

SWOT AND TOWS ANALYSIS: AN APPLICATION TO COCOA IN GHANA

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Abstract

The study was done in Ghana. The main objective of the study was to analyze the production, consumption and marketing stages of cocoa in Ghana. A qualitative research approach was adopted for the study. Theoretical studies and literatures related to the study were explored in gathering relevant data required to outline and analyse the attributes necessary for the enhancement of the production, consumption and marketing stages of Ghana's cocoa industry. Secondary and qualitative data were reviewed and collected from research findings, literature, journals and other publications conducted by the United Nations FAO, International Cocoa Organization (ICCO), Ghana Cocoa Board (COCOBOD), and other individual researchers and organizations. The SWOT analysis revealed a good number of opportunities provided by the external environment and advantages in the internal environment that can be capitalized to enhance the cocoa industry in Ghana. A TOWS analysis matrix was constructed to determine possible strategies that can be adopted to manage the production sector within its environments.

Key words: SWOT analysis, TOWS analysis, cocoa, Ghana

INTRODUCTION

Background

Agriculture remains the largest sector of Ghana's economy, engaging about 52 percent of the labour force thus, its development has a greater impact on employment and poverty reduction than the other sectors of the economy [8][4]. Cocoa is by far Ghana's most important crop as it represents the country's major agricultural export commodity, being the second largest source of foreign exchange which accounts for about 30 percent of Ghana's total export earnings. It is an important contributor to the country's economic development thus, a core component of the economy. Cocoa dominates the entire agricultural sector, acting as a major source of income for approximately 800,000 farmers and many others working along the cocoa value chain thus, a significant source of employment [14]. According to the Bank of Ghana, the sector accounts for more than 9% of agricultural Gross Domestic Product [11]. Ghana's cocoa cultivation, is well noted within the developing world to be one of the most modeled commodities [14]. The basic

stages of cocoa production include growing the trees, harvesting of pods, fermentation and drying of the beans.

All affairs related to cocoa in Ghana are controlled and managed by the Cocoa Board (COCOBOD) of Ghana. COCOBOD is a government controlled institution mandated with the responsibility of determining the buying price of cocoa in Ghana with the intention of protecting farmers from the volatile prices on the world market. Besides the price-fixing, COCOBOD is also into the sales of higher quality hybrid seeds, provision of technical assistance to cocoa farmers and conducts research on cocoa plant-related diseases. The mission of the Board is to encourage and facilitate the production, processing and marketing of good quality cocoa in the most efficient and cost effective manner. COCOBOD has five independent subsidiaries, namely: Cocoa Research Institute of Ghana (CRIG), Cocoa Health and Extension Division (CHED), Seed Production Division (SPD), Quality Control Company (QCC), and Cocoa Marketing Company (CMC). Each subsidiary is tasked with their respective functional obligation to enhance

the growth and development of the cocoa sector.

At present, Ivory Coast is the world's highest producer of cocoa beans followed by Ghana as the world's second highest producer with average annual output of about 800,000 metric tons (MT) [2]. However, according to the 2016/2017 cocoa production forecast of the International Cocoa Organization, out of the 4.7 million tons of the world cocoa production, approximately 3.6 million tons is produced in Africa with Ivory Coast producing the highest of about 2 million tons followed by Ghana producing 950,000 tons [7]. Cocoa is produced in six out of the ten geographical and administrative regions of Ghana with the Western region accounting for over 50 percent of total cocoa production [2]. Majority of cocoa farmers in Ghana operate on small scale with average farm sizes of two to three hectares with less than 10 percent of cocoa farmers operating on large scale. Ghana's estimated average cocoa yield is around 400 kilograms per hectare (kg/ha) for small scale producers which falls below that of other producing nations such as Cote d'Ivoire and Indonesia with estimated yield of 1.4 tons and one ton per hectare, respectively [2][9]. Many factors underscore this low productivity including scientific and technical issues such as the soil fertility status and quality of planting materials as well as diseases and pest issues. Small scale mining, whether legal or illegal, also have a great toll on arable lands.

Cocoa has many uses and is consumed in many different forms worldwide. However, the basis of all cocoa products is the grindings of its beans. The most common and popular consumable products of cocoa is the cocoa butter for chocolate and cocoa powder which is used in many beverages and food flavorings. However other consumable forms include; Animal feed from cocoa husk, Soap production from potash (Cocoa pod husk ash), Organic mulch and soil conditioner in crop production from cocoa bean shells, cosmetic products from cocoa butter, etc. In Ghana, considering that COCOBOD sells only a small quantity of the cocoa beans to local processing companies the consumption of

cocoa by-products is negligible. There are four prime cocoa processing companies in Ghana that handles the transformation of the cocoa beans into primary products, such as, cocoa liquor, cocoa butter, cocoa powder and cocoa cake. However, only 10 percent of these locally processed cocoa goes into the production of confectionary products such as chocolate bars, cocoa beverages, cocoa powder, ice cream etc, for the local market. There are about only ten companies that produce these cocoa confectionary products in Ghana [3].

Marketing of cocoa in Ghana is classified under two levels; Internal and External marketing levels. The internal level involves marketing of cocoa within the boundaries of the country while the external involves marketing across the country's borders via export. Not until the year, 1993 when the government finally yielded to the World Bank's recommendation of introducing the participation of other privately Licensed Buying Companies (LBCs) into the internal marketing of cocoa, the government through the Produce Buying Company (PBC) was the sole institution legally responsible for the internal marketing of cocoa from the farm gates. The introduction of the privately Licensed Buying Companies (LBCs) created a fair competition with the Produce Buying Company (PBC) which used to be the only buyer of cocoa at the farm-gate since 1977[1]. Ghana however remains the only country where the state retains control of the entire volume of cocoa exports through the Ghana Cocoa Board (COCOBOD), and an overwhelming presence in the internal market via the PBC [12]. Currently COCOBOD has licensed 41 companies to engage in the internal marketing of cocoa [5]. Through external marketing, 53.99 percent of Ghana's cocoa is shipped to Europe, 30.16% to Asia, 8.06% to North America and 7.79% to other countries [5].

Despite Ghana's position as the world's second largest exporter of cocoa, annual production and yield is relatively low. Efforts by Government to boost production and increase foreign earnings hasn't been met as expected. Over the past decades, Ghana's

production scale has not been able to match up to their closest competitor, Ivory Coast. There is a big difference in production scale and yield between these two countries. The sector is still faced with inefficiency in production and farmers are faced with challenges with regards to access to certain inputs and technology. Annual yield of cocoa per hectare as well as output has been relatively poor.

Problem Statement

Farmers are not satisfied by the buying prices of cocoa set by government. Another significant factor in purchase variability is cocoa smuggling. Each year, there are significant, and mostly unrecorded, flows of cocoa traded across Ghana's borders. The vast majority of this trade moves across the roughly 370-mile, largely porous border between Ghana and Ivory Coast. Many cocoa farms are being lost to local gold mining activities due to the relatively higher lucrativeness of that sector.

Financial earnings and employment capacity of the cocoa sector has been underutilized due to the relatively lower scale of cocoa processing and confectionary products manufacturing for the local market. About 90% of cocoa produced in Ghana is exported abroad in its primary form as a raw material. The cocoa value chain in Ghana is short of product diversification ventures such as processing and alternative product manufacturing units.

The study was done in Ghana. Ghana has a total area of 238,540 km² on the western coast of Africa. The north-south boundary of the country is approximately 670 km and the east-west, maximum width of approximately 560 km. Ghana is bordered by Ivory Coast to the west, Burkina Faso to the north and Togo to the east. On the south is the Gulf of Guinea and the Atlantic Ocean. The country is divided into 10 administrative regions. Cocoa is produced in six of these regions and that cocoa is a very crucial plant in Ghana.

Objectives of the study:

The main objective of the study is to analyze the production, consumption and marketing stages of cocoa in Ghana.

The specific objectives are:

(i) to evaluate the internal environments of the cocoa sector in Ghana.

(ii) to evaluate the external environment of the cocoa sector in Ghana.

(iii) to develop strategies in addressing the internal weaknesses and external threats facing the cocoa sector by means of a SWOT and TOWS matrix.

MATERIALS AND METHODS

Materials

A qualitative research approach was adopted for the study. Theoretical studies and literatures related to the study were explored in gathering relevant data required to analyse and describe the attributes necessary for the enhancement of the production, consumption and marketing stages of the cocoa industry in Ghana.

The research targeted eight critical actors and stakeholders of Ghana's cocoa industry and collected relevant data related to their roles in the production consumption and marketing stages of the industry. These actors were; the Ministry of Finance and Economic Planning (MOFEP), Ghana Cocoa Board (COCOBOD) and subsidiaries, License (cocoa) Buying Companies, local Cocoa processing companies, Cocoa farmers, International buyers/ global companies, Civil Society Organisations and Research Institutions of Ghana (CRIG, ISSER, RM&E).

Secondary and qualitative data were collected for analyses. These data are research findings reviewed and collected from literatures, journals and other publications conducted by the United Nations FAO, International Cocoa Organization (ICCO), Ghana Cocoa Board (COCOBOD), and other individual researchers and organizations.

Methods

SWOT analysis and TOWS matrix were employed in the analysis of the study. SWOT analysis is an analytical method used to recognize and classify significant internal (i.e. strengths and weaknesses) and external (i.e. opportunities and threats) elements within an organization or business. It is one of the most acclaimed instrument for conducting audit and

analysis to determine the strategic position of the business in its operating environment.

TOWS matrix is an analytical instrument used to generate a combination of internal and/or external factors to address specific weaknesses or threats within its operational environments. It does this to generate, compare and select best operational strategies. Its main purpose is to indicate strategies necessary to construct the best definite business model for a firm that will align the firm's resources and capabilities to the requirements of its operational environment [10].

The SWOT analysis technique was used to identify the current internal and external environmental conditions within which the production, consumption and marketing stages of the cocoa industry operates in Ghana. And the TOWS matrix was constructed to develop possible strategies to strengthen and enhance the cocoa sector towards meeting its objectives.

SWOT and TOWS analysis method was used to analyse and evaluate the qualitative data collected for each of the three operational stages (production, consumption and marketing) of the cocoa industry in Ghana.

Steps in SWOT analysis and TOWS matrix

Step 1: SWOT analysis involved the collection and evaluation of key data from the above aforementioned data sources. These are qualitative data pertaining to the current state of the cocoa industry in Ghana, specifically relating to the production, consumption and marketing stages.

Step 2: For each of the three operational stages (production, consumption and marketing) of Ghana's cocoa industry, qualitative data on the recent state of the industry are collected and sorted into four categories: strengths, weaknesses, opportunities, and threats. Strengths and weaknesses generally stem from factors within the boundaries of the three operational stages in the industry, whereas opportunities and threats usually arise from external factors as in figure 1 below. Organizational surveys are an effective means of gathering some of this information, such as data on an

organization's finances, operations, and processes [6].

Step 3: This involves the development of a TOWS matrix for each of the three operational stages (production, consumption and marketing) of the cocoa industry as demonstrated in tables 1 and 2 below.

Step 4: This involves incorporating the SWOT and TOWS analysis into the decision-making process to determine which measures to take in strengthening and developing the cocoa industry of Ghana.



Fig. 1. SWOT analysis chart
 Source: Author's own illustration.

Table 1. TOWS matrix [13].

	Strengths	Weaknesses
Opportunities	How do I use these strengths to take advantage of these opportunities?	How do I capitalize on my opportunities to overcome the weaknesses or minimize the weaknesses that prevent me from taking advantage of these opportunities?
Threats	How do I use my strengths to reduce the impact of these threats?	How do I address the weaknesses that will make these threats a reality?

Source: Author's own illustration

Table 2. TOWS matrix and strategy determination process

SWOT matrix	Strengths(S)	Weaknesses(W)
Opportunities(O)	S*O strategies	W*O strategies
Threats(T)	S*T strategies	W*T strategies

Source: Author's own illustration.

RESULTS AND DISCUSSIONS

SWOT analysis of the cocoa production stage

Table 3. SWOT analysis of the production stage of cocoa in Ghana

	Strengths	Weaknesses
Internal factors	S1: Free extension and technical services to farmers by COCOBOD subsidiaries. S2: Favorable climate and soil for high cocoa production capacity S3: Cocoa is cultivated in 6 out of the 10 regions of Ghana S4: Available vast land and resources for cocoa production. S5: Well-functioning national cocoa management board (COCOBOD) S6: Cocoa industry is prioritized by government. S7: Free on Board (F.O.B) prices of cocoa for farmers S8: World's 2 nd largest exporter ranking for the Ghana cocoa industry S9: World class quality cocoa production. S10: Good standing for loan acquisition /factoring. S11: Good market share	W1: Low level of technology adoption in the cocoa production sector of Ghana W2: Little capital and high cost of production input for farmers W3: Low level of education amongst cocoa producers in Ghana. W4: Individual farmers farm on small scale (3-4ha/farmer). W5: Relatively low annual production of cocoa beans W6: Farmers complain of low farm gate buying price of cocoa by government. W7: About 43% of farms still under the cultivation of varieties with lower productivity.
	Opportunities	Threats
External factors	O1: Vast employment and poverty reduction opportunities for cocoa farmers provided by the cocoa production sector O2: Provision of significant foreign exchange for national development. O3: Meeting the high demand for cocoa beans across the world. O4: Opportunity for government to establish state owned cocoa farms to substitute for the high demand. O5: Opportunity to attract foreign investors to provide cocoa production technology and input services in Ghana. O6: Possible opportunity of increasing production vol.	T1: Competition from the mining sector for land. T2: Competition from the growing population and estate industry for land T3: Loss through pest and disease infestation T4: Competition from higher capacity cocoa producing countries

Source: Author's own construction of SWOT based on reviewed literature and observations

For the purpose of this study, production stage of cocoa entailed and was limited to land preparation, nursing of cocoa seedlings, management and husbandry practices, harvesting of cocoa, extraction of beans, drying of beans through to the grading and bagging of the cocoa beans. Relevant data pertaining to the production stages of the cocoa industry were collected and analysed, then categorized under strengths, weaknesses,

opportunities and threats depending on their impact on the cocoa sector and national development as a whole.

SWOT analysis of the cocoa consumption stage

For the purpose of this study, the consumption stage of cocoa entailed and was limited to consumption by subsequent processing companies through to final consumers and involves processing of cocoa beans into secondary products through to tertiary products along the value chain to the consumers. Relevant data pertaining to the consumption stages of the cocoa industry were collected and analysed, then grouped as strengths, weaknesses, opportunities and threats depending on their impact to the cocoa sector and national development as a whole.

Table 4. SWOT analyses of the Consumption stage of cocoa in Ghana

	Strengths	Weaknesses
Internal factors	S1: Readily available raw materials for cocoa processing and confectionary industries. S2: Raw materials for cocoa processing and value addition are relatively cheaper. S3: Readily available labour for operating cocoa processing factories. S4: Government priority on value addition and local patronage through processing and local consumption of cocoa products	W1: Low number of existing cocoa processing and confectionary companies W2: Poor product diversification amongst existing cocoa processing companies in Ghana. W3: Low level of investment in the cocoa processing sector. W4: Very low percentage of cocoa beans is sold to the local processing companies.
	Opportunities	Threats
External factors	O1: Cocoa consumption provides employment opportunities in the area of cocoa processing and product marketing. O2: Cocoa consumption provides investment opportunities for local entrepreneurs to venture into the various enterprises in the cocoa value chain. O3: It provides avenue to generate internal revenue and foreign exchange for the nation. O4: There is opportunity for the creation of other cocoa by-product industries such as animal feed, organic manure etc.	T1: Competition from already existing multinational cocoa processing and confectionary companies. T2: Possible change in consumer demand for cocoa products.

Source: Author's own construction of SWOT based on reviewed literature and observations

SWOT analysis of the cocoa marketing stage

For the purpose of this study, the marketing stage of cocoa entailed and was limited to all activities involved in both the internal and external marketing levels of cocoa between cocoa farmers and the final buyers. Relevant data pertaining to the marketing stages of the cocoa industry were collected and analysed, then grouped as strengths, weaknesses, opportunities and threats depending on their impact to the cocoa sector and national development as a whole.

Table 5. SWOT analyses of the Marketing stage of cocoa in Ghana

	Strengths	Weaknesses
Internal factors	<p>S1: Ghana receives highest cocoa prices due to premium world class quality</p> <p>S2: State controlled external marketing system through the Cocoa Marketing company (CMC) of Ghana.</p> <p>S3: Liberalized internal marketing system with good competition.</p> <p>S4: Good local and global customer base due to good marketing services.</p> <p>S5: Free on Board (F.O.B) price agreement with global customers.</p> <p>S6: Ghana operates a traceability marketing system.</p>	<p>W1: Monopolized external marketing system (Government being the sole exporter of cocoa)</p> <p>W2: National political interference in the cocoa marketing management</p> <p>W3: Low market share for processed cocoa which attracts higher value.</p> <p>W4: Prices of cocoa beans are predetermined by government rather than farmers.</p> <p>W5: Low profit margin for cocoa traders due to high tax marketing cost.</p>
	Opportunities	Threats
External factors	<p>O1: Increased market demand for Ghana's cocoa due to relatively high quality of beans.</p> <p>O2: Employment creation through introduction of the liberalized (private) licensed buying companies for cocoa marketing.</p> <p>O3: Attraction of global marketing aid from International marketing companies such as Fairtrade as well as the Int. cocoa organization</p>	<p>T1: Marketing competition from the world's highest producers and exporters of cocoa (Ivory coast).</p> <p>T2: Possible loss through global cocoa price fluctuation.</p> <p>T3: Possible decline in global demand or price for cocoa due to the emergence of alternative product or an economic crises.</p>

Source: Author's own construction of SWOT based on reviewed literature and observations

TOWS analysis matrix

To further strengthen, fix the weaknesses and address the environmental threats of the cocoa sector, a TOWS matrix was created by the combination of some possible attributes that interact to manage and enhance the sector.

This would provide an efficient and effective way to achieve the set objectives of the cocoa sector of Ghana.

Table 6. TOWS matrix for the production stage of Ghana's cocoa industry

	Strengths		Weaknesses	
Opportunities	S6*O1=SOA S7*O1=SOB S2*O2=SOC S3*O2=SOD S4*O2=SOE S7*O2=SOF S5*O3=SOG S9*O3=SOH S7 * O4=SOI S10*O4=SOJ	S3*O5=SOK S6*O5=SOL S8*O5=SOM S11*O5=SON S1*O6=SOO S2*O6=SOP S3*O6=SOQ S4*O6=SOR S11*O6=SOS	O2*W1=OWA O3*W1=OWB O2*W2=OWD O3*W2=OWE O6*W2=OWF O3*W3=OWG O2*W4=OWH O3*W4=OWI O5*W4=OWJ O6*W4=OWK	O1*W5=OWL O2*W5=OWM O3*W5=OWN O6*W5=OWO O3*W6=OWP O6*W6=OWQ O2*W7=OWR O3*W7=OWS O5*W7=OWT O6*W7=OWU
	S5*T1=STA S6*T1=STB S5*T2=STC S6*T2=STD S1*T3=STE S5*T3=STF	S6*T3=STG S2*T4=STH S3*T4=STI S4*T4=STJ S5*T4=STK S9*T4=STL S11*T4=STM	T1 T3 W1 W5 W7	
Threats				

Source: Author's own construction of TOWS matrix based on the SWOT results

There are many combinations of elements that will develop and improve the cocoa production sector as indicated in the TOWS matrix above but for the purpose of the study, a few will be discussed.

S6*O1=SOA Model:

In this model, the cocoa industry can capitalize on the government's priority interest in the industry to attract state investment into implementing an input subsidypolicies for farmers so as to enhance production. This initiative can bring about a significant increment in annual cocoa production that will generate foreign exchange for government as well as improve the lives of individual farmers.

S3*O5= SOK Model:

Ghana is enriched with favorable climate and soil for the production of cocoa in commercial quantities. Six out of the ten administrative regions are rich cocoa producing areas and there is vast natural resources for the expansion of cocoa production. There are over 800.000 cocoa farmers in the country yet annual production volume is relatively low and for many years Ghana has failed to catch

up to its closest competitor, Ivory Coast in terms of production volume. This has been attributed to the lack of technology and efficient inputs by cocoa farmers.

These strengths can be capitalized as guarantee for the government to invite foreign investors or by itself though COCOBOD, invest in a state owned agro input centre that will provide state of the art equipment and other efficient inputs such as improved varieties of cocoa seedlings and fertilizers which can serve the technological needs of the cocoa industry at a subsidized or contract price conditions for the farmers. With such inputs being available for farmers at subsidized prices or at flexible payment schemes, annual cocoa production is likely to improve.

S1*O6=SOO

With COCOBOD’s resourceful subsidiaries such as the cocoa research institute, seed production unit and disease control unit, effective extension services should be provided for cocoa farmers at all stages of the production cycle so as to closely monitor and guide the farmers throughout the production period. This can ensure that farmers apply best practices to increase productivity hence increased yield.

T1 Model

Government must create a policy against the destruction of cocoa farms for gold mining and mineral exploration activities.

Table 7. TOWS matrix for the consumption stage of Ghana’s cocoa industry

	Strengths	Weaknesses
Opportunities	S1*O2=SOA S2*O2=SOB S3*O2=SOC S1*O1=SOD S2*O1=SOE S3*O1=SOF	O2*W1=OWA O4*W2=OWB
Threats	S4*T1=STA	T2 W4

Source: Author’s own construction of TOWS matrix based on the SWOT results

Such as a policy would help preserve valuable cocoa assets and ensure continuous cocoa

production.

S1*O2=SOA / S2*O2=SOB / S3*O2=SOC Models:

There is readily available primary raw (cocoa beans) materials at a relatively cheaper price. The high unemployment rate in the country also guarantees readily available Labour. These strengths can be capitalized with investment from government or other entrepreneurs to set up many more cocoa processing and confectionary factories that will add value to the cocoa beans. This will ensure local consumption and patronage of cocoa products as well as a higher internal revenue and foreign exchange for the nation.

S1*O1=SOD / S2*O1=SOE / S3*O1=SOF Models:

The availability of the needed factors of production (capital, land and labour) can be capitalized by government to invest in cocoa processing and confectionary factories that will promote the cocoa sector whiles creating employment to ease the poverty situation in the country. This will further create other job avenues in the area of transport, input market, and all the other units on the cocoa value chain.

S4*T1=STA Model:

The government can capitalize on its priority interest in the cocoa sector to create a policy that reduces importation of foreign cocoa confectionary products into the local market and promotes the marketing of local cocoa confectionary products. Government must also encourage the exportation of cocoa in processed or semi processed forms by increasing investment in the local processing sector.

O2*W1=OWA Model:

To promote local cocoa consumption, government can reduce business operational tax in the cocoa processing sector so as to encourage entrepreneurs to invest in setting up many more local cocoa processing companies that will produce many consumable cocoa products in the local market.

O4*W2=OWB Model:

There are lots of cocoa by-products that go waste during the cocoa beans extraction process. By-products such as cocoa pod and husk are left to go waste in Ghana. These are

important by-products that can be used in the manufacture of cosmetic items such as soap, they can also be processed into animal feed or organic fertilizer for crop production. These areas can be capitalized to create cocoa product diversification through the production of these cosmetics, animal feeds and organic fertilizers.

T2

By investing in the processing of cocoa by products, cocoa products diversification can be achieved through the production of cosmetics, animal feeds and organic fertilizers from cocoa pods and husk.

W4

Government should ensure the expansion of market share for local cocoa processing sector by implementing appropriate policy targeted at the cocoa marketing sector.

Table 8. TOWS matrix for the marketing stage of Ghana's cocoa industry

	Strengths	Weaknesses
Opportunities	S3*O2=SOA S1*O1=SOB	O2*W2 O1*W5
Threats	S1*T1 S4*T2	T1

Source: Author's own construction of TOWS matrix based on the SWOT results

S3*O2=SOA Model:

The concept of the liberalized licensed buying company can be further promoted to create more employment by attracting interested entrepreneurs to obtain operating license as internal cocoa marketing agencies. This will not only increase employment opportunity but also create a good competitive environment for the cocoa marketing sector.

S1*O1=SOB Model:

Ghana can further strengthen its competitive advantage of producing world class premium cocoa beans to attract more demand for its cocoa beans. Furthermore, government can also encourage organic cocoa farms which

will increase the country's market share due to quality.

S1*T1=STA Model:

Ghana's cocoa market share has always been threatened by its closest competitor, Ivory Coast. Ghana can further strengthen its competitive advantage of maintaining its reputation for world class premium cocoa beans.

S4*T2=STB Model:

Ghana must strive to maintain its local customer base in order to reduce loss in the event of a global economic crises that may affects international demand for its cocoa and cocoa products.

O2*W2=OWA Model:

The cocoa internal marketing decentralization system concept can be replicated in the other areas of cocoa industry management which has been solely under government control. This will reduce national political interference in the sector.

T1 Model:

In order to fully face the external marketing completion from its close competitors, The Ghana cocoa industry can focus on adding value to the cocoa beans by semi-processing them to increase the value and market share.

CONCLUSIONS

Results of the study indicates that, the cocoa industry of Ghana is the principal agricultural sector that projects the country on the global map in terms of agricultural trade. Cocoa represents the second largest source of export earnings accounting for about 30 percent of the nation's total export revenue. According to Bank of Ghana, the sector accounts for more than 9% of agricultural Gross Domestic Product thus making cocoa Ghana's most important crop [11]. It towers over the agricultural sector and is a chief source of livelihood provider for roughly eight hundred thousand farmers likewise many others who are engaged in trade, transportation, and processing of cocoa. Ghana's cocoa cultivation is recognized within the developing world as one of the most modelled commodities [14].

The research targeted three major stages of the cocoa industry of Ghana; the production stage, consumption stage and the marketing stage of the industry.

The production stage is the basis and the most important of all. The major challenges of the production stages of the cocoa industry were the relatively poor yield of cocoa per acre of land cultivated, Inability for Ghana's cocoa production to catch up with its close competitor, Ivory Coast and the lack of efficient technology and inputs to enhance productivity that is visible in yield.

However, results of a SWOT analyses of the production stage indicated tremendous strengths that the industry possesses such as:

-Free extension and technical services to farmers by COCOBOD subsidiaries.

-Favorable climate and soil for high cocoa production capacity

-Well-functioning national cocoa management board (COCOBOD)

-Cocoa industry is prioritized by government.

-Free on Board (F.O.B) prices of cocoa for farmers

-World's 2nd largest exporter ranking for the Ghana cocoa industry

-World class quality cocoa production.

Good standing for loan acquisition /factoring.

-Good global market share.

Some of the major weaknesses of the production stage were:

-Low level of technology adoption in the cocoa production sector of Ghana

-Little capital and high cost of production input for farmers

-Low level of education amongst cocoa producers in Ghana.

-Relatively low annual production of cocoa beans

-Farmers complain of low farm gate buying price of cocoa by government.

-About 43% of farms still under the cultivation of varieties with lower productivity.

The SWOT analysis revealed a good number of opportunities that the external environment provides to the cocoa industry in Ghana. The major opportunities that the sector can take advantage of are as follows:

-Vast employment and poverty reduction opportunities for cocoa farmers, provided by the cocoa production sector

-Provision of significant foreign exchange for national development.

-Meeting the high demand for cocoa beans across the world.

-Opportunity for government to establish state owned cocoa farms to substitute for the high demand.

-Opportunity to attract foreign investors to provide cocoa production technology and input services in Ghana.

-Possible opportunity of increasing production volume

A number of factors that could pose threats to the development and sustainability of the cocoa production sector of Ghana were also analysed. The major ones are as follows:

-Competition from the mining sector for land.

-Competition from the growing population and estate industry for land

-Loss through pest and disease infestation

-Competition from higher capacity cocoa producing countries.

A TOWS analysis matrix was constructed to determine possible strategies to manage the production sector within its environments. Some of the strategies were identified as follows:

-The cocoa industry can capitalize on the government's priority interest in the industry to attract state investment into setting up an input subsidy policies for farmers so as to enhance production. This initiative can bring about a significant increment in annual cocoa production that will generate foreign exchange for government as well as improve the lives of individual farmers.

-Ghana is enriched with favorable climate and soil for the production of cocoa in commercial quantities. There are over 800,000 cocoa farmers in the country. These strengths can be capitalized as feasibility guarantee for the government to invite foreign investors or by itself though COCOBOD, invest in a state owned agro input centre that will provide state of the art equipment and other efficient inputs such as improved varieties of cocoa seedlings and fertilizers which can serve the technological needs of the cocoa industry at a

subsidized or contract price conditions for the farmers. With such inputs being available for farmers at subsidized prices or at flexible payment schemes, annual cocoa production is likely to improve.

-With COCOBOD's resourceful subsidiaries such as the cocoa research institute, seed production unit and disease control unit, effective extension services should be provided for cocoa farmers at all stages of the production cycle so as to closely monitor and guide the farmers throughout the production period. This can ensure that farmers apply best practices to increase productivity hence increased yield.

-Government must create a policy against the destruction of cocoa farms for gold mining and mineral exploration activities. Such a policy would help preserve valuable cocoa assets and ensure continuous cocoa production.

The SWOT analysis conducted on this stage revealed the following strengths:

-Readily available raw materials for the local cocoa processing and confectionary industries.

-Raw materials for cocoa processing and value addition will be relatively cheaper due to the absence of import or export charges.

-Readily available labour for operating local cocoa processing factories.

-Government priority on value addition and local patronage through processing and local consumption of cocoa products

The following weaknesses were identified and analysed:

-Low number of existing local cocoa processing and confectionary companies

-Poor product diversification amongst existing local cocoa processing companies in Ghana.

-Low level of investment in the local cocoa processing sector.

-Very low percentage of cocoa beans is sold to the local processing companies.

The following opportunities were identified and analysed:

-Cocoa consumption provides employment opportunities in the area of cocoa processing and product marketing.

-Cocoa consumption provides investment opportunities for local entrepreneurs to

venture into the various enterprises in the cocoa value chain.

-It provides avenue to generate internal revenue and foreign exchange for the nation.

-There is opportunity for the creation of other cocoa by-product industries such as animal feed, organic manure etc.

-The following threats were identified and analysed;

-Competition from already existing multinational cocoa processing and confectionary companies.

-Possible change in consumer demand for cocoa products.

A TOWS analysis matrix was constructed to determine possible strategies to adopt in managing the consumption stage of the sector within its environments. Some of the strategies were identified as follows:

-There is readily available primary raw (cocoa beans) materials at a relatively cheaper price. The high unemployment rate in the country also guarantees readily available Labour. These strengths can be capitalized together with investment from government or other entrepreneurs to set up many more cocoa processing and confectionary factories that will add value to the cocoa beans. The availability of local cocoa products and confectionaries will ensure local consumption and patronage of cocoa products as well as a higher internal revenue and foreign exchange for the nation.

-The availability of the needed factors of production (capital, land and labour) can be capitalized by government to invest in cocoa processing and confectionary factories that will promote the cocoa sector whiles creating employment to ease the poverty situation in the country. This will further create other job avenues in the area of transport, input market, and all the other units on the cocoa value chain.

-The government can capitalize on its priority interest in the cocoa sector to create a policy that reduces importation of foreign cocoa confectionary products into the local market and promotes the marketing of local cocoa confectionary products. Government must also encourage the exportation of cocoa in processed or semi processed forms by

increasing investment in the local processing sector.

-There are lots of cocoa by-products that go waste during the cocoa beans extraction process. By-products such as cocoa pod and husk are left to go waste in Ghana. These are important by-products that can be used in the manufacture of cosmetic items such as soap, they can also be processed into animal feed or organic fertilizer for crop production. These areas can be capitalized to create cocoa product diversification through the production of these cosmetics, animal feeds and organic fertilizers.

-By investing in the processing of cocoa by products, cocoa products diversification can be achieved through the production of cosmetics, animal feeds and organic fertilizers from cocoa pods and husk.

-Government should ensure the expansion of market share for local cocoa processing sector by implementing appropriate policy targeted at the cocoa marketing sector.

The SWOT analysis conducted on this stage revealed the following strengths:

-Ghana receives highest cocoa prices due to premium world class quality

-State controlled external marketing system through the Cocoa Marketing company (CMC) of Ghana.

-Liberalized internal marketing system with good competition.

-Good local and global customer base due to good marketing services.

-Free on Board (F.O.B) price agreement with global customers.

-Ghana operates a traceability marketing system.

The following weaknesses were identified and analysed;

-Monopolized external marketing system (Government being the sole exporter of cocoa)

-National political interference in the cocoa marketing management

-Low market share for processed cocoa which attracts higher value.

-Prices of cocoa beans are predetermined by government rather than farmers.

-Low profit margin for cocoa traders due to high tax marketing cost.

The following opportunities were identified and analysed:

-Increased market demand for Ghana's cocoa due to relatively high quality of beans.

-Employment creation through introduction of the liberalized (private) licensed buying companies for cocoa marketing.

-Attraction of global marketing aid from International marketing companies such as Fairtrade as well as the International cocoa organization (ICCO)

The following threats were identified and analysed:

-Marketing competition from the world's highest producers and exporters of cocoa (Ivory Coast).

-Possible decline in global demand or price for cocoa due to the emergence of alternative product or an economic crises.

A TOWS analysis matrix was constructed to determine possible strategies to adopt in managing the marketing stage of the sector within its environments. Some of the strategies were identified as follows:

-The concept of the liberalized licensed buying company can be further promoted to create more employment by attracting interested entrepreneurs to obtain operating license as internal cocoa marketing agencies. This will not only increase employment opportunity but also create a good competitive environment for the cocoa marketing sector.

-Ghana can further strengthen its competitive advantage of producing world class premium cocoa beans to attract more demand for its cocoa beans. Furthermore, government can also encourage organic cocoa farms which will increase the country's market share due to quality.

-Ghana's cocoa market share has always been threatened by its closest competitor, Ivory Coast. Ghana can further strengthen its competitive advantage of maintaining its reputation for world class premium cocoa beans.

-Ghana must strive to maintain its local customer base in order to reduce loss in the event of a global economic crises that may affects international demand for its cocoa and cocoa products.

-The cocoa internal marketing decentralization system concept can be replicated in the other areas of cocoa industry management which has been solely under government control. This will reduce national political interference in the sector.

-In order to fully face the external marketing completion from its close competitors, The Ghana cocoa industry can focus on adding value to the cocoa beans by semi-processing them to increase the value and market share.

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