

Strategies for Entrepreneurship and Market Innovation by KIBS in Developing Economies: Inclusive agenda for opportunity creation

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Abstract

This paper investigates the strategies for entrepreneurship and market innovation by Knowledge-Intensive Business Services (KIBS) in developing economies. KIBS are specialized services that involve economic activities which are intended to result in the creation, accumulation or dissemination of knowledge. A framework is built in which KIBS small and medium sized enterprises (SMEs) employ radical innovation or market pioneering strategy for market innovation. Knowledge for market innovation can be obtained from the formal and informal institutions. Four hypotheses are developed and tested. The quantitative approach using survey method is used for data collection from 510 SMEs in KIBS sector of Lagos at firm level. The results suggest that the main strategy for new market innovation is market pioneering and the knowledge is acquired from informal institutions. It is recommended that the informal institutions be recognized as a significant part of institutional system on innovation in developing economies. The findings could assist in formulating policy agendas for promoting market innovation by KIBS SMEs in developing economies. This paper contributes to the growing body of literature in entrepreneurship by providing a better understanding on the formal and informal institutional sources of knowledge as related to market innovation by KIBS SMEs in developing economies.

Keywords: Institutions, new market innovation, developing economies, SMEs, Knowledge-Intensive Business Services (KIBS).

INTRODUCTION

Scholars have referred to opening of new market as a type of innovation but limited attention and emphasis is being given to it in comparison to product and process innovations (Liebermann & Montgomery, 1988). Moreover, the few available studies are mainly on USA, UK and Europe until recently when some researchers began to give attention to developing economies (Egbetokun, 2011). Firms attract resources for innovations as entrepreneurial activity and growth strategy but it was discovered that the existing research on New Market Innovation (NMI) (Lieberman & Montgomery, 1988; Feeser & Willard, 1990) are on large firms with few on SMEs which are conducted in developed economies context. There is none on knowledge-based industries and strategies employed for NMI in developing economies including Nigeria. However, the present global economic crisis has diverted more researchers' interest to developing economies especially with the prospects and dynamism arising in countries like China, India (Smith, 2002), Nigeria and so on.

Researchers (Schumpeter, 1996) argue that entrepreneurship and innovation is the primary reason for the existence of knowledge-based firms. The idea of Knowledge-Intensive Business Service (KIBS) firms originated from Miles et al. (1995) to describe private firms that generate, collect, analyse and distribute knowledge with the purpose of providing customised proficient service solutions to issues that client firms are unable and unwilling to develop (Brown & Roundtree, 2002). KIBS emerged as a powerful sector whose importance is rising in many economies since the 1980s. It currently represents over 60% of the Gross National Income (GNI) in most developed countries with lesser percentage in developing economies

but a dynamic factor in manufacturing and human resources industries performance in many countries (Hazdra, 2010). However, the recent report about knowledge economy stated that more than 20% of UK GDP is KIBS and comfortably the largest singularly growing sector of UK economy (Sissons, 2011). This development is not restricted to developed economies but also in developing economies. For instance, KIBS contributes 40% to GDP in Uganda; 50% in Zambia; over 60% in Korea and Brazil while in Nigeria, it contributes about 30% to GDP (ILEAP, 2009). Its entrepreneurial nature attracts researchers' attention.

However, the starting point of this study is the Schumpeter's theory of entrepreneurship with a focus on the 'innovation' concept (Schumpeter, 1996) in KIBS firms. Schumpeter, nevertheless, considers the entrepreneurial innovation as new combinations that includes introduction of a new product, a new process, opening of new market, development of new sources of supply of raw materials, and a new form of organization as the propeller of the capitalist system (Schumpeter, 1934). Entrepreneurship and innovation are inseparable concepts, though Shane and Venkataraman (2000) attempted describing entrepreneurship basically as the conversion of opportunity that is discovered and exploited to a commercial process while the exploitation of new ideas for business purpose is innovation (Shane & Venkataraman, 2000). Schumpeter (1996) perceived a healthy economy as one that 'experiences continual disruption by technological innovation, producing 50 year cycles of economic activity' (Burns, 2001:51). He further argued that each of the cycles was distinctive and the upswing in a cycle began at new innovations arrival that resulted into clusters of industries. Thus the recent crave for a knowledge-based economy in developing economies becomes an opportunity being exploited by the KIBS industries in Nigeria.

All innovation generally depends on the possibility of a market where it can be converted to economic rent whether in an existing market or by creating a market where none existed (Mitra, 2012). Schumpeter did not also explore the strategies for market innovation and the source of knowledge for market innovation (Akoni, 2011). This made knowledge and theories about market innovation to be lacking in the literature (Tidd & Bessant, 2009).

An appeal is made in this paper to the institutional theory as it emerged in the literature of entrepreneurship (e.g. Ahlstrom & Bruton, 2002; Peng, Wang & Jiang, 2008) to provide a single theoretically consistent framework that answers the questions. It can be assumed that for any entrepreneurial activity, the institutions within the context have a great role to play in the act of 'creative destruction' especially in terms of strategies to implement innovation. Despite the setting of the formal and informal institution of the developing economies (Acs & Virgill, 2009) little is known about the institution that promotes innovative strategies since the two institutions run in tandem. Nevertheless, Nakamura (2000) emphasizes the importance of enabling institutions in making innovative activities thrive especially in the marketplace.

The main strategies for innovation by opening of new market within or outside the country are either a radical innovation (RI) (Christenson, 1997) or Market Pioneering (NMP) (Liebermann, 1998). They are predictor of survival in new market innovation (NMI) which is basically driven by geographical expansion into market (Klepper & Thompson, 2006; Sutton, 1998). This is crucial in explaining different empirical facts about firm growth strategy. KIBS firms' usually employ any of these two strategies to open a new market.

The market is the bridge that connects the societal needs and economic pattern of response to innovation (Christensen, 1997). Wong et al., (2005) considered market innovation as the introduction of any new economic activities to the market place by an established firm entering into a new or existing market or industry imitatively or innovatively. Innovation in this context is not just about serving mature and established markets but essentially the opening of new market opportunities (Tidd & Bessant, 2009). Thus, Shane and Venkataraman (2000) claimed that entrepreneurship's attention to wealth creation centres on discovering new and emerging opportunities in the marketplace, while Kuratko and Hodgetts (2008) supported the notion that innovation comes from a conscious and purposeful search for new opportunities in different ways to penetrate into new markets. An emphasis therefore is placed on the need of the market for opportunity creation for the KIBS entrepreneurs as well as the clients. The market thus poses to be the end-result for both the buyer and the seller.

The main objective of this paper therefore, is to investigate the strategies for entrepreneurship and market innovation by Knowledge-Intensive Business Services (KIBS) in developing economies as an inclusive agenda for opportunity creation. A framework is developed to show the strategies for new market innovation. The study is considered at the local dimension of Lagos, Nigeria. The rationale for choosing Lagos is because it has the highest concentration of financial and educational institutions in Nigeria (Uzowanne, 2011), thereby making it more suitable for addressing the research problem of this study. The prior argument has established that the time is ripe for such a study to investigate the strategies for entrepreneurship and market innovation by KIBS SMEs as an inclusive agenda for opportunity creation in developing economies so that the findings can be generalised to similar cities like Lagos in developing countries.

The quantitative approach was adopted for data collection from 510 SMEs in KIBS sector of Lagos, Nigeria at firm level. The result suggests that most KIBS SMEs employed the NMP strategy rather than radical innovation (RI). Furthermore, the informal sources seem more strategic in supporting the needs of KIBS SMEs for market innovation. They serve as the major source of acquiring knowledge for opening of new market. Thus, the informal system should be given recognition as a significant part of the institutional

system that has impact on innovation in developing economies. The findings of this study could assist in formulating policy agendas for promoting market innovation, based on the use of knowledge acquired from the formal and informal sources by KIBS SMEs in developing economies. This paper will hopefully contribute to the literature on new market innovation (Feeser and Willard, 1990; Lieberman and Montgomery, 1988; Schumpeter, 1934) and institutional perspective of entrepreneurship in developing countries (Baumol, 1993 ; Sautet, 2005) by providing a better understanding of the strategies of the formal (FI) and informal institutional (InFI) sources of knowledge that are related to market innovation by KIBS SMEs in developing economies. The paper is organized into sections as follows. In sections 2 and 3, the research objectives and literature review and theoretical basis are stated. Section 4 discusses the empirical results; section 5 presents the discussion and conclusion.

RESEARCH OBJECTIVES

The main objective of this paper is to investigate the strategies employed for entrepreneurship and market innovation by KIBS in developing economies. This objective will be achieved by answering the following research questions: What strategy is employed for KIBS market innovation in developing economies? What strategic sources are mainly used in acquiring knowledge for market innovation in developing economies?

LITERATURE REVIEW AND THEORETICAL BASIS

New Market Innovation (NMI)

Market is important in developing economies (Acs & Virgill, 2009) as most of their innovations are mere transfer of innovation from developed countries into another market (Eurostat/OECD, 2005). For instance, in Kenya and Nigeria, “re-pats” (returning emigrants) are discovering new opportunities (entrepreneurial) in their home countries and returning in considerable numbers as social entrepreneurs and entrepreneurs to contribute to telecommunications, financial services and other sectors (Uzowanne, 2011). Thus, the relevance of the strategies for entrepreneurship and NMI in the developing economies context.

New market innovation is described as an innovation (Klepper & Thompson, 2006) that fosters market creation because it creates opportunities for entrepreneurs to operate (Acs & Virgill, 2009). The Oslo manual (2005) differentiated it from other types of innovation by its main objective to increase the volumes of sales or market share which consequently affects the firm’s size and profitability. It is a unique innovation in its capacity to facilitate expansion into other geographic areas. According to some authors (e.g. Feeser & Willard, 1990; Klepper & Thompson, 2006), it enables SMEs to capture new market share, increase the

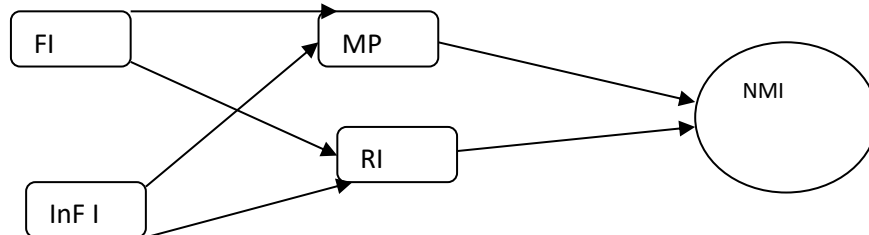
firm's size and boost profitability (Feeser & Willard, 1990; Klepper & Thompson, 2006). NMI is a significant form of innovation because the commercialization of application takes place in the market for profitability (Mitra, 2012). The actions necessary for such outcomes include strategies like NMP, radical innovation and a range of other views which are all directed at understanding and undertaking the process of market innovation.

Market innovation is critical to firm growth, and therefore, need to expand from one place to another by introducing their services to any existing market, or new group of users or create a new market where none exists satisfying unfulfilled needs of the community to become a knowledge society. KIBS sector has become very notable in this millennium and they use the Small and Medium sized Enterprises (SMEs) as main actors since SMEs are often perceived as an 'engine of innovation'.

A frame work is developed to explain the strategies employed for NMI in developing economies and that KIBS SMEs derived knowledge for NMI from two strategic sources: Formal Institution (FI) or Informal Institution (InFi) to use either NMP or Radical Innovation (RI) for the NMI (see figure 1 below).

Figure 1:

Framework for Strategies for New Market Innovation



Source: Developed by Adeyeye (2014)

Market Pioneering (MP)

Market pioneering is a strategy for NMI whereby firms enter a market as the first to exploit opportunities in an existing or non-existing market, in a way that thwarts other firms' attempts to compete in that market (Lieberman & Montgomery, 1988). It is the exploration of the early-entry strategy by a firm as the first to exploit opportunities in an existing or non-existing market to gain

the first-mover advantages in order to meet customers' need, increase market share and make positive economic profit (Mitchel & Skrzpacz, 2011). Previous research showed that the first product/service to be introduced in a market receives an unequal attention in the customer's mind (Lieberman & Montgomery, 1988). Moreover, Song et al. (1999) posited that pioneering firms stand to gain many advantages. They are able to capitalize on economies of scale and scope, establish leadership status among customers, capture the best perceptual points or distribution outlets and gain a giant market share. Basically, SMEs may choose to be pioneers because such a strategy can bring profitability by creating a monopoly (barricaded entry) or a clever implementation to make imitation unprofitable for subsequent entries (Caves, 1984). Pioneering firm does not necessarily mean that all about innovation and business practice is rosy. There is the dark side of pioneering; first, it is really costly (Robinson et al. 1994) as late-movers free ride on first-movers investment because imitation cost is lesser. Innovative and entrepreneurial firms like KIBS SMEs have the capability for NMP with sustainable first-mover advantages.

Radical Innovation

Radical innovation is another strategy for new market innovation but disruptive in nature. It is the commercialization of products/technologies/service/method in such a way that the impact renders existing ones obsolete and non-competitive in the market (Mitra, 2012). It is also a strategic approach on a product/service to fit a market niche in a new or existing un-served market by existing firms in the industry (Christensen, 1997a; Tidd, Bessant, & Pavitt, 2005).

This implies that as consumers use the new product/service they abandon the former and shift over to the new probably because of equal or better value and cheaper price thereby causing disruption in both the market and economic system. For example, the market for mini-computers and main frames was disrupted when consumers shifted to personal computers market (Christensen, 1997a). However, Baiyere, Haken, Westgeet, & Ratingen (2011) in their study argued that disruptive innovation strategies should be context-dependent. KIBS involvement in specialized services in developing economies as against the general service firms makes its impact to be the same as in the developed economies. Radical innovation is often a product of R&D and is often protected by Intellectual property rights (trademarks, plant patent, design patent, copyright law and others) (Maurer, Hugenholz, & Onsrud, 2001). A new product or service gains a foothold in the market only when there is a diffusion of similar products and the gradual evolution of dominant designs or technologies. Market and technological uncertainties may arise due to shifts in technology and changes in customers perceptions or wants leading to 'creative destruction' (Schumpeter,

1934). Beyond any consideration of the advantages and disadvantages of innovativeness is the need to achieve and sustain a competitive position arising from radical innovation.

Formal and Informal Sources of Knowledge for NMI

KIBS SMEs require knowledge in order to employ either the market pioneering or radical innovation strategy to enter (Svetina & Prodan, 2008) a new market. Firms can interact in various ways to access knowledge and mechanisms outside their boundaries in the institutions to enable acquisition, dissemination and production of knowledge (Muller & Doloreux, 2009). Institutions are governance mechanisms that regulate the way things are done in an economy. They can foster and also constrain the exploitation of opportunities in such environment. Institutions in the developing economies are often formal and informal in nature (Zenger, Lazzarini & Poppo, 2002). This polarisation of institutions in developing economies is strategic in nature as it gives recognition to every positive player in the society. Formal institutions are officially regulated with legal backing while informal institutions are privately operated in accordance to the norm of the people. It is acknowledged (Svetina & Prodan, 2008) that the more KIBS SMEs access external sources of knowledge the more resources are available for expertise disposal to enter a new market. Consequently, the more they will be able to meet the increased development and speed especially in ICT as it affects KIBS. Moreover, it will afford opportunity to meet the increased need of professionals for the dynamic change in the global KIBS industry and also complement firms' internal resources for NMI.

The formal institutions sources include Universities, research institutes, external Research and Development, conferences, workshops and seminars; networking (inter-firm collaborations and alliances); partnership with institutions, business associations (den Hertog, 2000; Muller & Doloreux, 2007) and so on. The informal institutional sources include the information from lead clients, suppliers of equipment and materials, network of friends, families and others, personal contact by questioning and administering questionnaires, interactions at parks, markets, clubs, bus stops and other public places, the Internet and literature (Pedersen et al, 2002; Svetina & Prodan, 2008). These players are willing to invest necessary information in the entrepreneur for NMI. These are basically forms of knowledge acquired by trust. All these avenues are available for the KIBS firms to acquire adequate knowledge required for efficient and effective MP for NMI in developing economies. Hence the following null hypotheses were formulated:

Ho1: There is no significant relationship between the strategic use of formal sources of knowledge acquisition and Radical Innovation for New Market Innovation by KIBS SMEs in developing economies.

Ho2: There is no significant relationship between the strategic use of informal sources of knowledge acquisition and Radical Innovation for New Market Innovation by KIBS SMEs in developing economies.

Ho3: There is no significant relationship between the strategic use of formal sources of knowledge acquisition and Market Pioneering for New Market Innovation by KIBS SMEs in developing economies.

Ho4: There is no significant relationship between the strategic use of informal sources of knowledge acquisition and Market Pioneering for New Market Innovation by KIBS SMEs in developing economies.

RESEARCH METHOD

This study seeks to find the relationship between formal and informal institutions and new market innovation by KIBS SMEs in a developing country. It therefore employed the quantitative research design which is mainly the product of statistical summary and analysis. Lagos was the study area. It has the highest concentration of businesses, industries and higher educational institutions in Nigeria which made it most relevant in addressing the research problem of this study (Uzowanne, 2011). For instance, there is the ‘computer village’ at Ikeja that is a cluster of all forms of ICT related products, general services and KIBS SMEs (Uzonwanne, 2011). It is a renowned market patronized nationally and internationally (Uzonwanne, 2011) by Europeans, Asians and Africans. A survey was carried out with a self-administered questionnaire. A ten-point likert-scale with close-ended questions was used except for the demographic section. Each item has ten responses in which respondents have to indicate: (0) Not Applicable, (1) ‘Not Important at all’ to (10) ‘Very Important’. The highest is ten while the lowest is zero points respectively. Data collection was done in 2012.

Sampling

The population frame for the study is all registered KIBS SMEs in Lagos constructed from Nigerian Yellow Pages (2011) and Nigeria Search Engine (2011) which are the commonly used business directories in Nigeria. The population frame consisted of 871 KIBS SMEs with 510 falling into this criteria that the firms must be KIBS SMEs with number of employees less than 250 to ensure they are not corporate organizations. They must be registered and located in Lagos, and be young firms of 20 years and below (Lindholm, 1999; Sæmundsson, 2003) to guarantee being KIBS SMEs with reasonably high innovative behaviours.

The census-based method was adopted to enable all the samples to be involved in the survey in order to have a robust result. There are 510 respondents that accounted for 100% of the sample at the end of the analysis. The empirical research was carried out in two ways: a pilot study and the main survey on external strategies for market innovation by KIBS SMEs. There were three questions with 22 items to collect data on strategies for NMI during the period 2006-2011. Attention was particularly given to information relating to formal and informal sources of knowledge that enabled NMI. Respondents were to rate the sources in order of importance for NMI. The samples were mainly for SMEs thus making the measures relevant for this study. The result is based on maximum level of risk that is usually taken in social science research as

$p < 0.5$ level (Bryman & Bell, 2011). The descriptive analysis, factor analysis, correlation table and regression analysis is carried out to test the hypotheses.

Empirical Results

The Dependent Variable: *New Market Innovation*

To measure new market innovation, respondents were asked to indicate the numbers of new markets they opened (see table 1 below).

Table 1: Measurement Indices for New Market Innovation.

Year	2006/7	2007/8	2008/9	2009/10	2010/11
Number of new places in Nigeria has your company expanded to carry out project/ have branches?					
Number of new places in outside Nigeria has your company expanded to carry out project/ have branches?					
Number of new customers who have not been using your services/product in Nigeria has your company introduced and they accepted.					
Number of new customers who have not been using your services/product outside Nigeria has your company introduced and they accepted.					

This was considered a useful measure of new market innovation. Variable taking the value of ‘1’ was used, if it applied and ‘0’, if not applicable. Firms with not applicable (N/A) in any year are rated ‘0’ while those with number(s) of new markets scored ‘1’.

Independent Variables

Market Pioneering (MP)

Liebermann and Montgomery (1998) argued that newness of a product/ service is a significant variable to gain acceptance in marketplace. Hence for the purpose of elaborations and enhancement, 7 items were employed to describe ‘newness’ in terms of opening of new market at the pioneering status as commonly used in a number of innovation studies (Johannessen, Olsen, & Lumpkin, 2001; Mueller, Titus, Covin, & Slevin, 2009) as a measure of innovative activities (Johannesson et al., 2001; Abubakar, 2009). Factor analysis was carried out to eliminate possible multicollinearity and reliability test was done (see table 2 below).

Table 2: Factor Analysis Result on New Market Pioneering

Factor 1: Newness as Market Pioneers	
Newly introduced to the country	0.80
Newly introduced to the firm	0.81
Newly introduced to the market	0.77
New to a group of people as customers /client firm	0.83
Newly introduced to the environment	0.60
Improved version of a previous product/service	0.71
Presented in a different ways from other firms	0.72

Explained variance by the factor: 56.9% KMO.83 Chronbac alpha .86	
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KIBS SMEs can score ‘0’ or a maximum score of ‘7’. Thus, no matter the level of ‘newness’ as long as it is first to the market it takes the value (1). An item that takes the value of (1) was used, if the items applied and (0), if not applicable.

Radical Innovation

Thus, we identified radical innovation by six items commonly used to measure the Intellectual Property Rights (IPRs). Factor analysis was carried out to eliminate possible multicollinearity and reliability test was done (see table 3 below).

Table 3: Factor Analysis Result on Radical Innovation

Factor 1: Radical Innovation	
Plant Patent	0.78
Design Patent	0.94
Copyright	0.92
Trademark	0.94
TRIP (Trade Related Aspects of Intellectual Property)	0.94
Secrecy	0.36
Explained variance by the factor: 95% KMO .61 Chronbac alpha .74	

KIBS SMEs can score ‘0’ or a maximum score of ‘6’. Radical innovation can be disruptive as they offer something new to the world and replaces existing methods (Christenson, 1997). Thus, it takes the value (1) if a firm has trademarks, plant patents or design patents or copyright that protect databases under copyright law (Maurer et al., 2001), or Trade Related Aspects of Intellectual Property Rights (TRIPS) or Secrecy as enforced by labour or contract laws (Levin et al., 1987), and (0), if not applicable.

Formal and Informal Sources of Knowledge for NMI

A construct “external sources of knowledge” was designed with 19 measures in the questionnaire taken directly from Svetina & Prodan (2008) but classified into formal and informal institutions (see table 4 below).

Table 4: Factor Analysis Result for External sources of knowledge resources: Formal and informal

Factor 1. 1: Formal Sources of Knowledge	
R&D outside the firm	.77
Partnership /collaboration with other firms (National)	.84

Partnership /collaboration with other firms (International)	.79
Interaction with public institutions - Universities and research institute	.74
Conferences, workshops and seminars in Nigeria	.71
Conferences, workshop and seminars outside Nigeria	.77
From industry association and trade unions	.72
<i>Explained 58.3% of the variance (KMO.85; Chronbac alpha .88)</i>	
Factor 2. 1: Learning through Personal Contacts	
Personal connections to known people	.82
Personal contact by asking questions, investigations or survey	.81
Knowledge from informants	.84
Personal invitation to come over	.78
Interactions with suppliers	.64
<i>Explained 47.11% of the variance (KMO.87; Chronbac alpha .88)</i>	
Factor 2 .2: Learning from local linkages	
Information from friends and family members	.62
Imitation of other competitors	.85
Connections from towns meeting	.87
<i>Explained 13.14% of the variance (KMO.87; Chronbac alpha .76)</i>	
Factor 2. 3: Learning through Public places and Literature	
Literature	.86
Webs & Internet	.86
Interactions at public places like bus stops, market, church, mosques, parks, clubs etc	.50
Interactions with customers/client firms	.56
<i>Explained 9.31% of the variance (KMO.87; Chronbac alpha .83)</i>	

There were nine items for formal sources of resources with minimum score as ‘0’ and maximum ‘9’. There were 10 items for informal sources of resources with minimum score as ‘0’ and maximum ‘10’. 3 factors emerged under the informal sources of knowledge resources: The first factor is ‘learning from personal contacts’ (Den Hertog, 2000) which explains 47.11% as it represents personal interactions with known people, informants, suppliers, clients, enquiry or survey. The reliability score is .88. The second factor could be interpreted as ‘learning from local linkages’ (Svetina & Prodan, 2008) which explained 13.14% with Chronbac alpha .76. This factor mainly related to KIBS SMEs’ learning through networking, collaborations and collective reflections of families, local friends, town mates and imitations of other local competitors which are necessarily not explicit and cost involving. The last factor represents ‘learning through public places and literature’ (Den Hertog, 2000) 9.31% with .88 reliability coefficients which provided KIBS SMEs knowledge from interactions at parks, markets, clubs, bus stops and others, the Internet and literature.

The Control Variables

NMI depends on various factors. In this study the firm’s age and size as commonly used in previous authoritative studies (example, Muller et al, 2009) are to be kept constant in order to reduce probable distortion of the estimated outcomes. Thus a regression analysis was performed (see table 5 for details).

Table 5: Regression results of external knowledge sources of resources for RI and NMP

	Model RI	Model NMP
Constant	-6.020E17	-.104 -(1.290)

Formal sources of knowledge resources	.276 (4.566) ***	.274 (4.508)*
Informal –Personal Contact	.156 (3.450)	.159 (3.525) ***
– local linkages	.093 (1.951)*	.101 (2.135)**
--Public places and literatures	.229 (1.863)	.235 (4.900) ***
Controls		
Age	.047 (1.233)	.015 (.368)
Size	.104 (1.624) *	.104 (2.624) **
R ²	.382	.394
Adjusted R ²	.396	.386
F	39.589***	44.884***

Note: ***, ** * denotes significance at 1%, 5% and 10% respectively. Values of the t-statistics are indicated in parentheses. The sample size used for calculations is 510 KIBS SMEs. Reference categories for control variables are age 1-20yrs and size (average numbers of employees in 2006-2011).

The findings reveal that 54 of KIBS SMEs (10.6%) respondents use the radical innovation strategy for NMI while 458 (89.4%) used MP strategy for NMI .The regression analysis result showed that radical innovation explained 39.6% of the model and significant at $P < .01$. The 54 respondents that use radical innovation strategy for the NMI basically employed the internal R&D with collaborations with other firms from the formal institutions. The informal institutional model is insignificant. Thus, the null hypothesis Ho1 is rejected while Ho2 is accepted. Therefore, there is a significant relationship between the strategic use of the formal sources of knowledge acquisition and RI in KIBS SMEs in Nigeria.

Moreover, the regression analysis also revealed that the MP explained 38.6% of the model and both formal and informal institutions are significant at $P < .05$. Thus, the null hypothesis Ho3 is accepted while Ho4 is rejected. The uses of the informal sources of knowledge acquisition were found to have a positive association with MP strategy. That is, the informal sources of NMI knowledge acquisition in terms of learning through personal contact, local linkages and public places and literature are significant.

This indicates that informal sources of NMI knowledge acquisition have very high impact on MP. While controlling for firms' age and size, the firm's age is insignificant while size is significant at $P < .05$. This indicates that firm's age has no effect on use of external sources of knowledge resources for MP while the size of KIBS SMEs are significant to learning from informal sources (such as networking through personal contact, local linkages and public places and literature are significant at .01, .05 and .10 respectively for

MP. This implies that the informal sources of knowledge acquisition are more significant sources of resources for MP by KIBS SMEs in Lagos irrespective of the firm's age.

Similar to previous studies (Cohen & Levinthal, 1989; Pedersen et al, 2002; Svetina & Prodan, 2008), this research found that the use of external knowledge resources is associated with innovation. It supports the need for external sources of resources to enhance firm performance and innovative activities. Previous studies do not examine which of the external knowledge institutions, whether it is the formal or informal could possibly be the main source of these resources. The original contribution of this therefore study is therefore that the ability for MP is strongly associated with the informal sources of knowledge resources. This indicates that the use of personal contact as a sort of network to access knowledge as well as information from public places and literatures are very important for MP in Lagos. These may be as a result of some complex non-market factor in developing economies (Ayeetey, 1998) where the informal network becomes vital due to some socio-cultural and environmental interaction.

Moreover, formal sources of knowledge is significant at $P < .01$ for radical innovation. This stresses that irrespective of the size of the firm, the formal institutions are strategic to radical innovation in knowledge acquisition for NMI. That is, knowledge acquired from universities, research institutes and other knowledge institutions that are dynamically engaged in research, acquisition and dissemination of knowledge for innovation in the business environment are very essential for NMI strategies. Knowledge staff in KIBS SMEs are resourceful, independent and highly skilled enough to influence and design necessary instruments (Kefela, 2010) needed to obtain knowledge resources for NMI. Also, it suggests the need for the country to strengthen the educational base from the basic level to the higher end along the lines of innovation (Scramm, 2004) to meet the rising manpower needs of KIBS SMEs' in this contemporary knowledge economy. However, this study found that informal sources is highly significant ($P < .01$) with or without controlling for size and age of firms for MP.

The unique contribution of this research is that the formal is strategic for RI while the informal are strategic sources of knowledge acquisition for KIBS SMEs though the informal seems to be more strategic for MP. For instance, Scarso & Bolisani (2012) state that KIBS SMEs offer valuable elements of technical and application knowledge to clients while clients also supply knowledge exchange ingredients for designing a successful KIBS solution for NMI. Thus, in Lagos, the use of networks through personal contact (with clients, suppliers etc.) and information gathering from public places like parks, mosques, churches, tribal meetings, literature and the Internet are highly strategic and significant for MP.

Furthermore, Lagos infrastructural development formally and informally has an impact on firms' in the city for KIBS SMEs to exploit for MP. The reason for this might possibly be because networks are important in overcoming some information failures associated with MP in Lagos (Scramm, 2004). Also, the peculiarity of Lagos as a result of the complicated non-market social, cultural communal background and environmental interface facilitates the usefulness (Aryeetey, 1998; EfInA, 2011) of informal sources. Thus, in answering the research questions, it could be stated that the strategy employed for NMI is MP using informal sources of knowledge acquisition in Lagos. The more knowledge acquired from the informal sources of knowledge, the more the ability to pioneer new markets and the more of NMI. They use less of the formal knowledge institutions for MP, may be because of it is seemingly available to every firm that can collaborate and are able to pay the financial costs of knowledge making it less unique. Aside, the formal knowledge institutions lack regular funding hence the firms in question need to sponsor the R&D upfront more often in order to acquire the required knowledge. In contrast, the informal knowledge institution sources are available only to those who are connected to the source and have the capacity for exploitation. On the other hand, the radical innovation strategy for NMI sticks to the strategic use of the formal sources of knowledge acquisition because of the prospect involved in possessing the intellectual asset in the new market.

Discussion and Conclusion

This study could assist in formulating policy agendas for promoting market innovation, based on the use of knowledge acquired from the formal and informal sources by KIBS SMEs in developing economies. It also suggests that both formal and informal sources are important but informal sources are more crucial sources of knowledge acquisition for MP in Lagos during the research period. The informal institutions emerged as primary sources of resources for KIBS SMEs in Lagos while using MP strategy while formal institutions emerged as the only source for radical innovation strategy. This study has contributed to the few literatures in entrepreneurship in the developing economy by investigating the strategies for entrepreneurship and new market innovation by KIBS SMEs in developing economies. It has introduced a distinctive institutional perspective of formal and informal institutional strategy that is different from the developed economies context for NMI. The study has shown that the KIBS SMEs are more disposed to the use of the informal institutions thereby serving them as the primary source of knowledge acquisition for NMP. Thus, the informal system should not be perceived as an agent of necessity but should be promoted as an important part of the economic system in the developing economies. Necessary structure should be given to support the informal institutions as they are becoming a focal point in the developing economies. Governments in developing countries should give recognition and support to informal structures in the economy. Moreover,

practitioners should explore the valuable insight to identify and exploit the strategies of the formal and informal knowledge institutions for new market innovation inside and outside the developing economies. Finance should be made available to universities and research institutes and other formal knowledge institutions to enable them perform their function of R&D. This will foster KIBS firms in acquiring necessary information to execute their strategy of choice, whether the radical innovation strategy or new market pioneering strategy for NMI for an inclusive opportunity creation for employment, make more profit and improve the standard of living of prospective clients in the new market environment.

In answering the research questions, we say that both RI and MP strategies are employed for NMI but MP is the main strategy. Also, both formal and informal institutions are strategic sources of knowledge for NMI in Nigeria. In this study, we contributed to knowledge in new market innovation and institutional theory of entrepreneurship in developing economies that MP is more strategic to NMI in Nigeria than RI. Thus the informal knowledge is more significantly strategic to KIBS SMEs in acquiring knowledge for MP. The results of this survey are based on a fairly large sample and so, it will contribute to the body of empirical studies on entrepreneurship in developing economies (Lingelbach, 2007; Obamuyi, 2007; Otto & Ukpere, 2011). This paper contributes to the growing body of literature generally in entrepreneurship (new market innovation perspective) and entrepreneurship in developing economies (institutional perspective), by providing a better understanding on the strategies for entrepreneurship and market innovation through the formal and informal institutional sources of knowledge by KIBS SMEs in developing economies.

The scope of the study is specifically designed for KIBS sectors; therefore the results may not be completely applicable for all service sectors. Further research may examine if the results can be generalised to other service sectors. Furthermore, the study has opened up relatively unexplored segments and would serve as a basis for future research which could be beneficial to potential researchers, policy makers and prospective innovative firms/ practitioners by replicating this study in other developing countries to see whether similar findings will emerge.

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