Factors Influencing Entrepreneurial Behavior Among Farmers: A Case Of Cabbage Farmers In Kiminini Ward

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Abstract: Agribusiness remains to be the most lucrative business where land fragmentation has resulted in the formation of small pieces of land that cannot support other forms of farming (Kinyanjui et al., 2008). From casual observation, this situation does not prevail in Trans-Nzoia County since the growth is very slow hence the venture is risky. Nevertheless, some few farmers have risked by taking the initiative of venturing into the cabbage farming business so as to seize the opportunity. The purpose of this study was to identify factors influencing entrepreneurial behaviour among cabbage farmers in Kiminini Ward in Trans-Nzoia County. The population of this study was determined by getting a list of farmers engaged in cabbage growing enterprises. Simple random sampling method was used to select 100 cabbage farmers from a list of cabbage farmers from the ministry of agriculture. The questionnaire comprised of closed and open ended questions. Descriptive statistics was used to collect data and included frequency tables. Further, a computer statistical package for social sciences (SPSS) was used in entering and analyzing the data. The findings indicate that age and marital status as factors under Demographic factors influence entrepreneurial behaviour of risk taking decision making and innovativeness of the farmer this is also true with social factors but education level of the farmer and size of land under cabbage has no influence on entrepreneurial behaviour .psychological factors have no influence on entrepreneurial behaviour

Keywords: Entrepreneurial behaviour, Entrepreneur, Agri-entrepreneurship, Entrepreneurship.

I. INTRODUCTION

Agriculture remains the dominant sector of Kenya’s economy with a key role of achieving multiple development objectives, which include food security, income generation, employment creation and industrial development. Agriculture supports the livelihoods of about 80% of the rural population (about 85% of them being small-scale farmers). Only 22% of land in Kenya is arable (though another 40% has potential for irrigated agriculture). The agricultural sector employs 70% of the national labor force through forward and backward industrial linkages, thus providing food and incomes to individuals and households. Kenya is endowed with vast diversity of land, soil and agro-climatic conditions which enable to produce varied types of vegetable crops. Vegetables are cheaper sources of proteins, carbohydrates, mineral and dietary fibers (Anonymous, 1997). The area and production of vegetables (Cabbages) are increasing year after year. There is substantial increase in production and productivity of vegetable crops owing to growing of improved varieties/hybrids and adoption of improved cultivation technologies. Small-scale agriculture in Kenya is characterized by landholdings of less than five acres and no more than 20 ruminant animals (mainly cattle, sheep and goats) and a few chickens per farm house. Crop-livestock production systems on small scale farms often entail very little use of purchased inputs and limited application of modern technology. The major vegetables grown in Kenya are onions, potatoes, tomatoes, radish, turnip, cucumber etc. Among these, vegetable (Cabbage) farming is the major attraction for the farmers since it is comparatively more remunerative than field crops. The wider adaptability of vegetables to different kinds of a biotic stresses like water, soil, weather, etc. offers enormous scope for growing these vegetables in stress prone areas of dry land, desert, high altitudes, high rainfall, and saline waste land areas. They are playing an important role in commerce and economy, particularly through processing and export trade (Anonymous, 1999b). Cabbages provide an important source of income for the small and marginal farmers of our country. The increasing population urbanization and the rising incomes have given great impetus to the cultivation of cabbages which form an important source of minerals. Particularly, calcium, magnesium and iron, vitamins like A, B-complex and C and fiber in the largely vegetation diet of our people and the demand for cabbage is increasing. There is a great need today to enhance the per hectare productivity gradually to boost the vegetable production. In this context supply of good quality seeds is a crucial factor. So, it becomes imperative to evolve a strategy to produce good seeds and make them available in time at reasonable price to the farming community. The varied climatic conditions prevailing, in different parts of the country coupled with cheap labour and skilled technical manpower have provided a great potential for cabbage growing. With technological development in agriculture, cabbage production has become more complex business and requires careful planning for successful operations. Cabbage production is systematically organized, carefully planned based on the best information available. It is the deliberate and conscious effort on the part of farmers to think about the cabbage production and adjust them according to new knowledge on technological development changes in physical and economic situation, price structure.

II Entrepreneurial behaviour

The development of any nation depends primarily on the important role played by entrepreneurs. Thus they play a vital role in the development of a country. In all economic development activities, more attention is being given to entrepreneurship development. An entrepreneur is primarily concerned with changes in the formula of production over which he has full control. Further, it is commonly believed that an entrepreneur is basically an intelligent person and has a definite ability to create something new to prove its
worthiness. The entrepreneurial behaviour is not necessarily doing new things but also doing things in a new way that has been already done. However, entrepreneur are not simply innovators, they are men with a will to act, to resume risk and to bring about a changes through organization of human efforts (Dannof, 1949). Now, it is felt that, the economic growth and development of the advanced countries is largely due to entrepreneurship among their community rather than to capital. Entrepreneurship is not confined to any one particular industry, country or group of persons; it exists in everybody but depends on individual's desire. Enterprise behaviour has been found in all societies, and in all types of economic circumstances. Whilst the term usually refers just to an individual, it is also possible to find whole organizations that can be classified as entrepreneurial in the way they do business and seek to grow (Michael Schaper, 2004). Considerable amount of research about the personal qualities and behaviour of entrepreneurs has been conducted, but the precise identification of entrepreneurial skills remains elusive. Generally, the entrepreneur is considered as a person who initiates, organizes the activities, manages and controls the affairs of business unit combining the factors of production to supply goods and services. Farmers deciding to take particular crop or use scientific methods to grow crops also exhibit entrepreneurial behaviour (Rao and De, 2009; Palmurugan et al,2008;Subrahmanyeswari et al,2007). Understanding of such behaviour is essential to improve the quality of extension services offered by institutional and non institutional agencies. Farming is a capital intensive and risky activity hence farmers need to possess the ability to take risk, innovativeness, imitative and capacity to marshal resources in order to run the enterprise successfully. These characteristics enable them to decide and accept to adapt to appropriate scientific farming methods. Entrepreneurial behaviour is influenced by individual, situational, psychological, social and experiential factors (Rao, 1985). The role played by entrepreneurs also assumes greater importance. In this context, there is a need for conducting research on the entrepreneurial behaviour of cabbage farmers. Hence, the study aims at find out the entrepreneurial behaviour of cabbage farmers and the relationship of their personal attributes with entrepreneurial behaviour.

III. Statement of the problem

Entrepreneurship has received increasing attention in the past and has been shown to be one of the key drivers of economic growth (Acs et al. 2004; Audretsch and Keilbach 2004; Wennekers 2006). Entrepreneurial activities such as innovations, entrepreneurial behaviour and networking are identified as important for enterprise development in an economy (Bwisa, 2010; Hussein, 2010; Mark, 2009 & Shane, S. A., Locke and Collins, C.J. 2003). Bwisa (1998) asserts that many African firms are low in efficiency and exhibit high business mortalities and poor profitability due to lack of relevant entrepreneurial culture and skill. Synder (2000) says that despite the task environmental constraints like customers, financiers and competitors that make it hard for entrepreneurs in small enterprise to enter and stay in those sectors, most educated entrepreneurs who innovatively adopt improved methods of farming and reduced costs of production were found to have achieved high income and profit. The studies have disclosed the significant effect of entrepreneurial behaviour in enterprise activities such as SME’s in commercial activities and formal sectors among them (Olomi, 2001 & UNDP, 2012). Different authors have shown that most small scale enterprises succeed due to them exhibiting different entrepreneurial behaviour. Entrepreneurial behaviour has been examined mainly from the psychological point of view that focuses on personal traits of an entrepreneur. Shane (2003) suggests that psychological factors influence the likelihood that people will exploit new venture opportunities. Despite the significant role of entrepreneurial behavior in enterprises such as formal SME’s and public corporation little is pronounced in farm enterprises such as small scale farmers in horticultural production. Small scale farmers are important in Kenya since their number is growing due to population pressure. The economic planners need to anticipate their contributions towards Gross Domestic Product (GDP), export and food security. Also, Kenyan vision 2030 emphasizes the need for appropriate strategy for wealth creation as one of the means to make Kenya a globally competitive and prosperous nation. Cabbage farmers in Kiminini have shown tendencies of entrepreneurial behaviour such as autonomy, risk taking, need for achievement, creativity and locus of control. However, the factors influencing the tendencies are not known. Therefore, it is worth to undertake the study to identify suitable factors influencing entrepreneurial behaviour of Cabbage farmers and contribute towards literature in the field and better livelihood in Kiminini Ward of Trans Nzoia County.

IV. General objective

4.1. To find out factors influencing Entrepreneurial Behaviour among Cabbage producing farmers

V. Specific objective

The specific objectives of the study are;

5.1. To examine how personal variables influence the entrepreneurial behaviour of cabbage farmers in Kiminini Ward.

5.2. To study the influence of social-economic factors on cabbage farmers and how they influence entrepreneurial behaviour.

5.3. To study the psychological characteristics influencing cabbage farmers

VI. Conceptual framework

Miles and Huberman (1984) defined a conceptual framework as the current version of the researcher’s map of the territory being investigated. Implicit in their view is that conceptual frameworks may evolve as research evolves. Their notion accommodates purpose (boundaries) with flexibility (evolution) and coherence of the research (plan, analysis and conclusion) which all stem from conceptual frameworks. According to Mugenda and Mugenda (2003) also view a conceptual frame work as a hypothesized model identifying the model under study and the relationship between the dependent variable and independent variables. A researcher conceptualizes the relationship between variables in the study and shows the
relationship graphically or diagrammatically. Newsman (1994) urge that in a conceptual framework, descriptive categories are systematically placed in broad structure of explicit prepositions, statement of relationship between two or more empirical properties (variables) to be accepted or rejected. A variable according to Kothari (2003) is a concept, which can take on qualities of quantitative values. Lumley (1994) sees a variable as an attribute or qualities of the cases that are recorded or measured. A dependent variable is the outcome variable the one that is being predicted. Variation in the dependent variable is what the researcher tries to explain. The independent variable also known as the predictor or explanatory variables are factors that explain variation in the dependent variable (Allison, 1996). The purpose of the conceptual framework is to assist the reader to quickly see the proposed relationship and hence its use in this study. A study by Shorsh and Vernon (2007), on overlooking the conceptual framework concluded that a conceptual framework has a critical role to play in research work. In this study the depended variable i.e., entrepreneurial behaviour and independent variables (Demographic, Socio- Economic characteristics) was formulated.

![Conceptual Framework](image)

**VII. METHODOLOGY**

The general typology and description of the research methods and procedures adopted was explained under the following major headings:

### 7.1. Research design

According to Mathew et al., (2007) research design is a set of decision that makes up the master plan specifying the methods and procedures for collecting and analyzing the needed information. The research design adopted in this research was the explore-descriptive. This is the intermarriage between descriptive and exploratory research designs. The descriptive design was used to calculate basic statistics such as the mean, standard deviation and mode. These statistics was used to help understand the general information of the respondent’s answers. According to Churchill (1991), a descriptive research approach is used when the purpose is to describe the characteristics of a certain group, estimate the proportion of people specified in a certain way and to make specific predictions. The descriptive research design enhanced a systematic description that was an accurate, valid and reliable as possible.

### 7.2. Sample size

According to Mugenda and Mugenda (1999) the target population is that population which the researcher wants to generalize the results of the study. The Simple random sampling method was used to collect a sample of 100 vegetable farmers from the population of 300 farmers. The research assistants administered the questionnaires to the respondents.

### 7.3 Selection of respondents

A List of farmers from each of the selected villages was obtained from the Sub-county Agriculture office in Kitale and divided into three categories viz., small farmers (up to 1- acres), medium farmers (2-5 acres) and big farmers (more than 5 acres) based on the size of land holding. The selection was done by using simple random sampling procedure. Thus, the total sample size constituted 100 respondent farmers.

### 7.4 Sample and sample technique

To arrive at the right sample, stratified random sampling was used where the target population was categorized in two distinct groups. The sampling frame was organized in to separate strata in this case based on the size of land and age of farmers. Random sampling was used to ensure that each element in each stratum has an equal chance of being in the study sample. The independent variables and dependent variables for the study were selected based on the available literature.

### 7.5. Data collection

(Ghauri, 1995, 54-58), argues that depending on the source and technique used in gathering data, it can be divided into primary and secondary data. Primary data is collected using interviews and questionnaires. Secondary data is got from sources like literature, articles and documents collected by other research institution. A semi-structured questionnaire was used to collect data. Research assistants aided in the administration of the questionnaire. A draft interview schedule against set objectives for measuring the variables of the study was first prepared and pre-tested with farmers in the non-sample area. In the light of pre-testing, necessary changes were incorporated in the format of items. The final form of structured interview schedule and questioner (Appendix I) was used to elicit the required information from the respondents. Marjorie et al. (2003) say that pilot testing the instrument before being used in a study allows the researchers to identify those items that misunderstood or are not being answered in the way that the researcher desires. Pilot testing was undertaken by interviewing.

### 7.6 Statistical tools used and data analysis

The coded data was entered into a computer and the SPSS package used. Here percentages to depict population characteristics such as the legality of the farming enterprise were obtained. The mean and standard deviation, correlation, multiple regression analysis was also carried out in order to establish the contribution of each independent variable to the dependent variable.
VIII. Findings
The findings showed that demographic factors significantly and positively \((r=.432^{**}, p=.001)\) influence entrepreneurial behavior, social-economic factors significantly and positively influence entrepreneurial behavior at \((r=.553^{**}, p=.001)\) and psychological factors significantly but negatively influence entrepreneurial behavior \((r=-.263^{**}, p=.05)\) of the farmer. Taking the coefficient of determinant, demographic factors contribute 18.7 % variability in the entrepreneurial behavior of the farmer, social-economic factors contribute 30.6 % variability in the entrepreneurial behavior of the farmer and psychological factors contribute 6.9 % variability in the entrepreneurial behavior of the farmer. In total, all the factors of study contribute 56.2 % variability in the entrepreneurial behavior of the farmer is caused by other factors not looked at in this study. The results further showed that the performance of agribusiness as a variable of Psychological Factors influence negatively \((r=-.238)\) on innovative behaviour of farmer at \(p=.05\) significant level, it has no influences on risk taking as behaviour and on decision making as behaviour of farmers, but it has negative significant \((- .323^{**})\) influence on Networking behavior of the farmer. Taking the coefficient of determinant, performance of agribusiness influences 5.7 % variability in innovative behaviour of farmer and 10.4 % variability to networking behaviour of the farmers. Investment as a variable of Psychological Factors influence positively \((r=.364^{**})\) on innovative behaviour of farmer at \(p=.001\) significant level, it influences positively \((r=.425^{**})\) the risk taking as behaviour of farmers at \(P=.001\) significant level, it influences positively \((r=.295^{**})\) on decision making as behaviour of farmers at \(p=.001\) significant level but has no significant influence on Networking behavior of the farmer. Taking the coefficient of determinant, Investment influences 13.2 % variability in innovative behaviour of farmer, 18.1 % variability in the risk taking as behaviour of farmers, 8.7 % variability in the decision making as behaviour of farmers and though investment has no significant influence, it contributes 2.8 % variability to networking behaviour of the farmers. Perception as a variable of Psychological Factors influence positively \((r=.364^{**})\) on innovative behaviour of farmer at \(p=.001\) significant level, it influences positively \((r=.425^{**})\) the risk taking as behaviour of farmers at \(P=.001\) significant level, it influences positively \((r=.295^{**})\) on decision making as behaviour of farmers at \(p=.001\) significant level but has no significant influence on Networking behavior of the farmer. Taking the coefficient of determinant, Perception influences 13.2 % variability in innovative behaviour of farmer, 18.1 % variability in the risk taking as behaviour of farmers, 8.7 % variability in the decision making as behaviour of farmers and though perception has no significant influence, it contributes 2.8 % variability to networking behaviour of the farmers. Comparison as a variable of Psychological Factors influence positively \((r=.210^{*})\) on innovative behaviour of farmer at \(p=.05\) significant level, it influences positively \((r=.245^{*})\) the risk taking as behaviour of farmers at \(P=.05\) significant level, it has no influences on decision making as behaviour of farmers but has a positive significant influence \((r=.374^{**}, p=.001)\) on Networking behavior of the farmer. Taking the coefficient of determinant, comparison with other farms influences 4.4 % variability in innovative behaviour of farmer, 18.1 % variability in the risk taking as behaviour of farmers, 6.0 % variability in the decision making as behaviour of farmers and though comparison with other farms has no significant influence, it contributes 1.8 % variability to decision making as behaviour of farmers and 14 % variability to networking behaviour of the farmers. The trend of sales over the years as a variable of Socio-economic factors influence positively \((r=.364^{**})\) on innovative behaviour of farmer at \(p=.001\) significant level, it influences positively \((r=.425^{**})\) the risk taking as behaviour of farmers at \(P=.001\) significant level, it influences positively \((r=.295^{**})\) on decision making as behaviour of farmers at \(p=.001\) significant level but has no significant influence on Networking behavior of the farmer. Taking the coefficient of determinant, sales over the years influences 13.2 % variability in innovative behaviour of farmer, 18.1 % variability in the risk taking as behaviour of farmers, 8.7 % variability in the decision making as behaviour of farmers and though sales over the years has no significant influence, it contributes 2.8 % variability to networking behaviour of the farmers. The largest number of acreage planted as a variable of Socio-economic factors had no significant influence on innovative behaviour of farmer at, it has significant negative influences \((r=-.283^{**})\) on the risk taking as behaviour of farmers at \(P=.05\) significant level, it influences negatively \((r=-.496^{**})\) on decision making as behaviour of farmers at \(p=.001\) significant level but has negative significant influence \((r=-.248)\) on Networking behavior of the farmer. Taking the coefficient of determinant, largest number of acreage planted has no variability influences on the innovative behaviour of farmer, 8.0 % variability in the risk taking as behaviour of farmers, 24.6 % variability in the decision making as behaviour of farmers and though sales over the years has no significant influence, it contributes 8.7 % variability to networking behaviour of the farmers. The initial capital investment as a variable of Socio-economic factors influence positively \((r=.789^{**})\) on innovative behaviour of farmer at \(p=.001\) significant level, it influences positively \((r=6.4^{**})\) the risk taking as behaviour of farmers at \(P=.001\) significant level, initial capital investment has no significant influences on decision making as behaviour of farmers and on Networking behavior of the farmer. Taking the coefficient of determinant, initial capital investment influences 62.3 % variability in innovative behaviour of farmer and 41 % variability in the risk taking as behaviour of farmers. The results also showed that the respondent’s age as a variable of demographic factor influence positively \((r=.683^{**})\) on innovative behaviour of farmer at \(p=.001\) significant level, it influences positively \((r=.798^{**})\) the risk taking as behaviour of farmers at \(P=.001\) significant level, it influences positively \((r=.546^{**})\) on decision making as behaviour of farmers at \(p=.001\) significant level but has no significant influence on Networking behavior of the farmer. Taking the coefficient of determinant, respondent age influences 46.6 % variability in innovative behaviour of farmer, 63.6 % variability in the risk taking as behaviour of farmers, 29.8 % variability in the decision making as behaviour of farmers and though age has no significant influence, it contributes 3.5 % variability to networking behaviour of the farmers. The respondent marital status as a variable of demographic factor influence positively \((r=.448^{**})\) innovative behaviour of farmer at \(p
=.001 significant level, it influences positively (r=.652**) the risk taking as behaviour of farmers at P=.001 significant level, It has no significant influences on decision making as behaviour of farmers but has negative significant (r=-.282**, p=.05) influence on variable of demographic factor influence negatively (r= -.449**) on innovative behaviour of farmer at p =.001 significant level, it influences negatively (r= -.327**) to risk taking as behaviour of farmers at P=.05 significant level, it influences negatively (r= -.217**) on decision making as behaviour of farmers at p=.05 significant level but has no significant influence on Networking behavior of the farmer. Taking the coefficient of determinant, respondent Education status influences 20.2 % variability in innovative behaviour of farmer, 4.7 % variability in the risk taking as behaviour of farmers, 10.7 % variability in the decision making as behaviour of farmers and though education status has no significant influence, it contributes 0.8 % variability to networking behaviour of the farmers. The results from the table however show that the respondent current occupation as a variable of demographic factor has no significant influence to ant of the farmers’ entrepreneurial behavior Networking behavior of the farmer. Taking the coefficient of determinant, respondent marital status influences 20.1 % variability in innovative behaviour of farmer, 42.5 % variability in the risk taking as behaviour of farmers, it has no contribution 0 % variability in the decision making as behaviour of farmers and 8% variability to networking behaviour of the farmers. The respondent Education status as a variable of demographic factor influence negatively (r= -.449**) on innovative behaviour of farmer at p =.001 significant level, it influences negatively (r= -.327**) to risk taking as behaviour of farmers at P=.05 significant level, it influences negatively (r= -.217**) on decision making as behaviour of farmers at p=.05 significant level but has no significant influence on Networking behavior of the farmer. Taking the coefficient of determinant, respondent Education status influences 20.2 % variability in innovative behaviour of farmer, 10.7 % variability in the risk taking as behaviour of farmers and though education status has no significant influence, it contributes 0.8 % variability to networking behaviour of the farmers.

IX. Recommendations
From the study, no efforts should be spared to initiate programmes and policies that can promote entrepreneurial behaviour among farmers. The general findings, the entrepreneurial behaviour of farmers is a very important factor to the policy maker, as an attempt to understand the entrepreneurial behaviour among farmers will enable policy makers to come up with viable interventions to stimulate entrepreneurial behaviour among farmers in all Agricultural categories and thus bring economic growth, development and consequently better livelihood outcomes of the farmer and nation as a whole. The findings can be taken care of by the implementing agencies and organizations working with farmers while selecting the beneficiaries for Agri-preneurship development programmes. Call for both county and central governments to intensify educational efforts and policy support to farmers through field extension workers and develop Public private partnership at all levels to make farmers more enterprising through improvement in their entrepreneurial behaviour attributes and hence achievement of the millennium development goals and vision 2030. There is serious need to expose the farmer to recent developments in agriculture through group discussions, meetings, study tours and field trips sponsored by County governments and/ or NGOs. As a veritable means of reducing unemployment, governments should establish programmes that will promote entrepreneurial skills of farmers and further attract the attention of the teeming population of unemployed youth to explore Agri-preneurship. It is essential to conduct intensive training programmes by government and NGOs to create awareness about Agri-preneurship opportunities.

IX. Conclusion
It can be deduced that factors influencing entrepreneurial behaviour are complex. These factors influence the level of Agri-preneurship. The integration and inter-dependence of the factors in a farmer give rise to the phenomena of Agri-preneurship. The study indicated that Socio-economic factors, Demographic factors and psychological factors had some direct influence on entrepreneurial behaviour of cabbage farmers. The findings of the study suggest that the entrepreneurship development programmes may be taken up for selected beneficiaries identified within the Agricultural sector based on the above attributes and farmers may further be motivated for increasing production, income and employment thereby ensuring equitable development of the County. Entrepreneurial behaviour is vital for a farmer as he/she, like an entrepreneur venture out into risky endeavours of cultivating and marketing their produce. The findings have highlighted the need to improve decision making ability among the farmers and their level of innovations in farming. It is the need of the hour that farmers have to assume risk to encounter challenges, if any.

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