

Role of Human Resource Management in Governance on the Growth of Collective Entrepreneurship in the Agriculture Sector, Kenya

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Abstract

Agricultural cooperatives, as member-owned and controlled agribusiness enterprises play an important role in upgrading socio-economic status of members, however, they experience a myriad of hitches including mismanagement and inadequate innovation raising questions about quality of governance. The concern is legitimacy of boards, scanty expertise and effectiveness of managers in supervising and protecting members. They are practical example of collective entrepreneurship but pay little attention to entrepreneurship and seldom enhance their business dimensions through it for competitiveness. They decline in performance due to poor governance, weak capability building and human resource management practices. There is inadequate research on the role of human resource management in governance on the collective entrepreneurship in agriculture sector. The study sought to investigate the role of human resource management in governance on the growth of collective entrepreneurship in the agriculture sector. A descriptive research was adopted where multi-stage sampling technique and questionnaire was used to collect data from selected respondents in the coffee cooperatives in Kenya. Data were analysed using multiple regression statistical method. It was found that human resource management positively influence the growth of collective entrepreneurship and policy strongly mediates relationship between them. The study recommended implementation of strategic human resource management practice to enhance the agricultural cooperatives' level of progress and performance since functional human resources management affected only individual performance and turnover.

Key words: governance, human resource management, growth, collective entrepreneurship, agricultural cooperatives

INTRODUCTION

Background information

Governance is the system by which firms are directed and controlled. It is a process, influenced by the board of directors or management and other personnel assigned to provide reasonable assurance and achievement of objectives in effectiveness and efficiency in all operations, reliability of financial reporting and compliance with applicable laws and regulations Frank & Sundgren [14] It is how one gets to act, through different types of interactions and the extent to which the actors adhere to collective decisions Kemp & Parto, [26]. Good governance stems from clearly defined roles and responsibilities of the board of directors, committees and senior managers. It also inaugurates codes of conduct from which directors and staff at every level

signs and completes their task, Shaw [45]. In order to attain coordinate, strike a complex balance, motivate mechanisms in any governance of market structure, hierarchy and network, directors need to balance the organization's short, medium, and long-term interests. Governance is not only about doing but also ensuring things done in regards to best practices. Deployment of an efficient system which ensures that things are done is implied as governance Bijman & Doorneweert [5].

Good governance as prescribed by the codes of best practices has a significant bearing on capacity of both human and level of governance within an organization Waelchli & Loderer [47]. At all levels of governance whereas, Functional Human Resource Management (FHRM) practices lead to superior and crucial role on general performance, Strategic Human Resource Management (SHRM) enhances innovation, task accomplishment and performance and they indeed influence organisational performance Wang & Zang, [48]. Agricultural cooperatives being formal organizations must practice good governance to enhance efficient management, utilization and increasing employees' abilities so as to achieve both individual and organizational development. Good governance rewards on performance and competences, enhances innovation and creativity to improve competitiveness Sayl & Sahin, [42]. Internal governance derives its' quality from favourable policies designed and implemented to drive and improve the cooperative sub sector whose growth is for the performance of the overall economy Odhiambo, Nyangito, & Nzuma [32]. The legal environment and appropriate government policies are important because they strongly influence the establishment and development of farmer cooperatives. The implementation of such specific laws standardizes and speeds up establishment of farmer cooperatives Garnevskaja, Liu, & Shadbolc [15].

A cooperative business model applies to any business activity where one billion individuals are members and has generated over 100 million jobs worldwide. In Kenya, they are organized by economic sectors and classified into both agricultural and non-agricultural, Wanyama [49]. Study by International Cooperatives Alliance [ICA], [23] indicate that 1 out of every 5 or 5.9 million people is a member of a co-operative and that 20 million Kenyans directly or indirectly derive their livelihoods from the Co-operatives. The cooperatives contribute about 45 percent of the Gross Domestic Product (GDP), 31 percent of National Savings and Deposits (NSD), controls 70 percent of the coffee market (CM) and employs more than 300,000 people. Agricultural cooperatives considered as economic and social organizations play a significant role in rural development and poverty reduction Aref [3]. Agricultural production often experiences a boom, especially in the crop, besides, the volatile prices of farm inputs and outputs, risk to producers resulting to the agricultural cooperatives and agribusinesses to add assets to the service needs of production Kenkel & Park, [27]. Management is therefore a crucial factor for cooperatives to succeed or fail where indicators used to measure economic, business outcomes and success include, increased income, marketing capability, business planning and management Garnevskaja, Liu, & Shadbolc, [14]. Agriculture sector's vision of food secure and prosperous nation is not only appropriate, but also in tandem with vision 2030 of a globally competitive and prosperous nation in addition to ensuring food security and nutrition. The sector is expected to generate income and employment especially in the rural areas through an innovative and commercially oriented modern agriculture, ensure that farmers, producers, processors and marketers employ contemporary methods and technologies (Republic of Kenya [ROK], [37].

Entrepreneur co-operatives being the options that farm entrepreneurs have for survival must maintain high levels of income to enable small-scale farmers sustain rural livelihoods. They must encourage democratic decision-making processes, leadership development and education practices, in order for the directors to gain the skills of running businesses Crambo

[12] A strong cooperative must overcome difficulties by offering variety of services which range from access to natural resources, information, communication, input and output markets, technologies collective purchasing, warehouses receipt systems innovation (Food and Agricultural Organization [FAO], [13]. Entrepreneurship is considered important for economic development; however, producer owned firms has not given much attention to it. The agricultural cooperatives which are for collective entrepreneurship because of their multiple producers who jointly own the firm, have not embraced it Branstad [9]. Bijman and Doorneweert [5] in their study indicated that collective entrepreneurship which dates back to Emelianoff (1942), involves an income-generating organization governed by a plurality of stockholders, assigned with voting rights and distribution of income in proportion to stockholdings. The primary aim of all cooperatives is to improve economic, social and cultural position of the members as they aspire to maximize benefits, achieve higher prices, sell large volumes, offer better services and minimize production costs Burress & Cook [10]. The cooperatives can utilize resources more efficiently through collective entrepreneurship as a powerful tool for increasing intra-firm efficiency, reducing collective decision-making and agency costs Panagiota & Nastis, [34].

In developing countries, responses to competitive forces include the growing trend of members leaving their cooperative to join out growers. In Africa, the agricultural co-operatives practice agricultural input supply and output marketing as they organize joint sales of farmers' produce and coordinate exchange of goods and services between farmers and purchasers. As intermediary firms, they seek suppliers, find and encourage purchasers, organize transactions, keep records, hold inventories and supply liquidity. This requires professionally trained managers and other technically competent personnel recruited and provided with relevant cooperative training. The managers must acquire an appropriate competence in order to manage the businesses effectively Pinscher & Rouse [35]. Agricultural cooperatives, play an important role in upgrading socio-economic status of members, however, majority of them face problems, undermining their existence. In order to surpass the situation, the members often enhance their business dimension through collective entrepreneurship. Collective entrepreneurship empowers members' profits, local and regional development by adopting basic mechanisms like, strategic alliances focusing on common marketing plans, accessing technological innovations and resources Panagiota & Nastis, [33]. Individual entrepreneurship does not add up to collective entrepreneurship, but can influence the behaviour and attitudes of subordinates to create collective entrepreneurship. It directs the attention of the entrepreneur to focus on the work team, bearing in mind the fundamental aspects of creativity and innovation Soriano & Martinez, [46]. Collective entrepreneurship focuses on ownership structure and explores inter organizational gains that can be achieved through strong cooperation and organizational hybrids networks in markets. It boosts innovation, commercialization, growth, and empowers members to integrate economic, social cultural and political goals. They include non-profit organizations, cooperatives and social movements geared towards serving the members' interests and needs (Burress & Cook [9]. In Kenya, collective entrepreneurship is predominant in agricultural cooperatives where small producers work together to lower transaction costs, establish, monitor contracts and practice quality control of products through collection, sorting and grading Muradian & Mangnus [30].

Statement of the problem

Despite the significant contribution by the cooperatives which dominate the agriculture sector in Kenya, they face survival challenges because of governance problems leading to questioning the management committees' governance quality and collective entrepreneurship. Majority of the management committee members and senior staff have inadequate ability to lead and

monitor business operations causing wrong developments, mismanagement and heavy losses (Pozzobon & Filho [36]. Study by Sitaram [43], indicated that 70 percent of agricultural co-operatives fail due to poor governance because the management committees either encouraged short-term thinking, risk averse or saw it happening but ignored the consequences.

In Kenya, the share capital for coffee co-operatives decreased, by 35 percent in 2009 and 12 percent in 2010, market share dropped by 8.2 percent in 2010 and the overall share declined by 20.2 percent in 2010 compared to 22 percent in 2009. This was due to weak capability building systems, production and marketing systems Republic of Kenya [ROK], [39]. The value of marketed coffee contracted by 13.5 percent but the gross prices per 100 kg paid to farmers decreased by 47 percent in 2012 Republic of Kenya [ROK], [40]. The management boards and senior staff increasingly imitate governance structures, leading to low entrepreneurship Maghsoudi, Hekmat & Davodi [29]. As the governance weakens, the cooperatives become susceptible to bankruptcy and eventually collapse. There is inadequate studies on governance and human resource management on collective entrepreneurship in the agriculture sector. The general objective therefore was to investigate the role of human resource management in governance on the growth of collective entrepreneurship in the agriculture sector in Kenya. The study employed null hypothesis thus human resource management does not influence the growth of collective entrepreneurship in the agriculture sector in Kenya; the study covered agricultural coffee co-operatives that have been in the business for at least 20 years and have between 10 and 99 employees.

Limitations of the study

Generalizability of the findings was reduced only to a sub sector in the larger agriculture sector and the study drew inferential conclusions only from a sample size taken from a population. The study did not cover all the determinants of governance affecting various businesses and the growth of collective entrepreneurship in agriculture sector, but concentrated on the basic yet significant ones. The information presented may lack the details beyond the conclusions offered because the study may have omitted any important details and evidences. The authors of secondary source may have described the results incorrectly but the findings formed a framework upon which further related studies may be conducted. Some of the respondents were not reachable and that illiteracy levels hampered the clear version of the expectations. The study recommends a future study to establish the other determinants of governance and the strength of their influence on the growth of collective entrepreneurship in other sectors.

LITERATURE REVIEW

Human resource management

Strategic human resource goal of any business is workforce alignment. A firm with an aligned workforce has the right type of people in the right places at the right times, doing the right things right. They have employees with the knowledge and skills necessary to achieve its goals and effectively utilize them. They are more likely to develop and deliver high quality products, services, and new products, satisfy customers, effectively market products or services, achieve sales growth, operate profitably, and capture market share than those with less aligned workforces Collins, Ericksen and Allen [11]. A firm can ensure, it has the right type of people by hiring the right type where the strategies used include, emphasizing on the person-job fit, person-organization and person-future fit where the latter works best because it strongly and positively relate to workforce alignment. Firms that emphasize person-future fit are more likely to have aligned workforces than those that emphasize either person-job fit or person-organization fit. The most important way is to manage effectively by emphasizing formal processes and procedures for job duties and descriptions. In so doing the employees will

know their roles, responsibilities and do direct monitoring. Firms can also rely on professional standards, emphasize culture and peer pressure where employees to track one another and provide feedback.

The best strategy is formal processes, procedures and professional standards since they strongly and positively relate to workforce alignment Collins, Ericksen and Allen, [11]. The primary human resource management functions are to effectively acquire, develop and retain human capital for all business units in an organisation. The human resource intelligence (HRI) software embedded with business information and business analytic tools automates the processes and helps organizations identify, foresee their workforce needs for high skills and take intelligent action plans Hall, Hutchinson, & Michaelas [21].

Functional human resource

Among most of human resource management practices, there are mainly two dimensions thus functional human resource management practices and strategic human resource management practices. The former is more related with the daily operations while the latter is more linked with company-level progress or organisational performance. Human resource management practices are different across business ownership, joint venture and partnerships which link with organisational performance indicators Wang & Zhang [49]. Economic theory suggests that businesses that serve local markets gain competitive advantages by responding quickly to customers, whereas dynamic economic theory suggests that growth requires strategic flexibility and the ability to introduce new products or new markets.

The Cooperative Organisations are only driven by what the current market wants, they lack innovation and may not abandon producing their traditional products in the near future. Those that recognize their specialized resources are less likely to shift from one product to another because they specialize in those products that make use of their specific expertise and competencies. Those that do not are more likely to make decisions based on what the market wants and may never achieve economic profits Gehlhar, Stefanou, Zouma, & Regmi, [16]. Study by Boland, Hogeland, and Mckee [7] indicated that attracting and maintaining quality human resource is important for agricultural cooperatives and those directors and chief executives are essential for strategy development with planning role as the management team. In cooperatives, the management boards represent the membership and are accountable for any actions. Their succession is difficult because they are elected, however inadequate remuneration to them often leads to continual turn over.

The success of agricultural cooperatives is immensely contributed by their employees since they are the primary means by which a member interacts with their firm, and therefore the managers must emphasize principles of training and personnel development so as to successfully implement their strategies. All firms face competitive pressure that can shape their strategies and as competitors must improve efficiency, adopt the same technology (leftward direction), differentiate products (rightward direction) or compete for the current market (upward direction). In order to achieve higher margins, brand image alone is not sufficient; firms must have competencies in marketing, product and process innovation. The study established that product differentiation gives firms a competitive advantage because of unique attributes and capabilities which are not easily duplicated by competitors. The study concluded that the image of enduring quality gives consumers trust and loyalty and so the firms must constantly have innovative products to compete Gehlhar, Stefanou, Zouma, & Regmi [15].

Strategic human resource

Study by Sayl and Gormus, [41] indicated that high competition, environmental changes, accelerated trends and new management techniques have caused enterprises to evolve in structure, culture and human resource management. In addition, use of technology requires hiring highly skilled employees leading to higher and increased expectations. The study established that human resource management plays a major role in increasing satisfaction, loyalty and relationship between employees and employers. They indicated that the new functions of human resource management include; efficient management, utilization of employees, increasing abilities, rewarding performance and competences and enhancing innovation and creativity. The others are to apply new approaches, redesign job processes, achieve technological integration, improve careers and mobility, empower and improve relations with employees. They concluded that such functions help bridge the gap between employees and employers and develops a dialogue and cooperation culture within organizations.

Study by Tanaka [48] indicated that far sighted management boards, invest for the future, engage in long-term employment and offer vocational trainings, but short sighted management boards apply wages based on seniority, performance and ability and engage in just in time hiring. The study concluded that management who favour short sighted type insist on economic globalization, train employees just to meet needs, apply just-in-time strategy by hiring people needed and linking their wages with the organisation's performance. They would rather hire part-time than full time workers. The study recommended that firms should hire based on the management principles and policies, give preference on long-term perspective, discourage excessive hiring, establish work rules and standardize wages.

Collectively owned enterprises are under transformation into shareholding or multiple-ownership systems with entrepreneurial approaches to start new businesses, renew human resource strategies, develop high-performance culture, and have several employees and rapid businesses. Team-based firms mostly transform from collective-systems to shareholding firms with entrepreneur team development, multi-businesses, diversified business models and practice competitiveness and innovativeness. An organisation's high level of pay and / or benefits relative to that of competitors can ensure attraction and retention of high quality employees; elicit specific activities and performance from the employees (Noe, Hollenbeck, Gerhart, & Wright [31]).

An existence of human resource management practice ensures job satisfaction with pay being a strong determinant in addition to seniority and individual performance related schemes. Paying higher wage increases workers' loyalty, productivity and reduces firms' turnover and recruitment costs. If employees have high wages organizations will have lower levels of turnover meaning that they are less likely to leave the organization and the higher the satisfaction or financial rewards, the lower the level of turnover Booth & Hamer [8]. Kapoor and Sheriff [25] established that despite the current economic downturn and unemployment, most countries face long term talent shortages mainly due to ageing and retirement. There are more workers retiring than entering the labour force and the shortage is predicted across most industries. They established that innovations can be duplicated easily and quickly with effective human resource management and recommended that organizations need to place greater emphasis on attracting human capital rather than financial capital since the latter is broadly available from investors and lenders.

Study by Ajah [1] established that in order to realise good governance in the agricultural cooperatives, farmers' abilities need to be enhanced so as to understand and evaluate new

production techniques. They realised that exposure to education increases the farmer's ability to obtain, process and use information relevant to the adoption of improved agricultural technologies. They can acquire knowledge, make better use of natural resources, protect the environment facilitating a change in attitude and this encourages increased production. Study by Imonikhe [24], indicated that education enhances farmers' ability to make accurate and meaningful management decisions. This is possible because the level of education of a farmer is an important factor that determines his/her ability to understand the policies and programmes that affect farming. Empirical evidence attests that education has impact on agriculture, increased productivity with additional benefits in the form of increased modernization of agricultural production incentives, marketing facilities, and distribution of seeds, fertilizers and access to extension programmes. Gibcus, deKok, Snijders, Smit and Linder [17] in their study indicated that agricultural cooperatives highly need entrepreneurial expertise and skills of human capital, managers and the board members with specific business skills and knowledge and concluded that education is important for economic development, embedment of creativity, innovation and entrepreneurship.

Policy

Despite the important role played by the agriculture sector in economic development in Kenya with past efforts to steer it, the sector has continued to perform poorly due to various constraints that include inappropriate and outdated legal and regulatory framework. The others are trade and effective competition, mismanagement of most institutions, affordable credit to only a small proportion of smallholder farmers to high lending rates and multiple numbers of taxes from local authorities and government departments. These have contributed to a reduction of the net farm incomes and created distortions in marketing structures. In addition, high cost and increased adulteration of key inputs have made farmers substantially reduce the use of quality inputs such as seed, fertilizer, and pesticides. They have also experienced escalating international prices, high cost of agricultural inputs due to high transportation cost, an inefficient marketing, and distribution systems Gitau, Kimenju, Kibaara, Nyoro, Bruntrup, & Zimmermann [19].

King and Ortmann [28] in their study of agricultural cooperatives realised that inadequate access to resources and the poor availability of social services are some of the causes of cooperative failures. It is not sufficient, for the government to play a proactive role in creating a legal and institutional environment that helps promote private initiatives and mobilize capital and formation of agricultural cooperatives. The study realised that agricultural marketing information and infrastructure are poorly organized and institutionalised. The domestic market is small, fragmented and lacks an effective marketing information system and infrastructure. The study recommended that the government should commit itself to creating a favourable environment for cooperative development, focus scarce resources on physical, legal infrastructure, reduce transaction costs and risks and improve access to inputs.

The key factors that influence the successful development of cooperatives include legal environment and government policy, governance, training and education. A stable legal environment and appropriate government policy are important for the successful development of the agricultural cooperatives. The implementation of the law speeds up and standardizes the establishment of farmer cooperatives. The cooperatives would successfully develop only if members work for the community instead of just for their own gains. The government continues to support such policies aimed at fostering the agricultural cooperative development but some farmers only join without being fully committed to the cooperative and its operations Garnevaska, Liub,& Shadboltc [15].

The development of the industry is affected by a number of cross cutting legal measures such as taxation, foreign exchange, labour regulation, land control, competition law, intellectual property rights and registration of businesses, among others. The Coffee Act provides for regulations of the coffee industry and for control of production, marketing and export of coffee Republic Kenya [ROK], [37]. The Cooperative Society's Act sets out the functions and status of cooperatives, the right of members as well as allocation of profits and arrangements for indivisible funds. The government at all levels regard it as their responsibility to support farmers' cooperatives in order to realise national policy goals. The legislation stipulates the role of the government in creating policy and legal framework for the development, improving the growth and providing the requisite services for their organization Wanyama [51].

Growth of Collective Entrepreneurship in Agricultural Cooperatives

Study by Henehan and Pelsue [22] indicated factors that significantly and consistently place an individual cooperative on a growth group are described as relative growth with indicators as number of employees, members, sales volume, assets, earnings, and return on investment and those of absolute growth are market share, price, leadership, innovation, and market value of stock. Growth is considered to be an indicator of innovative activity and is measured in terms of change in employment, sales or assets over a period of time. Firms that do survive tend to exhibit higher rates of growth and innovative activity, being the main performance criteria for entrepreneurship Audretsch [4].

Study by Panagiota and Nastis [33] indicate that viability of cooperatives is difficult, mainly because they have yet to adapt quickly to a constantly evolving globalized environment. Their main efforts are to access local markets, promote products, and acquire strong brand names as well as tangible and intangible resources. The study concluded that they are the impetus for the transformation of traditional cooperatives in form of collective entrepreneurship for approaching the new markets. The study recommended that agricultural cooperatives must have the objective of achieving sustainable development and creating new opportunities for growth and empowerment. Globalization confronts cooperatives with new challenges relating to competition and market demands. Cooperatives can insulate members from such competitions by fostering product differentiation and providing market access, being the difference between survival and death (Boland, Hogeland and McKee, 2011).

Business Development which include delivery of services such as training, advising, transporting and communicating is one of the factors that affect the business performance of collective entrepreneur cooperatives. The availability of access to efficient high-quality products and business development are essential for the co-operative entrepreneurs to acquire new skills, products, know-how, technology and markets in an increasingly competitive domestic and global environment Amha [2].

Study by Ritossa and Bulgacov [41] indicate that for cooperatives to successfully compete in a global system they must take advantage of opportunities and enhance members services and earnings. The study established that cooperatives enjoy potential advantages in global system as they are perceived reliable, quality suppliers and ethical business partners with easier working relationships. They concluded that designing products to fit the demand niches created within global system require decentralised decision making, innovation and creativity, production, distribution and network, instead of tying to domestic resources that inhibit international investment. The study recommended that diversification of agricultural activities is needed to increase surplus, competitive entry to new markets, overcoming barriers, obtaining better prices and adding value to traditional commodities.

The future of cooperatives depends on the ability of managers to create a structure to match competition by offering multiple commodities and high value products on a global basis. The segments however, have concentrated on the sale of unprocessed products with low level of processing and limited possibility of growth but those with differentiation products find greater rewards. The study recommended that the cooperatives should place themselves closer to consumers and reach higher levels of the value chain through diversification motivated by increased demand, productivity and technological advances Ibid [41]. Birchall [6] suggested two strategic alternatives, firstly, think locally and act globally meaning that cooperatives need to act globally while expanding beyond national borders through joint ventures, mergers and acquisitions. Secondly, think globally and act locally in order to collect enough to neutralize global competition, customize local demands, develop structures, share services and adopt aggressive growth strategies.

Study by Gijssels [18] indicated that networking is a crucial innovative strategy where cooperatives broaden their basis for human capital exchange information, learn jointly, engage in research and improve on inputs and outputs so as to significantly benefit the members. Study by Oke [33] indicated that the underlying impetus of innovation management is the need to create an environment where employees are motivated to contribute to innovation. The study established that an effective human resource policy that supports innovation and encourages the development of an innovative organization is needed. The study recommended that firms should focus on norms that support creativity and build an innovative culture that rewards employees. Study by Grunfeld, Jakobsen, Kalaoudis, Skogli and Olsen [20], indicated that the most commonly applied performance and capability indicators based on numbers of new products, patents, services are important output indicators because they measure the main results that can be reached in an innovation perspective and easy to quantify. The study concluded that improved entrepreneurship capabilities, firm survival, commercialization, break troughs in the market, improved recruitment, increased job satisfaction of employees and technology are the other measures that clearly represent goals and performance indicators.

METHODOLOGY

This study adopted a positivist position because it is deductive, rather than inductive and theory building, rather than theory. It is characterised by the testing of hypothesis developed from existing theory, hence deductive or theory testing relates very well in the organisational context, as it assumes that what truly happens in organisations can, only be discovered through categorisation and scientific measurement of the behaviour of people and system Scotland, [44] The study applied descriptive research design, which in essence describes data and characteristics about the population or phenomena being studied. The target population was 421 coffee growing cooperative societies and a multistage sampling technique was used to arrive at 121 respondents. Questionnaire was applied because of its ability to collect primary data from a large group within a short period. Cronbach's Alpha reliability coefficient ranged from 0.742 to 0.988. The sample adequacy under the Kaiser- Meyer- Olkin Measure of Sample adequacy showed that human resource management and growth of collective entrepreneurship are on the middling above 70 percent, whereas policy is on the meritorious 80 percent of the variance meaning that they were neither miserable nor unacceptable.

The main objective was to investigate the Role of Human Resource Management in governance on the Growth of Collective Entrepreneurship in Agriculture Sector in Kenya. The study applied both regression and correlation analysis to arrive at logical conclusions. The study set out to establish whether Human Resource Management influence the growth of collective

entrepreneurship in the agriculture sector in Kenya. A simple linear regression model was fitted and the two variables x and y linear regression model took the form of:

$$y = \beta_0 + \beta_1x_1 + \epsilon \dots \dots \dots \text{Equation [1]}$$

Where: y = the response variable, x1 = the explanatory variable and ε = was an error term with task to fit the model, find the optimal values of the regression coefficients β0 and β1 and comment on the behaviour of ε. The impact of the moderating on the explanatory variable was sought. ANOVA on the regression coefficient and a post hoc analysis on the regression coefficient were carried out and used a Multiple Regression Model with a moderating variable in the form of:

$$\text{Predicted Y1} = B_1 * X * Z \dots \dots \dots \text{Equation [1]}$$

Where: - Y - Growth of Collective Entrepreneurship, X - Human Resource Management and Z - Hypothesised Moderating Variable (Policy) assumed to have linear relationship with the Growth of Collective Entrepreneurship. For the dependent variable Growth of Collective Entrepreneurship, Principal Component Analysis (PCA) was used thus PCA.....Equation [2]

EMPIRICAL FINDINGS AND DISCUSSIONS

Correlation Analysis

The study applied Pearson’s correlation 2-tailed to determine the extent of correlations. Table 4.1 shows the correlation between human resource management at 0.468 (46.8 percent). The study therefore concluded that since the correlation is significant at 0.000 levels (2 tailed) as revealed in the table, there is a strong and positive correlation between human resource management and the growth of collective entrepreneurship in the agricultural cooperatives.

Table: 4.1 Correlations between the Human Resource management and Growth of Collective Entrepreneurship

Factor	Correlations	Human Resource Management	Growth of Collective Entrepreneurship
Human Resource Management	Pearson Correlation	1	.468**
	Sig. (2-tailed)		.000
	N	105	105
Growth of Collective Entrepreneurship	Pearson Correlation	.468**	1
	Sig. (2-tailed)	.000	
	N	105	105

Table 4.2 shows the results after the moderator Policy was introduced. The study established that the strength of the correlation between human resource management and growth of collective entrepreneurship increased. The result shows that the increase in the strength of relationships was up to 0.560 (56.0 percent) from 0.468 (46.8 Percent) with a significance level of 0.000. This shows that human resource management practices together with favourable policies play an effective role in the governance of co-operative organizations and contributes to the growth of collective entrepreneurship in the agriculture sector.

Table 4.2 Correlation between human resource management, growth of collective entrepreneurship and policy

Control Variables		Human Resource Management	Growth of Collective Entrepreneurship
Policy	Significance (2-tailed)	.874	.000
	Df	102	102
Human Resource Management	Correlation	1.000	.560
	Significance (2-tailed)	.	.000
Growth of Collective Entrepreneurship	Df	0	102
	of Correlation	.560	1.000
Policy	Significance (2-tailed)	.000	.
	Df	102	0

Regression Analysis

The model summary Table 4.3 shows that R square value was 21.9. This means that 21.9 percent of the growth of collective entrepreneurship in the agriculture sector is influenced by Human Resource Management. In addition, coefficients Table 4.5 shows $\beta_0 = 2.453$ and $\beta_1 = 0.308$, so the growth of collective entrepreneurship $Y = 2.453 + 0.308 X_1$. The study sought to find out how Human Resource Management influences the Growth of Collective Entrepreneurship in the Agriculture Sector in Kenya. Given by the model $Y = \beta_0 + \beta_1 X_1$, where Y is the Growth of Collective Entrepreneurship, X_1 is the Human Resource Management for every value of X_1 , the value of Y changes by 0.308 but in the absence of X_1 , Y value remains at 2.453 as depicted by the constant value. This shows that Human Resource Management contributes significantly to the Growth of Collective Entrepreneurship in the Agriculture Sector in Kenya which dominated by the cooperatives.

Table 4.3 Model summary for Human Resource Management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.468 ^a	.219	.211	.30167

a. Predictors: (Constant), X_1 (where $x_1 =$ human resource management)

The study sought to test the hypothesis thus:-

H0: Human Resource Management does not influence the Growth of Collective Entrepreneurship in the Agriculture Sector in Kenya.

H1: There is a relationship between Human Resource Management and the Growth of Collective Entrepreneurship in the Agriculture Sector in Kenya.

From the ANOVA Table 4.4 the results indicate that the model fitted was significant with p-value $0.000 < 0.05$, indicating a strong influence therefore the null hypothesis was rejected by the study and adopted the alternate hypothesis thus: H1 Human Resource Management influences the Growth of Collective Entrepreneurship in the Agriculture Sector in Kenya.

Table 4.4 ANOVAb for Human Resource Management

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.623	1	2.623	28.826	.000 ^a
	Residual	9.373	103	.091		
	Total	11.997	104			

a. Predictors: (Constant), Human Resource Management

b. Dependent Variable: Growth of Collective Entrepreneurship

Table 4.5 Coefficients^a for Human Resource Management

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	T	
1	(Constant)	2.453	.170		14.449	.000
	Human Resource Management	.308	.057	.468	5.369	.000

a. Dependent Variable: Growth of Collective Entrepreneurship

Table 4.6 shows the effects of Human Resource Management together with policy on the growth of collective entrepreneurship. The study realised that when policy is introduced the strength on the effects of human resource on collective entrepreneurship increase as shown by the R square value of 49.9 up from 21.9. This shows that with an introduction of policy 49.9 percent of the growth of collective entrepreneurship in the agriculture sector is affected by human resource management.

Table 4.6 Human Resource Management with Policy and the Growth of Collective Entrepreneurship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.707 ^a	.499	.494	.24148

a. Predictors: (Constant), x_1z (x_1 = Human Resource Management, Z = Policy)

Table 4.7 shows the ANOVAb of human resource management with policy. The study sought to establish whether the model fitted was significant. The result show that the significant level of $0.000 < 0.05$ and since the P value $0.000 < 0.05$, this shows that there is a significant relationship between human resource management with policy and the growth of collective entrepreneurship in the agriculture sector. The study therefore concluded that human resource management with policy enhances the growth of collective entrepreneurship in the agriculture sector in Kenya.

Table 4.7 ANOVAb of Human Resource Management with Policy

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.990	1	5.990	102.725	.000 ^a
	Residual	6.006	103	.058		
	Total	11.997	104			

a. Predictors: (Constant), x_1z (x_1 = Human Resource Management, Z = Policy)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.990	1	5.990	102.725	.000 ^a
	Residual	6.006	103	.058		
	Total	11.997	104			

a. Predictors: (Constant), x_{1z} (x_1 = Human Resource Management, Z = Policy)

b. Dependent Variable: Y (y= Growth of Collective Entrepreneurship)

Table 4.8 show the coefficients of human resource management with policy on the growth of collective entrepreneurship in the agriculture sector. The result show that $2.274 + 0.092 X_{3Z}$, which shows that there is a high relationship between human resource management with moderator policy to the extent that for every unit value of X_{3Z} the value of y increases by 0.092. The study therefore concluded that policy has a positive effect on the Growth of Collective Entrepreneurship in the Agriculture Sector in Kenya.

Table 4.8 Coefficientsa of Human Resource Management with Policy as Moderating

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.274	.109		20.905	.000
	X_{1z}	.092	.009	.707	10.135	.000

a. Dependent Variable: Y (Where Y= the Growth of Collective Entrepreneurship, X_1 = Human Resource Management and Z= Moderating Policy)

Table 4.9 shows the coefficients of human resource management and the growth of collective entrepreneurship. The model given by the formula $Y = \beta_1 X_1$ where Y = Growth of Collective Entrepreneurship and X_1 = Human Resource Management. From table 4.9 the result show that $\beta_0 = 0.235$, $\beta_1 = 0.318$ therefore the Growth of Collective Entrepreneurship (Y) = $0.235 + 0.318X_1$. From the model it can be deduced that for every unit of X_1 there is an increase of Y by 0.318 (31.8 percent). On the other hand with a zero increase in X_1 units the growth of collective entrepreneurship is fixed at the value of 0.235. The study therefore concluded that the human resource management affect the growth of collective entrepreneurship in the agricultural sector.

Table 4.9 Coefficientsa Human Resource Management and the Growth of Collective Entrepreneurship

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.235	.230		1.024	.308
	Human Resource Management	.318	.038	.483	8.388	.000

a. Dependent Variable: Growth of Collective Entrepreneurship

Table 4.10 shows that Human Resource Management practices with policy has more influence on the Growth of Collective Entrepreneurship in the agriculture sector up to the extent of 76,8 percent as depicted by the value of R square.

Table 4.10 Model Summary of the Moderator Policy on the Growth of Collective Entrepreneurship

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
3	.876 ^c	.768	.761	.16613

C. Predictors: (Constant), $Y = B_1X_1Z$

The study sought to test the hypothesis: Thus H_0 : The policy does not moderate the role of human resource management in governance of the growth of collective entrepreneurship in the agriculture sector in Kenya.

H_1 : The policy moderates the role of human resource management in governance of the Growth of Collective Entrepreneurship in the agriculture sector in Kenya

Table 4.11 ANOVA shows that, the model fitted is significant. The p value shows that $0.000 < 0.05$. Since the P value $0.000 < 0.05$ the study therefore rejects H_0 and adopts H_1 which states that policy moderates the role of human resource management in governance on the growth of collective entrepreneurship in the agriculture sector in Kenya.

Table 4.11 ANOVA^d of the moderator policy on the factors influencing the growth of collective entrepreneurship

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.209	3	3.070	111.229	.000 ^c
	Residual	2.787	101	.028		
	Total	11.997	104			

c. Predictors: (Constant), x_1z ,

d. Dependent Variable: YG

Table 4.12 indicates that x_1 = Human Resource Management, z = Policy and Y = Growth of Collective Entrepreneurship indicates therefore that $Y = 1.650 + 0.054X_1$. This means that for every unit of x the value of y increases by 0.054, this shows that the model is fit.

Table 4.12 Coefficients^a of the moderator policy on the growth of collective entrepreneurship

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	1.650	.097		16.983	.000
	X_{1z}	.054	.007	.411	7.372	.000

Dependent Variable (Y) Growth of collective entrepreneurship

The table shows the coefficients where:

β_0 = constant

X_3 = Human Resource Management

Y = Growth of Collective Entrepreneurship and

Z = Policy as the moderator

CONCLUSIONS

There is a strong and positive correlation between human resource management and the growth of collective entrepreneurship in the agriculture sector in Kenya. The strength of the correlation increases with an introduction of policy as moderator. The study established that 21.9 percent of the growth of collective entrepreneurship in the agriculture sector was influenced by Human Resource Management and increases to 49.9 percent with an introduction of policy. The study therefore rejected the H0 hypothesis and adopted the H1 hypothesis which states that Human Resource Management influence the growth of collective entrepreneurship in the agriculture sector in Kenya.

There is a high relationship between Human Resource Management with policy and the growth of collective entrepreneurship in the agriculture sector in Kenya to the extent that for every unit value of Human Resource Management with policy, there is an increase in the growth of collective entrepreneurship in the agriculture sector in Kenya. The study rejected H0 and adopted H1 which states that policy moderates the influence of human resource management in governance on the growth of collective entrepreneurship in the agriculture sector in Kenya.

Area of further study

The study recommends a future study to establish the other significant determinants of governance that influence the growth of collective entrepreneurship in the agriculture sector

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