

Assessing the impact of Business Model Innovation on Micro, Small and Medium Firm Performance

Abraham Osei¹ Owusu Ackah^{2*} Antwi Osei John³

1. School of Management & Economics, University of Electronic Science & Technology of China (UESTC), Chengdu, China. 611731
2. School of Management & Economics, University of Electronic Science & Technology of China (UESTC), Chengdu, China. 611731
3. School of Management & Economics, University of Electronic Science & Technology of China (UESTC), Chengdu, China. 611731

* E-mail of the corresponding author: ackah_owusu@yahoo.com

Abstract

The purpose of this study is to examine the relationship between firm's business model innovation and its performance. How micro, small and medium firms in Ghana creates value proposition for its customers. The study conducted an empirical investigation into this phenomenon. A linear regression analysis was conducted in order to test the hypothesis stated for this study. According to the regression outcome it proved that business model innovation has a positive impact on firms performance in the micro, small and medium enterprises sector of Ghana. Firms that are able to be innovative in its business model are able to gain access to new markets and revenue streams. Furthermore with the integration of customers into the value creation process it enables firms to deliver on its value proposition. And this aids in satisfying its current and potential customers.

Keywords: Micro, Small and Medium Enterprises, Business Model Innovation, Ghana, Value proposition, Firm Performance

1. Introduction

After the financial crisis in 2008 most firms were affected negatively in terms of profit margins and performance. This provided firms with the platform to develop new processes of conducting business so as to survive the financial shock and aftermath. Furthermore, the dynamic nature of the business environment has been a contributing factor for firm's business process change and restricting. Also for firms to survive and gain competitive advantage there is the essential need to improve its innovation capabilities (Ashton & Morton, 2005; Kular et al, 2008). For firms to be competitive it is critical it innovates not only technologically but also in its business model. This would enable firms to improve its value proposition to its customers (Hafeez, 2012; Chesborough, 2007).

Furthermore globalization and the establishment of multinational firms have increased the competition rate in the business environment. Also the risk associated has made the environment unpredictable leading to most firms fading out of business. And this mostly happens to micro, small and medium enterprises as compared to larger multinational firms. This is attributed to the fact that most micro, small and medium enterprises lack the managerial and technological expertise to design, develop and implement an effective innovative business model. This is due to the cost nature associated with it (Loch et al., 2008, Sanchez & Ricart 2010).

Therefore for firms to survive it is critical to be innovative so as to adapt to this evolving situation. Also the shift in customers' taste, attitude and expectation about firm's value proposition is also another factor that necessitate firms to be innovative in its business model. Innovative firms turns out to gain an increase in its market segment and reach. The quality of products can also be improved through this process. Firms develop new revenue streams, introduce new technologies, build harmonious business environment with other suppliers related with firm's value proposition development/creation process. The introduction of new cost-effective technologies enables small and medium enterprises gain both competitive advantage and an increase in revenue. And this has a positive impact on the firms performance and sustainability of that individual firm (Zott and Amit 2010, Casadesus-Masanell & Zhu 2013).

Although business model innovation research has recently got the eyes of academia research most of it has been focused on relatively larger enterprise mostly multinational firms. As compared to larger enterprises there has been little study as to how business model innovation is designed in small and medium enterprise respectively (Zott, 2011; Teece, 2011). Business model innovation is aimed at improving the value creation process of firms. It enables firms to improve product standard and quality, increase market reach and satisfy customers. Despite innovation is a costly process business model innovation is argued by some scholars to encompass all various activities within the firm internal and external partners. It is critical to create value within the entire supply chain so as to optimize the utility of resources (Lindgren, 2010; Afuah & Tucci, 2003; Morris et al, 2003; Osterwalder et al, 2004).

This paper examines the relationship between firm's technological-oriented business model and its performance. An assessment of micro, small and medium enterprises in a developing economy such as Ghana is used to provide empirical evidence for the study's objective. Also assess how technological-oriented business model would improve firms value proposition, maximize profit and satisfy customers. Section 2 of this study focus on theoretical background and hypothesis, section 3, focus on methodology of this study, section 4 presents statistical analysis and lastly section 5 the conclusion of the study.

2. Theoretical background and Hypothesis

In this dynamic business environment firms need to be innovative in order to survive competitive while retaining its competitive advantage. The advancement in technological innovation has presented firms with the opportunity of either join the innovation train or fade out of operations. Therefore it is critical for firms to tap into these technologies and knowledge available either internally or externally so as to survive in its business environment. Therefore when small, micro and medium firms are able to tap into these available technological resources it would enable them to carry out their business process effectively. That is firms can deliver its value proposition to customers in a more appropriate ways or channels that would satisfy its individual clients. Furthermore firm needs to develop a cordial relationship with other entities such as suppliers so as to stay abreast with current technologies and appropriate procedures for conducting business. This would reduce cost associated with waste and time and also have a positive impact on firm's performance and value creation process (Höhne 2005; Groenenberg 2002; Sijm et al. 2001; Coninck 2008).

Insofar, firms especially micro, small and medium enterprises in designing and implementing their business model need not only consider customers as argued by some scholars but should focus on the essential technology that would enable efficient implementation of its business model (Comes & Berniker, 2008). The implementation of new innovative idea would enable firms to reach a wider market, satisfy customers and also improve the performance of firms.

H1: firm ability to shift from traditional business model to a technology base business model is able to improve upon its value proposition leading to a positive impact on firm's performance.

Furthermore, it is the responsibility of firms to design and develop innovative products that suits the taste and attitude of its market target, segment and customers. This involves the process that firms adopt to deliver its service or product to its clients (Linder & Cantrell, 2000). In order for firms to increase customer loyalty and satisfaction there is the need to have the ability to anticipate the expected value and quality of targeted users. This would enable firms to deliver valued products through appropriate channels and mechanism. This further enhances the value creation process. Loyal customers turn out to repeat purchase of a particular service or product and increase firm's revenue. Also new sets of customers are acquired and this creates additional revenue stream for the firm (Teece, 2010; Baden-Fuller & Haefliger 2013).

Firms engaging in new innovative business model should consider the what, how, who and the cost involved in the innovation process. Also emphasis should be placed on customers since they serve as the source for firm's revenue generation (Chesbrough and Rosenbloom 2002; Hamel 2000, Magretta 2002).

H2: The firm's capability to anticipate and integrate customers needs and expectation contributes to firm's value creation process. This further has a positive impact on firm's performance.

3 Methodology

3.1 Research Method and Data Analysis

Section 3 presents the research method employed to collect and analyze data for this study. In order to arrive at our findings for this study an empirical method was adopted. Data for the purpose of this study was gathered through a field survey conducted among micro, small and medium enterprises in Ghana.

Furthermore in order to test the hypothesis stated and arrive at a relevant findings, there is the need to identify the variables (both dependent and independent variable). The dependent variable for this study is firm's performance. Further the independent variables used to test our hypothesis includes, Integration of customers in the design process (ICDP), adaptation of new technologies (ANT), gaining access to new market through new channels (ANMC), interaction with external suppliers with the value chain (ISVC), and improvement in firm's value proposition (IFVP).

Since this study is to examine the relationship between business model innovation and firm's performance in the micro, small and medium enterprise in Ghana a linear regression analysis was conducted using STATA version 12. Linear regression Model:

$$FP = a_0 + a_1 ICDP + a_2 ANT + a_3 ANMC + a_4 ISVC + a_5 IFVP + e$$

Where $a_0, a_1, a_2, a_3, a_4, a_5$ are the coefficients of the independent variables and represent the change in the firm's performance (independent variable) with respect to change in respective independent variables.

FP = Firm's Performance; ICDP = integration of customers in the design process; ANT = adaptation of new technologies; ANMC = gaining access to new market through new channels; ISVC = Interaction with external suppliers with the value chain; IFVP = improvement in firm's value proposition; and e = error term

3.2 Sampling Method

Choosing an appropriate sample for a study is essential if relevant findings are to be arrived at (Polit et al, 2001, Campbell, 1995). In this study a random sampling approach was adopted. Firms were choosing at random around various cities and geographical location of Ghana. Since most of the firms in Ghana can be categorized as micro, small and medium enterprise. All firms was asked same set of questions through the administering of questionnaires.

A total of 150 employees were asked to fill out questionnaires design for the purpose of this study.

3.3 Data collection and Measurement

The process of collecting data is a complex one that needs to be approached methodically. The purpose and objective of this study was explained to respondents in person upon first contact during the field survey. The consent of firms was sought before the questionnaires were filled up. The geographical proximity of firms within this industry made it ease to collect data from diverse firms. A total number of 150 respondents filled out questionnaires.

Data was collected within a period of six (6) months and entered into excel spreadsheet for storage. Data acquired was measured on a 7-point likert scale. In order to test the reliability of the data acquired through the survey the cronbach alpha value was tested. The alpha value obtained was 0.75, inferring that there is a significant consistency between responds.

4 Statistical Analyses

The empirical findings of this study are presented in this section. Below is the result of the linear regression analysis.

Table 4-1: Regression Analysis Output

Model	R-square	Unstandardized Coefficient		Standardized Coefficient	t-value
		Beta (β)	Std Error	Beta (β)	
1. ICDP	.442	.405	.011	.363	1.101
2.ICDP, ANT	.536	.332	.019	-.449	1.023
3. ICDP, ANT, ANMC	.589	.503	.046	-.522	2.503
4. ICDP, ANT, ANMC, ISVC	.656	.565	.056	.532	4.032
5. ICDP, ANT, ANMC, ISVC, IFVP	.725	.603	.066	.431	3.345

According to the statistical findings from our linear regression analysis it shown that all the independent variables to some extent had a significant influence on the dependent variable. The R-square value increased in each model signifying the significant influence individual dependent variable had on the dependent variable. The model 5 had the highest R-square value at 0.725 that is 72 percent (%) on the dependent variable. This shows that when firm innovates in its business model it has a significant influence on the performance of the firms in terms of new customer acquisition, customer satisfaction and an increase in firm's revenue. Also the adaptation of new marketing channels enable firms to improve on it value proposition.

This is due to the fact that new innovative business model enables firms to cut down cost and waste associated with its business both internally and externally. And this contributes to efficiency in how firms especially micro, small and medium enterprises carry out their business activities and processes. The hypothesis stated for this study was supported by our statistical findings.

5 Conclusion

The study focuses on the relationship between business model innovation and firm's performance in the micro, small and medium enterprises in Ghana. Due to the dynamic and complex nature of the business environment firms need to be innovative so as survive in both the short and long run whiles gaining competitive advantage. The study adopted an empirical approach where data was collected through field survey. A total of one hundred and fifty micro, small and medium firms was included in our survey. Furthermore, linear regression analysis was performed to examine the hypothesis stated for this study. According to the output of our statistical analysis it proved that when firms are about to innovate in its business model, it has a positive impact on its performance.

Although this study contributes to the field of literature on business model innovation and its impact on the performance of micro, small and medium firms there happens to exist some form of limitations. Some of the essential factors that were not considered in this study included the socio-economics dynamics of the various geographic locations that surveyed firms existed. Furthermore, data acquired was not large enough as compared to number of micro, small and medium enterprises in operation at the time of the study. Therefore making generalization of research findings a challenging one. Further studies should be conducted using relatively large sample size over a longitudinal period to examine how these effects change over certain time periods.

Reference:

- Amit R. and Zott, C. (2001) Value creation in e-business, *Strategic Management Journal*, Vol. 22, No. 6-7, pp. 493-520.
- Amit, R., & Zott, C. (2012). Creating Value Through Business Model Innovation. *MIT Sloan Management Review*, 53, 41–49. Retrieved from <http://sloanreview.mit.edu/article/creating-value-through-business-model-innovation/>
- Baden-Fuller, C., & Haefliger, S. (2013). Business Models and Technological Innovation. *Long Range Planning*, 46, 419–426. doi:10.1016/j.lrp.2013.08.023
- Bucherer, E., Eisert, U., & Gassmann, O. (2012). Towards Systematic Business Model Innovation: Lessons from Product Innovation Management. *Creativity and Innovation Management*, 21, 183–198. doi:10.1111/j.1467-8691.2012.00637.x
- Business 2010: Embracing the Challenge of Change, white paper, Economist Intelligence Unit, New York, February 2005, p.9.
- Loch, C., Zott, A. Guttman, P., Jokela, D., Nahmias, A., (2008), How to Translate a New Technology into a Business Model," Case no. 608-025-1(Fontainebleau, France: INSEAD)
- Casadesus-Masanell, R., & Zhu, F. (2013). Business model innovation and competitive imitation: The case of sponsor-based business models. *Strategic Management Journal*, 34, 464–482. doi:10.1002/smj.2022
- Chesbrough, H., and Rosenbloom, R.S. (2002) The role of the business model in capturing value from innovation: Evidence from XEROX Corporation's technology spinoff companies, *Industrial and Corporate Change*, Vol. 11, No. 3, pp. 529-555.
- Chesbrough, H. (2010). Business model innovation: Opportunities and barriers. *Long Range Planning*, 43, 354–363. doi:10.1016/j.lrp.2009.07.010
- Comes, S., and Berniker, L. (2008) "Business Model Innovation", From Strategy to Execution, Section 2, 65-86
- Hamel, G. (2000). *Leading the Revolution*. Boston: Harvard Business School Press.
- Hedman J., & Kalling, T. (2003). The business model concept: theoretical underpinnings and empirical illustrations. *European Journal of Information Systems*, 12(1), 49-59.
- Johnson, M.W., Christensen, C.M., Kagermann, H. (2008). Reinventing Your Business Model. *Harvard Business Review*, 86(12), 50-59.
- Linder, J. and S. Cantrell (2000). "Changing Business Models: Surveying the Landscape", Accenture Institute for Strategic Change.
- Magretta, J. (2002). Why Business Models Matter. *Harvard Business Review*, 80(5), 86-92.
- Matzler, K. (2013). Business model innovation: coffee triumphs for Nespresso. *Journal of Business Strategy*, 34, 30–37. doi:10.1108/02756661311310431
- McGrath, Rita gunter "Business Models: A Discovery Approach, "Long range Planning, Special Issue on Business Models, 43/2-3, April-June 2010, pp. 247-261

- Morris, M., Schindehutte, M., Allen, J. (2005). The entrepreneur's business model: toward a unified perspective. *Journal of Business Research*, 58(6), 726-735.
- Nenonen, S., and Storbacka, K. (2010), "Business model design: conceptualizing networked value cocreation", *International Journal of Quality and Service Sciences* Vol. 2 No. 1, 2010, pp. 43-59
- Sanchez, P., & Ricart, J. E. (2010). Business model innovation and sources of value creation in low-income markets. *European Management Review*, 7, 138–154. doi:10.1057/emr.2010.16
- Santos, J. et al. (2009) Toward a Theory of Business Model Innovation within Incumbent Firms, Working Paper version 20.03.2009. Fontainebleue: INSEAD.
- Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning*, vol. 43 Issue 2/3, p172–194.
- Tikkanen, H., Lamberg, J.-A., Parvinen, P. and Kallunki, J.-P. (2005), "Managerial cognition, action and the business model of the firm", *Management Decision*, Vol. 43 Nos 5/6, pp. 789-809.
- Zott, C., Amit, R., Massa, L. (2011). The Business Model: Recent Developments and Future Research. *Journal of Management*, 37(4), 1019-1042.
- Zott, C. and R. Amit (2010) Business Model Design: An Activity System Perspective, *Long Range Planning* vol 43, issue 2-3, pp. 216-226.