



Farmer Business School Participation in Ghana: Implications for Market Orientation, Entrepreneurial Proclivity and Livelihood Performance

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Abstract

The study assumes that participation in the Farmer Business School (FBS) gives the cocoa farmer an advantage over the non-participants. The following objectives were set to give an overall appreciation of the research; determine the extent to which participation in the FBS has influenced the market orientation of the cocoa farmers, determine the extent to which participation in the FBS has influenced the entrepreneurial proclivity of cocoa farmers and determine the extent to which participation in the FBS has influenced the livelihood of the cocoa farmers. With this in mind, 600 cocoa farmers were sampled in Ghana using the multi-stage sampling technique. Data were analyzed using mean, standard deviation, and the independent sample t-test. The results show that participation in the Farmer Business School indeed gives the cocoa farmers an advantage; market orientation ($p < 0.05$), an entrepreneurial proclivity ($p < 0.05$), and livelihood outcomes ($p < 0.05$). There is a need to continually strengthen activities that promote these three key areas.

Keywords: Cocoa management; Entrepreneurial proclivity; Farmer business school; Livelihood performance; Market orientation.

1. Introduction

Generally, the agricultural sector in developing countries remains under-developed. Nonetheless, the agricultural sector finds itself at the heart of the economies of these countries in terms of the Gross Domestic Product, employment, supply of food, income and foreign exchange [1]. Cocoa production in Ghana is largely controlled by the Ghana COCOBOD [2] and it is a major part of the agricultural sector of the Ghanaian economy [3]. It has won a reputation for high quality in international markets because of the work of the Ghana COCOBOD [2-4].

However, in spite of the pivotal role of cocoa in Ghana's economy, the blessings of cocoa have not been adequately realised. This is because cocoa farmers do not utilise business and entrepreneurial ideas. The outcome has been very devastating on the livelihoods of the farmers, the cocoa industry and the total economy of Ghana as a whole. A significant portion of cocoa farmers seem to be the poor among the citizenry in Ghana [5].

Rural farm families living off the sale of cash crops have almost no material investments and the little they have can be cleared out in a single bad harvest. They face challenges with regards to access to input and output markets [3]. The methods, information sources and equipment utilized by smallholder farmers are moderately wasteful and regularly produce low yields [5]. The results of price instability, along with expanding production costs are monetary frailty and impoverishment for many cocoa farmers. With restricted income and the absence of data on market advancements, the cocoa farmers and their families lose heavily in the cocoa industry [3]. Their low and unreliable salary prompts genuine social and natural issues. Farmers quit putting resources into their homesteads, they cut allowances and salaries and are not able to provide their workers appropriate working conditions [6].

Growth in the cocoa industry can be spurred by the introduction of suitable innovations. One of such innovations is the idea of farmers imbibing a market-oriented approach to their farming activities [7]. According to

Braunstein and Welch, farmers who have a better market orientation take good decisions that increase their social as well as economic well-being. Moreover, it is the one of the surest ways to improve the yields of cocoa farmers.

Numerous studies have concentrated on the relationship between market orientation and performance. The current study shifts from this norm and looks at the broader framework proposed by Day and Wensley [8] and Day [9]. In this theory, participation in a programme is seen to offer a participant a positional advantage over the non-participant. They suggested that an organisation's capabilities [participation in the farmer business school] can lead to a positional advantage based upon innovative offerings, superior service or performance. Hence, it is expected that cocoa farms that possess such an advantage should enjoy superior performance [market orientation, entrepreneurial proclivity, livelihood]. Positional advantage will positively affect performance and that the possession of resources such as participation in the FBS helps to explain the important outcomes. As conceptualised by Slater and Narver [10] and [9], market oriented firms seek to understand customers' expressed and latent needs, have processes for collecting market intelligence about customers and competitors and integrating them with strategic decision-making processes.

In response to the issue of market orientation of farmers, the Ghana COCOBOD over the past five (5) years introduced the Farmer Business School (FBS) as a way to help cocoa farmers take cocoa farming as a business. The FBS gives the tools to balance a budget, work within Farmer Based Organisations (FBOs), act as farmer entrepreneurs and improve the knowledge of farmers on markets [11]. Kundu and Roy [12] believe that this strategy can be a stepping stone in transforming a rural and agrarian oriented farming system into a more market-oriented system. Farmers can therefore increase production and improve their livelihoods if they have a better market orientation. This is because, currently, cocoa farmers have little or no knowledge in issues related to handling their farm as a business [13].

The theory of positional advantage as used in this study positions participants of the Farmer Business School ahead of the non-participants of the Farmer Business School [14]. The question that needs to be answered is how participation in the FBS gives a cocoa farmer positional advantage over the non-participants. With the limited empirical information on the subject to justify and support the effort of the COCOBOD, an investigation into this problem has a potential for revamping the cocoa industry for productivity and livelihood improvement.

The objectives of the research are as follows;

1. To determine the extent to which participation in the FBS has influenced the market orientation of the cocoa farmers.
2. To determine the extent to which participation in the FBS has influenced the entrepreneurial proclivity of cocoa farmers.
3. To determine the extent to which participation in the FBS has influenced the livelihood of the cocoa farmers.

2. Materials and Methods

The research design used in this study was the descriptive design. The design is a scientific method that involves observing and describing the behavior of a subject without influencing it in any way. The subject of interest for this study was the Farmer Business School. The approach aims at accurately and systematically describing a population, situation or phenomenon and offers a simpler way to answer the what, when, where and how of the research study. A descriptive research design can use a wide variety of research methods to investigate one or more variables [15].

For this study, the area of interest was Ghana but with specific focus on the six Cocoa Regions. The study population consisted of all cocoa farmers in the country. In total, 600 cocoa farmers were sampled from all the six Cocoa Regions in Ghana; Ashanti (100 respondents), Brong Ahafo (100 respondents), Central (100 respondents), Eastern (100 respondents), Volta (50 respondents) and Western (150 respondents).

The multi-stage sampling technique which is the act of taking of samples in stages using smaller and smaller sampling units at each stage. This was the method that was employed to select the cocoa farmers. The first stage involved the selection of Cocoa Districts. Two districts from each of the regions with the exception of Western Region (3) and Volta Region (1) making a total of 10 districts were selected using the simple random sampling technique. The second stage involved the selection of three communities each from the Districts through the simple random sampling technique. The final stage involved the simple random selection of the cocoa farmers to make up the sample size of 600 farmers. The simple random sampling technique takes a small, random portion of the entire population to represent the entire data set, where each member has an equal and independent probability of being chosen. The lotteries method was used to draw out the samples.

Questionnaires were the research instruments used for the collection of data. Farmers were visited in their farms and homes in order for data to be gathered. Data was analysed using descriptive statistics (mean, standard deviation) and inferential statistics (independent sample t test). It is important to single out the independent sample t test that was used. This inferential test was used to compare the means of two independent groups (participants and non-participants of the Farmer Business School) in order to determine whether there is statistical evidence that the associated population means are significantly different. This was necessary to test whether participation in the Farmer Business School had actually achieved its objectives of building skills in business and entrepreneurship and improving livelihoods.

3. Results and Discussion

3.1 Market Orientation of Participants and Non-Participants

Table 1 describes the market orientation scores of participants and non-participants of the Farmer Business School.

Table-1. Market Orientation Index According to Category

Market Orientation	Mean	Std. Deviation
Participants	2.63	0.35
Non-participants	2.56	0.50

Source: Field Data

Market Orientation is manifested in six key areas; customer orientation, competition, intelligence generation, intelligence dissemination, inter-functional coordination and market responsiveness. A mean aggregate score of the key market orientation indicators were used to calculate the market orientation index. Table 1 represents a comparison of the market orientation of the cocoa farmers (participants and non-participants). The results show that participants are more market oriented ($M=2.63$, $SD=0.35$) than the non-participants ($M=2.56$, $SD=0.50$). There is a mean difference of 0.07. Generally, it would be expected of the participants of the Farmer Business School to be more market oriented than the non-participants. The mean values for the two groups also implies that generally, the market orientation of cocoa farmers in Ghana is moderate.

The implication is that, generally, the market orientation of cocoa farmers in Ghana is moderate. Similar results were found by [Osmani and Hossain \[16\]](#). They found that smallholder farmers in Bangladesh had a relatively low level of market orientation. [Balint \[17\]](#) explained the reason for the low level of market orientation. It was demonstrated that it is an extreme consequence of agrarian commercialization. It expects admittance to rising high-income rural business sectors for purchasing input and selling output. Due to challenges like low quality and significant cost of inputs, high transportation costs, high market charges and inconsistent market data, smallholder farmers cannot adapt to this high-income rural market [18].

Table 2 describes the independent sample t test of market orientation for participants and non-participants of the Farmer Business School.

Table-2. Independent Sample T-Test of Market Orientation Index

Independent Sample t test		Levene's Test for Equality of Variances		T-test for Equality of Means						
				F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
										Lower
Market Orientation	Equal variances assumed	51.23	0.00	2.13	598	0.04	0.07	0.03	0.05	0.14
	Equal variances not assumed			1.95	375.43	0.05	0.07	0.04	-0.01	0.15

Source: Author's Construct

In Table 2, an independent samples t-test was conducted on the mean market orientation index scores to compare the overall market orientation of the participants of the FBS and that of the non-participants. There is a significant difference in the market orientation for participants and non-participants ($p<0.05$). The significant difference in the market orientation of participants and non-participants ($p<0.05$) suggests that participation in the farmer business school gives the participants a positional advantage over the non-participants in terms of their market orientation. In support of this result, [Cohen \[19\]](#) found that firms that have participated in a programme that underpins financial values will be more market oriented than those who are their inexperienced rivals. In another study by [Blankson and Nukpezah \[20\]](#), they found evidence of how microentrepreneurs in rural Ghana nurture market orientation strategies such as customer loyalty, competitor orientation and intelligence gathering efforts to develop friendship with their customers. At the long run, this helps improve their business conditions that those who do not adopt such strategies. They attribute their business performance to such innovative strategies in surviving a competitive environment. In essence, cocoa farmers who have participated in the farmer business school programme and have been trained to be market-oriented in their business approach are likely to apply the strategies to their benefit. The reason is that they will be made more aware of the opportunities that can provide them superior value than their contemporaries and they will adopt such practices when they have perceived that it is relative advantageous to them.

3.2. Entrepreneurial Proclivity of Participants and Non-Participants

Table 3 describes the entrepreneurial proclivity index score of participants and non-participants of the Farmer Business School.

Table-3. Entrepreneurial Proclivity Index

Entrepreneurial Proclivity	Mean	Std. Deviation
Participants	3.72	0.68
Non-participants	3.39	0.57

Source: Field Data

Entrepreneurial Proclivity is manifested in three key areas; risk taking, innovativeness and proactiveness. A mean aggregate score of the key entrepreneurial proclivity areas were used to calculate the entrepreneurial proclivity index. Table 3 represents a comparison of the entrepreneurial proclivity of the cocoa farmers (participants and non-participants). The results show that participants are more entrepreneurially proclived ($M=3.72$, $SD=0.68$) than the non-participants ($M=3.39$, $SD=0.57$). There is a mean difference of 0.33. The results show that participants are more entrepreneurially proclived (3.72) than the non-participants (3.39). It could therefore be said that the participants have a high entrepreneurial proclivity while the non-participants have a moderate entrepreneurial proclivity. Utilizing Matsuno and Mentzer [21], it implies that the participants of the FBS are occupied with a powerful objective whereby they consolidate innovative intuition to distinguish marketplace needs and new open opportunities with the capacity to oversee, secure assets and adjust to the environment to accomplish desired outcomes while expecting some segment of danger for the activity [21]. To be sure, they have an inclination to acknowledge pioneering processes and practices, portrayed by their inclination for imaginativeness, risk taking, and proactiveness. They settle on choices that lead to new markets and support of business ventures [22] while facing challenges to evaluate new and risky products and services [23].

Table-4. Independent Sample T-Test of Entrepreneurial Proclivity Index

Independent Sample t test		Levene's Test for Equality of Variances		T-test for Equality of Means						
				F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
									Lower	Upper
Entrepreneurial Proclivity	Equal variances assumed	51.23	0.00	6.09	598	0.00	0.33	0.05	0.22	0.43
	Equal variances not assumed			6.31	541.49	0.00	0.33	0.05	0.23	0.43

Source: Author's Construct

In Table 4, an independent samples t-test was conducted on the mean scores to compare the overall entrepreneurial proclivity of the participants of the FBS and that of the non-participants. There is a significant difference in the entrepreneurial proclivity of participants and non-participants ($p<0.05$). The significant difference suggests that participation in the farmer business school gives the participants a positional advantage over the non-participants in terms of their entrepreneurial proclivity. So, for anyone who participates in the school, they are going to be more entrepreneurial than those who do not participate.

3.3. Livelihood Outcomes of Participants and Non-Participants

Table-5. Livelihood Index According to Category

Livelihood Outcomes	Mean	Std. Deviation
Participants	3.07	0.61
Non-participants	2.68	0.68

Source: Field Data

Livelihoods are manifested in five key areas; social, natural, physical, human and financial. A mean aggregate score of the key livelihood areas were used to calculate the livelihood index. Table 5 represents a comparison of the livelihood outcomes of the cocoa farmers (participants and non-participants). The results show that participants have better livelihood outcomes (3.07) than the non-participants (2.68). Participants of the FBS have better livelihood outcomes (3.07) than the non-participants (2.68). The significant difference in the livelihood outcomes of participants and non-participants ($p<0.05$) suggests that participation in the farmer business school gives the participants a positional advantage over the non-participants in terms of their livelihood outcomes. So, for anyone who participates in the school, they are going to have better livelihood outcomes than those who do not participate. In agreement, Bosompem, et al. [24] in a study that looked at the impact of a programme on the livelihood of cocoa farmers and found that the impact of the programme on their 'overall' livelihoods was 'average' (Mean=3.32, Standard Deviation=0.66), implying that the level of impact though high, was not as high as they anticipated. They further found that farmers generally perceived impact on physical (Mean=3.51, Standard Deviation=0.81) and

natural capital (Mean=3.51, Standard Deviation=0.84) to be 'high'. The programme, therefore, improved the two immediate aspects of livelihood (natural and physical) more than the rest.

Table-6. Independent Sample T-Test of Livelihood Outcomes Index

Independent Sample t test		Levene's Test for Equality of Variances		T-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Livelihood Outcomes	Equal variances assumed	0.55	0.46	7.29	598	0.00	0.39	0.05	0.28	0.49
	Equal variances not assumed			7.11	445.64	0.00	0.39	0.06	0.28	0.50

Source: Author's Construct

In Table 6, an independent samples t-test was conducted on the mean livelihood scores to compare the overall livelihood outcomes of the participants of the FBS and that of the non-participants. There was a significant difference in the livelihood outcomes of the participants and non-participants ($p < 0.05$).

In terms of the physical capital outcomes, Bosompem, *et al.* [24] looked at ownership of farming tools by the cocoa farmers. In their study, they found that over 50% of the cocoa farmers who participated in the programme had access to and owned farming tools and equipment as compared to those who did not participate. Also, according to UTZ [25], 60% of cocoa farmers in Ghana and Ivory Coast improved their human capital. In terms of financial capital outcomes, the study by Bosompem, *et al.* [24] found that 92% of the cocoa farmers conceded that they have had some increment in their salary. In addition to that, they had the option to save a portion of their income for future use. They presently are able to access farm credit from banks and microfinance institutions. Additionally, 88% of the farmers said they had the option to settle their credited loans either in full or to some extent. In another study by Blankson and Nukpezah [20], they provided evidence that rural microenterprises use market orientation strategies, albeit indigenous and informal that contribute to livelihood development, poverty reduction, higher quality of life and rural economic development.

4. Conclusion

Three key conclusions can be made from this study. Participation in the Farmer Business School gives the cocoa farmers a positional advantage in terms of its effect on their market orientation, entrepreneurial proclivity and livelihood outcomes. The study recommends that there is therefore the need to continually strengthen activities that promote the market orientation, entrepreneurial action and livelihood outcomes of the cocoa farmers by the Ghana COCOBOD and other NGOs through sustainable and strategic programmes and actions. Government through COCOBOD can identify additional avenues to alleviate poverty in rural areas and improve their quality of life.

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