mail address, have influence on purchasing decisions, and work within a manufacturing company.

A list of 7 896 companies fulfilling these requirements with a total of 14 020 e-mail addresses was obtained. These companies were geographically distributed over Sweden. There are a total of 52 256 manufacturing companies in Sweden (Ekonomifakta, 2011), thus the population of this study reaches 15% of the total manufacturing sector. The survey was sent to all of the available e-mail addresses in the population, thus use was made of a census.

The *research instrument* comprised three sections. Section A collected demographic data from the respondents, Section B determined the general attitudes towards e-mail marketing messages while Section C investigated actual behaviours associated with the receipt of e-mail marketing messages. Sections B and C made use of a four point Likert scale (1= strongly disagree; 4= strongly agree).

The *data collection* was conducted with the help of a web-based survey, which was sent out in an e-mail message to the respondents. A web-based survey has the advantages of making it possible to reach a large number of respondents regardless of their geographical location. Another factor that mattered in the choice of data collection method was that e-mail is one of the most inexpensive methods as well as one of the least time consuming ways of conducting a survey of this magnitude (Malhotra & Birks, 2007). The survey was *pilot tested* before the survey was sent to the respondents of the empirical study. The result of the pilot testing resulted in changes in wording as well as some layout changes. Various analyses were

conducted of the data using SPSS 19. These included t-tests and ANOVAs.

FINDINGS

The survey was sent to 14 020 e-mail addresses, and out of them 1 331 'bounced back', thus a total of 12 689 e-mails were sent. From this, 1 777 usable questionnaires were obtained, a response rate of approximately 14.0%, which is on par with response rates on e-mail surveys in general (Malhotra & Birks, 2007). The profile of the respondents is reflected in Table 1.

Table 1: Respondent profile

Characteristic	Distribution
Age	2.2% 20-29; 18% 30-39; 39.6% 40-49; 28.8% 50-59 and 11.5% older than 60
Gender	92.3% male; 7.7% female
Education	6.1% had primary school or less; 40.1% had completed high school; 15% completed occupational college; 34% had a university qualification and 4.8% described their education as "other"
Branch of Industry	46.1% were in the engineering industry; 7.8% were in the vehicle industry; 7.3% were in the processing industry; 5.9% were in the food processing industry; 6.2% in wood processing; 5.1% in the plastic industry; the balance spread over furniture, textile, drug and other industries
Number of employees in the organisation	15.8% had less than 20 employees; 21.6% 20-29 employees; 35.8% 50-249 employees; 9.3% 250-499 employees; 17.5% 500 or more employees (These terms are as defined by EU 2003/361)
Position in the organisation	32.1% owner, partner or CEO; 27.2% senior manager; 18.7% middle manager; 17.4% project leader or similar; 4.6% other

Respondents were also asked how often they check their e-mails as an indication of their actual behaviour. The majority of the respondents tend to check their e-mails 'more often than once every hour' (30.9 %). Of the 1 777 respondents, 11 % check the e-mail account 'more often than every 10 minutes', but only 1.5 % check their e-mails 'once a day or less' during working hours. The responses appear in Table 2.

Table 2: Frequency with which respondents checked their e-mails

Frequency	N	%
More than every 10 minutes	195	11.0
Between 10 and 30 minutes	469	26.4
Between 30 and 60 minutes	549	30.9
Between 60 and 180 minutes	400	22.5
Once a day	137	7.7
Less often than once per day	27	1.5
Total	1777	100

Reliability was determined for all the statements as well as for the dimensions of the study. Initial reliability testing indicated that the statement 'I receive too many e-mails' should be removed, which resulted in a Cronbach's alpha of 0.91 for all the items in the questionnaire and this statement was not used in further analysis. The Cronbach's alpha determined for each dimension exceeds 0.6, which is regarded as satisfactory reliability (Malhotra & Birks, 2007). These are presented in Table 3.

Table 3: Descriptive statistics and reliability on the dimensions of the study

	Cronbach's alpha
Total attitude	0.910
Affect	0.795
Behaviour	0.802
Cognition	0.780

Hypothesis Testing

H1: Decision-makers in Swedish organisation have positive attitudes towards e-mail marketing messages.

Mean scores were calculated to determine the attitudes towards e-mail marketing messages as well as on the individual determinants. The mean attitude score is negative, as are the scores on each of the dimensions associated with attitudes (the ABC components).

Table 4: Descriptive statistics

	Mean	Standard deviation	Cronbach's alpha
Total attitude	1.916	0.472	0.910
Affect	1.960	0.521	0.795
Behaviour	1.781	0.537	0.802
Cognition	2.001	0.549	0.780

(1= strongly disagree; 4= strongly agree)

To analyse the responses further, the total attitude responses were binned according to the total score per respondent to determine the percentages that could be regarded as either negative or positive. This resulted in respondents with low scores (negatives), neutral respondents and positive respondents. The majority of respondents (**59.4%**) had negative attitudes towards e-mail marketing messages. It is further interesting to note that 39% of respondents could be categorised as neutral while only 1.6% could be classified as positive. The detail is provided in Table 5.

Table 5: Total ABC

Group	Points	Frequency	%	Mean	Total Mean	SD
Negative	<32	1056	59.4	25.76	30.69	7.55
Neutral	33-47	692	39.0	37.4		
Positive	>48	29	1.6	50.28		

* Maximum of 64 (16 statements * 4 points)

From the mean scores on the statements associated with each of the attitude dimensions, it can be seen that decision-makers do not have positive attitudes towards e-mail marketing messages, and the standard deviation associated with these dimensions indicate that there is a high level of agreement among respondents in this regard. Hypothesis 1 thus cannot be accepted.

H2: Demographic factors influence the attitudes of Swedish decision-makers towards e-mail marketing messages

Use was made of a t-test and one-way ANOVAs to evaluate various demographic factors and attitudes towards e-mail marketing messages. These findings are summarised on Table 6.

Table 6: Summary of demographic data and attitudes

Characteristic	Summary
Age	There are significant differences in each of the dimensions, specifically between the 40-49 age group and other groups, specifically those in the 50-59 age group ($p=0.021$) and those older than 60 ($p=0.000$). The attitude score was the lowest for the 40-49 age group (29.67), with slightly more positive attitudes among both older groups of respondents, with those older than 60 having the most positive attitudes (32.38).
Gender	No significant differences were observed between the genders ($p=0.166$), potentially as the number of females was limited in the responses.
Education	Significant differences between those who had a university qualification and those who had only a school leaving certificate ($p=0.000$)
Branch of Industry	No significant differences based on the branch of industry ($p=0.730$)
Number of employees in the organisation	No significant differences based on the number of employees in the organisation ($p=0.941$)
Position in the organisation	Project managers differed significantly from CEOs and senior management ($p=0.000$) as well as from middle management ($p=0.004$). Project managers were more positive than the other groups (mean = 32.76).

H3: Decision-makers who check their e-mails more often are more likely to have positive attitudes towards e-mail marketing messages.

Use of an ANOVA indicated no significant differences between the respondents' frequency to checking their e-mails mails and their attitudes towards e-mail marketing messages. Hypothesis 3 is thus not accepted.

DISCUSSION

The results show that decision-makers within the manufacturing industry in Sweden in general have negative attitudes toward e-mail marketing messages. The following quotation reflects a respondent's sentiment on e-mail marketing messages:

'I don't even read them, they are immediately deleted. They are invasive and uninvited.' One respondent (2012)

It has previously been established that the attitudes affect future behaviours, and in the case of these messages, negative attitudes affect whether these e-mails are opened or deleted (perhaps without reading them). When this happens, it affects the likelihood of attaining the desired outcome of the company that sent the e-mail marketing messages. The result is that the decision-makers are not exposed to the marketing messages, which was the intention of the company sending the message.

The study found an overall negative attitude towards e-mail marketing messages received. Further, this study found the attitudes toward e-mail marketing differ depending on the decision-makers' age and position at the company. The attitudes were more negative in the 40-49 age group with older (and younger respondents) being slightly more positive, and attitudes were also more negative the higher position the decision-maker had at the company. The age factor could be a result of the fact that younger people are more used to computers than older people, while in the case of older recipients, it could be linked to the volume of messages

received and perceptions of e-mail pressure from the recipients. The younger decision-makers might perhaps have greater computer skills and are therefore less negative towards e-mail marketing. Decision-makers high in the organisation would also receive more e-mail marketing messages, and are thus exposed to more messages due to their perceived influential position in the organisation. It is also interesting that only 8% of the respondents were females. The reason for the skewed gender participation could be that the manufacturing industry in Sweden is overrepresented by males, or that there are, at the moment, more males than females working in decision-making positions within the manufacturing industry in Sweden.

The frequency with which respondents indicated they checked their e-mails is similar to the findings of Renaud *et al.* (2006), who found that 34.3% reported checking their e-mails every 15 minutes or less. The frequency of checking e-mails did not affect the attitudes towards the e-mail marketing messages received.

A summary of the findings with respect to each hypothesis is summarised in Table 7.

Table 7: Summary of hypothesis testing

Hypothesis	Summary
<i>H1: Decision-makers in Swedish organisations have positive attitudes towards e-mail marketing messages.</i>	Swedish decision-makers do not have positive attitudes towards e-mail marketing messages. The hypothesis is not supported.
<i>H2: Demographic factors influence the attitudes of Swedish decision-makers towards e-mail marketing messages</i>	Age and position in the organisation were found to change the attitudes towards e-mail marketing messages, with top and middle management having more negative attitudes and the 40-49 year age group being more negative towards these messages. The hypothesis is partially supported
<i>H3: Decision-makers who check their e-mails more often are more likely to have positive attitudes towards e-mail marketing messages.</i>	The hypothesis is not supported.

The *managerial implications* associated with this study indicate a number of challenges for organisations using e-mail marketing. Attitudes are generally not positive to this form of communication, so it is necessary to develop ways to generate positive attitudes through building relationships with the recipients of e-mail. This research stresses the importance that more positive attitudes will consequently give a more positive actual behaviour, which in the end will result in higher opening frequency, as well as less deleted and unread e-mail marketing messages. It is thus important that the organisation investigate specific strategies that can be used to foster the development of positive attitudes towards their e-mail marketing messages. One such strategy could be to examine the structure of these messages, or the frequency and content of these messages.

One of the *limitations* of this study is the absence of theories in the field of e-mail marketing as e-mail marketing is still a comparatively unexplored area. There were also many respondents from the Engineering industry (46%), which affects the extent to which the findings of the study can be generalised to other sectors in the economy.

This study provides opportunities for *further research*. This is an exploratory field with very few previously conducted studies. Studies of implications of e-mail marketing from a marketing perspective would be both interesting and meaningful. With the result from this study in mind, it would also be valuable to investigate how marketers should act and perform

to change the decision-makers' attitudes as well as their actual behaviours towards e-mail marketing. Qualitative research with a hermeneutics focus could contribute to greater understanding of the nature of the problem. It would also be interesting to examine how attitudes and behaviours affect the efficiency and profitability of e-mail marketing.

As this study investigated the attitudes and behaviours in the manufacturing industry in Sweden, it would also be valuable to repeat the study on decision-makers within other countries to see if the result is generalizable in other areas. A possible outcome could be that Swedish decision-makers differ in behaviour and attitude from other countries.

A final further research recommendation is to repeat this survey in the future and over a longer period of time to be able to compare and identify possible changes of attitudes and behaviours. The benefit of a study of longitudinal nature is that it is exceptionally useful when studying development and lifespan issues.

CONCLUSION

There is an important link between attitudes and actions, which has been a theme of marketing. The aim of the study was to investigate the attitudes of decision-makers in Swedish manufacturing organisations towards e-mail marketing messages. The study was conducted from the perspective of the Tri-component Model of Attitudes, thus enabling the researchers to examine attitudes from a broad perspective. The findings show that there are negative attitudes towards e-mail marketing messages, and this is true for all the attitude dimensions. Significant differences between respondents were found based on age and position in the organisation. The regular checking of e-mail messages (in general) was not found to transfer to a positive attitude towards e-mail marketing messages. The findings show a great deal of work still lies ahead for organisations using this type of marketing communication to increase the success of this form of communication.

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The Relevance of Future Contracts on Spot Price Formation in Crude Oil Markets

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ABSTRACT

This paper aims to examine the role different future contracts play on oil spot price formation. Firstly the cointegration and causality hypothesis are tested using appropriate methodologies. Several distributed lag models are estimated in order to forecast spot price behavior, taking into account current information on future price. The results provide evidence of strong predictive power for certain short-term future contracts, using as reference the corresponding expiry date at the time of the transaction. All data have been obtained from daily quotations of the Brent and WTI crude oil prices, in US\$ per barrel, in the spot market and their four nearest future contracts. The time period of the analysis spanned from June 2009 to March 2013.

Keywords: Cointegration, Causality, Distributed Lag Models, Crude Oil Market.

INTRODUCTION

Future markets are used nowadays for many different purposes. First and foremost they provide a mechanism of financial risk management, allowing risk to be transferred from the market agents, who wish to avoid it, to speculators willing to take it up. There are also the arbitrators who operate in different markets taking advantage of price differences, when markets present inefficiency, to make clean profits with minimal risk. Moreover current information about future price in efficient markets may be used to forecast future spot price behavior.

The existing literature investigating the dynamics of the association between spot and future markets is extensive. One of the appealing works in this area was proposed by [2], who used a linear regression model to test the wheat and soya markets market efficiency, concluding at that time, that current information on future prices provides no significant estimates of spot price behavior. These results were subsequently contested by [19], who stated that they were based on the F test and, therefore, not valid when prices are non-stationary. On the other hand the cointegration theory first proposed by [10] in a seminal work, and later developed by [8] and [11], provided a new methodology to test market efficiency hypothesis. Many authors committed themselves to investigate the market efficiency hypotheses in future markets, achieving results that did not reject the market efficiency hypothesis. One of the criticisms addressed to the approach proposed by [8] was the possibility of weak inferences for the parameters involved in the regression, which are the key points of the market efficiency hypothesis test. In light of these problems, [18] presented different statistic procedures to test cointegration using maximum likelihood estimation. Such procedures were based on a Vector

Autoregressive (VAR) model, which allows for possible interaction among the parameters involved in the spot and future price estimation.

Despite the huge scientific output in this area, many authors limit themselves to investigate the existence of cointegration between the spot price quotations and those related to the first future contract, sometimes addressed to as front month contract, of financial assets or commodities. Some works also test the causal relationship between future and spot prices, achieving results that confirm the expected result in the short run. However, it must be noted that many markets have developed fast in recent years and offer nowadays a wide range of future contracts. Therefore, very often current information about the future is less consistent especially when distant expiry dates are taken into account. One of the reasons for this situation is the high volatility of international oil markets, whose first future contracts appeared in 1983, and were highly motivated by severe fluctuations in prices, exchange rates and interest rates. Currently, future oil contracts are listed up to nine years in advance. For this and the next five years, it is possible to find monthly contracts for crude oil.

In this context, and in view of the important role that the international oil market plays in the economy as a whole, this paper aims to investigate the association between future oil contracts and oil spot prices, as well as the influence that each contract has on the spot price formation. Firstly, the existence of cointegration and causal relationship between the main crude oil spot prices and their first four future contracts were tested. From these tests several distributed lag models have been proposed and estimated in order to explain oil spot price returns behavior through current information about future price returns on different expiry dates.

DATA – SAMPLE USED

Data Used

In order to achieve the results discussed previously, we make use of daily price time series for the Brent and WTI crude oil in the spot market and in their four future contracts, classified according to the difference between the expiry date and the moment of negotiation. The time period of the analysis spans from June 2009 to March 2013. Spot market and WTI futures data were collected from the U.S. Energy Information Administration (EIA). With regards to the Brent future prices time series, contract data for the Brent crude was taken from the Quandl website.

Future Crude Oil Contracts Negotiation

The nomenclature for oil future contracts is unique, no matter what type of crude oil they are related to, and it is important to understand the results obtained in this work. First of all it is worth highlighting that, in the crude oil market every future contract expires on the third business day prior to the 25th calendar day of the month preceding the delivery month. If the 25th calendar day of the month is a non-business day, trading ceases on the third business day prior to the business day preceding the 25th calendar day. After a contract expires, Contract 1 for the remainder of that calendar month is the second following month. In these terms, it would be impossible to build time series referring to a specific contract month, for example the oil future contract expiring in July 2013. Price quotations for this contract date back from some time, which corresponds to the first time it was put on sale, and will cease on June 20th, 2013 (Thursday), the third business day prior to June 25th, 2013 (Tuesday). From that point onwards, there would not be any information regarding the July contract. However, data for the contract expiring in August 2013 would be available until July 22nd, 2013, for example. Therefore, we would have to work with multiple time series for each contract validity period.

To circumvent this problem the terminology used in future markets allows the time period between a contract and the spot price quotations to be kept constant. In other words, instead of using months to reference future contracts, the nomenclature uses numbers - contract 1, contract 2, and so on. That way: Contract 1 refers to contracts traded up to 30 days prior to the expiry date; Contract 2 comprises contracts negotiated between 60 and 30 days prior to the expiry date; and Contract 3 for contracts traded between 90 and 60 days prior to the expiry date. The same procedure applies for subsequent contracts.

It is also important to point out that the expiry date does not exactly match the delivery date. In practice most crude oil transactions take place under long-term contracts that last for years. The contract defines the general conditions of the trade such as the volumes to be traded every month, delivery location, product specification, credit terms and conditions, payment terms and pricing mechanism. Once the contract is set up, the delivery dates follow fairly standard terms that any two counterparties can feel comfortable with.

Stylized Facts

The initial step of this work is to investigate the long run relationship between selected future oil contracts and the oil spot market. In order to do so, we make use of cointegration tests available in the econometric literature. To achieve consistent results, the basic requirement of these tests is that the time series involved must be integrated of order 1, or I(1), as conveyed in [12]. In other words, these series need to be differentiated once to become stationary. Under these terms, after having obtained all data mention in Section 2.1, the price returns time series were generated from the original price time series by making use of the following formula:

$$R_t = \ln\left(\frac{P_t}{P_{t-1}}\right) \quad (1)$$

where R_t represents the price return in the period t and P_t represents the price in t.

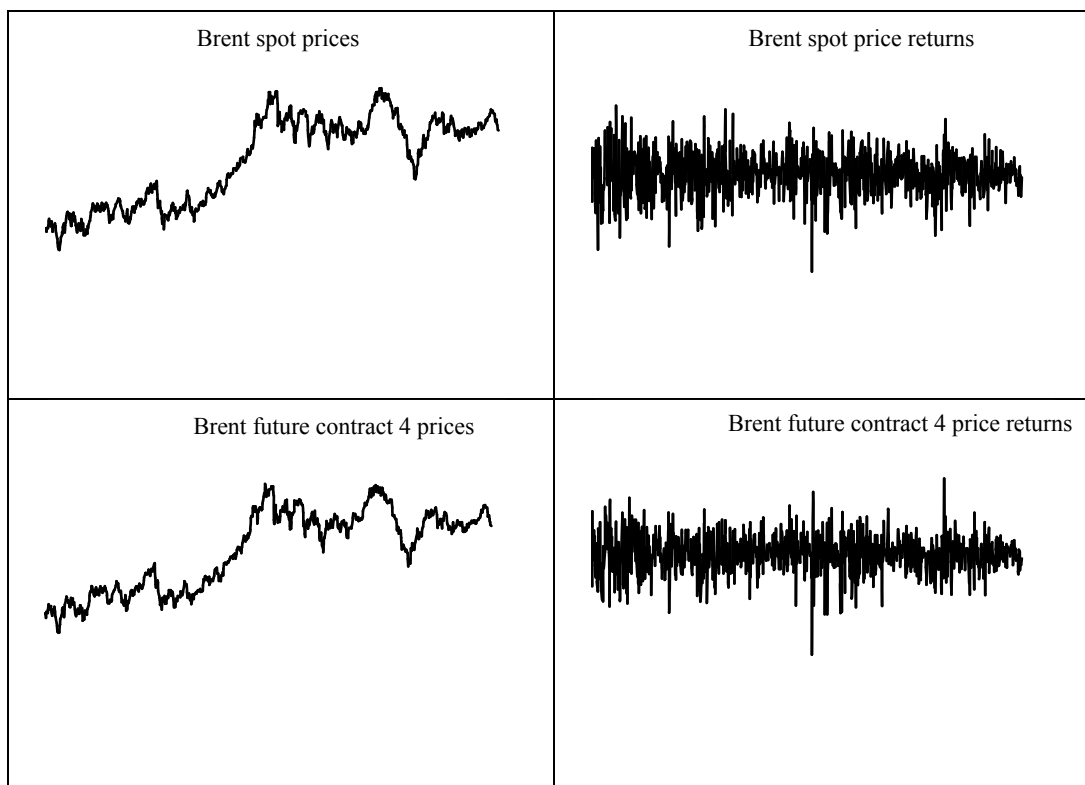


Figure 1: Brent - Prices (US\$/barrel) and Price Returns - Spot Market and Future Contract 4

The new generated price returns time series correspond to the first differences of the original data. Therefore, if the price returns are stationary it can be assumed that the price quotations used in this work are indeed integrated of order 1. Figure 1 presents the plots for the daily price and price returns time series related to the Brent crude oil. The first two plots illustrate the price and price returns data corresponding to the spot market, and the following two represent the price and price returns of the 4th future contract, according to the nomenclature mentioned in section 2.2. Illustrations for contracts 1, 2 and 3 were intentionally not included in Figure 1 since they are quite similar to contract 4. The only difference that is worth noting is that, for each time observation, there is an increase in the price values when contracts with long expiry dates are analyzed. In other words, contract 1 is slightly cheaper than contract 2, which is less expensive than contract 3, and so on. All prices displayed in the left side of Figure 1 are quoted in US\$/barrel. Figure 2 illustrates the same data explained above for the WTI crude oil.

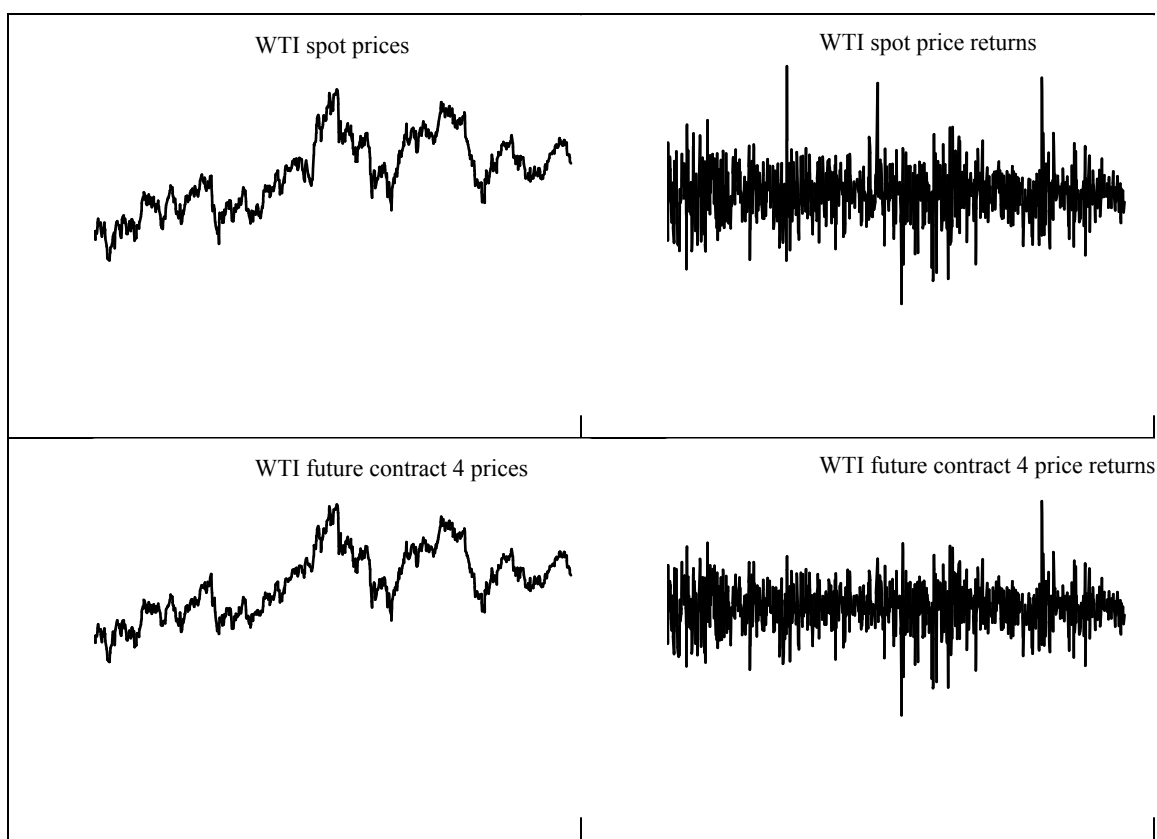


Figure 2: WTI - Prices (US\$/barrel) and Price Returns - Spot Market and Future Contract 4

All price time series in Figures 1 and 2 indicate a positive trend in its values over the years. By contrast, there are no notable trends readily apparent in the price returns both Brent and WTI crude oil. Both figures suggest that the oil price returns time series have a constant mean with fluctuations around it. These fluctuations seem to share the same amplitude scaling for the majority of observations, aside from specific time periods. Another remarkable feature is the difference in price returns volatility when comparing the Brent spot market with the Brent future market, as Contract 4 shows, which is considerably higher in the Brent future market. This suggests that oil price returns volatility increases when longer expiry dates are taken into account, due to higher levels of uncertainties. In essence, there is a strong indication that the original price time series are integrated of order 1, since all of them have trends in their values over the years and their corresponding price returns time series seem to be stationary. To test

this hypothesis, Tables 1 and 2 give an overview of the statistical summary for each price returns time series involved in this work: spot market and contracts 1, 2, 3 and 4.

Table 1: Statistical Summary of Price Returns Time Series - Brent

Statistics	Spot	Contract 1	Contract 2	Contract 3	Contract 4
Mean	0.0005	0.0005	0.0005	0.0005	0.0005
Median	0.0006	0.0007	0.0008	0.0010	0.0010
Maximum	0.0587	0.0681	0.0680	0.0683	0.0681
Minimum	-0.0825	-0.0896	-0.0898	-0.0898	-0.0899
Standard Deviation	0.0176	0.0174	0.0170	0.0168	0.0166
Skewness	-0.2574	-0.2065	-0.2925	-0.3037	-0.3190
Kurtosis	3.9874	4.4777	4.5684	4.6383	4.7161
Observatios	939	939	939	939	939
Jarque-Bera	183,1943	110,3064	110,0191	126,1632	143,7350
p-value	0,0000	0,0000	0,0000	0,0000	0,0000
Statistic ADF test	-30,5965	-30,6555	-30,8036	-30,8651	-30,9232
T ($\alpha = 1\%$)	-3,9678	-3,9678	-3,9678	-3,9678	-3,9678

Table 2: Statistical Summary of Price Returns Time Series - WTI

Statistics	Spot	Contract 1	Contract 2	Contract 3	Contract 4
Mean	0,0003	0,0003	0,0003	0,0003	0,0003
Median	0,0008	0,0008	0,0005	0,0008	0,0009
Maximum	0,0990	0,0895	0,0890	0,0881	0,0872
Minimum	-0,0854	-0,0904	-0,0895	-0,0889	-0,0884
Standard Deviation	0,0192	0,0190	0,0185	0,0181	0,0177
Skewness	0,0139	-0,1168	-0,1907	-0,2508	-0,2851
Kurtosis	5,1545	4,6556	4,6257	4,7163	4,8214
Observatios	947	947	947	947	947
Jarque-Bera	183,1943	110,3064	110,0191	126,1632	143,7350
p-value	0,0000	0,0000	0,0000	0,0000	0,0000
Statistic ADF test	-30,5965	-30,6555	-30,8036	-30,8651	-30,9232
T ($\alpha = 1\%$)	-3,9678	-3,9678	-3,9678	-3,9678	-3,9678

Apart from the basic descriptive statistics such as mean, median, maximum and minimum values, among others, Tables 1 and 2 also provide the values obtained from the Jarque-Bera (JB) test (see [14]) and Augmented Dickey-Fuller (ADF) tests (see [5]), to verify the presence of normality and stationarity, respectively, in each time series used here. All price returns time series have means and medians close to zero, whose values are also very similar in each crude oil type price returns. This fact alone could indicate the presence of symmetry in the data. However, the values obtained for the skewness and kurtosis suggest that the normality assumption of the time series should not be accepted. That is subsequently confirmed by the Jarque-Bera test results, which demonstrate that the normality assumption of the data may not be accepted, as the p-value obtained in each JB test can be approximated by zero in all time series returns. Therefore, one must take this fact into consideration when constructing models, for instance, choosing to model the error terms of the data by another distribution rather than the normal. The t of Student distribution was widely used given the attractiveness of variation provided by number of degree. The results of the Augmented Dickey-Fuller test stationarity of the data, the results for the τ Statistic obtained from the Augmented Dickey-Fuller τ Statistic test indicates that the existence of unit root cannot be accepted. In other words, the price returns time series are indeed stationary. As for the original time series, it is worth mentioning that the ADF test was used, leading to results that indicated the non-stationarity of the data in

all price time series studied. Hence, our data meets the requirements for the cointegration test procedures.

METHODOLOGY

The cointegration test is used to verify if two or more series share a long-term equilibrium relationship. Two or more time series are said to be cointegrated if they share a common stochastic drift. There are many ways to test for the cointegration hypothesis among different time series. In this work the methods proposed by [15] and [18] were used. As mentioned earlier, the standard procedure of these methods is based on a Vector Autoregressive (VAR) model, which can demonstrate possible interactions among the parameters involved in the relation of spot and future prices estimation. A VAR model of p can be written as follows:

$$y_t = A_1 y_{t-1} + A_2 y_{t-2} + \dots + A_p y_{t-p} + Bx_t + \varepsilon_t \quad (2)$$

where y_t is a $k \times 1$ vector of non-stationary I(1) variables, x_t is a $d \times 1$ vector of deterministic variables and ε_t is a vector of innovations. This model can also be represented as

$$\Delta y_t = \Pi y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta y_{t-i} + Bx_t + \varepsilon_t, \quad (3)$$

where $\Pi = \sum_{i=1}^p A_i - I$ and $\Gamma_i = -\sum_{j=i+1}^p A_j$.

Granger's representation theorem asserts that if the coefficient matrix Π has reduced rank $r < k$, then there exist $k \times r$ matrices α and β each with rank r such that $\Pi = \alpha\beta'$ and $\beta' y_t$ is I(0). In such terms, r represents the number of cointegrating relations, or cointegration rank, and each column of β is a cointegrating vector. Also, the elements of α correspond to the adjustment parameters when estimating a Vector Error Correction (VEC) model. Johansen's test consists of estimating the Π coefficient matrix from an unrestricted VAR model and testing if it is possible not to accept the restrictions implied by the reduced rank of Π .

According [16] the maximum likelihood hypothesis tests used to verify the number of characteristic roots different from zero of the Π coefficient matrix had their asymptotic distributions discriminated, converging to two different statistic test: the trace statistic and the maximum eigenvalue statistic. In brief terms, there are two distinct tests. The first one tests the null hypothesis of r cointegrating relations against the alternative of k cointegrating relations, where k stands for the number of endogenous variables, for $r = 0, 1, \dots, k - 1$. The alternative of k cointegrating relations corresponds to the case where none of the series has a unit root and a stationary VAR may be specified in terms of time series levels. The trace statistic for the null hypothesis of r cointegrating relations is computed as

$$LR_{trace}(r|k) = -T \sum_{i=r+1}^k \log(1 - \lambda_i) \quad (4)$$

where λ_i is the i -th largest eigenvalue of the Π coefficient matrix while T stands for the number of observations included in the analysis. On its turn, the second test, which that reports the maximum eigenvalue statistic, tests the null hypothesis of r cointegrating relations against the alternative of $r + 1$ cointegrating relations. In such terms, the corresponding statistic test can be computed as follows:

$$\begin{aligned} LR_{trace}(r|r+1) &= -T \log(1 - \lambda_{r+1}) \\ &= LR_{trace}(r|k) - LR_{trace}(r+1|k), \end{aligned} \quad (5)$$

for $r = 0, 1, \dots, k - 1$.

It should also be emphasized that the test results are sensitive to trends in the input time series. [17] considered five deterministic trend cases to estimate the cointegration relations, according to different time series behaviors: (i) the level data y_t has no deterministic trends and the cointegrating equations do not have intercepts; (ii) the original level data y_t has no deterministic trends and the cointegrating equations have intercepts; (iii) the level data y_t has linear trends but the cointegrating equations have only intercepts; (iv) Both the level data y_t and cointegrating equations have linear trends; and (v) the level data y_t has quadratic trends and the cointegrating equations have linear trends. However, defining a specific behavior for all time series involved can be quite challenging, especially when there is only a small sample of observations. Therefore, in this work, the cointegration relations are tested for all five time series mentioned above. The critical values of the trace and maximum eigenvalue statistics vary with the number of observations and are listed in [20]. Finally, the selection regarding the optimal number of past lagged values included in the vector autoregressive is made taking into account the results of the Akaike (AIC) and Schwarz (BIC) information criteria presented in [1] and [22], respectively.

Upon completion of the cointegration tests between the spot market and each of the first four future contracts taken into consideration, a study of the causal relationship between these time series was conducted. To that end the Granger causality test, presented in [9], which basically consists of inferring the predictive power of past lagged values as regressors was used. In its simplest form, the causal VAR model proposed by [9] for two time series is computed as follows:

$$\begin{aligned} y_t &= \sum_{j=1}^m a_j x_{t-j} + \sum_{j=1}^m b_j y_{t-j} + \varepsilon_t \\ x_t &= \sum_{j=1}^m c_j x_{t-j} + \sum_{j=1}^m d_j y_{t-j} + \eta_t \end{aligned} \quad (6)$$

where ε_t and η_t are random noise time series assumed to be non-correlated. The causality definition implies that if y_t causes x_t then there exists one or more than one in b_j statistically significant and the reciprocal is also true for statistical significance of c_j . In order to test if the null hypothesis that the parameters included in the VAR model are null, which indicates the absence of causality, critical values of the F statistic are used.

Finally, the results obtained for the cointegration and causality tests allows for the construction and estimation of consistent models to forecast or explain the spot market behavior through current information about the future. The elaboration of such models is based on Distributed Lag Models (DLM), generalizations of the autoregressive models which, apart from considering lagged values of the response variable, also take into account past values of other independent variables. In one of its simplest forms, as mentioned in [13], a DLM can be written as follows:

$$y_t = \alpha_0 + \sum_{j=1}^p \alpha_j y_{t-j} + \sum_{j=0}^q \beta_j x_{t-j} + \varepsilon_t \quad (7)$$

where y_t corresponds to the return of the dependent variable, while y_{t-j} stand for its j lagged returns and x_t are the lagged returns of the independent variable. In this formulation, the model is designated as DLM (p, q). It is also possible to include other exogenous variables in the regression. For instance, when an additional independent variable is taken into account, the above mentioned model will be referred to as DLM (p, q, k). In this work, the crude oil spot price returns correspond to the response variable of interest and its behavior can be explained through its first lagged term and the first lagged terms of the future contracts price returns. This representation refers to the mean part of the regression but it is also important to put

forward consistent processes to estimate the variance, or the volatility of the price returns. To that end, several Autoregressive Conditional Heteroskedasticity (ARCH) models are proposed. In this work, besides the multivariate version of the original ARCH model, proposed by [6], the following models were tested: the GARCH model, a straightforward generalization of the ARCH process which also takes into account past lags of the conditional variance, first proposed by [3]; Exponential GARCH, proposed by [21], which considers asymmetric shocks in the price returns; and IGARCH, proposed by [7], a particular case of the GARCH model that is quite similar to the exponentially weighted moving average (EWMA) model. For a better understanding on the existing variations of the original ARCH model, an extensive list is available in [4]). Finally, since the normality assumption is not accepted for the price returns time series here involved, the Student's *t* distribution was used. This distribution has proved to be adequate for the vast majority of financial assets price returns and also has the attractiveness of allowing for estimation with different degrees of freedom, according to each time series involved.

Table 3: Number of cointegrating relations per model – Brent

Brent	Data Trend	None	None	Linear	Linear	Quadratic
Involved Series	Level Data	no intercept	no intercept	no intercept	no intercept	No intercept
	Equation	no trend	no trend	no trend	no trend	no trend
spot – future 1	LR _{trace}	1	1	1	1	2
	LR _{max}	1	1	1	1	2
spot – future 2	LR _{trace}	1	1	1	1	2
	LR _{max}	1	1	1	1	2
spot – future 3	LR _{trace}	0	1	1	1	2
	LR _{max}	1	1	1	1	2
spot – future 4	LR _{trace}	0	1	1	1	2
	LR _{max}	0	1	1	1	2

RESULTS OBTAINED AND DISCUSSION

The results obtained by the Johansen cointegration test (see [18]) between the spot price and each future contract price time series are shown in Tables 3 and 4. Table 3 refers to the Brent crude oil prices whereas Table 4 displays the results for the WTI crude oil prices. As mentioned earlier, the test was applied on the original price time series, not using any log transformations, as this could invalidate the cointegration restrictions. The analysis was carried out for each pair of variables, the first one being the spot market prices and the second corresponding to each of the first four future crude oil contracts taken into account.

Data regarding the optimal number of lagged values of the variables included in each regression and their corresponding values for the information criteria was purposely omitted from the tables to avoid exposing unnecessary information. It is just worth mentioning that the ideal number of lagged terms included in each bivariate analysis ranged between 2 and 4, being unusual to find lower AIC and BIC criteria for higher numbers of lagged terms.

The results for the Brent crude oil indicate the presence of cointegrating relations between the spot prices and all four future contract prices. In practical terms, the information taken from the first two [17] deterministic trend cases should not be taken into consideration, since the plot analysis already shows that the price time series possess some sort of upward trend in their values over the years.

Table 4: Number of cointegrating relations per model – WTI

WTI	Data Trend	None	None	Linear	Linear	Quadratic
Involved Series	Level Data	no intercept	no intercept	no intercept	no intercept	no intercept
	Equation	no trend	no trend	no trend	no trend	no trend
spot – future 1	LR _{trace}	1	1	2	1	2
	LR _{max}	1	1	2	1	2
spot – future 2	LR _{trace}	0	1	2	1	2
	LR _{max}	1	0	2	1	0
spot – future 3	LR _{trace}	0	0	0	0	0
	LR _{max}	0	0	0	0	0
spot – future 4	LR _{trace}	0	0	0	0	0
	LR _{max}	0	0	0	0	0

The situation described for the WTI crude oil somehow differs from the previous case: the cointegration test results are only consistent when the first future contract is used in the regression. The relationship between the WTI crude oil spot market and the second WTI future contract is somewhat unclear, with some statistics test indicating the existence of cointegrating relations for specific trends in the data, but not for all of them. For contracts 3 and 4, the long-run relationship practically ceases to exist. Therefore, it can be inferred that the Brent crude oil market presents a higher informational efficiency degree than the WTI crude oil market over recent years. It is also worth noting that, for the WTI market, as longer expiry dates are taken into account, the long run relationship between the spot market and the future market becomes less strong, as this allows for higher levels of uncertainties in real price estimation and the cointegration results bear this out indicating the absence of cointegration relations for long future contracts.

Table 5: Granger causality test results - Brent

Lags	2		5		10		20	
Null Hypothesis (Ho)	F Stat	p-value	F Stat	p-value	F Stat	p-value	F Stat	p-value
Future 1 does not cause Spot	82.007	0.000	34.710	0.000	17.461	0.000	8.684	0.000
Spot does not cause Future 1	0.977	0.377	1.315	0.255	0.992	0.448	1.774	0.019
Future 2 does not cause Spot	69.284	0.000	32.055	0.000	16.184	0.000	8.096	0.000
Spot does not cause Future 2	1.250	0.287	1.120	0.348	0.709	0.717	1.608	0.044
Future 3 does not cause Spot	59.994	0.000	28.623	0.000	14.412	0.000	7.324	0.000
Spot does not cause Future 3	1.938	0.145	1.381	0.229	0.847	0.583	1.636	0.039
Future 4 does not cause Spot	54.785	0.000	26.460	0.000	13.292	0.000	6.850	0.000
Spot does not cause Future 4	2.284	0.102	1.545	0.173	0.954	0.483	1.671	0.033

Upon completion of the cointegration tests, the causality relationships between the spot market and each contract future were also examined, so that it can be inferred the predictive power that each future contract has when estimating the spot market price. The mentioned Granger Causality test results are listed in Tables 5 and 6, respectively, for the Brent and WTI oil prices.

As shown in Table 5 the four contracts studied represent useful information to explain the Brent crude oil spot market while the reciprocal is not always true. There is indeed a causal relationship from the spot market to some future contracts, but this relationship is somewhat weak and only appears when higher lagged terms are taken into consideration in the models. With regards to the WTI crude oil, the causality results ratify what was already to be expected after applying the cointegration tests: only future contract 1, the front month contract, has a considerable causal relationship on spot market price behavior. All other contracts do not

constitute useful predictive information on the spot market price formation. As shown in Table 6 the WTI spot price Granger causes future contract null hypothesis could not be rejected for any of the four future contracts studied in this work.

Table 6: Granger causality test results - WTI

Lags	2		5		10		20	
	F Stat	p-value	F Stat	p-value	F Stat	p-value	F Stat	p-value
Future 1 does not cause Spot	3.722	0.025	1.959	0.083	2.044	0.027	1.298	0.178
Spot does not cause Future 1	0.206	0.814	0.794	0.554	1.408	0.173	1.076	0.373
Future 2 does not cause Spot	0.167	0.846	0.134	0.985	0.733	0.694	8.872	0.622
Spot does not cause Future 2	0.464	0.629	0.342	0.888	0.689	0.735	0.851	0.650
Future 3 does not cause Spot	0.181	0.834	0.153	0.979	0.857	0.574	0.998	0.464
Spot does not cause Future 3	0.677	0.509	0.360	0.876	0.709	0.716	0.949	0.525
Future 4 does not cause Spot	0.255	0.775	0.166	0.975	0.917	0.517	0.989	0.476
Spot does not cause Future 4	0.743	0.476	0.376	0.865	0.721	0.706	0.917	0.565

Observing the results of the cointegration and causality tests, procedures to estimate consistent forecast models were taken. The expectation is that future contracts time series which showed to be cointegrated with the spot prices and presented the highest predictive powers over the spot market, given by causality test, should be the relevant explanatory variables in the spot price returns forecasting models. As both cointegration and causality tests results for the WTI crude oil indicated poor association and explanatory power of future contracts over the spot price formation, this work only proposed and tested models for the Brent crude oil. Hence, in order to explain the Brent spot price returns, a total of 70 models were tested, in which its mean was represented by a Distributed Lag Model using the first lagged term of the spot price returns time series and the first lagged terms of the future contracts price returns. As for the variance estimation, several GARCH models were proposed, as mentioned in Section 3. Among the estimated models, the results were statistically significant in 32 of them. When examining the results of the statistically significant models, it could be noticed that the first lagged price returns of the second contract did not have any influence on spot price returns estimation. Also, it could be stated that the IGARCH volatility model provided the best estimation results for the variance, followed by the EGARCH model. As for the mean estimation, the first past values of contracts 3 and 4 price returns were the ones which presented the most significant results. Finally, it is worth highlighting that the optimal number of degrees of freedom for the t statistic chosen to represent the data involved was approximately 8, which indicates fatter tails for the selected dataset distribution. The selection criteria to choose the model which best fits the data were: standard error of the regression; Akaike criterion; and Schwarz criterion. The combination which produced the best results was the following:

$$\begin{aligned}
 (R_t | I_{t-1}) &\sim Student(\mu_t; \sigma_t^2; \nu) \\
 \mu_t &= \alpha R_{t-1} + \beta RF3_{t-1} + \delta RF4_{t-1} \\
 \sigma_t^2 &= \lambda e_{t-1}^2 + \gamma \sigma_{t-1}^2
 \end{aligned}
 \tag{8}$$

where: R_t is the Brent crude oil spot price return, at period t ; I_{t-1} is the available information at period $t-1$; μ_t is the mean Brent price return at period t ; $RF3_{t-1}$ is the Brent price return in future contract 3, at period $t-1$; $RF4_{t-1}$ is the Brent price return in future contract 4, at period $t-1$; σ_t is the standard deviation of the Brent spot price return at

period t ; and $e_t = (R_t - \mu_t)$. $e_t = (R_t - \mu_t)$ And Table 7 presents the results for the estimation parameters of the selected model.

Table 7: Estimation results of the selected model

Parameter	Value	Std Deviation	t Statistic	p-value
Mean Equation				
α	-0.385	0.042	-9.259	0.000
β	5.512	0.913	6.038	0.000
δ	-5.049	0.924	-5.467	0.000
Variance Equation				
λ	0.035	0.008	4.227	0.000
γ	0.965	0.008	116.881	0.000
Degrees of Freedom	8.406	1.756	4.786	0.000
Standard Error Regression	0.017	AIC criterion		-5.463
Sum Squared Residuals	0.255	BIC criterion		-5.437
Durbin-Watson Statistics	2.112	Log Likelihood		2566.935

CONCLUSIONS AND FINAL REMARKS

This work aimed to investigate the influence that different oil future contracts have on oil spot price formation. The analysis was conducted taking into account daily observations for the first four contracts, classified according to the difference between the expiry date and the moment of negotiation, and for the spot prices of two of the main crude oils traded nowadays - Brent and WTI. At first, the study sought to examine the long-run relationship between the spot market and the future contracts for each. The results were quite satisfactory for the Brent crude, where the tests indicated that cointegration hypothesis could not be rejected in any of the four cases studied. On the other hand, the results for the WTI crude oil were only consistent when the first future contract was taken into account. The relationship between the WTI spot market and the second WTI future contract was somewhat unclear and contracts 3 and 4 did not seem to share any long term equilibrium relationship with the spot market at all.

The causal relationships between spot and future contracts were also examined and the results suggested that all Brent future contracts studied seemed to have strong predictive power over spot market price behavior. Conversely, apart from the first contract, WTI future contracts do not seem to have any considerable influences on WTI spot market prices.

Finally, this study proposes to estimate an effective model to explain the Brent oil spot price returns behavior through previous information regarding the first lagged terms of the spot price returns time series and the first lagged terms of the future contracts price returns. According to the selection models criteria used in this work, among 70 estimated models, the results were statistically significant in 32 of them. Surprisingly, the selected model only took into account information concerning spot prices and future contracts 3 and 4.

It can be stated that all objectives were achieved, as it was possible to establish coherent and consistent criterion to contrast the association between the spot market and each of the four contracts studied for each crude oil type, and it was possible to estimate significant forecast models, from the statistical point of view. It should be emphasized, though, that the results were taken for a specific time period and there may be significant differences when other samples are taken into account. Besides that, it must be highlighted that other statistical inference methodologies may be proposed to investigate the relationship between the involved markets here studied, and the selection of the most appropriate econometric tests and forecast

models are linked to a huge variety of criteria.

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Self-Handicapping as a Coping Strategy: Approaches to Conceptualization

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ABSTRACT

New conceptualization of self-handicapping behavior as a non constructive proactive coping strategy is offered. Using correlation and factor analysis it was found out that low level of neuroticism, belief in self-efficacy, high level of self-esteem, subjective well-being and mental health continuum act as predictors of personal determination of the choice of constructive proactive coping behavior. Vice versa, high level of neuroticism, uncertainty in self-efficacy and low level of subjective well-being are found to be predictors of self-handicapping behavior as non-constructive proactive coping. Research results also suggest that enduring personality traits contribute to specific proactive coping styles and overall adaptation to stress.

Key words: Proactive coping behavior: constructive and non-constructive, proactive coping, preventive coping, anticipatory coping, self-handicapping.

INTRODUCTION

The problem of coping with stress attracted attention of researchers in early 60s [0], [0]. The existing research has mostly examined coping strategies that occur in response to certain complications at present time, namely: task-oriented, emotion-oriented, and avoidance-oriented coping [0], [0]. It has been determined that task-oriented coping negatively predicts distress [0], and is associated with positive striving emotions and goals [0], whereas emotion-oriented coping styles positively predict emotional distress [0]. Recently, attention has been focused on the proactive coping, which is oriented towards future and consists of efforts to accumulate resources that facilitate promotion of challenging goals and personal growth [0]. When it comes to proactive coping, until recently mainly constructive strategies have been coined: 1) proactive; 2) reflective; 3) strategic planning; 4) preventive; 5) instrumental support seeking; and 6) emotional support seeking [0], [0]. These strategies are manifested in seeing difficult situations as challenges, initiating constructive path of action, creating opportunities for growth and accumulating resources for coping [0]. However, the proactive process of anticipating potential stressors or challenges can have different levels of worry. For example, preventive coping is characterized by high worry levels, whereas proactive coping is not [0]. At

the same time, the phenomenon of self-handicapping has been interpreted as “imposing an obstacle to one’s successful performance in a particular situation in order to provide an excuse for failure (usually in a person of low self-esteem)” [0, p.682]. According to Berglas, self-handicapping behavior is proactively initiated to prevent from the loss of a valued resource [0]. Thus, this research objective was to theoretically conceptualize and empirically examine the possibility of interpreting self-handicapping behavior as a form of non constructive proactive coping. We attributed “non constructive” label to self-handicapping in order to differentiate between positive gains associated with “constructive” coping behavior versus “non constructive” consequences of self-handicapping behavior discussed further.

LITERATURE REVIEW

The phenomenon of self-handicapping was defined by Jones and Berglas as a strategy of proactively arranging for failure in particular situations in order to protect one’s image of competence [1]. Self-handicapping is conscious and volitional behavior, critically different from defense mechanisms [0]. Arkin and Oleson have concluded that people that do not use self-handicapping strategies tend to be persuaded by self-handicapping, and those, who are self-handicappers themselves, are able to recognize this behavior [0]. However, the situation with defense mechanisms is completely the opposite: the ones, who do not use defense mechanisms, are able to see through them, whereas those who use defense mechanisms are not able to recognize them in behavior of others [0]. Researchers have also differentiated between self-handicapping and attributions [0]. Attributions of incompetence happen following failure, that is to say *retrospectively*, and self-handicapping, on the contrary, happens *prior* to the event occurrence. Thus, self-handicapping cannot be regarded as defensive mechanism, because it is conscious behavior or type of attribution, because it takes part before the event occurrence.

Jones and Berglas have suggested that self-handicapping behavior is caused by “abnormal investment in the question of self-worth” [0, p. 205] and its main goal is to externalize failure and internalize success. In the subsequent studies, a wide variety of self-handicapping behavior was described, including alcohol [0] and drug use [0, 0], physical symptoms [0], reduced effort [0], test anxiety [0] and lack of practice [0]. Research has shown that people actively arrange the obstacles so that if poor performance or failure happens, those obstacles are seen as the main reason rather than lack of ability [0, 0]. As known, failures that are explained by internal causes affect self-esteem more than failures that are explained by external factors. This observation leads to conclusion, that self-handicapping may be interpreted as a self-protective coping strategy which is used by subjects in the situations of uncertainty which impose a threat on self-esteem. Research data provides evidence that self-handicapping effectively protects self-esteem in the short-term [0, 0], however in the long term it impairs performance [0], and lower psychological well-being [0]. Self-handicapping behavior is likely to occur during evaluative situation, within which failure would present a threat to self-esteem and when the individual experiences feelings of uncertainty [0, 0]. McCrea and Hirt have found out consistent gender differences in choice of self-handicapping behavior: women are less likely to engage in behavioral forms of self-handicapping [0]. Their research findings suggested that women valued displaying of effort [0] and thus were less likely to use reduced effort as the self-handicapping strategy [0].

Objectives of this research

For this research, in order to conceptualize self-handicapping as a non constructive proactive coping strategy, we set forth the question about personality precursors of the constructive and

non constructive forms of coping behavior, based on the hierarchical structural model of personality-mediated differences in coping behavior, developed by the authors [0]

The model accounts for the individual differences in the evaluation of the situations which call for the decision making as to the choice of the coping efforts at three levels: 1. Primary (affective) appraisal of the situation, determined by genetic factors (emotional stability vs. neuroticism) ; 2.The cognitive evaluation by the individual of the available coping resources, determined by the level of ego-identity and ego-involvement [0]; 3.The generalized appraisal of the situation and oneself as an agent of coping behavior, determined by psychological well-being [0].

We hypothesized, that individuals who, in the situation which requires coping efforts, perceive it as a challenge and appraise cognitive resources as sufficient, will use constructive proactive coping strategies (preventive, strategic, reflexive and others). On the other hand, those, who perceive situation as a threat, and their resources as insufficient, will likely resort to a non constructive proactive coping conceptualized in the form self-handicapping. To test the psychological reality and expediency of the model in empirical research was carried out.

METHOD

Participants

The sample included 120 participants, aged 18-21 (mean age 19 years), undergraduate students of Oles Honchar Dnipropetrovsk National University, currently continuing their education during the 2013-2014 academic year. Of the participants, 65.4 % (n= 85) are female and 34,6 % (n= 45) are male. Participation in the empirical study was a part of their course work for which students were supposed to get credit after completing the course.

Materials

Coping Inventory for Stressful Situations (CISS)

The Coping Inventory for Stressful Situations was used to measure task -, emotion -, and avoidance-oriented coping strategies (Endler & Parker, 1990, 1999; adapted to the Ukrainian culture in 2004 by Krukova). The measure consists of 46 items to which subjects respond on a seven-point Likert scale ranging from 1 – “strongly disagree”, to 7 – “strongly agree”. The stem question requests that individuals rate how much they engage in each activity when they encounter difficult, stressful or upsetting situations. Sample items for the respective subscales include: task-oriented coping, “Think about how I solved similar problems”; emotion-oriented coping, “Blame myself for not knowing what to do”; and avoidance-oriented coping, “Watch TV; call a friend”. Reliability and validity estimates for the Ukrainian adaptation of CISS provide support for internal consistency of all the scales. Cronbach $\alpha = .876$ for the whole inventory, $\alpha = .853$ for the problem-focused coping; $\alpha=.877$ for emotion-focused coping and $\alpha=.814$ for the avoidance coping.

Proactive Coping Inventory (PCI)

PCI consists of 6 subscales, 55 items total (Greenglass & Schwartz & Taubert, 1998, adapted to the Ukrainian culture by E.Starchenkova, 2002, modified by M. Yaltonsky, 2009). The six subscales of the Ukrainian adapted version of PCI are: The Proactive Coping Scale, the Reflective Coping Scale, Strategic Planning, Preventive Coping, Instrumental Support Seeking, and Emotional Support Seeking. The subjects are asked to evaluate the degree of agreement with the following statements on a 4-point scale, from 1 - "totally disagree" to 4- "totally agree". The authors note that in case of shortage of time, The Proactive Coping Scale can be used as the single independent measure. The Proactive Coping Scale combines autonomous goal setting with self-regulatory goal attainment cognitions and behavior (Greenglass, 1998). The scale has

high internal consistency, Cronbach $\alpha = .85$. The Reflective Coping Scale consists of 11 items and includes contemplating about various behavioral alternatives, brainstorming, analyzing problems and resources, etc. The Reflective Coping Scale has internal consistency as seen in Cronbach $\alpha = .79$. Strategic planning subscale comprises of 4 items and focuses on breaking extensive tasks into manageable components as well as generating goal-oriented schedule of action. This scale has acceptable reliability, $\alpha = .71$. Preventive Coping deals with anticipation of possible stressors and initiation the preparation before stressors develop fully. The 10-item Preventive Coping Scale correlates positively with another measure of Preventive Coping (Peacock & Wong, 1990), with Internal Control, Active Coping, Planning and Acceptance. Instrumental Support Seeking combines seeking of assistance, information or advice about what to do and the greater the seeking of empathy from others. Finally, Emotional Support Seeking 5-item subscale deals with seeking the advice and empathy from others.

Self-handicapping Scale

The Self-Handicapping Scale is comprised of 25 statements designed to assess an individual's proclivity to display self-handicapping behavior. For each statement, subjects were asked to indicate their level of agreement on a six-point scale. Large group testing sessions indicate that the scale exhibits acceptable internal consistency (Cronbach alpha = .79) and test-retest reliability ($r = .74$ after one month) (Rhodewalt 1990). The predictive ability of the scale is confirmed by a number of studies (e.g., Rhodewalt, 1990, 1994; Strube, 1986). The instrument was translated into Ukrainian for the first time by an experienced researcher with a first degree in translation and then checked by the research team, who were fluent in both English and Ukrainian. Care was taken to ensure each item translated retained a meaning as close as possible to the original version by means of a back translation process.

NEO Five-Factor Inventory (NEO-FFI)

NEO Five-Factor Inventory (Costa et al., 1992, adapted by V. Orel) is a 60-item inventory, comprising questionnaires for measuring the Big Five personality factors. Participants in our study rated 60 behavior-descriptive statements on 7-point Likert scales, ranging from 1 (strongly disagree) to 7 (strongly agree), indicating the degree to which they thought the items were characteristic of them. The NEO-FFI is one of the most widely used measurement tools of the Big Five and has very strong psychometric properties. Six-year test-retest reliability has ranges from .63 to .82. For the NEO FFI (the 60-domain-only version), the internal consistencies were: for neuroticism $\alpha=.79$; extraversion $\alpha=.79$; openness to the new experience $\alpha=.68$; agreeableness $\alpha =.75$; conscientiousness $\alpha=.83$. Adapted version Cronbach alphas reliabilities were reported as follows: E = .76, N = .63, O = .75, C=.73, A=.79.

The Positive and Negative Affect Scale (PANAS)

The Positive and Negative Affect Scale (Watson et al., 1988, adapted to Ukrainian culture in 2012 by E.Osin) intended to assess general positive and negative affect. The scale is comprised of 2 subscales measuring positive and negative affect respectively. PANAS is composed of 20 adjectives describing different feelings and emotions. Subjects are asked to read each adjective and mark how often he or she felt this way in the past few weeks, on a 5-point Likert from 1 – “almost never” to 5 – “very strongly”. Internal consistencies as seen in Cronbach alpha are: for positive affect =.89, and for negative affect = .86.

The Satisfaction with Life Scale (SWLS)

The 7-point Likert scale that has been developed by Diener et al. (1985) and adapted into Ukrainian culture by D. Leontiev and E.Osin (2008) contains five items. The internal

consistency (Cronbach α) and test-re-test coefficient of the adapted version of the scale is .75 and .70 respectively.

Mental Health Continuum – Short Form (MHC-SF)

MHC-SF, designed by Keyes (2006) is composed of 14 items and provides measures of subjective well-being, psychological well-being and social well-being. We used our own translation into the Ukrainian language without adaptation (as allowed by the author, if the scale is used for research). The short form has shown good internal consistency (Cronbach $\alpha=.80$) and discriminatory validity. Test-re-test reliability estimates range from .57 to .82 for the total scale (Keyes, 2007). The three factor structure of the short form - emotional, psychological, and social well-being – has been confirmed in American representative samples (Keyes, 2005, 2009).

Rosenberg Self-Esteem Scale (RSE)

For measuring global self-esteem Rosenberg Self-Esteem Scale (1965) was used. The scale consists of 10 items, responses being measured on 4-point scale, from 1- “strongly disagree” to 4-“strongly agree”. Cronbach α reliabilities for the RSE are reported from .72 to .88.

The General Self-Efficacy Scale (GSE)

The General Self-Efficacy Scale is a 10-item psychometric scale that is designed to assess optimistic self-beliefs to cope with a variety of difficult demands in life. The scale has been originally developed in German by M.Jerusalem and R. Schwarzer in 1981 and adapted to the Ukrainian culture by V.Romek in 1996. During adaptation study single general factor was confirmed and internal consistency coefficient was reported as $\alpha=.847$.

Dispositional Characteristics of Personality Self-Evolution

To assess individual's awareness of oneself as an agent of self-evolution, we used a new Ukrainian thought-out inventory “Dispositional Characteristics of Personality Self-Evolution” (Kusikova, 2012). The Inventory consists of 30 statements rated on a five-point Likert Scale (with 5- “very much like me” and 1- “not like me at all”). The statements are formulated like: “I believe in my potential abilities and strive to self-actualization”; “I enjoy doing things that require maximum commitment and efforts”; or “In my life I am guided by the ideals of the truthfulness, goodness and beauty” etc. The Inventory has 3 scales. The meaning of the first scale is described by the author (Kusikova, 2012) as the awareness of the individual in the necessity of self-growth, self-evolution; openness to changes, interest in the events of the surrounding world; interest in one's own inner world. The meaning of the second scale “Conditions of self-evolution” is defined in the terms of autonomy, positive self-perception, strength and maturity of the self-image; awareness of one's goals, active life strategies. The meaning of the third scale “Mechanisms (functional means) of self-evolution” is defined in terms of self-comprehension (strive to authenticity); self-reflection (self-analysis) awareness of the discrepancies between the real and the ideal self; sensitivity to the feedback from other people. The author reports internal consistency of the Inventory $\alpha=.70$

Procedure

The research data was acquired from the students at Oles Honchar Dnipropetrovsk National University during 2013-2014 academic year. The participants of this research were included in the study following a short brief about the research and then were asked to fill in suggested questionnaires individually and provide their demographic details to the authors of this research. The analysis of the data was carried out via IBM PAWS SPSS 18 (SPSS, 2009). Two types of research procedures have been carried out: the correlation analysis (r-Pearson product moment correlation coefficients) was assessed among all the variables included in the

hypothesis; factor analysis (the method of independent components with Varimax rotation) was carried out to identify the variables with eigen value exceeding 1.

FINDINGS

As a result of the correlation analysis it was determined that there were significant relationship between all the variables in the model, supporting the hypothesis (see Table 1).

Table 1. Relationship coefficients between the proactive forms of coping and personality variables

Hypothesized dependent variables of Self-Regulation (proactive coping strategies)	Hypothesized independent personality variables of self-authenticity								
	Neuroticism	Self-Esteem	Belief in Self-Efficacy	Dispositional self-evolution resources	Needs of dispositional self-evolution	Conditions of dispositional self-evolution	Mechanisms of dispositional self-evolution	Subjective well-being	Mental Health Continuum
Proactive	-.335**	.264**	.434**	.364**	.107	.570**	.048	.295*	.318**
Reflexive	-.122	.169**	.328**	.235**	-.141	.329**	.229**	.185*	.144
Strategic	-.133	.255**	.406**	.180*	-.072	.252**	.141	.143	.168*
Preventive	-.089	.238**	.269**	.060	-.200**	.194*	.078	.207*	.288**
Seeking emotional support	.096	.078	-.004	.162*	-.007	.067	.270**	.065	.093
Seeking instrumental support	-.022	.156*	.216**	.230**	.108	.187*	.157*	.057	.251**
Self-handicapping	.292**	-.105	-.247**	-.203*	-.072	-.313**	.022	-.045	-.230**

*p≤.05, **p≤.01

The results of the research confirmed the relevance of choice of self-handicapping as a non-constructive coping-strategy. As shown in Table 2, it negatively correlates with belief in self-efficacy (r= -.247, p≤.01), dispositional self-evolution resources (r= -.203, p≤.05), conditions of self-evolution dispositional self-evolution resources (r= -.313, p≤.01), and mental health continuum (r= -.230, p≤.01).

As shown in Table 1, the probability of the choice of proactive coping strategy significantly correlates with 7 out of 9 personality variables, besides, 6 correlations were determined to be positive predictors and 1 (level of neuroticism) is negative predictor of the probability of choice of the proactive coping strategy.

The analysis of correlations of the personality variables with self-regulation efficacy related to the use of the constructive proactive forms of coping behavior and the non constructive form of proactive coping, which we ascribed to self-handicapping, have showed that proactive coping negatively correlates with neuroticism (r=-.335, p≤.01) and positively correlates with level of self-esteem(r= .264, p≤.01), belief in self-efficacy (r=.434, p≤.01), dispositional self-evolution resources (r=.364, p≤.01), conditions of dispositional self-evolution (r=.570, p≤.01), subjective well-being (r=.295, p≤.01) and mental health continuum (r=.295, p≤.01).

With the help of the factor analysis, it has been found out that there were three factors which characterized the personality precursors of the choice of different forms and strategies of

coping behavior. The first component (factor) named *personality precursors of the constructive psychological coping personality precursors of adaptive functioning* included negative correlation with emotion-focused coping ($r = -.456$), neuroticism ($r = -.414$), self-handicapping ($r = -.372$), and positive correlations with a level of belief in self-efficacy ($r = .710$), constructive forms of proactive coping ($r = .544$), and task-oriented coping-strategy ($r = .694$). The personality precursors included in this factor are: adequate self-esteem ($r = .368$), striving for self fulfillment ($r = .527$), mental health continuum ($r = .496$), as well as various types of constructive proactive coping strategies.

The distinguishing feature of the second factor, identified by the factor analysis, was that it included highly significant intercorrelations of four of five global dispositional personality traits: conscientiousness ($r = .784$), openness to new experience ($r = .728$) extraversion ($r = .631$), and agreeableness ($r = .574$). In addition, it included negative correlation of self-handicapping ($r = -.236$), distraction as a coping strategy ($r = -.244$), positive correlations of subjective well-being ($r = .450$) and mental health continuum ($r = .427$) so, this factor was named as *personality precursors of adaptive functioning*. This structure of the intercorrelational links suggests that in order to ascribe the priority to the problem-focused coping strategy, the individual is supposed to be aware of the availability in one's experience of the appropriate coping resources.

The third factor was named personality precursors of maladaptive functioning, and included: avoidance-oriented coping strategy ($r = .785$), distraction as a coping strategy ($r = .703$), social distraction ($r = .642$), emotion-oriented coping ($r = .540$), seeking for instrumental support ($r = .504$) and self-handicapping ($r = .370$).

These findings convincingly confirm, in our opinion, the conceptualization of self-handicapping as a non constructive form of proactive coping behavior.

DISCUSSION

The major findings of this research can be summed up as follows:

- The phenomenon of self-handicapping can be claimed to be not only a motivational strategy but also a form of non constructive coping behavior, as the subjects with high level of ego-involvement an ego-identity had the lowest levels of the tendency to resort to self-handicapping, and, vice versa, the subjects with low levels of ego-involvement and ego-identity frequently resort to self-handicapping. The latter proves the status of self-handicapping as a non constructive form of proactive coping behavior.
- The positive ego-identity (high self-esteem and belief in self-efficacy) can be claimed to determine the choice of constructive forms of proactive coping.
- The individuals with high level of neuroticism are prone to resort to the non constructive form of proactive coping, operationalized in this research in the form of self-handicapping.
- High levels of the subjective well-being and mental health continuum, as the indicators of the generalized appraisal of the life situation and oneself as an agent of activity, are positive predictors of diverse repertoire of the constructive proactive coping behavior
- Finally, the role of self-esteem in the resorting to self-handicapping as a non constructive proactive coping behavior. Jones and Berglas suggested, that self-

handicappers have generally positive, but uncertain image of their competence and that “suspected truth is too horrible to risk” [0, p. 203]. In another study by Dianne M. Tice, it has been determined that different people use self-handicapping for self-protection and self-enhancement: high-self-esteem individuals resort to self-handicapping in order to enhance success, whereas low-self-esteem individuals resort to self-handicapping to protect self concept against esteem-threatening situations [0]. Another possibility for future research is examining the effects of implicit vs. explicit self-esteem on the self-handicapping. As L. Spalding and C. Hadrin [0] determined, implicit and explicit self-esteem may be disassociated and have different effects of self-handicapping behavior: those, with low measures of both explicit and implicit self-esteem tended to self-handicap about their performance more. Thus, the question of self-esteem remains open for the future research.

- In conclusion, research results suggest that personality factors are fundamental in understanding coping ability and make a contribution to the body of research on the relationship between personality and coping.

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Benefits of Authentic Education with Multidisciplinary Perspectives from the Viewpoints of Analytical Psychology

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ABSTRACT

Authentic education system highlighted in this paper provides a unique learning experience to individual learners, specifically by addressing their psychological and neurological needs; assessment of learners are done through generic attributes that have more validity and relates to intrinsic learner characteristics, lasting throughout the life span. The psychological types or conscious functions defined in analytical psychology provide additional insights into learner classification and identifying appropriate generic attributes. . In the authentic education system described, learners are encouraged to pursue higher-order learning sending them through a complete learning cycle; this engages learners deeply to the task and provides a lasting experience, enabling individuals to reach their full potential. Learners are encouraged to pursue an individuation process as described in analytical psychology towards a higher level of human development; that is the shadow or the inferior functions are directly addressed enabling the path towards the concept of the self. Through authentic education, we get to value human resources much more than related economic aspects, making a significant difference to our current approaches and focus; it has the promise to effect a significant positive social change towards a sustainable development. In this regard, the viewpoints from analytical psychology as a framework of human development provide additional justifications.

Keywords: authentic education, analytical psychology, psychological and neurological learner characteristics, neurodiversity, higher-order learning, human development

INTRODUCTION

In this paper, the author first presents the conceptual view of authentic education system (Watagodakumbura, 2013a, 2013b) briefly. In the subsequent sections the benefits of such an authentic education system to individuals as well as society at large are highlighted from a number of different perspectives. More specifically, the benefits are discussed from the viewpoints of analytical psychology. A brief introduction to the main concepts of analytical psychology is also presented at the beginning. On the whole, an authentic education system is identified as possessing the promise of making a significant positive social change focusing sustainable development, with more validations from the domain of analytical psychology.

Conceptualising Authentic Education

Within an authentic education framework (Watagodakumbura, 2013a, 2013b), learners' individual psychological and neurological characteristics are given consideration and accepted as they are, promoting inclusive practices. For example, emotional and other high sensitivities commonly found in gifted and creative personnel are not considered as constraints, rather they enrich a neurodiverse (Armstrong) society to operate in a more balanced manner. In an authentic education framework, learning preferences of auditory sequential learners as well as visual spatial learners (Silverman, 2002, 1998) are given consideration equally and unbiasedly and these preferences are mapped into to related career paths so that individuals of both

categories enjoy their work more naturally, or intrinsically. Learners with high developmental potential, meaning the inclination towards a highly empathic, satisfied and productive human being, get conducive environments to reach higher levels of development, similar to a self-actualised (Maslow, 1968, 1993) state. An authentic education system sends learners through a lasting deep learning (Biggs and Tang; Entwistle) and critical thinking (Paul and Elder) experience, for which human brains are capable of under conducive teaching-learning environments; human brains are treated as parallel processors that are capable of dealing with multiple inputs and solving complex problems unlike machines, or computers that are good at executing routine steps in reaching specific answers at very high speeds (Beale and Jackson). Following the fundamentals of neuroscience, many physical parts of the brains are incorporated into learning with methodologies similar to Kolb's experiential learning cycle (Kolb; Zull) and constructivist theory of learning (Biggs and Tang); learning has physical meaning in which neurons in the brain grow (Diamond, 1996, 2001) to develop dense communication network indicating deep learning, as opposed to surface, or superficial learning, has taken place. In an authentic educational practice, learner evaluation is done using generic learning attributes that are associated with learners' intrinsic characteristics, instead of an indication of how well a learner has prepared in a specific area of study prior to an assessment; these generic learning attributes carry qualitative values that are valid throughout one's life span as they relate to one's psychological and neurological characteristics very well.

Analytical Psychology: Main Concepts

Analytical psychology is a sub-stream of the main discipline of psychology founded by the Swiss Psychiatrist and psychotherapist Carl Gustav Jung, in the early twentieth century. Consequently, analytical psychology is also known as Jungian psychology. Jung is a student of the famous Austrian neurologist Sigmund Freud, who became known as the founding father of psychoanalysis. In the last 2-3 decades, Jungian psychology is becoming more and more popular among practitioners of psychology, other philosophers and academics due to its versatility in other applications as well. Some basic concepts used in analytical psychology such as conscious/unconscious, psychological types, the shadow, the self and archetypes are introduced below.

Conscious/Unconscious (Hauke, 2006)

Human psyche is divided into conscious and unconscious parts. Consciousness grows out of the unconscious psyche. Ego is the centre of consciousness. Unconscious is divided further into personal unconscious and collective unconscious. Personal unconscious is acquired through lifetime through personal learning and experience. It occurs through repression, forgotten and sense-impressions that never had sufficient intensity to reach consciousness. On the other hand collective unconscious is the general, universal part, derived through aeons of repetitions of human cultural imagery and experience. These contents have never been conscious and owe their existence to a form of heredity. Further, they are identical in all individuals. That is, they are primordial images or records of the psyche of humankind going back to remotest beginnings. The process referred to as individuation integrates the conscious and unconscious psyches helping individuals to reach humanistically to full potential.

Psychological Types (Beebe, 2006)

Four functions of consciousness, namely, thinking, feeling sensing and intuition are introduced. Thinking and feeling are identified as rational functions and are situated at the opposite poles while sensing and intuition are identified as irrational functions that are situated at the opposite poles. Sensing is the conscious function that registers reality as real. Thinking is the

function that defines what we perceive. Feeling is the function that assigns a value to what we have perceived. Intuition is the function that defines the implications and/ or possibilities of the thing that has been perceived empirically. In addition to having an inclination towards one or more of these functions, an individual will also have a more inclined attitude type, so to speak; the two possible attitude types Jung presented are introversion and extroversion. As long as a function is undifferentiated, it cannot be deployed in the conscious manner of a directed mental process. Individuation is the progressive differentiation of the various psychological functions of consciousness.

The Self (Colman, 2006)

The self is the centre of the psyche as well as the totality- sum total of conscious and unconscious contents- of the psyche. Thus, the self represents the psychic wholeness and is the goal towards which the individuation process strives. The individuation process resolves the state of inner conflict and opposition into a union of opposites which brings about wholeness. The self is the supra-ordinate or supra-personal centre of the personality and Jung regards God-images as the symbolic representation of the self.

The Shadow (Casement, 2006)

The shadow is complementary to consciously held attitudes and can be both personal and collective. The personal shadow may be conceived of as the repository of all the aspects of a person that are unacceptable or distasteful (envy, aggression, greed, laziness, jealousy, shame) to them. The individuation process starts off by the individuals becoming conscious of their shadow, which can be painful although there is a gain. That is, to acquire self-knowledge one has to tackle the shadow. It is important to embodying the shadow in consciousness; otherwise, if it is repressed and isolated from consciousness, it remains uncorrected and liable to erupt in a moment of unawareness. Further, the inferior conscious function is equated with the shadow. When the shadow results in neurosis it becomes a necessity for the individual to find a way for the conscious personality and shadow to live together; instead of neurotic dissociation, one needs to struggle with it. Neurosis, according to Jung, is a state of being at war with oneself; what drives individuals to this state is the suspicion of being two people in opposition to each other – the shadow and the ego. Recognition of the shadow leads to humility and genuine fear of what lies in the depths of humanity.

The Archetypes (Stevens, 2006)

Jung maintained that there existed an additional phylogenetic layer (the collective unconscious) which incorporated the entire psychic potential of humankind. That is, human beings are born with the virtual images or archetypes such as parents, wife, children, birth and death etc. as psychic aptitudes. These images lack in solid content, and hence are unconscious.

BENEFITS OF AUTHENTIC EDUCATION FROM ADDITIONAL VIEWPOINTS OF ANALYTICAL PSYCHOLOGY

Gives the General Term of Education a Deeper and Broader Meaning Viewing from Multiple Perspectives, Including that from Analytical Psychology, Resulting Better Educational Outcomes

Within an authentic education system, we have understood the general term of education more deeply and broadly viewing from multiple points of view; it goes beyond the superficial levels of understanding it and promises significant benefits in terms of educational outcomes. When looking at the term education in a contemporary society, we need to have a multidisciplinary perspective; the discipline of pedagogy alone will not define it adequately. We essentially need to integrate perspectives from a number of other disciplines such as humanistic and gifted

psychology, neuroscience and neurology to better define the term education. The additional viewpoint we introduce in this paper is looking at authentic education already defined through the lenses of analytical psychology. It has a considerable significance as analytical psychology is gaining increasing popularity in the recent past as an effective method of psychotherapy as well as a human development theory. Appropriate mappings and deeper understanding of the concepts of authentic education from the theoretical background of analytical psychology will result in giving a more inclusive and sustainable meaning to education, covering wider member communities of our society. Even though very useful facts and findings have emerged from different disciplines in contributing defining the term education, we do not get to see the real picture when they are disintegrated from each other. When looking from an integrated perspective, we are able to understand the possible benefits that are promised. These promises would be as small as having just a better environment for learners to thrive to the extent of effecting a considerable positive social change, as highlighted in the following paragraphs.

Allows Unique Identification of Learners, Through Psychological Types, Embracing Diversity

An authentic education system will identify individual learners uniquely through their psychological and neurological characteristics. For example, learners will be identified whether they are more inclined for auditory sequential learning or visual spatial learning. Further, the learners will be identified whether they demonstrate any overexcitabilities (Dabrowski, 1970, 1972, 1977) such as emotional, imaginal or intellectual. These characteristics are intrinsic to each individual and would span a lifetime. From the point of view of analytical psychology, we can understand which psychological type or types such as sensing, thinking, feeling and intuition individuals have a preference for. In other words, we can have a deeper perspective of auditory sequential learners who predominantly possess sensing and thinking psychological types and the visual spatial learners who demonstrates feeling and intuition psychological types more specifically. Further, as individuals with preference to feeling and intuition psychological types are more likely to tap the unconscious, in Jungian terms, more frequently, we can infer that visual spatial learners are more inclined to bring contents from the unconscious to consciousness. The process of individuation that leads individuals to higher levels of human development enhances the sphere of consciousness by embodying the contents from the unconscious. It explains why we find visual spatial learners or the gifted are more creative in their approach and possess tendency for accelerated humanistic development. As a society, our awareness on individual differences, or diversity, will grow when we assimilate the knowledge base from analytical psychology, accepting each other much more than now. This raised awareness can be applied specifically to understanding the important concept of neurodiversity (Armstrong). We may not define a strict and narrow normal behaviour and label everything outside the band as abnormal; rather we would accept that a wide range of differences that are normal do exist and those wide differences, in fact, enrich our society, similar to different plants that enrich a rainforest. We will be in with a better chance of minimising any misdiagnoses of healthy individuals (Webb, 2005), a concern rose by some prominent healthcare and medical professionals. Raised awareness and acceptance will allow us to minimise having individuals to rely on medication for some psychological differences. For example, we may have to carefully differentiate whether an individual has attention deficit hyperactivity disorder (ADHD) or is it merely psychomotor overexcitability. When the mainstream education system identifies learners' unique psychological and neurological characteristics, it enables us to be inclusive in our practices, getting the due attention to every individual. When every individual get to know about his or her intrinsic nature, he or she would be in a better position to take better decisions, to develop

more tolerant, empathic and content personalities. The concepts from analytical psychology guide us to deepen our understanding on individual psychological differences and how that impacts in education in general. Since we are giving significance to human characteristics, or characteristics pertaining to human nature, we disregard, or go beyond, other cultural or extrinsic bias that constraints positive learning environments.

Allows Learners to Pursue Higher Order Learning Undergoing a Complete Learning Cycle that Includes Addressing Inferior Conscious Functions or the Shadow, Enhancing the Chances of Reaching their Full Potential

The authentic education system defined (Watagodakumbura, 2013a, 2013b) encourages individuals to pursue higher order learning enabling them to reach their full potential. When the assessments target higher end of the Bloom's taxonomy (Biggs; Ramsden), instead of the middle or lower levels, we encourage learners to strive for achieving higher, something they could achieve as human beings, or human nature. Creativity is natural to human species and when we encourage learners to pursue higher order learning, we sharpen their creative instincts, encouraging them to produce creative outputs; unlike robots, or machines, that produce uncreative and routine answers rapidly, we want learners to be creative, producing unique outputs. From an analytical psychology point of view, pursuing higher-order learning indicates focusing more on feeling and intuition psychological types. That is, these psychological types or conscious functions essentially involve in evaluation and synthesis type tasks by definition. Further, these psychological types naturally help individuals to tap the unconscious, in Jungian terms, more often, enhancing the conscious sphere. What this means is that when we target higher-order learning, it directs learners towards the individuation process or higher levels of human development, similar to the process of self-actualisation. Different individuals will pursue this path to higher achievement at different paces and reach higher levels at different times, but there will be no ceilings at lower levels stopping them progressing to higher levels. Individuals will not be competing with each other to reach higher levels, rather, will be striving to self-identify one's natural pace to traverse because that is the best pace for oneself. More the productive time a learner can put in pursuing higher order learning, the higher the level of understanding he or she can achieve, or the level of learning achieved is proportional to the amount of productive time spent; there is probably no a two state switch to decide whether one can or cannot. From the viewpoint of analytical psychology, individuals will essentially have to deal with the shadow or inferior psychological function(s) in order to engage in the individuation process. Consequently, the productive time one spends on effective higher-order learning will also need to address the shadow or inferior function phenomenon. Learners will be going through complete learning cycles as described in Kolb's experiential learning, without being restricted to only some stages of the cycle. From an analytical psychology point of view, individuals will not only focus on the dominant psychological type or conscious function, but also attempt to differentiate, in Jungian terms, the auxiliary and inferior functions as well. Differentiating more conscious functions put individuals on a path to the individuation process. That is, such practices move learners on a ladder to their full potential, or the state of self-actualisation, as Abraham Maslow (1968, 1993) termed. These self-actualising personnel reaching their full potential are identified to be more creative. We have evidence from neuroscience that neural networks can grow denser making new connections throughout one's lifespan, and as we keep on striving on higher order learning, we can reach higher levels of our potential. Further, when higher order learning is the focus, it accommodates the visual spatial, or gifted, learners in the mainstream education system rather than leaving them behind or requiring them special education programs. Put differently, when we identify in pedagogy that higher order learning is the way to go, it applies equally well to both visual spatial learners as well as auditory sequential learners. Every individual will be using the generalised knowledge they gained through education in a wide

range of situation in life, not only in their careers. As individuals, they will be making better, or more educated, decisions, in everyday situations, not merely in a narrow area related to the specific career. This is one of the prime intensions of an authentic education system; that is preparing learners to succeed as a whole, as better human beings, as better judges of overall social situations, not just in a narrow career area.

Provides Opportunities to Map Intrinsic Individual Characteristics Including Psychological Types or Conscious Functions to Related Career Paths

When the mainstream education system identifies a learner's intrinsic individual characteristics, mainly the psychological and neurological ones, it helps individuals and organisations to map them to more suitable career paths. In other words, an individual's intrinsic characteristics can be mapped mainly to visual spatial or auditory sequential type work category, as highlighted before. As part of this categorisation, would be the use of preferred psychological types, namely, sensing, thinking, feeling and intuition as defined in analytical psychology. Further, an individual's degree of inclination towards enhancing his or her conscious sphere will assist the above categorisation. Each work category is given the same level of recognition, or one is not more important than the other, as we essentially need both categories for sustainable social development. When such mappings take place, individuals will find them more at ease and satisfied in their work environments, resulting increased productivity at work place. That is, not only the individuals, but also the organisations will benefit. When the mainstream education system identifies intrinsic learner characteristics over a long period, the organisations do not have to rely on rapidly conducted tests, such as psychometric ones, possibly with much less reliability, to categorise individual candidates. Further, when intrinsic individual characteristics are identified at an early age of the individual, more stressful and demanding, late, significant career changes can be avoided, yielding better career guidance at a relatively early stage. On the whole, we will be able to produce better, or more consistent, career selections for individuals and better career mappings for organisations in our society through an authentic education framework.

Encourages Holistic Personal Development Leading to the Process of Individuation, not Merely Career Development

An authentic education framework signifies the concept of lifelong learning; that is we need to improve as persons, or human beings, throughout our life spans. By improving as a person, or human being, we become more satisfied, empathic and creative individuals. Findings from neuroscience provide evidence that human beings have the capacity to learn throughout their life spans (Diamond, 1996, 2001), contrary to the believes held otherwise, superficially. Education does not end when we start our working careers, and afterwards it is not merely career development we strive at. Within an authentic education framework, we have the opportunity to map our prominent, intrinsic personality characteristics to a career path, but some other weaker characteristics of ours could still be useful in our normal life situations; in continuous personal development we need to improve on those areas that will be useful in ours operation within the society, presently or in future. From an analytical psychology point of view, we will be dealing directly with our shadows or inferior conscious functions in order to enhance our conscious sphere. Without this direct approach of dealing with one's weaker or negative aspects, individuals will not be in a position to engage in the process of individuation or self-actualisation. Ideally, the organisations should provide provisions for their employees to engage in such personal development activities, outside their normal career activities; this could be part of lifelong learning. When we undertake such personal development activities, we will not be simply focusing on a narrow career direction; rather we will be broadening our

understanding and knowledge that would be useful in our personal lives. Such personal development activities prepare us better, or insure us better, for unexpected or emergency social situations such as loss of employment; through our broader personal development, or broader knowledge, we will be in a better position to find other suitable employment, even if it is not directly related to the previous one. More importantly, individuals will be psychologically more prepared to face such emergencies or adverse situations. This positive transition may not be possible if we constrained ourselves to a narrow career paths lacking holistic personal development. An authentic education framework essentially raises the awareness and promotes lifelong learning that enables individuals to prosper continually as persons, or human beings.

Allows a Positive Social Change Valuing Human Resources with Enhanced Conscious Sphere, Ahead of Mere Economic Aspects

An authentic education framework inherently gives prominence to human resources ahead of any other resource including economic aspects. It identifies individuals uniquely, valuing and accepting their unique characteristics and making them more satisfied and content, resulting more productive operation within the society. The society as a whole strives to make their members more productive, satisfied and content, pushing aspects related to economy to a secondary status. When we emphasise on the individuation process of individuals, as described in analytical psychology, it helps individuals to enhance their conscious sphere. When the individuation process continues to the highest possible level the concept of the self emerges – the highest possible level of personality or citizenship. Such evolved individuals will themselves be assets to society, guiding it in the right direction. This is a more positive change from the existing norm of giving prime importance to economic aspects while pushing the rest including human resources to a level of subprime importance. We make use of economic resources to make human beings reaching higher or full potential through the individuation process, rather than making use of, or manipulating, human resources to make better economic status. In an authentic education framework, we are directing the significance to the area where it is deserved. While economic aspects, or economic managements, are important, it is only secondary to how effectively and efficiently human resources are utilised. We have more value in fully functioning human beings with much less waste than a large pile of economic gains. There will be synergy within societies to improve its members' productivity rather than tug of war among groups within societies. An authentic education system essentially raises the awareness of the significance of having more satisfied, empathic, creative and productive human beings ahead of piles of nominal economic gains. Mismanaged human resources could cause years of high economic gains to be vanished in no time.

Allows for Sustainable, More Consistent and Predictable Social Development through Individual Member Individuation

An authentic education framework gives the opportunity for every individual to engage in learning in a unique manner that suits him or her the best. It aims at providing each individual an opportunity to reach his or her full potential. Allowing individuals to reach their full potential results in self-actualising, or psychologically healthy, personnel, as Abraham Maslow referred to. In analytical psychology, the process of human development is referred to as the process of individuation and at the highest possible level one reaches the level defined as the self. These developed individuals will have enhanced sphere of consciousness allowing them to see the reality as is or in a deeper sense. Further, individuals will be engaged in a lifelong personal development, or education, process, resulting positive motivation. The end result is that the society will have more satisfied, content, tolerant and empathic individuals; they will be more productive in their social operations. They will create a positive rippling effect in the society. This essentially yields a more sustainable social development. There will be more

synergy and less competition among individuals and groups as the focus is to make individuals fully functioning to their full potential in unique ways. There will be fewer crimes in our societies as individuals are more satisfied and content. Any tendency of any individual toward committing a crime can be proactively diagnosed within the mainstream education system that focuses on psychological and neurological characteristics of individuals. As a result, we will have more peaceful societies on the whole. There will be fewer individuals with negative psychological disorders (Webb, 2008; Silverman, 2004)) or conditions, firstly as the individuals are more satisfied and content, secondly because we embrace diversity, more specifically neurodiversity, and tend to accept individual differences more broadly and as something that enriches the society rather than restricting it. When the society gives and opportunity to every member of it to self-identify him or her and embark on path to reaching full potential through the mainstream education system, it results a just and fairer society. In a society with fewer man created problems, we have more time and resources to concentrate on real problems, or the unavoidable, such as finding treatment for cancer and better preparing for natural disasters. Individuals solving those problems are more productive, psychologically healthy (Maslow, 1968, 1993) and creative maximising the chances of finding better or ideal solutions. On the whole, there will be more predictability and consistency in our social operations and situations, with fewer unexpected events, or situations.

CONCLUSION

Authentic education allows individuals to develop better or fully, fulfilling their individual requirements. In this paper, additional justifications for using an authentic education framework are provided by introducing the viewpoints from analytical psychology. Aspirations of individual learners will be mapped in to more appropriate career paths. The psychological types or conscious functions defined in the analytical psychology framework are used in this pursuit. As a result, there is the promise of producing more empathic, satisfied, creative and productive human beings. In other words, learners engage in a process of individuation as discussed in analytical psychology, enhancing their conscious sphere. This is the starting point of a significant positive social change; the human resources are given the prominence ahead of mere economic aspects. It provides us with an opportunity to overcome some of the perennial problems such as high crime rates, high number of individuals with psychological problems and lack of productivity in operations and so on and so forth. In essence, an authentic educational framework provides an opportunity to have a sustainable social development. The human development framework defined in analytical psychology provides additional justifications for the above claim.

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Electronic Payments: Building the Case for a National Initiative

A. M. Al-Khouri

ABSTRACT

The explosion of the internet and mobile phones, as well as other rapid technological developments, has significantly influenced momentous changes in the payments market. Perceived as being more efficient and less expensive, electronic payments pave the way for the development of more sophisticated digital services in both the public and the private sector. This article provides an overview of electronic payment systems and their relation to recent developments in the United Arab Emirates (UAE). It summarizes existing card-based stored-value-payment initiatives in the UAE and presents the current identity management infrastructure in the country as a potential enabler to support the development of a more comprehensive national electronic payment system.

Keywords: electronic payment system, digital cash, cashless society, digital economy, identity management, smart card, national ID.

INTRODUCTION

In our ever-changing world, payment systems have been undergoing a transformation from paper to electronic means. Electronic payments refer to any kind of non-cash payment that does not involve a paper element. In general, methods and types of electronic payments include credit cards, debit cards, and automated clearing-house (ACH) systems¹ (Hord, 2005). These electronic payment systems rely profoundly on the use of computer networks, the internet, and digital stored value systems that together represent a process of debits and credits to exchange value in online and offline environments (Radovanović, 2009). In today's digital world, electronic payment systems are largely viewed as a vehicles that provide better value for customers, lower back-office administration costs to the government and businesses, and lower operating costs for financial institutions (CBoI, 2013).

Increasingly, governments and private sector organizations around the world have been showing interest in electronic payment mechanisms for the delivery of goods and services. In fact, there has been a growing usage debit and prepaid cards, online banking, kiosk machines, and mobile payments (BIS, 2012; Capgemini, 2013; Evans et al., 2013; RBA, 2012; Summers, 2012; Wonglimpiyarat, 2007). Irrefutably, the advent of the Internet has created a landscape with over a hundred payment methods that are used solely online (Kannen et. al., 2003). There is literature that is rich in examples that show how the innovations in electronic payment networks have improved the efficiency of business transactions and how they have enabled seamless and secure digital communications (Berlau and Radia, 2009).

Among the different methods, card payments are still one of the most common and preferred payment methods worldwide. Payment cards generally offer consumers more security, convenience, and control than other contemporary payment methods do. They are also perceived to offer more secure mechanisms, with user-controlled authorization processes

¹ Automated clearinghouse (ACH) systems are networks for financial transactions through which depository institutions send each other batches of electronic credit and debit transfers.

when purchasing items. Through their speed and simplicity of use, payment cards have become widespread.

This article serves to provide an overview of electronic payment systems by relating them to recent developments in the United Arab Emirates (UAE). It provides an overview of the existing card-based stored-value payment initiatives in the UAE. It also relates the current identity management infrastructure in the country as an enabler to support the development of a more comprehensive national electronic payment system. This is the first of a series of articles intended to support the UAE government in realizing its vision of transformation through high-impact investments in techno-infrastructure. The intention is to share government experiences with research centers in different governments that are exploring electronic payment initiatives to replace conventional cash at national levels.

It is worth noting that no literature or research that investigates the UAE market has been found in the public domain. As such, this article will contribute to the existing body of knowledge and explain developments in one of the fastest developing economies in the Arab world.

To start, a short overview of digital payment systems literature is provided. We highlight some business drivers, trends, issues and challenges, and opportunities associated with electronic payment systems. In the next section, we shed light on the electronic payment systems being used in the UAE. In the section that follows, the role of the UAE's national identity management infrastructure as a potential enabler for electronic payments is discussed. We also discuss the underpinning technologies of the UAE's identity management infrastructure such as the smart card and public key infrastructure (PKI) to demonstrate how the advanced capabilities could overcome existing shortcomings in the electronic payment industry. The conclusions are given in the final section.

DIGITAL CASH: A FIELD OVERVIEW

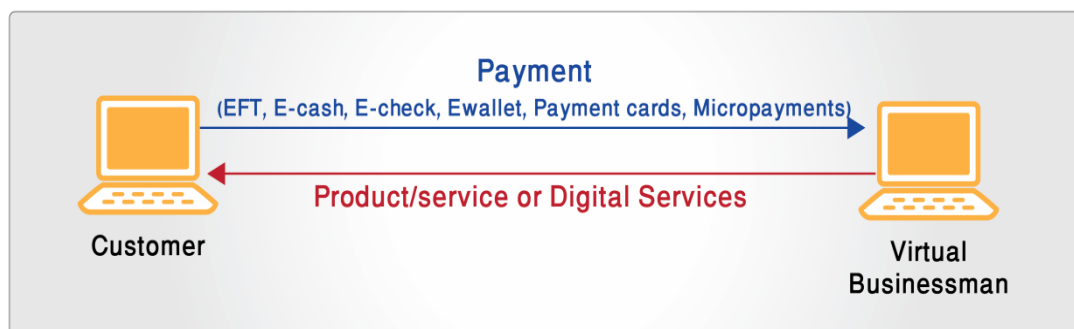


Figure 1: Electronic payment scheme

The advent of computers and electronic communication has led to the conversion of tangible (physical) payment methods into intangible (virtual) forms of money referred to as digital (electronic) cash/money. On the actual groundwork, banks have been acting as the 'movers and shakers' of payment methods and systems around the world (see for example, Sidel and Efrati, 2011). Even with different card types and different payment technologies, the general principles of the electronic payments eco-system remain similar all around the globe (Ingenico, 2012). Figures 2 and 3 depict the payment eco-system and the transaction authorization and processing flow.

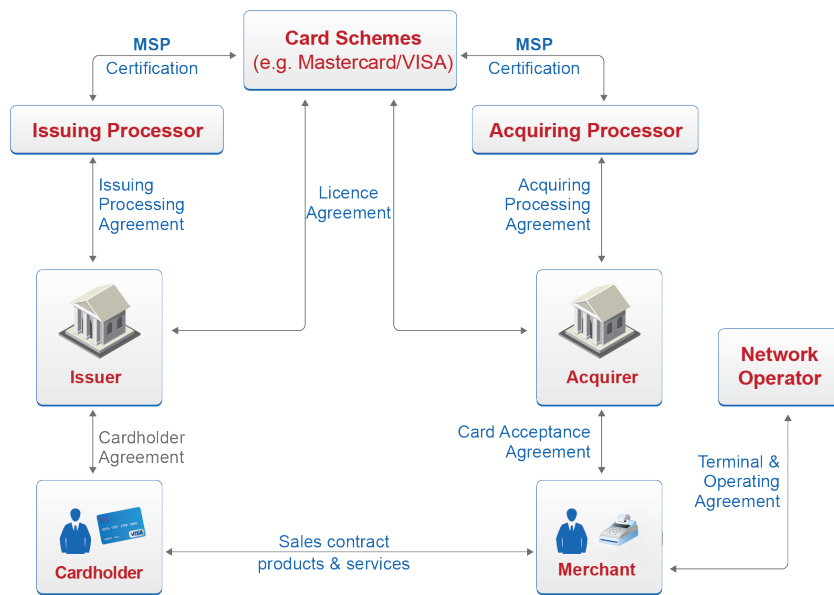


Figure 2: Electronic payments eco-system

Source: (Ingenico, 2012)

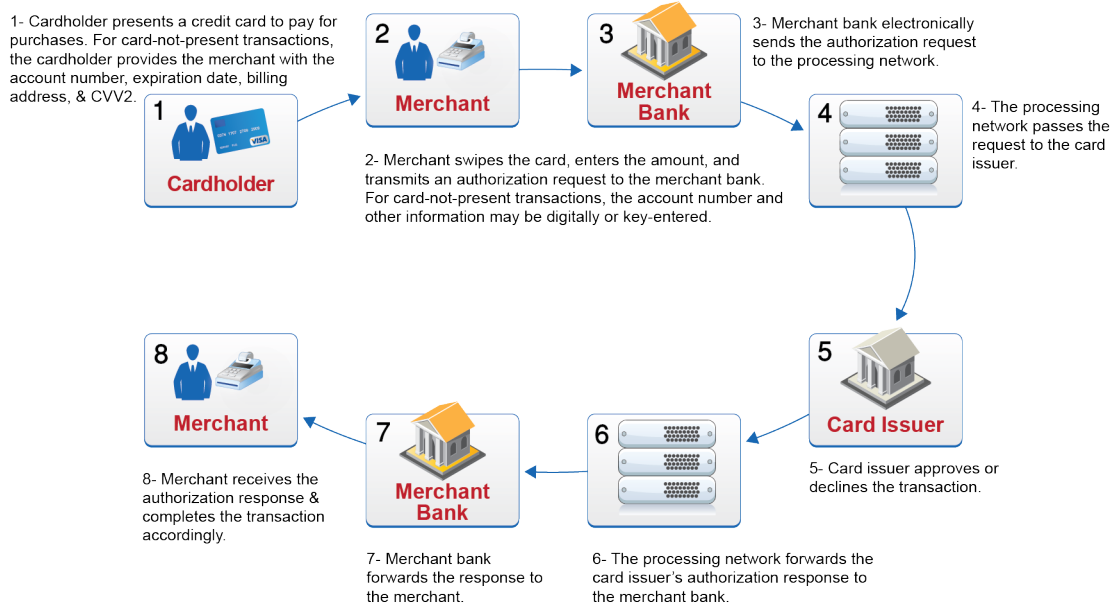


Figure 3: Authorization and transaction process flow for card payments

Source: (Ingenico, 2012)

A large number of electronic payment systems have emerged that support the use of digital cash. Digital cash typically takes several forms like payment cards, e-cash, e-wallet, e-vouchers, and micro-payment coupons. No matter what the physical vehicle used to transmit the information – whether credit card, debit card, PC, PDA, mobile phone, or smart card – the underlying electronic payments system is critical to facilitate transactions in the global, digital economy (Visa, 2003).

The key drivers for the revolutionary speed in developments in the digital payments field are intrinsic in the cost and risks associated with handling physical cash (Zink and Kemna, 2013). According to a recent study prepared by the Asian Banker (2013), cost and security are key concerns for merchants when managing cash. Cost was perceived as an undisputed main

concern for banks in mature markets, but security was perceived as more important in emerging countries. See also Figure 4.

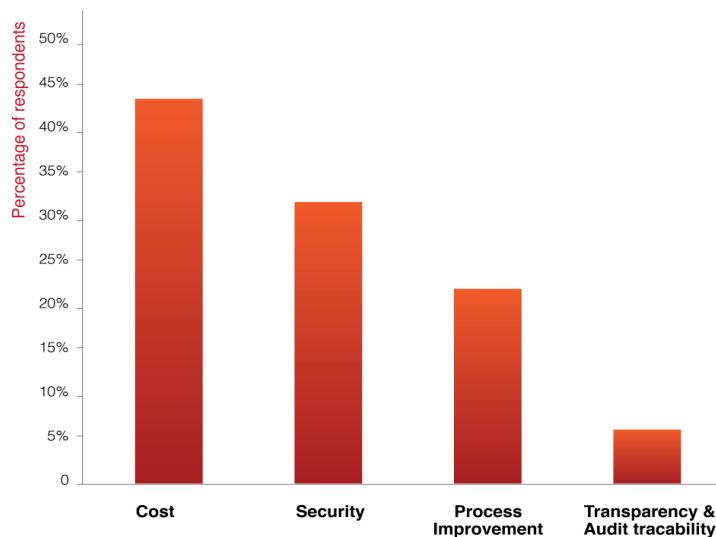


Figure 4: Key concerns for merchants in the cash handling cycle
 Source: (Asian Banker, 2013)

For instance, according to Kleine et al. (2013), the cost of handling physical cash in Germany is estimated at €12.5 billion per year. The European Payments Council estimates that the European Union's €360 billion in cash transactions cost at least €50 billion a year (The Economist, 2007). A study done by CBoI (2013) estimated that the average cost of payments in Europe is approximately 1.2% of the GDP. However, there is huge variation in this, with payment costs ranging from 0.6% in the most efficient country in Europe to 1.6% for the least efficient (ibid.). These costs are very substantial and vary widely between countries.

As depicted in Figure 5, the cash cycle is a complicated and highly interactive process, where players with diverse incentives are forced into cooperation. Banks have to carefully balance cost management and cash availability in the tight framework given by the regulator.

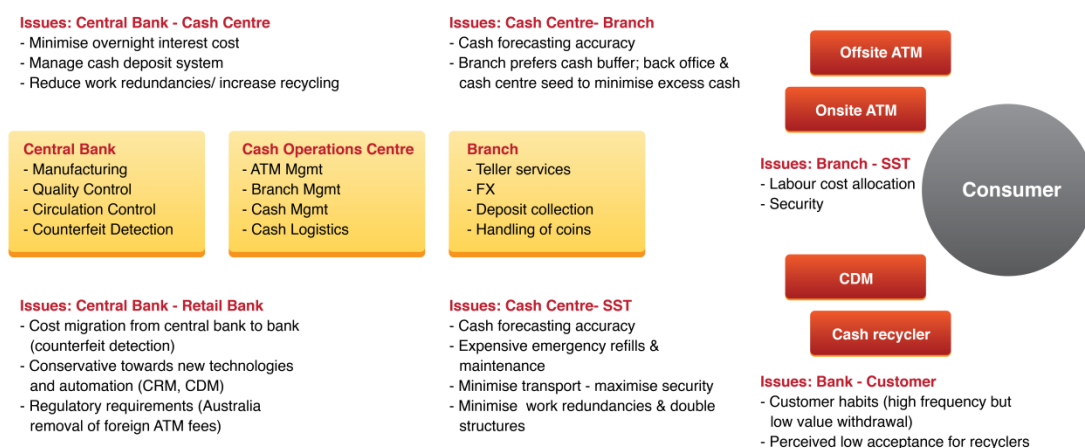


Figure 5: Issues in the management of the cash cycle
 Source: (Asian Banker, 2013)

As depicted in Figure 6, Asian Banker (2013) identified four development stages for an integrated cash supply chain. These stages are characterized by different levels of cost

efficiency gains and control over the cash cycle. The first stage represents the traditional cash handling approach. In stages 2 to 4, banks develop and fine-tune a number of necessary instruments to counter inefficiencies and to adjust the operating model towards shared responsibilities. These stages represent a transformation roadmap that can shift the cash supply chain from “reactive” to “needs-based”.

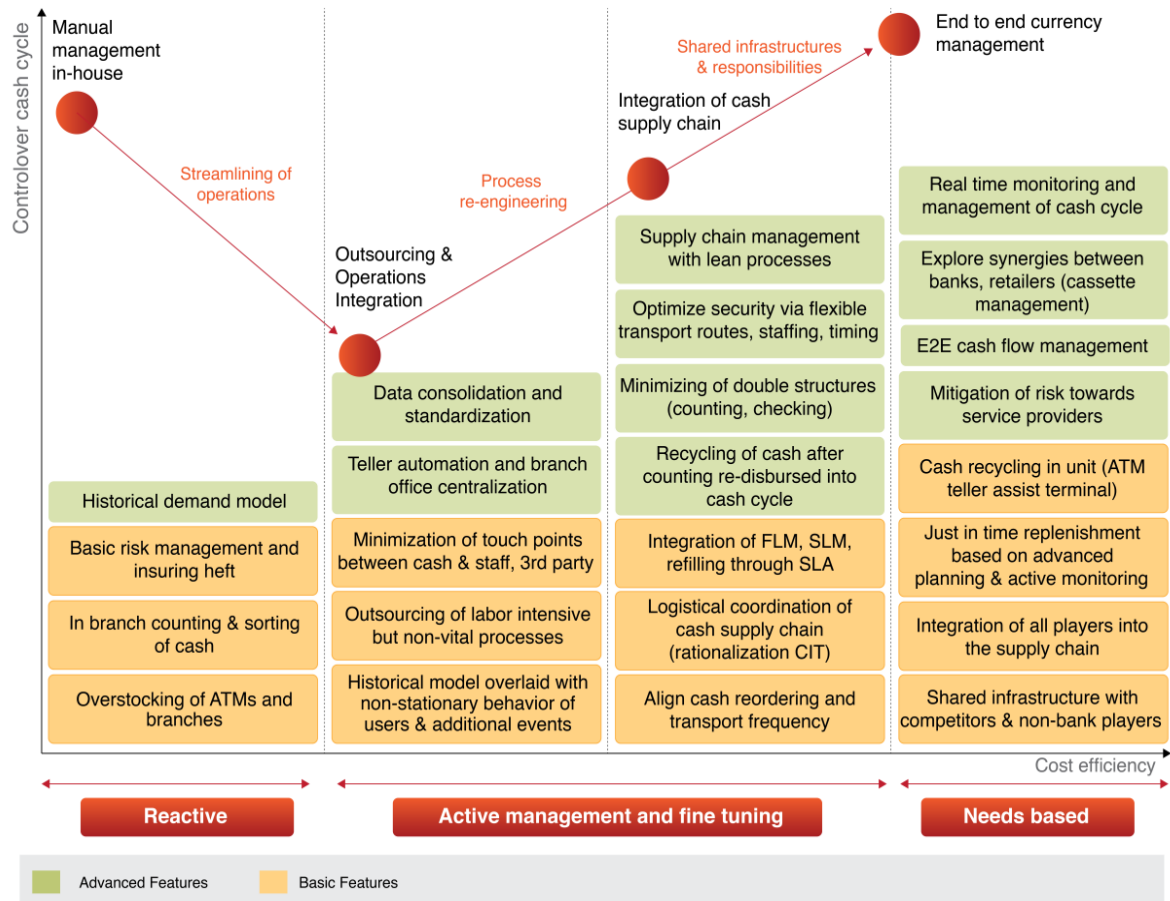


Figure 6: Key building blocks of an integrated cash supply chain

Source: Asian Banker (2013)

In light of the above findings, the financial industry is realizing the implications of the increasing acceptance of electronic payment systems on the development and growth of their economies. The direct consequence is that these implications have the potential to contribute to the enlargement of new business opportunities and the expansion of economic activities. This again has the potential to lead the development of more sophisticated digital services.

Globally, there is a growing preference for conducting financial transactions electronically (Foster et al., 2010; Godin, 1995; Guttmann, 2002; Lynch and Lundquist, 1996; Kupetz, 2007; van Blokland, 2006; Wayner, 1997; Wolman, 2012). Figure 7 depicts a growth rate in global non-cash payment transactions that reached 307 billion transactions in 2011 according to a report published by World Payments (Capgemini, 2013). The report shows that growth rates are higher in the developing markets at 18.7%, versus 6.2% in the mature markets in 2011.

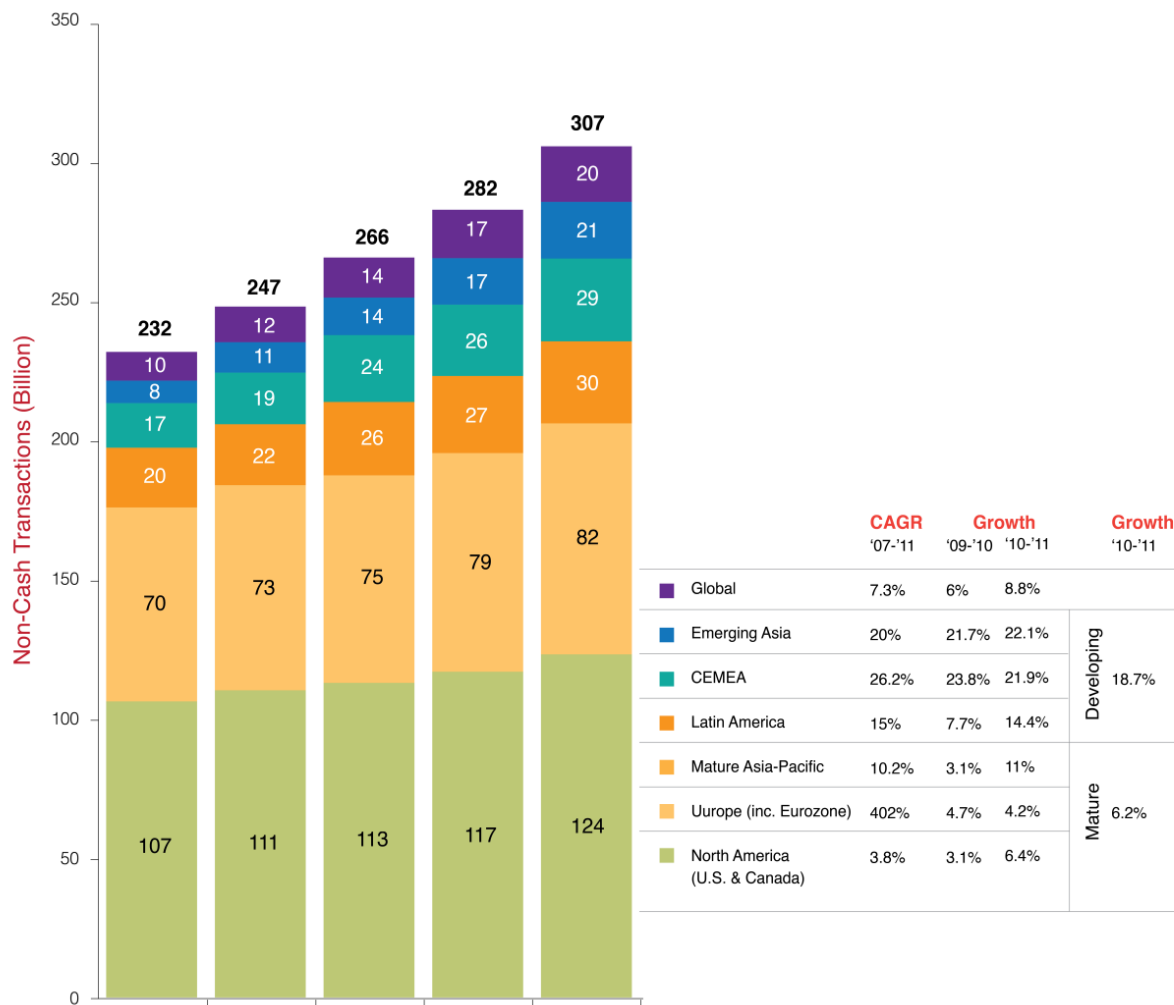


Figure 7: The global non-cash transaction market's continued growth
 Source: (Capgemini, 2013)

Another interesting finding from the same report is depicted in Figure 8. It shows the increasing share of the cards compared to other non-cash instrument across all regions. The use of cards accelerated during 2011, with debit card volumes rising 15.8% to a total of 124 billion transactions, and credit cards climbing 12.3% to 57 billion. The growing global popularity of these non-cash payments instrument may have been promoted by liquidity returning to markets and overall improving sentiment, as well as the growing application of e-commerce.

In general, the literature establishes a strong link between electronic payments and their role in supporting countries' participation in the global economy. For instance, the continued expansion of electronic payment options in developed economies is seen as a key factor in reducing friction and creating economic efficiency. In developing or transitional economies, electronic payment systems are envisaged to play a powerful role in modernizing financial systems, creating economic transparency, and contributing to greater predictability, liquidity, and stability.

In general, it is recognized that electronic payments form an ongoing virtuous circle and that they help sustain long-term economic development. Tanaka (1996) argues that digital payment systems will go through three stages of development, as depicted in Figure 9. Although Tanaka (1996) presents more than one scenario for digital cash development, he

states that security will be the most critical element to overcome in the years to come. Many studies have emphasized the need for enhanced security and trust to promote the acceptance of online payment standards (Guadamuz, 2003; Jing, 2009; Maurer, 1998; Singh et al., 2011). Their argument states that both consumers and service providers must be able to trust that their information is kept intact and that it remains secure.

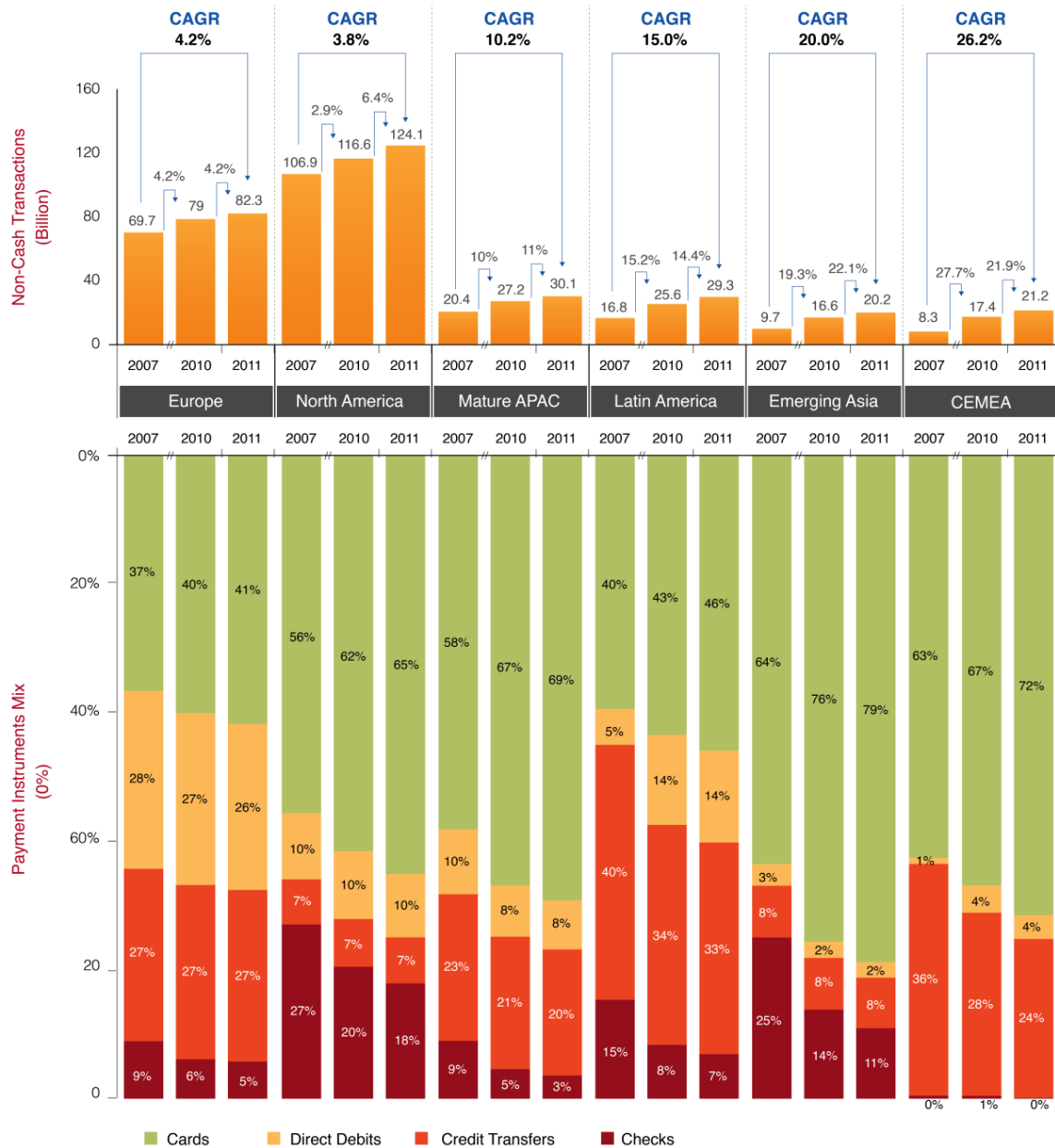


Figure 8: Comparison of Non-Cash Transactions (billion) and Change in Payments' Mix (%), by Region, 2007, 2010-2011

Source: (Capgemini, 2013)

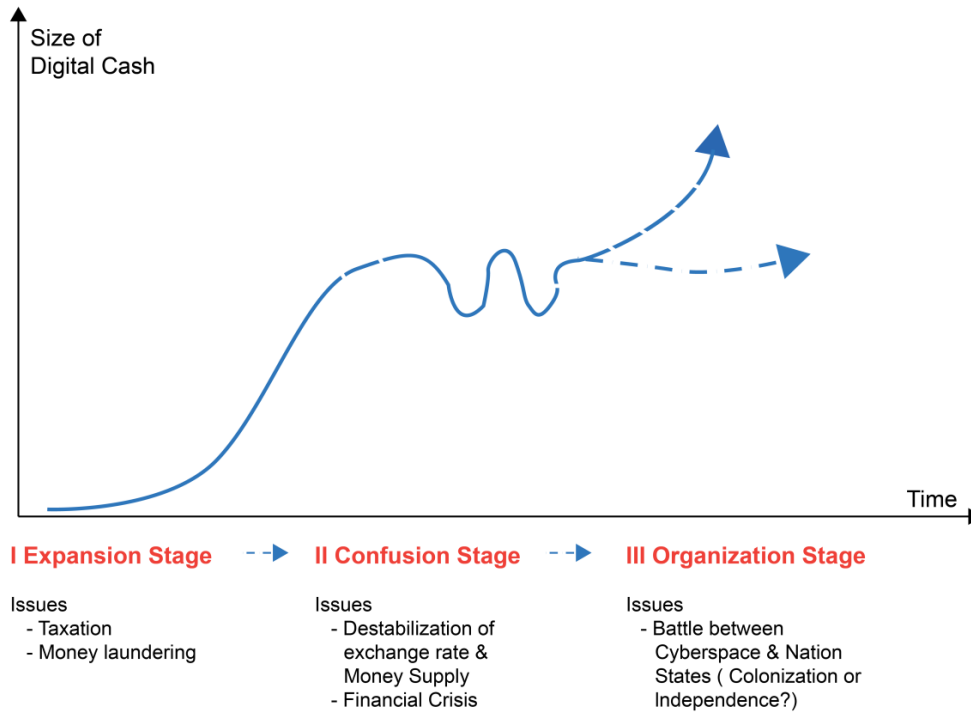


Figure 9: Digital cash development stages
 Source: Tanaka (1996)

The literature in general indicates that the evolution of electronic payment systems is dependent on several pre-requisites such as (1) availability of reliable infrastructure, (2) trust and credibility of issuing authority, (3) coverage area, (4) critical mass and (5) the overall ignition strategy [5] (Abrazhevich, 2001; Bellare et al., 2000). See also other factors identified by Kannen et al. (2003) in Table 1.

Table 1: Electronic payment system requirements

Requirement	Description
Security	<ul style="list-style-type: none"> • Systems security: technical and organizational IT infrastructure security for customers and merchants during the electronic payment process. • Transaction security: the secure and reliable handling of electronic transactions, including data integrity as well as protection against the unauthorized outflow of funds. <ul style="list-style-type: none"> • Legal security: legal frame for electronic payment and the legally binding closing conditions.
Trust	<p>In order to build trust in the electronic payment system, three areas need to be considered:</p> <ul style="list-style-type: none"> • Data: protection of personal and business related data in each phase of the electronic payment process in accordance to national laws and regulations of data protection. <ul style="list-style-type: none"> • Identity: the identity management frame within which the trust is established. • Role behavior: the dynamic aspect of trust is captured, i.e., acceptance of license regulations, correct declaration of data, payment of amounts corresponding to the negotiated conditions.
Fungibility	<ul style="list-style-type: none"> • An electronic payment is fungible if it can be used comprehensively, i.e., in as many possible payment situations as possible. This presupposes that electronic payment methods need to be available over a wide area and must be broadly accepted and independent of the chosen distribution channels (internet, kiosk, mobile phone, POS)
User friendliness	<ul style="list-style-type: none"> • Basic principles of user ergonomics such as being clear and self-explanatory, • There are also further requirements such as failure tolerance, integrated IT devices, marginal lags as well as transparency and more control for the user.
Efficiency	<ul style="list-style-type: none"> • Performance and quantified economic feasibility.

Source: Kannen et al. (2003)

Other studies have focused more on user requirements and systems functionality (Abrazhevich, 2001; Bellare et al., 2000). They refer to multilayered complexity challenges faced by service providers to integrate with the proprietary solutions offered by banks. The primary challenges are depicted in Table 2.

Table 2: Challenges faced by service providers to use electronic payment systems

Challenge Item	Explanation
Requirements	The features of the offered payment systems have to be adjusted to the requirements for the payment process.
Processes	The intended payment systems have to be integrated into business processes. This is no simple task, as every payment system (in particular sophisticated ones) has very specific control logic. Furthermore, it may be that a payment system only supports a part of the entire payment process
Services	The individual services provided by each of the payment systems have to be integrated in an overall concept.

According to literature on the topic, these challenges have created opportunities for new players to enter the market (Brumen and Welzer, 1998; Capgemini, 2013; Gupta and Subramaniam, 2005; Fera et al., 1996; Konvisser, 1997; Morrison et al., 2003). For instance, PayPal and Citadel EFT have emerged as cybermediaries that enable financial transactions over the Internet. They collect fees for facilitating transactions over the Internet without taking ownership of the products or services sold. Cybermediaries allow consumers to establish electronic accounts quickly and to transfer funds into their on-line accounts from traditional bank accounts (typically via the Automated Clearing House’s transactions network), and vice versa, after verification of the consumer's identity and authority to access such bank accounts (Malhotra, 2010). In addition, the larger mediaries further allow transactions to and from credit card accounts. The speed and simplicity with which cybermediary accounts can be established and used have contributed to their widespread application (ibid.).

Google has been pressuring applications and mobile game developers to use its costlier in-house payment service, Google Wallet (Barr, 2012). Google Wallet is a mobile payment system developed by Google that allows its users to store debit cards, credit cards, loyalty cards, and gift cards, as well to redeem sales promotions on their mobile phone (Amoth, 2011). Google Wallet uses near field communication (NFC) to make fast and convenient secure payments by simply tapping the phone on any PayPass-enabled terminal at checkout.

A new chip on the block is the Bitcoin, a payment mechanism that is highly based on personal identity credentials. It is the virtual currency touted to be the game changer in the digital world. Completely based on the Public Key Infrastructure and strong cryptography, Bitcoin represents the true digital economy. Publicly traded on currency exchanges, each Bitcoin is currently worth around 455USD. Many e-commerce sites accept payments in Bitcoins. The security and the transparency offered by Bitcoin are making it the payment system of the future.

While these payment methods have established themselves as advanced e-payment systems, they still lack the portability in mainstream shopping (Budde, 2012). Payment systems using mobile phones constitute another fast-growing market, as do calling cards. However, the real breakthrough will only happen when the large financial institutions decide to open up the market to e-payments.

Overall, the main forms of online payments to date are still dependent on the use of credit cards and direct debit cards (ibid). In this line, banks all over the world have been working to improve their payments infrastructures, enabling wider adoption and greater usage of card-based non-cash means and channels.

In comparison, Arab countries still lag behind their international peers. This is to say that Arab countries are still considered to be predominantly cash based societies. Besides, the amount of cash in circulation in Arab countries is on the rise because of several factors including: (1) the growth in population, (2) annual inflation rates, (3) consumer behavior due to media and marketing, and (4) easy access to cash through ATMs. Thus, banks in Arab countries have intensified cash dependency and have been managing the supply of cash to the marketplace.

Though some Arab countries are more advanced than others are, consumers still seem to lack confidence in Internet transactions. Credit card-based payments are showing increasing popularity and usage, but consumers seem to be concerned with the security of their information, which is also argued to deter many other potential users from directly making purchases on the Internet. Governments have come to understand that they can play a critical role in supporting the development of the digital economy. We use here the case of the United Arab Emirates, considered as one of the pioneering countries in the Arab world, in the implementation of innovative technologies to drive growth in the country's overall economy. The next section will highlight the UAE's government strategic intents and will build the thread for discussion on electronic payment practices and future developmental plans in the country.

ELECTRONIC PAYMENT SYSTEMS IN THE UAE

In the past few years, the UAE government has embarked on an extensive review of its processes and structures. As a result, it has announced its 2021 vision that aims to develop a more competitive and sustainable economy (UAE Vision, 2013). Among the many initiatives, it issued a revised e-government plan that prompts government agencies to streamline its processes and deliver all its services electronically (Al-Khoury, 2012). The government is enthused to believe that reliable and trusted electronic payment systems would need to be considered as building blocks to enabling e-government environments. Multiple payments systems currently exist in the UAE, which will be looked at in the following sections.

E-Dirham

The e-dirham is a card-based payment method devised by the Ministry of Finance in order to facilitate collection of government fees and provide a secure payment method [9]. The initiative that was implemented in collaboration with the National Bank of Abu Dhabi started as a stored-value card based payment system to eliminate cash transactions and manage revenue collection in the federal government.

The e-dirham was first launched on February 3, 2001, which made the UAE the first country within the Arab region to introduce such a system. It has evolved over the years into a comprehensive payment platform. The current platform supports various payment channels including: (1) Electronic fund transfer at point of sale (EPOS) terminals, (2) Over the Internet through E-Dirham Payment Gateway), (3) E-Stamp and (4) Debit Cards and Credit cards. See also Figure XX. The government has recently announced a network of ATMs/ CDMs and a network of EFT POS terminals through which customers can top up their e-dirham card.

Wages Protection System

The Wages Protection System (WPS) is an electronic salary transfer system that allows private sector companies to pay their workers' wages via banks and other licensed financial and

authorized institutions that provide the service. The system was developed by the Central Bank of the UAE in 2008 in a step towards ensuring and protecting the rights of workers. It allows the Ministry of Labor to create a database that records wage payments in the private sector to guarantee the timely and full payment of agreed-upon wages.

Once the company's authorized bank receives the employees' salaries, it sends a notification to the Wages Protection System. The system then sends the workers' details as well as the salary transfer instructions electronically to the Central Bank of the UAE, which will in turn forward those details to the Ministry of Labor's database in order to ensure that the details received correspond with those registered with the Ministry. The system will then send the approved information to the appointed agent in order to start paying the wages. To report non-compliance, workers can interact with the government in person through the Ministry's offices or via an online portal. The employee is now able to draw his salary in cash from any participating financial exchange house by providing a proof of identity. Figure 10 illustrates the interactions between the different entities.

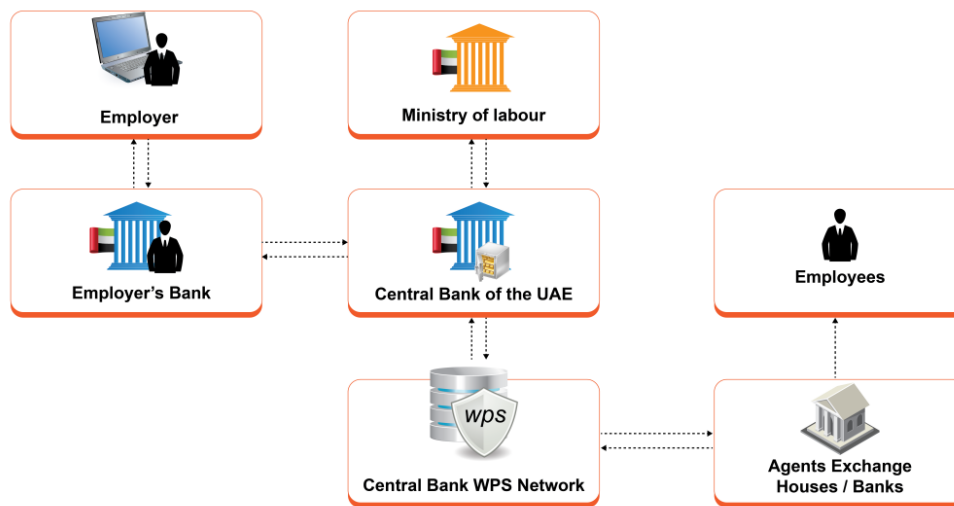


Figure 10: UAE WPS System

Other Stored Value Cards

Several stored-value cards were deployed over the past decade in the UAE, see for example Table 3. All deployments have their own card technology, readers, and back office applications. Most cards are sold as pre-paid debit cards. Some of these provide support for multiple channels for top-up and usage.

Table 3: Stored-value cards in UAE

Fuel Cards	
Rahal card (ADNOC)	The Abu Dhabi National Oil Company (Adnoc Distribution) launched a prepaid smart card named the 'Rahal card' in 2008. The card helps in managing fuel cost and any other services required at ADNOC service stations. The highly customized card comes with a minimum recharge amount of AED 100 (around \$27).
Emarat (semi-gov)	This is a smart card based initiative with the objective of easing management and getting more control on spending for fuel and other services at Emarat filling stations. The initiative is designed to cater for different customer segments like, (a) 'safer card' targeted to medium and large vehicle fleets, (b) an 'Aheer card' for individual and small fleets, and the (c) 'Em-cash card', which is a convenient alternative to cash. Online applications and customer care is provided for more effective service delivery as well.

Transport Cards	
OJRA (semi-gov)	The Department of Transport in Abu Dhabi has launched the 'Ojra card' to facilitate travel inside the city. With the 'Ojra Bus Pass', travelers can enjoy unlimited, cost –effective, and flexible travel. The paper card/ pass was designed to suit the need for daily hassle-free travel with its varied options. The pass can be purchased from Ojra Kiosks installed at important bus stops.
NOL Card (gov)	The Dubai Roads & Transport Authority (RTA) introduced NOL (Smart card), which enables users to travel in Dubai's metro, buses, waterbuses, and paid parking among others. The project is managed by the Unified Automated fare Collection Department at RTA. The NOL e-services portal helps in managing NOL cards anywhere and at any time. Studies are underway to determine the feasibility of introducing use of Nol cards to pay for cab rides, convenience stores, and other common transactions. Trials are underway to bring this card to the mainstream as a generic stored value card. This card has been very successful in Dubai with millions of users enrolled. NOL has also executed on a successful partnership with a local bank to launch the Go4it Visa credit card that combines credit facilities with loyalty schemes and discounts at various outlets.
Sayer cards (gov)	The Sharjah transport authority (Mowasalat) introduced Sayer e-payment smart cards for bus passengers, to prevent complaints such as not having received the exact change from drivers when purchasing tickets. The Sayer card permits passengers to top up their cards at vending machines, which are installed at various stations.
Parking Cards	
Abu Dhabi Mawaqif (gov)	Department of Transport (DoT) has launched the Mawaqif program in October 2009 with the aim of establishing an excellent car parking management system in Abu Dhabi. Mawaqif parking cards are available at Mawaqif Customer Service Centers. Mawaqif also accepts payments through mobile phones. Four customer service centers provide information on Mawaqif parking services on a 24/7 basis. At these centers, customers can buy prepaid parking cards and apply for residential permits.
Sharjah Parking	The Department of Sharjah Municipality has created a range of parking options, including reservation of parking spaces in advance and prepaid parking cards. Optional parking stickers can be used for two 'regular' areas for Dh1,300 a year, two 'vital' areas for Dh1,700 a year, or one 'regular' and one 'vital' area for Dh1,700.
Student Cards	
Jawaz Card	The Dubai International Academic City (DIAC) and Dubai Technology and Media Free Zone Authority (DTMFZA) offer all students enrolled at DIAC and Dubai Knowledge Village (DKV) universities a unique student ID and lifestyle card called the Jawaz card. It is a mandatory and official card for students. Key benefits includes discounts on various products across more than six hundred retail outlets, access to events, and mobile updates on promotions and discounts. It also provides a dedicated helpline for access to DIAC's recreation room facilities.

Limitations of the current deployments

There are many limitations of current payment deployments in the United Arab Emirates. Following are the major issues:

- **Interoperability:** Lack of interoperability between these systems causes dissatisfaction among all the stakeholders. For example, despite being a critical mode of government revenue collection, limited services are linked to the e-dirham payment system.
- **Multiple Cards:** Customers carry multiple plastic cards with money locked in all those wallets and loyalty points that cannot be aggregated. There is no refund mechanism for these cards and any residual value left in the cards is lost. The cards also have to be recharged separately.
- **Merchants and service providers** face a challenge in integrating multiple schemes with their backend systems.
- **Private Label Players** have to absorb the total cost of the technical infrastructure (issuing and redemptions), integration, upgrades, and supporting business processes

(registration, reconciliation, settlement). Customers end up going through a long registration process for every new card. No single party can maximize the potential of their customer base or get benefits from economies of scale. Generic/small merchants who want to benefit from such technologies cannot afford to launch their own closed loop service.

The UAE government has realized all these issues and their potential impact on the future. It has recognized that in the absence of a coherent strategy to support payments in e-government and e-commerce scenarios, it would just be a matter of time until their disconnected initiatives get further apart. As such, the government is currently in the process of examining leveraging its national smart identity card infrastructure to support secure electronic payment scenarios both for government and for commercial purposes.

SMART IDENTITY CARD AS AN ENABLER FOR SECURE EPS INFRASTRUCTURE

The government of the UAE issues smart identity cards to all of its population (Al-Khouri, 2012). The smart identity card contains digital credentials that are established based on a strong enrolment process that links the cardholder's identity with his/her biometrical and biographical details. The card is mandated today by law as the primary identity document in the country. The government aims to group together existing identity cards (e.g., labor card, health card, etc.) and replace them with the new smart identity card. The advanced features and micro-processing capabilities of the new smart identity card opens up opportunities to support and enhance existing electronic payment systems in the UAE. We argue that the new card can act as a 'killer' application token that ensures the integrity and security of electronic transactions and payment systems. Figure 11 depicts some of the potential benefits.

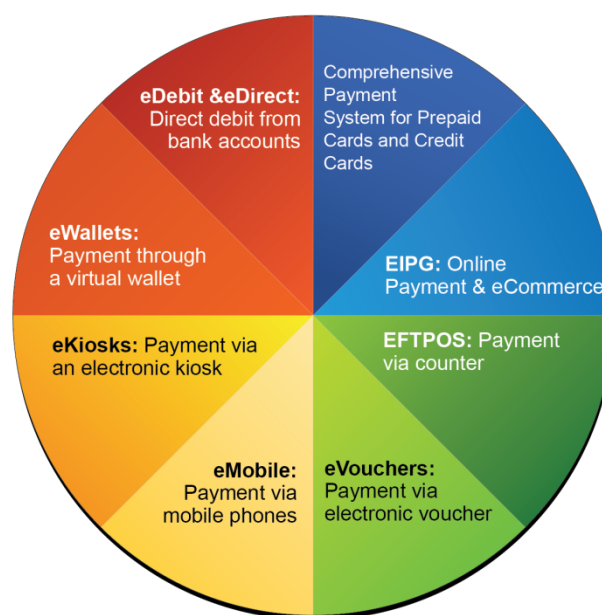


Figure 11: Potential use cases of UAE smart identity card for digital payments

Authentication

The UAE smart identity card offers multiple factor authentication capabilities to verify the identity of the online cardholders. These capabilities range from simple verification methods (i.e. ID numbers and passwords), to more sophisticated ones such as digital certificates and biometrics verification. See also Figure 12.

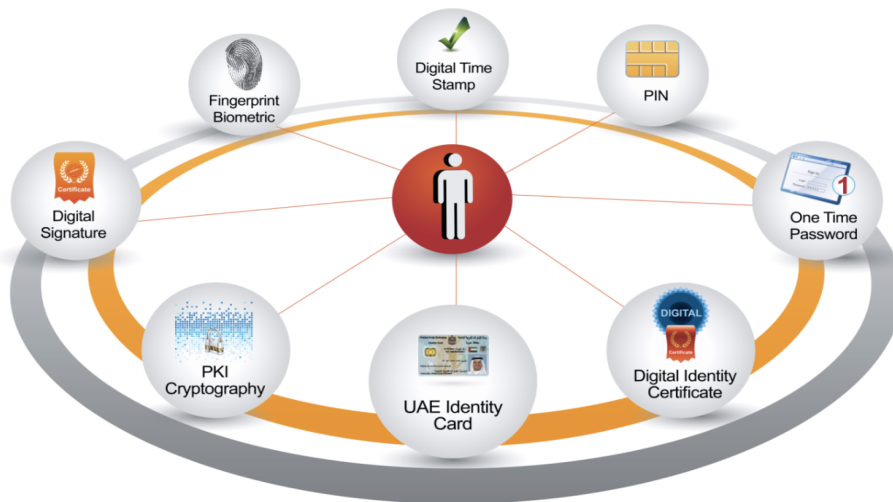


Figure 12: UAE ID card authentication capabilities

Existing payment systems rely on identifying individuals, which is usually based on a username and password for authentication. These variables can often be stolen, accidentally revealed, or forgotten. The smart identity card overcomes this primary weakness by offering a choice of multi-factor authentication options. Electronic payment systems can deploy a more stringent authentication process, prior to the authorization of a transaction.

Besides, the UAE government has set up an online validation gateway that enables public service providers to authenticate identity electronically and instantaneously, similar to a credit card authorization process (Al-Khour, 2014a; 2014b). Certainly, the integration of such a government backed-gateway with existing electronic payment systems will gain more trust from the populace and hence a stronger case for acceptance and usage.

Public Key Cryptography (PKI)

In addition, the UAE smart identity card uses public key cryptography to provide the highest level of integrity and security to the issuance of its electronic identities and for electronic transactions. The most obvious application of a public key cryptography is confidentiality. PKI ensures that people are who they say they are and proves that documents have not been tampered with, which is critical when conducting online transactions. Figure 13 depicts a simplified process. Two of the important components in the PKI infrastructure, namely, digital signatures and time stamping, will be further discussed.

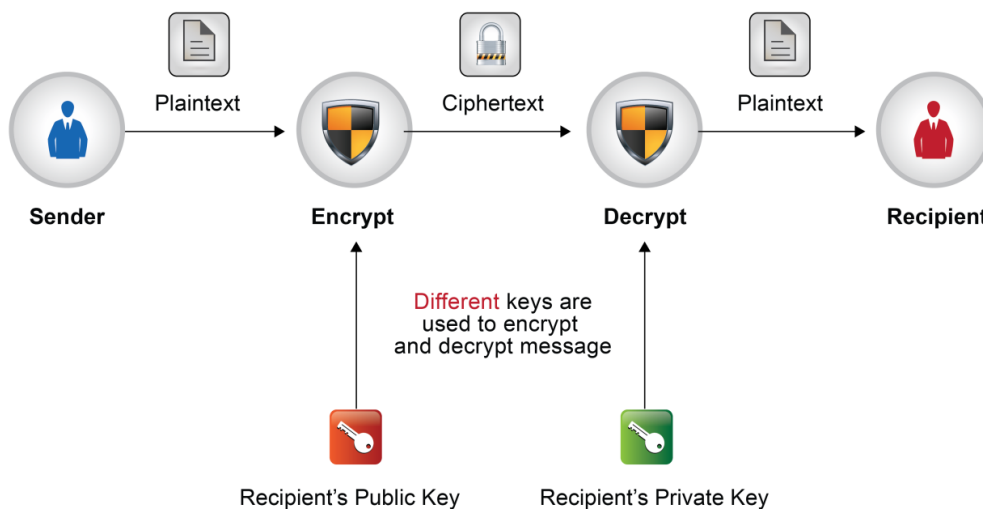


Figure 13: Public key cryptography process

Source: (Miscrosoft. 2005)

Digital Signature

The UAE smart identity card comes with digital certificates embedded in the electronic chip capable of producing digital signatures. A digital signature is an electronic signature that can be used to authenticate the identity of the sender of a message or the signer of a document or transaction, and possibly to ensure that the original content of the message or document that has been sent is unchanged. In simple terms, digital signatures cryptographically bind an electronic identity to an electronic document and the digital signature cannot be copied to another document, producing a legally enforceable electronic record. The digital signature certificates in the UAE identity card are envisaged to support electronic payment systems by enabling automated formal approval processes from within an organization's existing workflow systems. See also Figure 14.

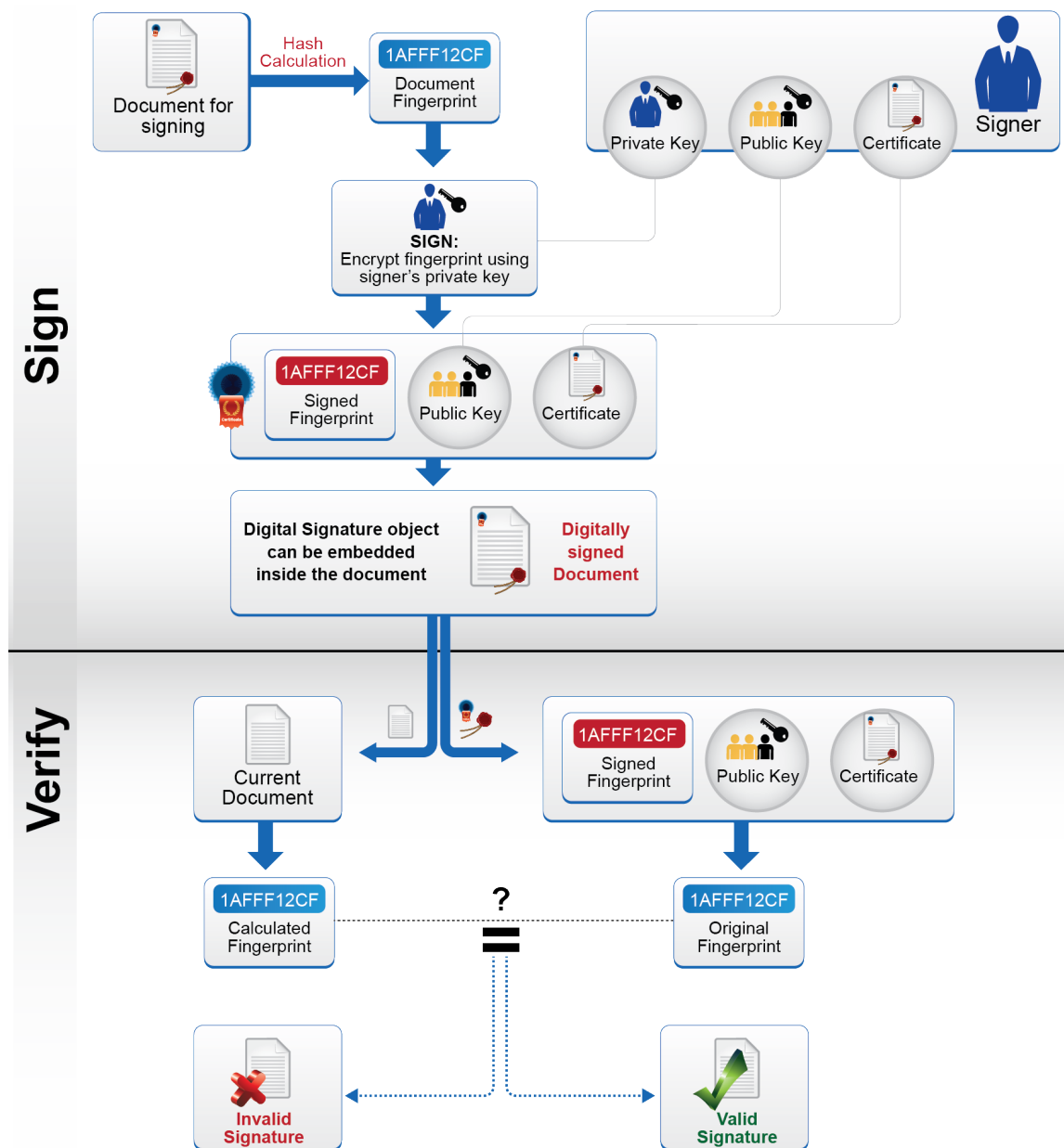


Figure 14: Digital signature process

Source: (Digicert, 2014)

Digital Time-Stamping

The UAE identity management infrastructure provides digital time-stamping services when transactions are validated against the online validation gateway. Time stamping is the process of securely keeping track of the creation and modification time of a transaction. A trusted digital timestamp gives strong legal evidence that the transaction was conducted at a point-in-time and has not been changed since that time. See also Figure 15.

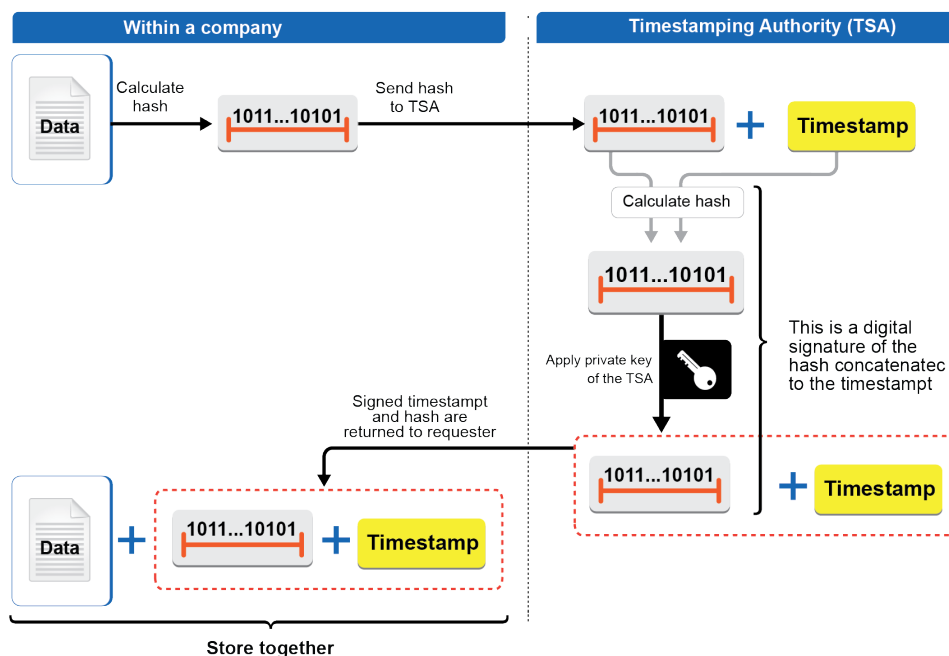


Figure 15: Trusted time-stamping process
 Source: (Van den Bosch, 2013)

One-Time Password (OTP)

A one-time password (OTP) is a unique and time-sensitive password used as an additional security layer. It is widely used in online banking, corporate networks, and other systems containing sensitive data. The UAE is working to include this function in its identity card, which is assumed available by the second half of 2014. The distribution mechanism is planned to be both web-based and through text messaging on mobile phones.

The described capabilities have the potential to provide unique Out of Band Authentication capabilities. An ID is presented on a portal for authentication or access to a service. The OATH applet on the ID card is read off the card for OTP generation. This is verified against the provided ID at the backend where OATH Servers to determine the veracity and a signed response is sent to the service provider. This provides an exponential increase in the trust in an online transaction.

Emirates ID Card and Social Inclusion

Using these high security and transaction trust features, the Emirates ID is poised to bring in social inclusion of the non-banked sector of the UAE population into the financial mainstream. A secure ID card that can facilitate financial transactions is now in the hands of every legal resident in the country. The ID card can be used in conjunction with the secure digital identity credentials for online ID authentication. It should also enable the e-dirham to be placed in the ID card. The ID card would work as a pre-paid card in the WPS environment with financial transactions facilitated by the ID verification. The following diagram represents the national ID

schema in the WPS environment.

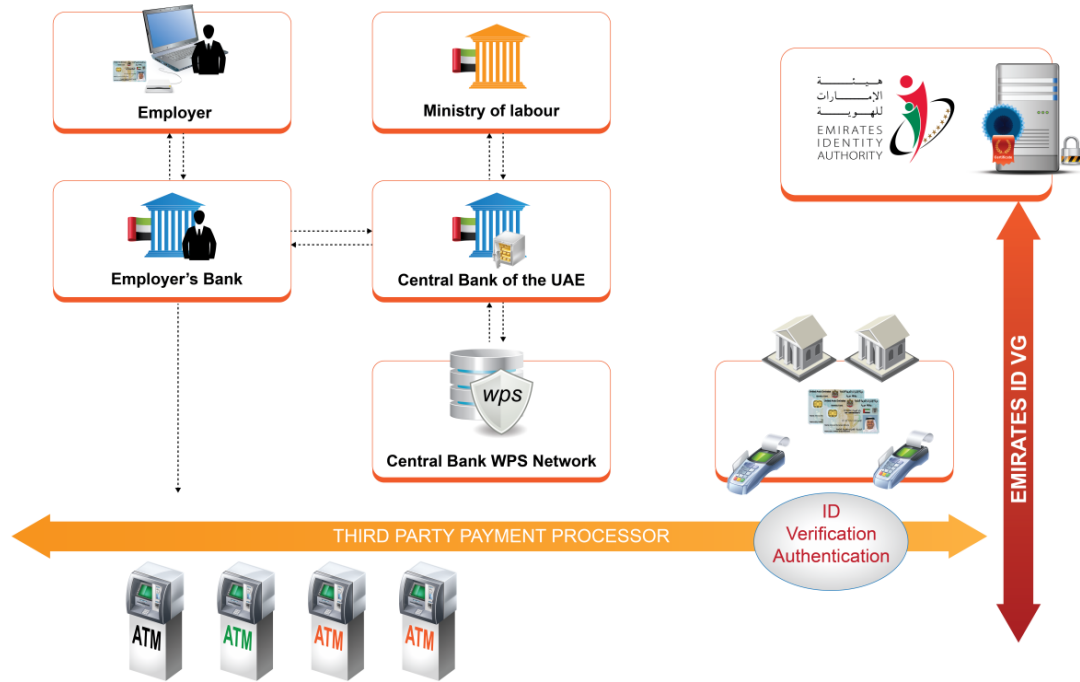


Figure 16: Enhanced (Smart) WPS System

The UAE ID card has the potential of enabling financial transactions across the mainstream financial networks in the country.

CONCLUSION

Today, the technology of money is racing to catch up to social changes that have radically altered how we interact and therefore how, why, and when we use money (Birch, 2012). It is impossible to say what the unintended consequences of innovations in financial technology will be; we can only note that they will come and we can only make some intelligent guesses (ibid.).

It is evident that alternate payment mechanisms will become dominant in the near future as digital cash overtakes physical cash. The socio-economic benefits and convenience will accelerate the adaptation as ingredients necessary for ignition are already in place. Undoubtedly, the digitally driven world of tomorrow will be forcing the creation and application of more efficient, automated, secure, simple and low cost mechanism to collect money for services and products.

This article attempted to illustrate how the UAE government examines the use of its national identity management infrastructure and smart identity card to enable more secure electronic transactions. The features of the UAE smart identity card represent extensive layers of security and protection to build cardholder confidence to conduct electronic transactions. When used in relation with electronic payment applications, the smart card can provide advanced capabilities ranging from encryption, digital signatures, and strong authentication mechanisms. Current electronic payment systems do not provide the same security commitments for online transactions. Thus, the use of the government identity management

infrastructure is likely to become an integral part of electronic payment systems in the UAE in few years to come.

The integration and application of this government payment method in e-government and e-commerce domains of practice will be a determinant factor for its fruition. Consumers will be more likely to use such methods on the condition that it will provide them with an additional security layer. In this context, the government would then need to consider legal protections as credit and debit cards do.

Further research is needed to identify characteristics of an independent, open, and interoperable platform that can be implemented and supported at national level in the UAE. Further research should also include exploring the possibility of leveraging existing government identity management infrastructures for this purpose.

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Investigating Student Perceptions of Vocabulary and Learning in Middle School Science

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ABSTRACT

Science courses are all too often taught as a litany of facts leading many students to focus on rote memorization of terminologies instead of developing deep conceptual understanding (Groves, 1995). The frequent use of a textbook can contribute to the problem. The purpose of this teacher classroom research study was to investigate the vocabulary demands and students' perceptions of instructional strategies in an 8th grade physical science class. The findings indicate that 21 formal science vocabulary terms were presented for 17 relevant pages of the textbook. Students' perceived "expanding vocabulary" and discussing examples of items as the most helpful instructional strategies for developing understanding. Students believed the pre-test of vocabulary content and reading and discussing vocabulary passages from the textbook at the onset of instruction were the least helpful instructional strategies. The results of this study provide a better understanding of the types of instructional strategies that students' believe encourage vocabulary learning.

Key Words: Vocabulary Teaching, Action Research, Middle School Science

INTRODUCTION

Learning vocabulary is an instructional goal in all content areas in middle school (Harmon, Wood, & Kiser, 2009). Academic vocabulary, in science, is essential to discipline-specific learning (Fisher & Blachowicz, 2013). Vocabulary instruction is a building process where students make connections between new words and old terms, firsthand experiences, and the context of the subject they are studying (Snow, Griffin, & Burns, 2005). Vocabulary instruction in science education is important for students' success in the course, future courses, and overall science literacy. In the USA, new standards called the Common Core State Standards (CCSS) include a focus on language and vocabulary focus in science education and technical subjects throughout K-12 education (National Governors Association Center for Best Practices [NGA] & Council of Chief State School Officers [CCSSO], 2010). The CCSS emphasizes that students learn both domain-specific terminology and general academic words that can be applied across content areas. In addition, In the USA the Next Generation Science Standards (NGSS), include a language and vocabulary focus so students can successfully contribute to science dialogue involving disciplinary core content in meaningful ways using domain-specific terminologies and essential science practice skills (National Research Council [NRC], 2011). However, in science education, vocabulary teaching and learning can be difficult due to the overabundance content-specific terminologies (Groves, 1995; Harmon & Hedrick, 2005). The purpose of this study is to investigate content-specific vocabulary teaching and learning in a middle school science classroom.

LITERATURE REVIEW

The ultimate goal of science education is that students gain a deep understanding and knowledge so that they are scientifically literate. However, science courses are all too often

taught as a litany of facts leading many students to focus on rote memorization of terminologies instead of developing deep conceptual understanding (Groves, 1995). For example, in a study of the vocabulary demands of secondary science textbooks, Yager (1983) found the number of new terms was higher than recommended for high school foreign language classes. Groves (1995) built on Yeager's work and performed an analysis of secondary textbooks. His findings reiterate Yeager's work and found a heavy emphasis on formal science terminology. Groves argued that in order to learn formal science terminology, many students resort to rote memorization instead of developing deep conceptual understanding. A number of studies show that vocabulary is challenging for students learning science.

Science teachers, particularly in upper elementary, often do not consider the vocabulary demands students face in science (Rupley & Slough, 2010). However, vocabulary comprehension is vital for literate discourse and aids in performance of science activities (Moje, Collazo, Carrillo, & Marx, 2001). The underpinnings of vocabulary mastery and literate discourse are students' cognitive development and the frequency of opportunities to learn vocabulary in multiple contexts. In effect, these underpins support the student's vocabulary comprehension and how precise he or she understanding vocabulary (Rupley & Slough, 2010). Therefore, it is essential for students to learn and use an array of vocabulary. The depth of a student's vocabulary has direct implications for academic progress; despairingly, a minimal amount time out of the school day is actually spent learning new vocabulary (Scott, Jamieson-Noel, & Asselin, 2003; Gregg & Sekers, 2006). It is paramount for teachers, teacher educators, and researchers to consider the best means to introduce and teach vocabulary to students (Baumann & Kame'enui, 1991; Beck and McKeown, 1991; Gregg & Sekeres, 2006; Nagy & Scott, 2000).

Gregg and Sekeres (2006) examined inner-city third graders' vocabulary acquisition from a geography unit. The unit focused on the weathering and erosion of mountains through mechanical action, and likewise rounding and fracturing of stone into sediment. In the unit, the teacher provided several hands-on, engaging activities which provided a context for students to discuss. The teacher brought in rounded stones, jagged stones, gravel, and sediment. During their discussion, students were sorting, and learning targeted vocabulary words in the correct context. "In these discussions, they grappled with the vocabulary that allowed them to share their own observations of and ideas about the stones and how they got the way there were" (p. 54). When the teacher could not bring in the materials, she brought in pictures. For example, the teacher brought in pictures of the upper, middle, and lower reaches and had students sort them into categories. In this process, students were engaged while acquiring and using targeted vocabulary. The context, in this study, proved to be the key when it comes to young students acquiring new vocabulary. Conversely, other studies have shown that having students memorize vocabulary words is ineffective (Anderson & Nagy, 1991; McKeown, 1993).

Yates, Cuthrell, and Rose (2011) examined the use of word walls at the middle school level with 524 students in Southeast United States. Word wall, as described by Yates et al., "are collections of words that are developmentally appropriate... and words selected for specific instructional purposes" (p. 31). Students use the word walls when "analyzing unknown words, to spell unfamiliar words, or defining new vocabulary" (p. 31). In this study, there consisted one large word wall in the hallway spanning multiple content areas; science being one area. The content areas were colored coded. The science words consisted of terms such as exposure, chemical, and toxicology. The color coded words in the hall were duplicated in the respective content classrooms. For example, the science words in the hall were duplicated in the science classroom. The word walls were "cumulative" and provided a "conversational scaffold" (p. 31).

After the year the word walls were created in the hall and classroom, there was a significant increase in the percentage of eighth grade students scoring at the proficient level in science. It is likely the success of the word wall was attributed to the high frequency students were exposed to new terms, and by how teachers in the study referred to these words. This resulted in, as reported by the teachers in the study, an increased frequency of the words in discourse. Although studies seem to indicate that vocabulary can be overwhelming for students, in a review of the literature, Harmon and Hedrick (2005) identified instructional strategies that help students learn science vocabulary. They reported that pre-reading strategies, engaging students in active learning and using discussions are beneficial for helping students learn science vocabulary. In fact, a number of authors (e.g., Blachowicz & Fisher, 2011; Gilles et al., 1988; Seaver, 1991; Stahl & Kapinus, 1991) provide research-based instructional practices for teaching vocabulary in science classes. However, no study identifies students' views of the effectiveness of different instructional strategies on their learning and their perceptions of science terminology in a middle school science classroom. To address these gaps in the literature, this study focuses on three important components of learning science terminology--students' perceptions of vocabulary, students' perceptions of instructional strategies used to learn vocabulary, and students' content knowledge gains

Research Questions

This study focuses on three broad research questions with sub-questions all aimed at specific science content-- "properties of light:"

- What are students' perceptions of specific science vocabulary? Are there statistically significant differences in students' pre and post conceptions of specific science vocabulary? Are there statistically significant differences in females' versus males' perceptions of specific science vocabulary?
- What are students' perceptions of instructional strategies designed to learn formal science vocabulary? Are there statistically significant differences in females' versus males' perceptions of instructional strategies designed to learn formal science vocabulary?
- Does vocabulary specific instruction result in content knowledge gains?

METHODS

The participants included students (n=35-38) enrolled in 2 different 8th grade physical science at a middle school that is part of a large school district in the central United States. In the middle school curriculum, students take Earth and Space Science in 6th grade, Life Science in 7th Grade, and Physical Science in 8th Grade. At the time of the study, students had learned about scientific inquiry, energy and energy transformations, forces of motion, and the electromagnetic spectrum. The content, "properties of light," builds on the unit regarding the electromagnetic spectrum and was taught 3 weeks into the second semester. "Properties of light" is emphasized in the district curriculum based on state (Department of Elementary and Secondary Education [DESE], 2008) and National Science Education Standards (National Research Council [NRC], 1996). Multiple instructional strategies were used to help students learn the intended content. These strategies and the order they were used during instruction are summarized in Table 1 on the next page.

Table 1. Instructional strategies used to teach properties of light.

Instructional Strategy	Description
Pretest	Questions probing students' perception of knowledge of formal science vocabulary used in "properties of light chapter."
Textbook read out loud	Teacher read introduction paragraphs from chapter to students that included "formal science terminology" for the section. Students used context clues to describe formal science terminology.
Demonstration	Demonstration and discussion to illustrate formal science terminology (see Author).
Expanding Vocabulary Activity	Students used textbooks to: (1) define "formal science terminology" in their own words, (2) provide 3 examples of each term, and (3) make a connection between each term and their everyday lives.
Whole class discussion	Students identify materials and properties of different items in the classroom that illustrate "formal science terminology."
Read and Review	Students identify main point for each sub-section of the textbook reading
Guided Reading and Study	Textbook worksheet
Posttest	Questions probing (1) students' perception of knowledge of formal science vocabulary, (2) students' perceptions of activities used to learn formal science terminology, (3) students' abilities to correctly identified formal terminology when provided with a description of the new term.
Delayed Posttest (2 weeks after unit)	Questions probing (1) students' perception of knowledge of formal science vocabulary, (2) students' perceptions of activities used to learn formal science terminology

Students participated in a pre, post, and delayed posttest over multiple days that occurred during instruction; thus, the number of participants in the study fluctuated if students missed a portion of, or entire, class session. Pre, post, and delayed posttests about students' perceptions of knowledge, learning, and content were embedded in the lessons and seamless from normal instruction that had been used with students frequently during the course and prior to the study. The questions on the pre, post, and delayed posttests promote metacognition meaning that they prompted students thinking about what they already know, what they will learn, and what they have learned. In this regard, the questions have an educational value and could contribute to students' developing understanding. Because all data collection strategies are considered typical instructional approaches used in the course aimed at enhancing understanding, all students participated; however, students could choose to skip or not answer any item. To maintain student confidentiality and protect student identity, any identifiers were removed prior to analysis. In addition, all results of the questionnaires about students' perceptions and content achievement tests were analyzed and reported in aggregate form. Descriptive statistics were used to indicate the percentage and number of responses. Inferential statistics were used to determine whether differences in perceptions and knowledge (from pre to posttest) were statistically significant.

FINDINGS

In this section, findings are presented for research questions pertaining to: (1) students' perceptions' of vocabulary learning; and (2) students' perceptions of activities used to learn vocabulary, and (3) content knowledge gains.

Students Perceptions of Vocabulary Learning

Students were asked about their beliefs about learning terminology, whether they believed they will know terminology outside of class and after the test, and if they use terminology in

their everyday life with their family and friends. As shown in Table 2 below, there were not considerable differences between many of student’s pre and posttest views. On both the pre and posttest, more than half of the students agreed that learning terminology was interesting (59% and 61%, respectively). In addition, on both the pre and posttest tests, after learning new terminology, most students thought they would know the terms outside of class (81% and 83%, respectively) and after the test (67% and 77%, respectively). On both the pre and posttests, few students thought they would use terminology in their everyday lives (88% and 77%, respectively).

The instruction was effective at increasing students, particularly females’, perceptions of their understanding the terms. Using an analysis of variance (ANOVA), a statistically significant difference was found among pretest survey questions between males and females. Prior to instruction, males were significantly more confident than females that they could remember the meanings of the terminology after the final lesson [F(1, 32) = 4.58, p<.05]. This difference between males and females was not present in the posttest [F(1, 32) = 1.11, p>.05]. After instruction, females were as confident as males in remembering the terminology after taking the test.

The students’ responses on the delayed posttest indicate considerable shifts for two different categories. First, 84% of students believed “learning terminology was interesting” on the delayed posttest compared to only 59% on the pretest and 61% on the posttest. Second, 79% of students believed they would use terms in everyday life compared to only 12% on the pretest and 23% on the posttest. Finally, one-third of the students reported having shared terminology with either a family member or friend on the delayed posttest.

Table 2. Students’ pre, post, and delayed-posttest perceptions and knowledge of formal science terminology used in science

	Pretest		Posttest		Delayed Posttest	
	Disagree	Agree	Disagree	Agree	Disagree	Agree
Terminology is interesting	41%	59%	39%	61%	16%	84%
Know “words” outside class	19%	81%	17%	83%	16%	84%
Know “words” after test	33%	67%	23%	77%	20%	80%
Use “words” in everyday life	88%	12%	77%	23%	21%	79%
Shared “words” with family /friends	X ¹	X	X	X	67%	33%

Note. Question not present on test

Students’ Perceptions of Instructional Strategies used to Promote Vocabulary Learning

Students’ perceptions of vocabulary activities were divided between 2 different categories of instructional strategies: written and discussion. As shown in table 3, of the written instructional strategies, students believed that the most helpful for their learning was the expanding vocabulary activities (43%), followed by the book worksheet (30%). Students thought that the pretest and essential questions were least helpful (11% and 16%, respectively) for their learning.

There was no statistically significant difference between the number of males and females who preferred various writing activities ($X_2=4.83$, p>.05); however, more females than males thought completing a science pretest was useful for learning new science vocabulary.

Table 3. Students' perceptions of written instructional strategies helpful for their learning of new science vocabulary (N=37)

Written instructional strategies	Perceived helpfulness for learning
Pretest	11%
Expanding vocabulary	43%
Essential questions	16%
Book Worksheet	30%

Table 4 below reports students' perceptions of the discussion strategies believed to be helpful for their vocabulary learning. Of the three different types of discussions, more than half of the students (58%) thought discussing objects that illustrated the properties of light (e.g., window glass is transparent, solid blue coffee mug is opaque, etc...) in class was most helpful for their vocabulary learning. Approximately one-third (32%) believed discussing the demonstration was helpful. Only 10% of students found reading the textbook passage and describing terms based on context clues to be the most helpful discussion activity for learning new vocabulary.

There was no statistically significant difference between the number of males and females who preferred various discussion activities ($X^2=.43, p>.05$). The majority of both males and females preferred discussing examples of new terms over the other discussion strategies implemented; however, more females than males believed whole class discussions were helpful in learning new terms.

Table 4. Students' perception of discussion strategies helpful for learning of new science vocabulary

Discussion Activities	Perceived helpfulness for learning (N=38)
Textbook Passage	10%
Examples	58%
Demonstrations	32%

Perceptions of Content Knowledge

Most students believed they either "understood" or thought they "understood and could explain" the following terms: "reflected" (94%), "absorbed" (100%), "transparent" (80%), and "refracted" (76%). Most students believed they did not understand the terms "translucent" (83%) and "opaque" (94%) (See Table 5 below). Students' perceptions of their vocabulary knowledge were also assessed after instruction. Most students believed they knew a definition (92%-100%) and could provide an example (92-97%) for the following terms: "opaque," "translucent," "transparent," and "reflection." In the posttest, students were less confident in their knowledge of "absorption" (14% believed they did not know a definition and 16% believed they could not give an example of "absorption").

Statistically significant differences were found when comparing means from pretest to posttest using paired sample t-tests of students' perceptions of understanding. There was a statistically significant increase in students' perceptions of understanding the terms "opaque" [$t(32) = 10.00, p<.001$] and "translucent" [$t(32) = 9.26, p<.001$]. On the other hand, there was a statistically significant decrease in students' perceptions of understanding "absorption" [$t(32) = 3.97, p<.001$] and "transparency" [$t(32) = 9.29, p<.001$]. In other words, students' perceptions of their knowledge of the terms "opaque" and "translucent" increased and students' perceptions of their knowledge of the terms "absorption" and "transparency" decreased from pretest to posttest.

Table 5. Students' preconceptions of vocabulary content

	Pretest		Posttest				N	
	"Do not understand" ¹	"Understand" ²	"Can explain" ³	"Know" ⁴	"Do Not Know" ⁵	"Give Examples" ⁶		"Cannot Give Examples" ⁷
Reflection	6%	68%	26%	95%	5%	97%	3%	37
Absorption	0%	43%	57%	86%	14%	84%	16%	37
Translucent	83%	14%	3%	95%	5%	92%	8%	37
Transparent	20%	46%	34%	100%	0%	97%	3%	37
Opaque	94%	0%	6%	92%	8%	95%	5%	38
Refraction	24%	62%	14%	38%	62%	32%	68%	37

1. Note. I do not understand the term

2. Note. I understand the term

3. Note. I understand the term and could explain the term to someone using my own words

4. Note. "Know" = I know one or more definitions for the term.

5. Note. "Do not Know" = I do not know the definition for the term

6. Note. "Give Examples" = I can provide an example of the term.

7. Note. "Cannot Give Examples" = I cannot provide an example of the term.

Most students (62%) did not believe they knew the definition or could provide an example (68%) of “refraction” after instruction (versus only 24% not understanding the term “refraction” before instruction). There was a statistically significant negative correlation of students’ perceptions of understanding “refraction” ($r_{(p)} = -.45, p < .01$). Thus, students who were confident that they understood the word “refraction” were significantly less confident in the posttest.

Content Achievement

The results of the content achievement test were mixed. Most students held accurate knowledge of the term “translucent” (95%). However, approximately three-fourths of the students answered the question concerning “opaque” materials correctly and only 69% of the students answered the question on “reflection” correctly. Students’ knowledge of “refraction” was related to the question. For example, more students (84%) knew that “refraction” is a property used to explain that light changes speed as it enters new mediums than knew that a property that explains that light changes direction when it enters a new medium (only 69%).

DISCUSSION

The purpose of this study was to investigate students’ perceptions of vocabulary and learning. Research identifies best practices for teaching science vocabulary (Harmon & Hedrick, 2005). This study is the first to begin to identify the types of discussion and written instructional strategies that students’ perceived as helpful for their vocabulary learning. One important finding is students’ perceived “expanding vocabulary” and “discussing objects” in class as the most helpful instructional strategies in their vocabulary learning. Students believed the pretest of vocabulary content and reading and discussing vocabulary passages from the textbook at the onset of instruction were the least helpful instructional strategies for developing understanding.

Another significant finding is related to the analysis of student’s perceptions of knowledge of specific terms before and after instruction. In many ways the vocabulary instruction had a positive influence on students’ knowledge. First, for some terms (e.g., “opaque,” “translucent,” “transparency,” and “absorption”), instruction had an impact on their developing understanding. In other words, after instruction students were more confident that they knew the terms “opaque,” “translucent,” “transparency,” and “absorption.” Secondly, for the term, students realized that in spite of instruction they still were not confident in their knowledge of the meaning or examples of this word. For the term “refraction,” students recognized that in the context of studying the properties of light the meaning of this word is more difficult to explain or give an example of than they first thought. The gender analysis indicated that female students gain more confidence in their knowledge of terminology than males as a result of the vocabulary instruction used in this study.

This study also found a mismatch between students’ perceptions of their knowledge of the some terms and their content knowledge gains. While many students believed they did not know (62%) or could provide an example (68%) for the term refraction, 84% correctly answered the question about refraction explaining the property of light changing speeds when it enters a new medium and 69% correctly identified refraction as a property of light bending when it enters a new medium. Similarly students were over confident in their knowledge of the term opaque. While most students thought they knew the term (92%) and could give an explanation (95%), only 75% correctly answered the question concerning opaque materials correctly. Thus, students’ perceptions of knowledge did not truly reflective their actual content knowledge gains. As a result, these findings present a number of implications for research and teaching.

IMPLICATIONS AND CONCLUSIONS

The findings of this study indicate that science teachers must acknowledge student’s learning

preferences and plan so that students have a variety of experiences learning content. By incorporating multiple vocabulary strategies, teachers can better accommodate students' diverse learning preferences and needs. In addition, making student's learning preferences explicit has the added benefit of promoting more self-sufficient learning. For example, if a student knows the strategies that help them understand science terms and concepts, they can use approaches to develop deeper conceptual knowledge when they encounter new and different topics. In addition, both teachers and students benefit from knowing the terms and concepts that students still have difficulty understanding after instruction. Teachers must implement a variety of strategies with their learners and use frequent formative feedback to identify approaches that are beneficial for the class as well as individual students.

The findings also present implications of school administration and the development of cross-curricular pedagogical strategies. In the USA the CCSS place high standards for what students should know, learn, and be able to do as a result of reading and vocabulary instruction. Viewing reading and vocabulary instruction as a shared responsibility across academic disciplines (English Language Arts, Social Studies, Mathematics, and Science) could better help students transfer vocabulary strategies across content areas. Both students and teachers benefit from having vocabulary strategies that help students use domain-specific and general academic terminologies in meaningful and purposeful ways. School administration can support cross-curricular vocabulary strategies by explicitly outlining reading and vocabulary objectives in policy documents, providing time for professional development and common lesson planning, and helping teachers set vocabulary teaching and learning goals in their professional teaching growth and development plans.

The findings of this study present implications for future research. This study investigated a specific science topic (properties of light) over a short amount of time (2 days, with the delayed posttest occurring 2 weeks after instruction). More research is needed that investigates the vocabulary strategies in this study, and others, for a range of science topics over time. Investigating a range of vocabulary strategies over time would provide a more clear understanding of the types of strategies that students believe consistently help them develop knowledge. In addition, qualitative research that uses interview techniques may provide researchers with a more nuanced understanding of the factors that facilitate and constrain student vocabulary learning. Studies are needed that examine the interrelationships among students' perception of knowledge, students' beliefs about vocabulary strategies used to learn, and students content knowledge gains. These studies could better clarify the relationship between students' perceptions of their understanding, the ways that students' best learn vocabulary, and content knowledge gains. Finally, research is needed that investigates students' content knowledge gains in a range of applications. In this study, the content knowledge test focused on students' ability to define science terminology. More authentic content knowledge assessments that require students to justify their thinking and explain how vocabulary strategies helped them develop ideas would begin to explore the relationship between content knowledge gains and learning from vocabulary strategies.

In conclusion, researching students' perceptions and vocabulary learning has the potential to inform the design of middle school science curriculum and activities. This research contributes to the existing body of literature by being the first study to document the types of vocabulary instruction that students believe are helpful for their learning. The results of this study provide a better understanding of the types of instructional strategies that students' believe encourage vocabulary learning. To provide quality science learning, classroom teachers must understand the vocabulary demands placed on students and students' beliefs about teaching and learning that are important for their development of knowledge. Teacher-researchers play a powerful role in educational reform

and can promote effective learning environments by using empirical support for best teaching and learning practices.

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Assessing Social Entrepreneurship Initiatives: Journey of Past, Present and Future

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ABSTRACT

Social Entrepreneurship and its role became ubiquitous and should be managed by the organization like other factors to achieve its strategic goals. Being an egalitarian nature, social entrepreneurship is entirely different from another business. Accordingly, this paper delineates the past of organizations, evolution of social entrepreneurship and transformation of generic business operations to social entrepreneurship operations while taking socially networked marketplace into consideration. Through this article, we onslaught an urge where modern organization changed its paradigm to social perspective and act as community based on the principle of collaboration. Based on recent theories, experience and literature, none guidelines will be suggested to design social entrepreneurship dashboard. At the end, guidelines for further academic inquiry, managerial implications and an agenda for future researchers.

Keywords: Social Business, Social Entrepreneurship, Corporate Social Responsibility

INTRODUCTION

Undoubtedly, there are some critical business aspects that plaguing our society. Many researchers and practitioners now agreed on a notation that traditional approaches of managing businesses are not going to resolve these issues. Therefore, social business is evolved as new paradigm in the field of management, that upsurge the research interests among scholars and practitioners, that formed a new entrepreneurial organization that join hands with economic rationality, traditional approaches, market structure, market-based views with social business processes (Lepoutre et al. 2011). The basic objective of social business is to provide adequate economic opportunities to under- privileged people by complementing non-profit and profit making businesses. Social business is acting like a bridge between two different socio-economic conditions where on condition based on wealth and access to it and other based on deprivation and poverty (Kelley et al., 2012).

It assumed that the world wealth created by the 80% world population but only consume less than 20% of the productivity because of poverty. This incongruity explained by Nelson and Agrawal et al., (2007) as “... through centuries of imbalanced economic incentives systems which have given the control of economic machine in the hands of a small group of population motivated by personal wealth maximization goals and employ the economic enterprises to

achieve their economic interests”. Despite the significant importance and rapid ramp of social business concepts, many companies claimed that they are not prepared and faced different challenges with respect to cultural changes due to social business (Liu et al., 2010). The underline assumptions of these concerns are due to out-of-the box thinking about customers, employees and how goals are achieved as well as the potential risks associates with transparency and organizational openness.

As social business illustrated as different approach with respect to operating strategies, mission and principles that caused controversies in defining social business concept. Social business defined by Korose and Berman (as cited in Rahman and Hussain, 2012) as “organizations and individuals that develop new programs, services, and solutions to specific social problems and those that address the needs of special populations”. Social business also explained as orthodox business processes where profits reinvested for the social purposes and benefits for community rather than profit maximization for owners and shareholders. Some examples of social businesses are Goodwill Industries International (USA), Shriners Burn Hospital (America), Grameen Bank and BRAC (Bangladesh), Akhuwat, Edhi Foundation and Kashf Foundation (Pakistan).

Researchers (for reference, Fowler, 2000; Mair and Schoen, 2007; Bacq et al., 2011; Harding, 2004) believed that the synthesis between market based approaches and social goals is understudied because the simultaneous creation of economic value and social value make the organization more complex and proposed more stringent rules and regulations. Recently, a survey conducted by Institute of Business Value to understand how organizations integrate with social business values and meaningful life. For this study, 1100 individuals and more than two dozen executives participated in this study and concluded that 46% investment increased in 2012 for social businesses whereas 62% companied also reported that they increased their expenditures for social businesses in next three years. Apart from this, companies are applying social business principles by investing 67% in marketing, 54% in publication relations and expected to grow 38% to 54% in customer services and 46% to 60% in sales. The basic difference social business and profit maximization business is as follow:

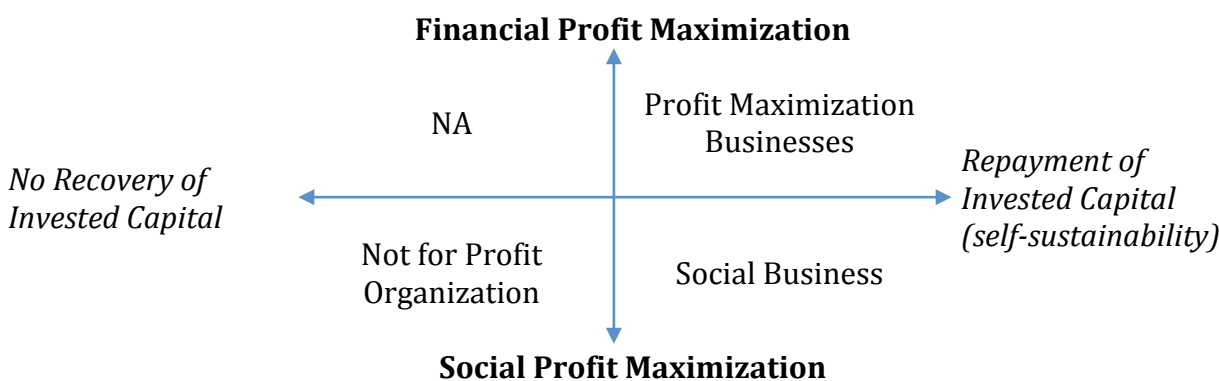


Figure 1: Difference in Profit Maximization and Social Business

Definitional Review of Social Entrepreneurship / Entrepreneur

Some important definitions of social entrepreneurship and entrepreneur are as follows:

Table 1: Definitions of Social Entrepreneurship

Source	Definition
Waddock & Post (1991)	Individuals who interested to bring changes in social issues of businesses. They played decisive role in formulation of social perspectives and played catalytic change agent role in business policies.
Prabhu (1999)	A person who originate and/or administer an entrepreneurial ventures or organization having primary purpose of spreading social change in the business environment.
Thompson, Alvy, & Lees (2000)	"People who realize where there is an opportunity to satisfy some unmet need that the state welfare system will not or cannot meet, and who gather together the necessary resources (generally people, often volunteers, money and premises) and use these to make a difference."
Dees (2001)	Social entrepreneurs are genius entrepreneur having social mission in his/her life.
Drayton (2002)	Businessman who had core temperament for creating peers, business entrepreneurs and industries. A basic definition of social entrepreneur which is new and powerful idea for organizational/system change. The other important ingredients are strong ethical fiber, entrepreneurial quality, widespread impact and creativity.
Thompson (2002)	Individual with behavior and qualities associated with the business concerns but having helping and caring concerns for the community other than "making money".
Mort, Weerawardena, & Carnegie (2003)	Social entrepreneur considered as multi-dimensional construct involved in pro-activeness, risk taking, innovativeness, key decision making characteristics, recognize social value creation, face moral complexity, purpose of coherent unity, having social mission and virtuous behavior.
Alvord, Brown, & Letts (2004)	Creation of innovative solutions for social causes and organize the social arrangements, resources, capacities and ideas to response social causes and bring sustainable transformation.
Austin et al., (2006)	Social entrepreneurship is known an social entity occurred in government sector, business or non-profit organization to help and sustain social environment in the businesses.
Nicholls et al., (2006)	Social entrepreneurs are those individuals who spread their ideas promptly in the societies and address major relentless problems with unique ideas.
Boschee & McClurg (2003)	Any person working in any industry who spend his/her income in pursuit of social objectives.
Cho (2006)	Institutional practices that combined financial objectives with terminal values.
Dart (2004)	An organization different from traditional businesses with respect to values, norms, structure and strategy that represent innovative practices in non-profit organization.
Harding (2004)	"They are orthodox businesses with social objectives whose surpluses are principally reinvested for that purpose in the business or in the community, rather than being driven by the need to maximize profit for shareholders and owners"
Zahra et al., (2009)	Social entrepreneurship includes processes and activities used to define, discover and exploit prospects in order to increase social wealth by establishing new business opportunities in innovative ways.
Yunus et al., (2010)	Any non-economic initiative for non-profit or profit organization that has social implications for the people and society.
Tracey & Jarvis (2007)	"The notion of trading for a social purpose is at the core of social entrepreneurship, requiring that social entrepreneurs identify and exploit market opportunities, and assemble the necessary resources, in order to develop products and/or services that allow them to generate "entrepreneurial profit" for a given social project."
Thompson & Doherty (2006)	Social entrepreneurship simply defined as the solutions from business processes to resolve social concerns in the societies.
Sharir & Lerner (2006)	A change agent in the society who creates and sustain social values without taking limited resources into consideration.

Seelos & Mair (2005)	Social entrepreneurship interlinked social values and traditional business model together for change in a society.
Robinson et al., (2006)	Identification of social problem in a society and give specific recommendation to resolve the issue.
Roberts & Woods (2005)	A dedicated, passionately and visionary individual who create opportunities for transformative social change.
Peredo & McLean (2006)	“Social entrepreneurship is exercised where some person or group: (1) aim(s) at creating social value, either exclusively or at least in some prominent way; (2) show(s) a capacity to recognize and take advantage of opportunities to create that value (envision); (3) employ(s) innovation, ranging from outright invention to adapting someone else’s novelty, in creating and/or distributing social value; (4) is/are willing to accept an above-average degree of risk in creating and disseminating social value; and (5) is/are unusually resourceful in being relatively undaunted by scarce assets in pursuing their social venture”.

Differentiation of Social Entrepreneurship

In literature, different compelling disagreements are available in differentiating social entrepreneurship with so multiple types of entrepreneurship (Lounsbury & Glynn, 2001; Ellmeier, 2003; Dorado, 2005). But still there is dearth of arguments on the distinction of social entrepreneurship with other types of entrepreneurship. Different researchers (Peredo & McLean, 2006; Nicholls & Cho, 2006) tried to distinguish social entrepreneurship and explained its boundaries. Some differences with respect to different types of entrepreneurships are as follows:

Table 2: Types of Entrepreneurship with Processes and Missions

	Social	Cultural	Institutional	Conventional
Definition	An individual who relate business practices to resolve social issues.	An actor who act on an opportunity in order to create economic, cultural or social value (Wilson & Stokes, 2004)	An individual who utilize the available resource in order to bring changes or establish new institutional rules (DiMaggio & Powell, 1983)	An agent who works on new ideas in creation of successful profit organization (Schumpeter, 1950)
Tensions	Social Mission versus Economic Sustainability	Culture versus Commercialization	Competitive advantage versus isomorphism	Survival versus Growth
Product	Social Change	Establish new norms and values	Establish legitimacy	Distribute or create services or product
Primary Objective	Well-being / Social Change	Enlightenment / Cultural Diffusion	Institutional reform/development	Economic
Organizational Form	Non Profit or Profit	Non Profit or Profit	Profit	Profit
Wealth Distribution	Shareholder and/or Stakeholder	Shareholder and/or Stakeholder	Shareholder and/or Stakeholder	Shareholder
Examples	Rugmark Greyston Bakery Aravind Eye Clinic	Symphony Orchestras Folk art Festivals Museums	Apple Kodak Edison	Tourism companies Software developers Business service providers

Theoretical Foundation of Social Entrepreneurship

In recent years, the circumference of sharing and producing wealth is tremendously expanded. But at present, the whole population of the world cannot participate actively in wealth creation due to lack of resources and access on economic environment. Social business explained the values of societies, once these values are accepted by the society then the organizations can also try to adopt with social business value model. Researchers (Austin et al., 2006; Shane and Venkataraman, 2000) explained Social Entrepreneurship as how organization exploited the entrepreneurial opportunities in form of social entrepreneurial ventures. Perrini (2006) argued that “early literature examined the creation and scaling of new non-profit organizations and an important sub-literature examined the field of social enterprise, that is, non-profits supplementing their donated income with earned revenue strategies”. The extended view of social entrepreneurship consisted on social equilibrium, pattern-breaking social change, social and economic values, catalytic change, pattern-breaking social change, independent, large-scale systematic change and economic conditions based on social values (Light, 2008).

Weisbrod (1997) claimed that social organizations always came to existence when the theory behind is market failure of commercial markets. The major reason of this inability is that product/service did not meet the goals of social need which reflected that commercial entrepreneurship creates an opportunity for social entrepreneurship. Commercial entrepreneurship is also different with social entrepreneurship in terms of their missions. Commercial entrepreneurship focused on developing businesses for private gain and economic profitability for individual and/or organization whereas social entrepreneurship generates social values for individual/society. But we have strong reservation in this statement because of its overstated argument because commercial entrepreneurship also had transformative social impact, create jobs, offering valuable and new goods/services for the benefit of society.

Austin et al. (2006) claimed that “the non-distributive restriction on surpluses generated by nonprofit organizations and the embedded social purpose of for-profit or hybrid forms of social enterprise limits social entrepreneurs from tapping into the same capital markets as commercial entrepreneurs”. Another major implication or problem for social entrepreneurship is to offer competitive market based salary as proffered in commercial markets that’s why many employees in social entrepreneurial organizations place considerable value on non-pecuniary compensation from their work. Performance measurement also creates some difference in social entrepreneurship with commercial entrepreneurship. Apart from the difference, commercial entrepreneurship is far ahead with social entrepreneurship because these organizations based on quantifiable and tangible measures of performances like quality, customer satisfaction, market share and growth. On the other hand, social entrepreneurship faced numerous issues while measuring performance due to intangible in nature. Sharir and Lerner (2006) argued that “the various financial and nonfinancial stakeholders to which a social entrepreneurial organization are readily accountable to are greater in number and more varied, resulting in greater complexity in managing these relationships”. Some important hurdles in measuring social change are temporal dimensions, multi-causality and non-quantifiability.

Social Entrepreneurship as Innovation

In most definitions of social entrepreneurship, researchers mainly focused on the *innovative disposition*. In this section, we elaborate the innovation concept with different examples. In particular, social entrepreneurship did not offer only innovative product/services completely but offered expansion or replication of available products/services which is socially desirable and did not have any economic benefit. Following table indicated the role of innovation in diverse sectors for social entrepreneurship:

Table 3: Role of Innovation in Social Entrepreneurship

	Core Innovation Pattern	Mobilizing Assets and Capacities of Poor Medium to High Level	Emphasis on Continuous Learning Medium to High Level
BRAC	Groups in village who are working to resolve issues while offering different support for village development.	Having specific attention towards women for building local capacities and organizations for self-help.	Building learning organization system for individuals and/or organizations by offering different programs.
Grameen Bank	Offered micro-credit services for low income families for their development and generate their own income.	Focused on marginalized and poor people to actively participate in small businesses especially for women.	Systematic investment in staffs' learning an development.
Greenbelt Movement	Offered civic education programs and planting trees to build self-help activities among local bodies and organizations.	Focused on capacity building among villagers to resolve remedies like deforestation.	Organizational learning, commitment, staff development and substantial investment in village groups.
Highlander Center	Use adult education as an important tool to confront abusive elites, civil rights groups, organize local unions and empowerment.	Organize an effective campaign for the betterment of marginalized civil and labor rights through participatory adult education.	Less systematic investment. And commitment for organizational learning.
Plan Puebla	Offered agriculture products for maize production and work for survivor of people and their income.	Utilizing technology in increasing productivity for the farmers and emphasize on resources and outside experts for further improvement.	Staff and participating farmer commitment to learning about agriculture.

Post-Modernism Matrix

Measurement and formulation of social entrepreneurship based on the post-modernism practices because of it based on past, present and also point out future's aspect of social entrepreneurship. Ely (1999) claimed that, "post modernization is a concept of a philosophy of change. Posing questions is the fundamental task of philosophy". The theories on postmodern syntheses on various view point with shared themes that include concern for people, access to global resources, rapid change and global enterprise. Since post-modernism act in pluralistic view, Solomon (2000) contended that "... as such, post-modernism embraces an eclectic combination of ideas and resources, constructed knowledge, subjective truth, indispensability of communication, dynamic and complex systems, and multiple roles for individuals". In order to measure overall organizational performance, the evaluation of social entrepreneurship should based on non-financial (NFM) and financial measures (FM). The degree of expectations with NFM and FM with post-modernism varied at different level i.e., FM is less amenable with post-modernism as compared to NFM (for more classification see table # 04). Various researchers put strong argument in favor of NFM while measuring organizational performance evaluation with financial measures. For reference, Kaplan and Norton (2013) noted that "the inclusion of NFM has the potential to improve the long-term effectiveness of the organization". But some researchers also had different argument with respect to NFM as it should not include in measuring accounting standards and performance (Kaplan and Norton, 1996). Haque et al., (2007) provided more relevant disposition to include NFM in measuring performance based on 11 factors includes strategic orientation, organizational characteristics, competitors,

professional roles, corporate culture, executive managers, regulatory control factors, best practices, external institutional pressures, economic constraints and accounting standards.

Table 4: Social Media Matrix, Performance Measures and Post Modernism

<i>Post Modernism</i>	<i>Non-Financial Measures (NFM)</i>	<i>Financial Measures (FM)</i>	<i>Social Business and FM & NFM</i>
Pluralistic view	Multiple views	Limited	FM and NFM
Eclecticism	Multiple disciplines	One discipline	NFM
Knowledge	Judgment based	Rules based	FM and NFM
Truth	Subjective	Rational	FM and NFM
Language	Social	Economic	FM and NFM
Communication	All transactions	Financial transactions	FM and NFM
Complexity	Fuzzy and uncertain	Precise and defined	FM and NFM
Self	Pluralistic role	Singular role	NFM

CONCLUDING REMARKS

Dart (2004) argued that “the rise of the modern corporation at the dawn of the 20th century, for-profit businesses have predominantly been concerned with the creation of economic value, to carry on business for a profit”. They also contended that the predominant legal framework of these organizations is “ownership model” and stakeholder interest had primacy. The capitalist system and profit business is consistent with the theory of Milton Friedman (1970) who argued that the only social responsibility of an organization is to increase shareholder wealth whereas other stakeholders include customers, employees and environment should not have direct consideration. On the other hand side, Brock et al., (2008) explained the extended view of social entrepreneurship as “considers social innovation outside of the traditional non-profit framework whereas in conventional framework, the organizational landscape is bifurcated”. They also noted that the organization is non-profit venture who purist in social value creation is answerable to stakeholder and an organization operated for-profit having focus on creation of economic value is accountable to shareholders or owners. In recent years, tremendous shifts occurred in this dichotomy due to blurring changes in the difference thoughts about social value creation and economic value creation.

Shaw and Carter (2007) asserted that social entrepreneurs are fully committed to work for social values, create and spend on innovative ideas that are not based in vested interests. Whereas businesses entrepreneurs are only seek to adopt an ethical approach to the management of their business, there is no evidence within the entrepreneurship trait literature to suggest that business entrepreneurs can be identified by strong ethical values. The other major difference is based on innovativeness of business idea/operations. Leadbeater (1997) stated that “social entrepreneurs will be one of the most important sources of innovation. Social entrepreneurs identify under-utilized resources – people, buildings, equipment – and find ways of putting them to use to satisfy unmet social needs”. These arguments put strong influence of community towards social entrepreneurship (Wenger, McDermott, and Snyder 2002). As Dacin et al., (2010) suggested that “social business is shifting out of first gear, it is a challenging and stimulating topic to explore and offers great potential to make meaningful contributions and discoveries”. Researchers and practitioners working in social entrepreneurship can glean significant thoughts after examining the conventional entrepreneurship, cultural entrepreneurship, institutional entrepreneurship, resource mobilization and entrepreneurial failure.

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