

# Business Model Innovations of Small and Medium Agribusinesses in Least Developed Markets

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**Abstract:** *Small and Medium Agribusinesses usually do not have the scale and scope to compete effectively on price and have to find new ways to differentiate their offerings or capitalize on new growth opportunities beyond their existing business. In today's global economy, where agribusinesses face an increasingly competitive trade and production environment, it is important the agribusinesses innovate in how they create, capture and deliver value. The study of business model innovation of small and medium scale agribusiness firms is very limited although the subject has focused on big businesses and in developed countries such as Apple, Virgin Airlines, Alibaba and others leaving out agribusiness companies, even much less those agribusinesses in developing countries. This research used cross-sectional survey research design; which was analytical and descriptive in nature in understanding the business model innovations amongst the small and medium agribusinesses in northern Uganda. It covered 79 agribusinesses (in agro-input trading, agro-processing and agro-produce trading) with 205 respondents in the study. The most understood mode of business model innovations among small and medium agribusinesses is altering value creation.*

**Keywords:** Business Model Innovations, Agribusinesses, Least Developed Markets

## 1. Introduction

Business model innovation has become very valuable to solve globalized, competitive and complex markets problem (Lindgardt et al., 2009). For least developed markets like rural Uganda, re-engineering of value creation and value capturing become an important means for driving growth. When innovation is practiced in small and medium scale agribusinesses' business model in these kinds of markets, it could be a game changer for them in the agricultural markets.

In more developed markets, Amit and Zott (2010) observed that with business model innovation, competitors find it difficult to imitate and/or replicate an entire novel activity system. This could be the same for Small and medium agribusinesses in the least development markets. In the latter markets, small agribusinesses struggle to survive, co-exist and outgrow the competition by innovating their business models. In some cases they also attain competitive edge against bigger agribusinesses, which normally have long longer business experience and/or also experience from more developed markets.

Increase in globalization, deregulation of the entire market range, an increased degree of economic integration have made the markets more dynamic, more complex and more competitive as noted by Wirtz (2011) requires businesses to innovate their products, processes and business models. The innovation in how value is created and how value is captured by businesses in return makes business model innovation (Chesbrough, 2010; Teece, 2010).

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to create value for the customer and financial returns for the firm practicing innovation if it is to survive a competitive business environment. Globally, understanding business model innovations of small and medium scale agribusiness firms is very limited. Linkages between business model innovation and competitiveness have only focused on big businesses and in developed countries such as Apple (Lindgardt et al., 2014, Christensen et al., 2008), Virgin Airlines, Alibaba and others (Scott-Kemmis, 2012) and Ford Motors (Osterwalder and Pigneur, 2009) leaving out agribusiness companies, even much less those agribusinesses in developing countries.

The subject left out agribusinesses because most agribusinesses in developing countries like Uganda are small and informal. Delving on northern Uganda market which is a perfect representation of a least developed market specifically, some very common characteristics of agribusinesses in such market is that lack growth ambitions, do not export and sales are just within the same district. This could be a reason why scholars become uninterested in the subject in such contexts. This formed the basis of the choice of this study.

## 2. Brief Review of Literature on Business Models Innovations

As noted by Schallmo and Brecht (2010), apart from the innovation in terms of technology, products, services and processes there also exist innovation of business models. Increase in globalization, deregulation of the entire market range, an increased degree of economic integration has made the markets more dynamic, more complex and more competitive (Wirtz, 2011). This requires businesses to innovate their products, processes and business models. The innovation in how value is created and how value is captured

by businesses in return makes business model innovation (Chesbrough, 2010; Teece, 2010).

Gamal et al, (2011) observed that it is very important for a firm to develop and execute of new and/or altered products, services, processes, business structures, and business models to create value for the customer and financial returns for the firm practicing innovation if it is to survive a competitive business environment. The innovation in a given business model comes where there has been alteration or re-engineering how business is conducted.

Scott-Kemmis (2012) observed that innovation in a business model is a transformative change in an enterprise's recipe for doing business. To him, the starting point of significant business model innovation (BMI) is an insight into the key elements of a new business – a re-visioning of who, what and how that leads to a change in the self-concept of the firm, its target market and its sources of distinctiveness. The agribusiness sector is no stranger to innovation concept. A number of authors noted that for sometimes there have been several waves of innovation related to machinery, inputs, food, management of information (Sporleder, Constance and Dennis, 2005). Business model innovation is usually more powerful than technical innovation; it is more disruptive and harder to copy than technical innovation (Lindgardt et al., 2014, Christensen et al., 2008). And yet, so many companies are focused on technical or product innovation to compete because it is the simplest to do.

Others believe that for a business to practice business model innovations, it has to change at least one of its essential elements. These essential elements are 1) identifying the customers or the number of separate customer groups (Scott-Kemmis, 2012; Lindgardt et al., 2014); 2) customer engagement or customer proposition (Lindgardt et al., 2014), value proposition (Osterwalder, et al., 2009; Osterwalder and Pigneur, (2009); and 3) value chain and linkages (Osterwalder and Pigneur, 2009), governance (Amit and Zott, 2010) or internal operations (Lindgardt et al., 2014; Baden-Fuller and Mangematin (2013). Other authors have observed that BMI is also an opportunity for any business if it wants to attain competitive advantage (Teece, 2010).

A business model innovation is more than just the introduction of a new product or service innovation (Amit and Zott, 2010). In fact, the success of a significantly new product or service is often dependent on developing the business model that drives both customer value and profitability, and disrupts the established players (Scott-Kemmis, 2012). A business model innovation does not discover a new product or service; however, it may redefine an existing product or service, how it is delivered to a customer and/or how the firm profits from the customer offering (Björkdahl, 2009).

Other writers viewed a business model innovation as a specific type of process innovation focused on the internal organisation of flows of information within a business system (Swann, 2009). However, novelty that creates value is a fundamental aspect of a business model innovation. A business model innovation can include a process innovation, a new revenue model or other types of innovation.

Therefore, in this study, we argue that a business model innovation is a new or alteration of a thinking of how the firm creates value for its customers, delivers the value and how it captures value. In this view, a business model innovation is not a 'mere' product or service innovation, nor is it a process innovation. We argue that business model innovation goes beyond product, service and process innovations.

#### **Altering Value Creation**

Kotler and Keller (2006) define the value creation process as "the identification of customer benefits from the customer's view, utilizing the core competencies of the firm's business domain; and selecting and managing business partners from its collaborative networks in order to exploit value opportunities." From another viewpoint, value creation is defined along the lines of Brandenburger and Stuart (1996); value creation from the perspective of a company is a collective activity combining the efforts of the players in the value chain, the upstream partners, the company and the downstream partners including also the customers of the products and services.

Value creation can be viewed as an increase in customers willingness-to-pay for a company's products or as a decrease in costs of producing them. Hassan (2012) observed that value can be created through more than one element, such as price, quality and location.

#### **Re-engineering Value Capturing**

After value has been created, it is important for the business to capture this value. Lepak et al. (2007) explain that some value may be lost or in some cases, shared with other stakeholders. Value capture, also termed value retention or value appropriation, deals with the amount of exchange value the customer has kept and retained by the organization in the form of profit (Bowman and Ambrosini, 2000).

Once value has been created, the viability of the service system depends on its ability to capture the created value. In other words, the service provider sustains its existence with the value it retains (Ritala et al., 2009). Thus, it can be asserted that sustainable value creation and capture is an imperative for viability of service systems. Harvard Business Review noted that when value capture goes unexamined, money is usually left on the table—and sometimes the only thing that can save a business is finding a way to capture value (HBR, 2014).

#### **Re-inventing Value Delivery**

As observed by Hassan (2012) loyal customers are key factor of success for businesses because they spend money, recommend to others and also repeat buy from the same business, as long as it delivers consistent value. This means businesses have to constantly think and rethink how they deliver value where it is needed to conduct business differently.

A business is therefore responsible for setting the value they seek to deliver based on their strategies and their customers' values. This means that they are responsible for communicating them and managing the change occurring in the market. Hassan (2012) highlighted that marketing

provides marketing strategies and tactics that are aligned with the overall strategies of the organization, to help deliver the best value to customers.

### **Why Business Model Innovation is important to small and medium agribusinesses**

Some authors have observed that firms in general can find it problematic, time consuming and risky to create and launch a new business model. They added that established incumbents find it difficult to respond to new entrants' business model innovations, but their implementation could make the firm more competitive (Björkdahl and Holmén, 2013).

We argue that for small and medium agribusinesses to survive the big agribusinesses in a globalized market, they need to innovate constantly. This innovation do not only have to happen in the products and services they offer, they have to innovate in their business model should they compete well.

With increased firm specialization in the agribusiness sector comes increase in the scope and ability of firms/agribusinesses to change their business models in part because of the bigger choice space "out there", related to the resources and activities they can draw on.

At the same time, the internationalization of markets and competition can lead to commodification of products which makes it more difficult for firms especially agribusinesses to charge premium prices for product superiority or to profit from superior manufacturing capability. Björkdahl and Holmén (2013) hinted that this is forcing many firms to rethink their business models because it is no longer enough to compete only on products or manufacturing processes.

## **3. Materials and Methods**

We used cross-sectional survey research design; which was analytical and descriptive in nature. Cross-sectional study examined the modes of business model innovations of agribusiness, which was principal variable of interest in the study. The study took place between April - August 2016 in Northern Uganda making it a cross-sectional study as observed by Olsen and Marie (2004). Descriptive research is used to describe characteristics of a population or phenomenon being studied (Kathori, 2004).

We used was both quantitative and qualitative in nature. It was chosen because it is flexible in enabling the collection of both quantitative and qualitative data. Tewksbury (2009) noted that quantitative research is that the focus is on using specific definitions and carefully operationalizing what particular concepts and variables mean. Kothari (2004) observed that qualitative approach is concerned with qualitative phenomenon—that is phenomena relating to or involving quality or kind.

We put Small and Medium agribusinesses in Northern Uganda fall in three categories – input, processing and output agribusinesses in Northern Uganda. We interviewed the owners, managers, operators, extension workers etc. of the agribusinesses. We sampled 79 agribusinesses and interviewed 205 respondents for this study. In the study,

Morgan table was used to obtain sample size. The Morgan table took care of the level of precision; level of confidence or risk and degree of variability was attained. The level of precision, sometimes called sampling error, is the range in which the true value of the population was estimated to be. This range is often expressed in percentage points, (for example  $\pm 5$  percent).

We used questionnaires to collect data. Kothari (2004) observed that a questionnaire consists of a number of questions printed or typed in a definite order on a form or set of forms. These questionnaires carried close-ended questions. The researcher also used interview guides to collect information from key informants. The interview guides targeted the owners or managers of the agribusinesses. These categories of people have more privileged information on the study variables that the regular employee may not have.

We measured the variables using a 5-point Likert scale. Likert Scale is a psychometric scale commonly involved in research that employs questionnaires. The researcher used the five response categories ranging from Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree; which are often believed to represent an Interval level of measurement. We adopted both the qualitative and quantitative methods to collect data so that no relevant data is missed out. Primary data were collected using questionnaires, interview guide while secondary data were gathered from existing literature.

We used Cronbach alpha to determine the reliability of data. Polit. and Cheryl (2006) noted that Cronbach's alpha reliability coefficient normally ranges between 0 and 1. From the Cronbach's alpha reliability coefficient gave a figure of 0.772. The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. George and Mallery (2003) provide the following rules of thumb: "> 0.9 – Excellent, > 0.8 – Good, > 0.7 – Acceptable, > 0.6 – Questionable, > 0.5 – Poor, and < 0.5 – Unacceptable". We analyzed data using SPSS and obtained descriptive statistical analysis. The main descriptive indicators that were employed were in terms of mean values and standard deviations.

## **4. Results**

### **Characteristics of respondents**

From the study, the age groups of respondents were as follows: 4.4% of the participants were under 20, 19.5% were between 20 – 24, 24.4% were between 25 – 29 years of age. Those who were 30 – 34 were 29.8%, while 16.9% were between 35 – 39, 40 – 44 were represented by 4.4%), and only 1.0% of the respondents were between 45 – 49 years of age. Majority of the respondents were male (60%), and the remaining 40% were female. Meanwhile, the educational levels of respondents were as follows: 1% did not attend any formal education, 21.4% attained primary education, 31.7% attained ordinary level secondary, 12.2% noted that they reached advanced level secondary, while 23.4% and 10% attained other institutions and University trainings respectively.

Type of agribusiness: 25.37% were input agribusinesses; agro-processing agribusinesses were 20.49%, while 54.15% were output agribusiness. Of all the people working with the above categories of the agribusinesses, only 27.32% had formal contracts while 72.68% had no formal contracts. Most of the respondents had worked for less than 5 years with the agribusinesses. Of the respondents, up to 54.63% had worked for less than 3yrs, while those who had worked for the agribusiness between 3 – 5yrs were 38.53%, and 6.84% had work for the agribusinesses for more than 5 years. Most of the agribusiness's total assets and annual turnover were under 200 millions Uganda Shillings (3700 Uganda Shillings = 1 US Dollars) while majority of the agribusinesses also employ between 5 – to people.

### **Modes of Business Model Innovations practiced by SMAs**

In the study, we examine the most prominent modes of Business Model Innovations practiced by Small and Medium sized Agribusinesses in least developed markets. The modes are in terms of altering Value Creation, re-engineering Value Capturing and re-inventing Value Delivery.

**Altering Value Creation:** To assess altering value creation among the small and medium scale agribusinesses, the response from the respondents were attained and the Likert scale was used to rate their responses to the statements passed to them. From the analysis, total of 82.21 percent of the respondents were in agreement with the statements of altering value creation while 9.51 percent and 8.29 percent of the respondents were neutral and were in disagreement with the statements about value creation respectively. In our study, the modes were the measure of business model innovates. This mode of the Business Model Innovation was the most understood amongst the respondents. As shown by the above analysis table, the average response value for value creation was 3.98 which is the highest compared to other modes of business model innovation.

**Re-inventing Value Capturing:** To assess re-inventing value capturing among the small and medium scale agribusinesses, the response from the respondents were attained and the Likert scale was used to rate their responses to the statements passed to them. From our analysis, a total 45.8 percent of the respondents agreed to the statements of re-engineering value capturing. Of the respondents, 37.03 percent were neutral to the statements of re-engineering value capturing. The remaining 18.97 percent of the respondents were not in agreement with the statements of re-engineering value capturing.

**Re-engineering Value delivery:**To assess the re-engineering value delivery among the small and medium scale agribusinesses, the response from the respondents were attained and the Likert scale was used to rate their responses to the statements passed to them. From our analysis, at least 65.78 percent of the respondents were in agreement with statements for re-engineering value delivery while 26.16 percent of the respondents observed that they were neutral to the statements on value delivery. The remaining 8.04 percent of the respondents did not agree with the statements on value delivery.

However, within value delivery, elements such as consideration for providing after sale services for any product delivered have not been a practice of Small and Medium Size Agribusinesses in the study area. However, from interviews, this practice is strong amongst the Small and Medium Size Agribusinesses that are engaged in input business. The kind of after sales services they practice include training of farmers on input use, setting up demonstration plots among others. It was observed that it was very difficult for input agribusiness to remain in business without practicing elements of value delivery. From the study, we examine the most prominent modes of business model innovations as altering value creation, re-inventing value capturing and re-engineering value delivery. Of these modes, the most prominently understood mode is the value creation with average response value of 3.98 (Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree). However, the three modes of Business Model Innovations are seen to be practiced by Small and Medium Size Agribusinesses in Lira with average response of 3.98, 3.02 and 3.56 for value creation, value capturing and value delivery respectively.

## **5. Discussions**

The modes are in terms of altering Value Creation, Value Capturing and Value Delivery. Of these modes, the most prominently understood mode is the altering of value creation with the highest average response value of 3.98. The study found that most small and medium Agribusinesses in least developed markets believed that creating value for customers helps sell products and services, while creating value for shareholders. The study found that altering value creation element of business model innovation is the most practiced by small and medium scale agribusinesses it in least developed markets and was in agreement by Hillstrom (2007) who observed that value creation is the primary aim of any business entity because it helps a company sell products and services, while creating value for shareholders, in the form of increases in stock price, insures the future availability of investment capital to fund operations.

From this research, SMAs were found to perform actions that increase the worth of goods to customers. Altering value creation had the highest response value of 3.98. This demonstrated that the actions performed by agribusinesses to alter value creation is also confirmed by Haehnel (2014) who found that businesses create value when they rethink their value systems and build businesses that customers love, employees' value and investors are excited about. From this study, it was evident that small and medium size agribusiness do put more emphasis altering value creation. This is inline with Zottand Amit(2010) who observed that emphasis has to be put on value creation when innovating business model. In this study, re-engineering value capturing had an average response value of 3.02, which was lower than response value for alternating value creation. This finding is supported by Harvard Business Review (HBR, 2014) which noted that innovation in value capture is very important yet sometimes a business can get away with failing to think about value capture if it sells plenty of its new offerings through existing approaches.

In this study, value delivered had an average response value of 3.56 lower than value creation but higher than value capturing. Overall, the small and medium scale agribusinesses innovatively practice value delivery differently. This study was in agreement with Hassan (2012) who observed that these days, a high level of competition and rapid changes in the market and technology make it complex for a company to sustain momentum without focusing on delivering the value that customers require. The study is also in agreement with Baden-Fuller and Haefliger (2013) who observed that in times of change, business need to rethink how they deliver value.

## 6. Conclusion

The most understood and practiced mode of business model innovation by small and medium agribusinesses in least developed markets is altering value creation. Agribusinesses believe that if they alter value creation such performing actions that increases the worth of goods to customers, having products which attributes fulfill customers desired goals or trading in products that create appropriate experience, feeling and emotions for the customers, they are more likely to co-exist with the larger agribusiness players. Re-engineering value capturing was the least understood and practiced mode of business model innovations in least developed markets.

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