INCREMENTAL INNOVATION AND FIRM'S COMPETITIVE ADVANTAGE: A QUANTITATIVE ANALYSIS APPROACH

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ABSTRACT: *Incremental innovations add or sustain value by improving existing products and services. These incremental changes can be in response to evolving customer needs, or the result of ideas emerging from research labs or elsewhere. Most product and service innovation is incremental in nature. Incremental improvements enhance the efficiency and effectiveness of existing processes and practices. They are based on improving current business and management processes, such as planning, design, manufacturing, production, marketing and administration, supply chains, and communications. Despite the fact that many literatures have been done on incremental innovation, not much has been documented about how it affect a firm's competitive advantage in telecommunication and banking industries. The main purpose of this analysis was guided by its main objective which is to investigate the effect of Incremental innovation on a firm's competitive advantage. Explanatory research design was employed in this study. The unit of analysis comprised of selected service industries which entail 30 commercial banks and two telecommunication industries based in Eldoret, Municipality. A census survey technique was used to get the target population which consisted of a branch manager and four departmental heads from the selected service industries. Questionnaires were used to collect data and reliability was measured using Cronbach alpha coefficient which was above 0.80 for internal consistency. Descriptive and inferential statistics were used to test the hypotheses and analyze data collected. The results showed that, incremental innovation (β=.463, p<.05) did not support the null hypotheses indicating that incremental innovation is an important determinant of firm's competitive advantage. Managers are encouraged to be the lead-innovators and to employ the staffs who have passion to their work so as to yield greater creativity.*

KEYWORDS: Incremental innovation, Competitive Advantage and service Industries

INTRODUCTION

Firms mostly focus on incremental innovation in order to sustain their short-term financial goals (Young et. al., 2008). Research focus of firms' innovative activities has been on the developed markets where market supporting institutions such as financial intermediaries and information analyzers and advisers are well developed whereas in emerging markets, institutional infrastructure is underdeveloped and government continues to influence resource allocations hence affecting firm activities (Wang et. al., 2012). Incremental innovation plays a critical role in facilitating superior firm performance and competitive advantage in service firms (Chen et. al., 2009). Incremental innovation represents little departure from existing practices and technology which tend to be routine and instrumental. Political networking capability can be a source of competitive advantage for firms' innovative activities through receiving favorable financing and tax policies from government, (Lu et. al., 2008, Pacheco et. al., 2010) .therefore, the objective of these study is one fold in addressing this issue which is:**To determine the effect of incremental innovation on firm's competitive advantage**

LITERATURE REVIEW

Concept of Firm's Competitive Advantage

Competitive advantage is defined as the heart of a firm's performance in competitive marketing environments (Porter, 1980). It also means having low costs, differentiation advantage or a successful focus strategy in a firm. Competitive advantage grows fundamentally out of value that a firm is able to create for its customers in order to exceed the firms cost of creating it. The only way that firms can achieve competitive advantage is to create a competitive strategy which should be consistent with the trends in the firm's industry and appropriate to the firm's resources and capabilities which can be achieved through product innovation process (Porter, 2006).

Competitive advantage means that a firm can produce services or products that its customers value than those produced by competitors or that it can produce its service or product at a lower cost than its competitors. In order for a firm to prosper it must be able to capture the value it creates and retain sustainable competitive advantage (Saloner et. al., 2001). A firm that earns superior financial returns within its industry over the long run is said to enjoy competitive advantage over its rivals (Ghemawat et. al., 1999). As competition intensifies among firms and the pace of change accelerates, there is need to renew by exploiting existing competencies and exploring new ones (Floyd & Lane, 2000).

Organizations can gain competitive advantage by managing effectively for today while simultaneously creating innovation for tomorrow thus there is no more pressing of managerial problem than the sustained management of product innovation (Tushman & Nadler, 1986). They

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also identified that visionary leadership and people, structures and values as important factors that affect a firm from realizing its benefits from innovation. Innovation is still seen as a critical drive of economic performance. Service firms seek to differentiate themselves by providing better service quality and greater value, developing brands with strong reputations, and developing long-term relationships in order to achieve competitive advantage, and superior performance through market differentiation (Amonini et. al., 2010).

A firm's capability to perform in one or many ways that competitors find it difficult to imitate now and in the future creates competitive advantage (Kotler, 2000). Competitive advantage is a management concept that has been popular in the contemporary literature of management nowadays. The reasons behind such popularity include the rapid change that firms face today, the complexity of the business environment, the impacts of globalization and unstructured markets, the ever changing consumer needs, competition, the revolution of information technology and communication and the liberation of global trade (Al-Rausan & Qawasmeh, 2009). Market differentiation occurs when a firm creates a unique image in the market and achieves customer satisfaction and loyalty through meeting customers' needs and desires for competitive advantage purposes (Miller, 1987).

Firm managers evaluate and choose strategies that make their businesses successful by possessing relative advantage to their competitors. Competitive advantage is found in the business cost structure and the ability to differentiate the business from its competitors performance. Firms that create competitive advantage from one or both of these sources experience above average profitability while firms that lack a cost of differentiation advantage usually experience average or below average profitability within the industry thus competitive advantage will not be achieved (Pearce & Robinson, 2010).

Incremental Innovation and Competitive Advantage

Effective innovation has become a potentially valuable way of securing competitive advantage in a firm. The main aim of incremental innovation is to overcome the intrinsic ambiguity and it occurs when a new characteristic is added, eliminated or substituted but leaving the whole set of products and services unchanged. Incremental improvements to existing products, services and organizational routines can enhance performance, quality, and usefulness and are vital to making more competitively advanced products and services (Sciulli, 1998). This innovation is more apt to improve and extend the quality and added value of existing products that will satisfy current customers' needs and definitely the organization will realize competitive arganizat (Cao et. al., 2009).

Both internal and external sources of resources are critical to firms' performance and they suggest that innovative performance can be jointly affected by internal organizational capability

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and political networking capability in obtaining external resources (Dunlap-Hinkler & Mishra, 2007). Existing studies have argued that access to external resources can help a firm sustain innovative performance (Matusik & Heeley, 2005). According to Cohen & Levinthal (1989), research has treated external resources as those from partners, suppliers, competitors and the personnel mobility of scientists and engineers. Successful innovations in service industries rely on the understanding their customers through market information processing by accessing to market intelligence thus helps firms to modify their product mix to enhance their innovative performance (Maltz & Kohli, 1996). Firms pursuing incremental innovation build upon existing knowledge and extend existing products and services for existing customers in order to gain competitive advantage (Benner & Tushman, 2003).

Resource Based View Theory

The Resource Based View (RBV) theory by Birger Wernerfelt (1984) analyses firms from the resource side rather than from the production side. The theory provides that most products require services of several resources and most resources can be used in several products. It analyses a firms' resource position and strategic options that will apply in the relationship between profitability and resources which should be rare, valuable, non-substitutable and non-imitable as well as ways of managing the resource position over time (Barney, 1991, Peteraf, 1993, Hoopes et. al., 2003). It explains not only resource internalization for innovation but also the contribution of valuble, inimitable, rare and non-substitutable resources towards innovation-creating and value-capturing capabilities which provide competitive advantage (Eisenhardt & Schoonhoven, 1996; Lavie, 2006; Pitelis, 2007).

The focus on firm's internal structure with different resources and capabilities promotes competitive advantage (Furrer et. al., 2008, Hoskisson et. al., 1999). It also provides that the strength or weakness of a firm specifically depends on the resource of technological skill and a firm does enjoy the protection of a resource position barrier (Spence, 1979) thus indicating a potential for high returns to be able to gain competitive advantage. In this case, product innovation becomes a resource to a firm which should be positioned directly or indirectly to make it more difficult for other firms to copy (Porter, 2008). This study is therefore grounded in this theory because product innovation is a key predictor of competitive advantage. If studies have indicated that resource based view provides a platform for product innovation to take place, there is reason to believe that assessing innovation dimensions and its influence on competitive advantage will also have a bearing on firms' outcomes particularly in the service industry.

Senior managers in an organization should show that attention is an important driver of product innovation regardless of whether the focus of attention is specifically on innovation, on external events, or on the future (O'Connor & Veryzer, 2001; Yadav et. al., 2007). An effective leader

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exhibits specific leadership traits by recruiting, developing, and retaining employees who have the robust set of skills, knowledge, and mindset to drive radical innovation (Simon et. al., 2003).

METHODOLOGY

The study area was Eldoret Municipality in Uasin Ngishu County since majority of the service industries are haboured in the town. Explanatory research design was used in this study to establish the causal relationships between variables (Saunders et. al, 2003). Explanatory studies are designed to test whether one event causes another (Hair et. al., 2003). A census survey was also utilized to select the target respondents for the study. This study used both primary and secondary data and questionnaire was used to collect data the respondents for the study were a branch manager and four departmental heads in each service industry.

RESULTS

Response rate

A survey was conducted in service industries and data was obtained from branch managers and departmental heads investigating the effect of product innovation on a firm's competitive advantage. A total of 160 self-administered questionnaires were distributed to the respondents, out of which 135 were returned, representing 84.38% response rate and were used for data analysis.

Table 4.1: Respondents' Bio Data

		Frequency	Percent
	Female	56	41.5
Gender	Male	79	58.5
		135	**100**
	Below 30	22	16.3
	31-40	57	42.2
Age	41-50	42	31.1
	51-60	14	10.4
		135	**100**
	Diploma	3	2.2
	Bachelors	66	48.9
Education	Masters	64	47.4
	Doctorate	2	1.5
		135	**100**
	Less than 5	40	29.6
	5-10	45	33.3
	11-15	28	20.7
Experience	16-20	17	12.6
	Above 20	5	3.7
		135	**100**

Source: Survey Data (2015)

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Descriptive Statistics

Table 4.2 below describes the summary statistics for the variable included in the study. Competitive Advantage showed a mean of (4.33) and a standard deviation of (.62). This signifies that statements that describe competitive advantage are factual to the various organizations since majority of the respondents have the same opinion. Also, the study showed that the respondents concur on the statements describing incremental innovation with a mean of (4.13) and a standard deviation of (.71), This is a clear sign of dynamic and unpredictable business environment which influences the branch managers and heads of departments to encourage innovation in their firms.

Table 4 2: Descriptive Statistics
Summary statistics for firms (n=135)

	Mean	Std. Deviation
Competitive Advantage	4.3291	.62081
Incremental Innovation	4.1274	.71094

Source: Survey Data (2015)

Coefficient Results

This study employed regression analysis to explore the effect of incremental innovation on competitive advantage. Competitive advantage was thus regressed on the means of incremental, complementary and radical innovations. In addition, multi-colinearity was indicated not to exist on incremental as evidence of tolerance value less than one and variance inflation factor (VIF) more less than two. This showed that there was no high multi-colinearity between the variable. Table 4.3 shows the highest VIF of 2.0, which is well below the benchmark of 10 basing on (Cohen et. al., 2013; Hair et. al., 2010).

Table 4 .3: Coefficient Results

Model	Unstandardized Coefficients		T	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
(Constant)	1.439	.206	6.983	.000		
Incremental Innovation	.463	.064	7.275	.000	.530	1.886

Source: Survey Data (2015)

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Hypothesis testing

HO_1: The hypothesis postulates that there is no significant effect between incremental innovation and competitive advantage. It indicates that incremental innovation has a positive and significant effect on competitive advantage [β=.463, t=7.275, p-value<.05]. This indicates that a unit change in incremental innovation leads to 46.3% change in competitive advantage. Thus null hypothesis was rejected.

CONCLUSION

The study established that incremental innovation is of essence if competitive advantage is to be realized. Employees in service industries should take an initiative of leaning about new products and services that emerge in the markets and they should be trained well on innovation. This also helps to improve organizational performance thus competitive advantage is recognized.

CONTRIBUTION TO ACADEMIC DEBATE

Resource Based View theory (RBV) advocates for resource internalization in innovation. This theory states that organizational products and services (resources) should be valuable, rare among firm competitors, inimitable, non-substitutable and resource durable. The study indicates that in order for firms to gain competitive advantage they must adopt incremental innovations in their organizations. The study concurs with this theory since firm's products and services should be valuable, rare, non-substitible, in-imitable and resource durable. The study also extends the theory by adding a characteristic of cost leadership in products and services.

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