Market orientation, learning orientation and business performance

The mediating role of innovation

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Abstract

Purpose – The purpose of this paper is to examine the relationship between market orientation, learning orientation and innovation; and second, assesses the role of innovation, market orientation and learning orientation on firms' business performance using a developing country (i.e. the Ghanaian banking domain) as a study context.

Design/methodology/approach – Following a nation-wide survey among senior managers of 28 banks in Ghana, five research propositions were tested using multiple linear regression analysis.

Findings – Results demonstrate that market orientation has significant association with innovation while learning orientation has significant impact on innovation. Moreover, innovation mediates the relationship between market orientation and business performance.

Research limitations/implications – This study adopt the cross-sectional research design and as such acknowledge the same limitations as other cross-sectional studies.

Practical implications – The research will help bank executives especially in Ghana and other developing countries to appreciate these marketing variables.

Social implications – Banks innovation efforts, concurrently with the development of market orientation culture and improvement in organizational learning processes must benefit bank customers and stakeholders as a whole.

Originality/value – The research will help banks in Ghana and other developing countries to appreciate that their innovation efforts should concurrently be in sync with the development of market orientation culture and improvement in organizational learning processes.

Keywords Innovation, Ghana, Banks, Banking, Market orientation, Learning

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Introduction

While marketing scholars accept the concept of market orientation as a major strategic element for success under competitive environmental conditions, there is an ongoing debate in the marketing literature about its role. This debate stipulates that developing a market-oriented culture is only the first step towards market success and an organization's ability to learn faster than its competitors may be its only source of sustainable competitive advantage (Han *et al.*, 1998; Baker and Sinkula, 1999). Building on this line of argument, some studies suggest that a learning orientation has more of a positive impact on organizational performance than a market orientation (Farrell, 2000). On the other hand, other studies have either found no linkage or have found market orientation to have a more positive influence on business performance than does learning orientation (e.g. Farrell and Oczkowski, 2002; Farrell *et al.*, 2008).

In Ghana, market liberalization is paving the way for a buyer's economy where companies are competing for the attention of customers. Therefore, marketing strategies are being developed by organizations in an effort to create a competitive market place (Kuada and Buatsi, 2005). As the Ghanaian economy continues to grow, and eventually develop both market and competitive structures, the needs and expectations of customers will likely evolve and grow. Competition between firms is now prevalent in the market place, especially within the banking industry (Kuada and Buatsi, 2005; Blankson *et al.*, 2007). On account of the above, since the effectiveness of a strategic orientation is contingent on the dynamics of the market (Kohli and Jaworski, 1990; Webster, 1993), then the relationship between innovativeness, market and learning orientation of firms appears to be an opportune research task (Blankson *et al.*, 2007). The rationale for this study emanates from review of the literature that shows a paucity of empirical studies that sheds light on understanding the relationship between market orientation and learning orientation. This further extends to the impact it has on business performance and the mediating role of innovation. The latter gave the impetus for this study. Hence, the purpose of this paper is to examine the relationship between market and learning orientations on the business performance and the mediating role of innovation. The Ghanaian banking industry is used as the study context.

Further justification for this study and study context revolve around two key research gaps, namely:

(1) Most studies which address the identified constructs were mainly conducted in developed countries with multi-industry data (see, e.g. Lee and Tsai, 2005; Keskin, 2006; Lin *et al.*, 2008; Carmen and José, 2008; Jiménez-Jimenez *et al.*, 2008). However, according to Kohli and Jaworski (1990), varying industries enjoy a multitude of opportunities where successful strategies differ across industries, and strategic choices depend on the situation (see, Webster, 1993).

(2) Although much has been studied in the banking sector (see, Bhuian, 1997; Han *et al.*, 1998; Anwar and Sohail, 2003; Kolar 2006; Dwaire *et al.*, 2007), surprisingly, none of these studies have attempted an integrated approach of measuring innovation, market and learning orientation and the relationships among these three strategic behaviours. Indeed, because of the unique features of services (e.g. intangibility, inseparability, heterogeneity and perishability), marketing activities in the banking sector can be challenging to understand and require thorough analysis. Thus, multiple approaches to marketing are expected in the services domain (Ozer *et al.*, 2006).

This paper contributes to the literature by providing an understanding of market and learning orientations and drawing attention to the importance of an integrated approach of measuring the relationship among the three strategic issues: market orientation, learning orientation and innovation.

Brief background information on Ghana banking industry

Practitioners and researchers working in the banking sector are attempting to understand how to increase key relationship marketing variables to help further increase employee productivity and performance (Pousa and Mathieu, 2014). The Ghanaian banking industry is noted for the adoption of key marketing changes needed to meet the growing demands from the sector banks (George and Bob-Milliar, 2007; Hinson *et al.*, 2009). The last decade has witnessed phenomenal growth in the number of banks which operate in the Ghanaian banking sector. A relatively stable political economy, consistency in implementing political and economic policies, and stability of the local currency among other things, have led to the emergence of diverse types of banks which include local-private, Pan-African, Nigerian, South African, and Libyan banks (Hinson *et al.*, 2009). The resulting consequences include increased competition, positioning and marketing activities which are coupled with macro-environmental challenges. While customers are becoming more active and empowered, other important trends such as rapid information technology development and increasing non-banking competition put pressure on the market efficiency of Ghanaian banks. Ghana's banking sector is, today, one of the most competitive among sub-Saharan African emerging market countries (George and Bob-Milliar, 2007). With Ghana's democratic dispensation becoming more vibrant and gaining widespread recognition in the international arena (Whitfield, 2005), it can be asserted that interest of local and foreign firms in the banking sector will experience continued growth and that turbulent competitive conditions will be unabated.

The Ghanaian banking sector seems fairly robust in the midst of the global financial crisis (Ghana Banking Survey, 2009). However, given the heightened competition that has propelled the industry to a new fixation on marketing practices, positioning and innovation as growth sources (Blankson *et al.*, 2007; Hinson *et al.*, 2009); an empirical study examining the relationship between market and learning orientations on business performance and the role of innovation is pivotal. Similar to banks across the globe, the banking industry in Ghana is a target because of its history of introducing new and innovative technologies which deliver quality service to its customers (Kaushik and Rahman, 2015). The paucity of such a study in the extant literature further underscores the potential contribution of this study.

Conceptualization and research propositions

Premised upon the marketing concept, market orientation has become a cornerstone of marketing theory, developing rapidly over recent years within two dominant streams in nature. The first stream argues that market orientation is a set of behavioural activities (e.g. Jaworski and Kohli, 1993; Hunt and Morgan, 1995), while the second sees market orientation as an aspect of organizational culture (Deshpande and Webster, 1989; Narver and Slater, 1990). The first stream of research is representative of the work of Jaworski and Kohli (1993), who explore the nature of market orientation as three sets of specific activities: first, organization-wide generation of market intelligence pertaining to current and future customer needs. Second, dissemination of the intelligence across departments. Finally, organization-wide responsiveness to it.

Hunt and Morgan (1995) consider market orientation to be an intangible resource pertaining to a behavioural process of gathering and analysing information on customers and competitors, and responding to it in an effective and efficient manner. This perspective helps put the marketing concept into practice and provides management with a practical guide for conducting business. Thus, market orientation, from a behavioural perspective is described as reflecting knowledge-producing behaviours (Baker and Sinkula, 1999). On the other hand, within the second stream, Deshpande and Webster (1989) argue that market orientation, in the form of customer orientation, is considered an aspect of organizational culture created and maintained to provide individual norms for behaviours within organizations.

The fundamental difference between market orientation and organizational culture, namely, innovative culture, is that the former is market-driven, while the latter is market-driving. Market orientation reflects behavioural aspects of culture and is considered an acknowledge-producing behaviour and an intangible resource providing comparative advantage (Hunt and Morgan, 1995; Baker and Sinkula, 1999). On the contrary, innovative culture is more likely to internally focused and competitive advantage seeking. This is because it fosters new ideas and cultivates internally based capabilities to successfully adopt new ideas, processes, and products (Hurley and Hult, 1998). Prahalad and Hamel (1990) develop the notion of "core competences" to explain the substantial success of innovation-oriented Japanese organizations against US competitors.

Yet, the primary essence behind such success is cultivating an innovative culture that heavily emphasizes the R&D function and the development of technology (Pearson, 1993; Gatignon and Xuereb, 1997). Indeed, such innovation-oriented organizations continue to develop leading edge positions based on their technology breakthroughs, not only to satisfy current needs but also create new needs of consumers.

In a dynamic and changing environment, innovation is essential to stimulate long-term stability, growth, shareholder returns, sustainable performance, and in retention of strong market presence (Davis and Moe, 1997; Cook, 1998). Research evidence indicates that innovation is a primary source of growth in market share (Zahra and Covin, 1993) and it is positively related to a firm's performance (Yamin *et al.*, 1999; Calantone *et al.*, 2002). Several scholars argue that both market and learning orientations require a sense of innovation (Sinkula, 1994; Hurley and Hult, 1998; Lee and Tsai, 2005). Keskin (2006), for instance, reports a direct linkage between market orientation and firm innovation, highlighting that this relationship is mediated by learning orientation. Deshpande *et al.* (1993) posit that market orientation and innovative culture are different in that, market orientation emphasizes producing market-based assets which lead to comparative advantage, while innovative culture focuses on leveraging internal-based competences. In other words, market-oriented behaviours occur to reflect and are driven by the organizational culture which manifests itself in these activities. Thus, market orientation is the implementation of market culture, which emphasizes competitiveness and market superiority rather than innovation culture (adhocracy culture that unites organization members through entrepreneurship, flexibility, and risk).

In an effort to combine both perspectives of market orientation, Gray and Hooley (2002) also define market orientation as the implementation of a corporate culture or philosophy that encourages behaviours aimed at gathering, disseminating and responding to information on external environments such as customers, competitors, and market structure. This done in a manner which adds value for shareholders, customers and other stakeholders. According to Hurley and Hult (1998), while Jaworski

and Kohli (1993) mention organizational norms and values in the operationalization of the marketing concept, they do not describe market orientation as an aspect of culture.

However, what remains unclear in the extant literature is how these constructs interact and collectively affect business performance (Lin *et al.*, 2008; Jiménez-Jimenez *et al.*, 2008). Due to the scant integrated research on innovation, market and learning orientation in developing countries' banking industry contexts (Blankson *et al.*, 2007; Hinson *et al.*, 2009), we develop a set of propositions and a conceptual model which are subsequently tested in the Ghanaian banking industry (see, Figure 1). Figure 1 shows the conceptual framework for this study.

Market orientation

When viewed as a set of processes or behaviours relating to the philosophy of an organization, market orientation refers to the organization-wide generation of market intelligence or information pertaining to current and future customer needs, dissemination of the information across departments, and organization-wide responsiveness to this information (Kohli and Jaworski, 1990; Jaworski and Kohli, 1993). Based on a cultural perspective, it is also defined as "the organizational culture that most effectively and efficiently creates necessary behaviors for the creation of superior value for buyers, and thus, continues superior performance for the business" (Narver and Slater, 1990).

According to Low *et al.* (2007, p. 879), market orientation is described not only as a desirable strategy for companies to pursue, but also as a customer-led practice. It entails such aspects as looking for unmet customer needs, matching these with firm competencies and then obtaining feedback from customers on desirability of these new offerings. In a sense, market orientation requires firms to monitor rapidly changing customer needs and wants, determine the impact of such changes on customer satisfaction, increase the rate of product innovation, and implement strategies that build the firms' competitive advantages. Studies on the impact of market orientation on firm performance have revealed mixed discoveries in both developed and developing countries. Whereas some studies have confirmed the direct relationship of market orientation and business performance (see, e.g. Baker and Sinkula, 1999; Dwaire *et al.*, 2007), other studies discovered a negative or non-significant relationship (see, Han *et al.*, 1998). For scholars, the inconsistent findings regarding this relationship only suggest that a market-oriented culture may not be a determining factor for a sustainable competitive advantage or long-term success in all market places (Han *et al.*, 1998; Baker and Sinkula, 2002).

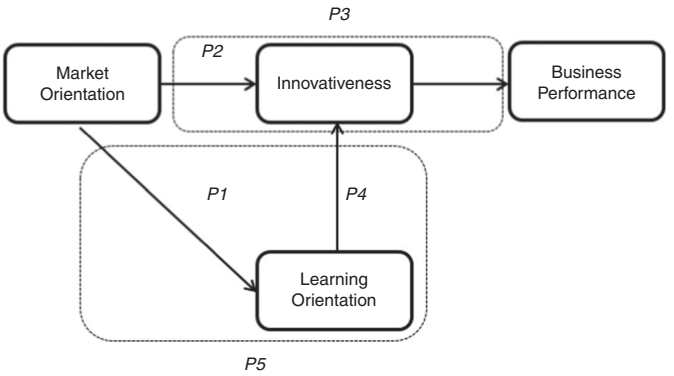

Figure 1. Conceptual framework

Market orientation involves the continuous search for information pertaining to customers, competitors, and inter-functional integration within an organization (Narver and Slater, 1990; Slater and Narver, 1995). A learning orientation, on the other hand, involves questioning organizational practices and assumptions (Sinkula *et al.*, 1997). Similarly, it seems that the degree to which an organization uses market information is a function of what it has already learned (Sinkula *et al.*, 1997). In this regard, learning orientation is linked to market orientation.

Learning orientation is presented in the literature as an extension of market orientation which encompasses a range of qualities, in addition to those of a market orientation, that leads to the assertion that the introduction of a market orientation is only the start (Slater and Narver, 1995). In fact, Slater and Narver (1995) suggest that market orientation only enhances performance when it is combined with a learning orientation. Similarly, Bell *et al.* (2002) view "organizational learning as critical to the process of developing market knowledge, and a driving force in market-oriented organizations". Mavondo *et al.* (2005) assert that without a culture of learning, market orientation is unlikely to be sustained and the two constructs are distinct yet complement each other. Learning orientation emphasizes exploration allowing organizations to question the way which business is done, question the assumptions that underpin business practices and prevent market orientation from being reactive. The authors further state that market orientation is a hybrid construct sharing elements of exploration but emphasizing exploitation of market opportunities. Thus, for that matter, it is partly an element of organizational culture and partly action oriented.

Farrell (2000) argues that market-oriented firms are effective in producing knowledge, where this culture of knowledge production inevitably leads to knowledge-questioning values. Organizations that are able to appreciate the value of timely and relevant information (market-oriented) will also have enough intelligence to challenge existing assumptions about market operation (Farrell, 2000). Following this argument, we propose that:

P1. A bank's market orientation will be positively associated with its learning orientation.

Market orientation and innovation

Innovation may be viewed as the degree to which an organization generates, accepts and implements new ideas, processes, products, or services (Hurley and Hult, 1998). Damanpour *et al.* (2009) argue that "organizations innovate because of pressure from the external environment, such as competition, deregulation, isomorphism, resource scarcity, and customer demands, or because of an internal organizational choice, such as gaining distinctive competencies, reaching a higher level of aspiration, and increasing the extent and quality of services" (p. 653). The adoption of innovation is intended to ensure adaptive behaviour and organizational change to maintain or improve performance (Damanpour *et al.*, 2009). In a study of 134 banks in the USA, Han *et al.* (1998) establish that firms facing environmental challenges and uncertainty can achieve superior performance through the incorporation of technical and managerial innovations in their organizational structure. Overall, the literature suggests that innovation positively affects the long-term success of firms because it enhances organizational flexibility, willingness to change, and introduction of new products while decreasing organizational inertia (Damanpour, 1991; Zahra and Covin, 1993; Yamin *et al.*, 1999; Calantone *et al.*, 2002; Hult *et al.*, 2004; Low *et al.*, 2007).

As noted by Mone *et al.* (1998), innovation capability is the most critical determinant of firm performance.

A review of the two constructs of market orientation and innovation indicate varied, yet interrelated concepts. Market orientation implies implementing something new or different in response to market conditions and may be perceived as an innovative behaviour. Those firms which are market-oriented enhance the level of innovation and therefore enjoy greater success when in the marketing of new products (Jaworski and Kohli, 1993; Slater and Narver, 1994). The most important manifestation of market orientation is the success of innovation en route to performance (Deshpande *et al.*, 1993; Slater and Narver, 1995). Therefore, although both innovation and market orientation have significant effects on business performance, much of the variance in business performance is accounted for through the mediating role of innovation in the market orientation-performance linkage (Agarwal *et al.*, 2003). Thus it is thereby suggested that one cannot reduce innovativeness to market orientation, or vice versa (Carmen and José, 2008). In support, Carmen and José (2008, p. 428) claim that:

> […] although the linkage between market-orientation and performance is significant, what best accounts for enhanced performance is technological and organizational innovation.

This follows that market orientation is a source of ideas for new products and services and therefore should positively affect the degree of innovation in firms. Similarly, the greater the understanding of a market-oriented firm of its environment should also reduce the failure of new products (Atuahene-Gima, 1996; Carmen and José, 2008). Agarwal *et al.* (2003) posit that firms which are less market oriented are less likely to consider innovation and unless protected from competition, such firms are likely to face declining performance. Therefore, firms who display a greater ability to innovate will respond more successfully to environmental changes and develop skills enabling them to gain a competitive advantage, ultimately leading to improved performance (Hult *et al.*, 2004). Atuahene-Gima (1996) suggests that in the insurance and banking services industries, the success of innovation depends on the firm's market orientation, especially on its customer orientation. Market orientation is therefore "a key to innovation success in the service sector" (Lado and Maydeu-Olivares, 2001, p. 288). Lado and Maydeu-Olivares (2001) argue that as innovation in services is more easily and quickly imitated and thus more difficult to protect through means of patenting and copyright, a strong relationship between market orientation, innovation and business performance is evident. Building on the above line of argument, the following propositions are formulated:

P2. A bank's market orientation will be positively associated with its innovation.

P3. Innovation mediates the relationship between market orientation and business performance.

Learning orientation and innovation

Learning orientation refers to the organization-wide activity of creating and using knowledge to enhance competitive advantage. This includes obtaining and sharing information about customer needs, market changes, and competitor actions, as well as the development of new technologies to create new products superior to the competition (Hurley and Hult, 1998; Moorman and Miner, 1998; Mone *et al.*, 1998; Calantone *et al.*, 2002). Marketing scholars contend that a firm's ability to learn quicker than its competitors may be the only resource for sustainable competitive advantage and the most valuable resource for maintaining it (Hardley and Mavondo, 2000; Day, 1994; Sinkula, 1994).

Slater and Narver (1995) argue that learning facilitates behaviour change eventually leading to improved performance. The authors assert that organizational learning should lead to superior outcomes, such as new product success, customer retention, superior growth, and/or profitability. Thus there will be an improved focus on understanding and satisfying the expressed and latent needs of customers, through such products, services and ways of conducting business (see also, Day 1994; Sinkula 1994). As the world becomes more interconnected and businesses become more complex and dynamic, the organization which truly excels in the future will be the one that discovers how to increase knowledge and tap into the commitment and capacity of the consumer base in the realization of their highest aspirations (Lee and Tsai, 2005; Senge, 1994).

Organizational learning is associated with the development of new knowledge, which is crucial in a firm's innovation and performance level (Hurley and Hult, 1998). An organization committed to learning is likely to possess state-of-the-art technology (Mone *et al.*, 1998), which leads to greater innovation capability, both in products and processes (Calantone *et al.*, 2002). Dickson (1996), commenting on Hunt and Morgan's (1995) comparative advantage theory, suggests that an excellent learning environment in an organization will leverage the use of all resources, including the activities accompanying a market orientation and innovation. It is therefore obvious that a learning orientation is closely related to organizational innovation. In this connection, Mullen and Lyles (1993) note that continuous orientation towards organizational learning by a firm will improve the efficiency and effectiveness of its innovative activities. Calantone *et al.* (2002) hypothesize a direct impact of learning orientation on firm innovation and contend that learning orientation influences firm innovation in three ways:

(1) as learning occurs through organizational observation and interaction with their environments, it is more likely to be committed to innovation;

(2) as learning organizations are linked with their environment, it has the knowledge and ability to understand and anticipate customer needs and emerging markets; and

(3) as organizations closely monitor the competitors' actions in the market, their strengths and weaknesses, and successes and failures, that environmental scanning contributes to firm innovation.

Based on their empirical results, Calantone *et al.* (2002) argue that the higher the extent of learning orientation, the stronger the influence on innovation. Moreover, Cohen and Levinthal (1990) assert that learning orientation is significantly associated with innovative thoughts in firms. Several other scholars have indicated that learning orientation and innovation are highly correlated (Sinkula *et al.*, 1997; Hurley and Hult, 1998; Baker and Sinkula, 1999). In short, learning orientation is believed to be one of the antecedents of innovation. Therefore, it is proposed that:

P4. A bank's learning orientation will be positively associated with its innovation.

Market orientation, learning orientation, and innovation

"A market- and learning oriented culture, along with other factors, promotes receptivity to new ideas and innovation as part of an organization's culture (innovation). Innovation in an organization where adequate resources exist facilitates the implementation of innovations (innovative capacity)" (Hurley and Hult, 1998). What Hurley and Hult (1998) are suggesting is that market and learning orientation are antecedents to firm innovation.

This has been confirmed in a recent study of venture companies in Taiwan by Lin *et al.* (2008). Lin *et al.* (2008) assert that market-oriented culture helps organizations monitor how customers and competitors move, and that, as external innovation drives the market, information obtained from the customers and the competitors facilitates innovation. On the other hand, when internal innovation drives the market, organizational learning facilitates innovation by receiving the external market information and prompting the capabilities of organizational learning. In this vein, market-oriented firms aiming to sustain their competitive advantages must enhance organizational learning while designing and executing innovation strategies in an effort to improve business performance (Slater and Narver, 1995; Sinkula *et al.*, 1997; Lin *et al.*, 2008).

Although market orientation and learning orientation are antecedents of innovation (Hurley and Hult, 1998; Lin *et al.*, 2008), the effect of market orientation on firm innovation is mediated by learning orientation (Keskin, 2006). Keskin (2006) argues that the knowledge generated by market orientation has little benefit if not appreciated and implemented for a firm's innovation. In this line of thinking, Baker and Sinkula (1999) argue that market orientation, representing the degree to which firms acquire, distribute, and use the market information, is an input of the innovation process. Yet, learning orientation, reflecting the degree to which firms are committed to challenging beliefs and practices, defines the innovation process itself. Besides, given the fact that market orientation breeds the rigidity of the existing customer intelligence and plans, it may also hinder firm innovation (Sinkula, 2002). Thus, following Hurley and Hult (1998), learning orientation lays a foundation of desire to assimilate new ideas and leverages customer intelligence for firm innovation (Keskin, 2006). Thus, a firm's learning orientation is likely to indirectly affect organizational performance through improved quality of its market-oriented behaviours. Thus, directly influencing organizational performance by facilitating the type of generative learning which leads to innovations in products, procedures, and systems (Baker and Sinkula, 1999). Therefore, following Keskin (2006), the proposition is that:

P5. Learning orientation will mediate the relationship between market orientation and innovation.

Research methodology

To test the above propositions, a convenience sampling method was employed. Data were obtained through a drop-off-and-collect self-administered survey of 28 licensed banks with over 600 branches. The sampling frame was the list of banking institutions in Ghana, published by the Bank of Ghana (Ghana's Central Bank). It covers a range of banks including commercial, development, and merchant. In line with Hinson *et al.* (2009), the unit of analysis is the bank branches – referred to as strategic business unit (SBUs), across the ten regions of Ghana. The branch managers served as the key informants. These people were targeted because of their experience in the industry and knowledge of their banks' marketing practices and innovation activities. Moreover, the use of SBUs as the unit of analysis is popular in market orientation research (see, Narver and Slater, 1990). Each informant was requested to evaluate the operation of their SBU.

The questionnaire was pre-tested among a convenience sample of 13 bank executives. These executives were knowledgeable about the study constructs due to their positions at their respective banks. This was undertaken to ensure that there was no ambiguity in the survey instrument. As a result of the pre-test, some slight changes were made in the final questionnaire.

The questionnaires, each accompanied with a formal university letter head were sent in person, with the help of eight research assistants to the 600 branch managers. Distribution of the questionnaires covering the two phases of the survey lasted a total of four weeks. Following the second reminder, 184 of the questionnaires were received. Of these, 69 were excluded due to incompletion, giving a net response rate of 19.17 per cent. The response rate compares favourably to prior studies (e.g. Low *et al.*, 2007).

Following Armstrong and Overton (1977), tests were performed between early and late respondents. Independent sample *t*-tests for differences between means of the key variables were conducted to check for non-response bias. The test showed non-response bias since all *t*-tests indicated an absence of significant differences between the constructs' means.

Measures

Market orientation. Most studies on market orientation either adopted MKTOR (the criteria postulated by Narver and Slater, 1990) or MARKOR (the criteria proposed by Kohli *et al.*, 1993) measurement scale or both. In this study, Kohli *et al.*'s (1993) scale as refined and validated by Kolar (2006) in the Slovenian banking domain was adopted for its context-specific nature. This scale also includes a fourth component, namely, marketing culture. Kolar (2006, p. 82) argues that marketing culture is an informal counterpart of formal managerial dimensions of market orientation and should therefore be included in any conceptualization of market orientation. Thus, 26 items distributed across intelligence generation, intelligence dissemination, responsiveness, and marketing culture were used to measure market orientation with the aid of a five-point Likert scale ranging from 1 = "strongly disagree" to 5 = "strongly agree".

Learning orientation. The measurement scale was adopted from Calantone *et al.* (2002). Calantone *et al.* (2002) proposed four component indicators of learning orientation: thus, commitment to learning, which refers to the degree to which an organization values a learning culture; shared vision, referring to an organization-wide focus on learning, or direction of learning; open-mindedness, which relates to willingness to critically evaluate the organization's operational routine and acceptance of new ideas; and intra-organizational knowledge sharing, which involves collective beliefs or behavioural routines related to the spread of learning among different units within the organization.

Innovation. To measure innovation, we adopted scale from Calantone *et al.* (2002). A firm's innovation is defined as openness to new ideas through willingness to try out new ideas, seek out alternate ways to do things, creativity in its methods of operation and rate of product introduction (Calantone *et al.*, 2002; cf. Keskin, 2006). In order to ensure uniformity, unlike Calantone *et al.* (2002), learning orientation and innovation were measured by asking respondents to score their degree of agreement on five-point Likert scale instead of seven-point Likert scale.

Business performance. Following Agarwal *et al.* (2003), five items including service quality, customer satisfaction, employee satisfaction, gross profit margin, and market share were used in the measurement of business performance. Agarwal *et al.* (2003, p. 74) posit that "[…] judgmental measures of performance that include customer satisfaction, employee satisfaction, and service quality, are important prerequisite for profitability or objective measures of performance" (see also, Day and Wensley, 1988). A five-point scale ranging from 1 ("Much worse than competitors") to 5 ("Much better than competitors") was used for the assessment.

Analyses and constructs validation

Descriptive statistics displayed in Table I indicate a large number (38.3 per cent) of Ghanaian banks are new in the industry, having been established in the last decade. Indigenous Ghanaians dominate the ownership of banks with 60.9 per cent of the sampled SBUs being fully local-private (31.3 per cent) or local-public (29.6 per cent) banks. Yet foreign representations (32.2 per cent) and joint-venture (6.1 per cent) are quite encouraging. Most (49.6 per cent) of the bank branches are making more than five million Ghana cedis (US$3.57 million) in annual revenue although some (19.1 per cent) are struggling to achieve one million cedis (US$0.714 million). Finally, using the number of employees to measure the size of bank branches in Ghana, generally, all the banks can be classified into small (62.6 per cent) and medium (36.5 per cent) size.

Coefficient α was computed initially to assess the internal consistency of the measures. The reliability of the scale using Cronbach α was encouraging, with all the scales adequately meeting best practice criterion (Nunnally, 1978). As outlined in Table II, α values range from 0.640 to 0.848 (see, the Appendix for full descriptions of items). On each scale, items exhibiting low item-to-total correlations with the total score were deleted from the domain of each construct.

In addition, the standardized factor loadings for all items are above the suggested cut-off of 0.40 (Hair *et al.*, 1998), with a minimum of 0.471. Eigenvalues for a priori factors range from 1.760 to 3.713 providing evidence of convergent validity (Fornell and Larcker, 1981). The marketing and strategy literature suggests that the innovation, market orientation, learning orientation and business performance variables are distinct (Lee and Tsai, 2005; Keskin, 2006). Accordingly, a further test for the

Item	Freq.	%
History (years)		
Less than 10	44	38.3
11-20	27	23.5
21-30	6	5.2
More than 30	38	33.0
Ownership		
Local-private	36	31.3
Local-public	34	29.6
Foreign	37	32.2
Joint-venture	7	6.1
Missing	1	0.9
Annual revenue (million)		
Less than 1 (GHC)	22	19.1
1-5 (GHC)	31	27.0
More than 5 (GHC)	57	49.6
Missing	5	4.3
Employee size		
Less than 10	19	16.5
10-20	36	31.3
21-30	17	14.8
More than 30	42	36.5
Missing	1	0.9

Note: $n = 115$

Table I. Sample characteristics

Item	Factor loading	Eigen value	Variance explained	Item-to-total correlation	Cronbach α
Intelligence generation		1.760	58.669		0.640
1. IG1	0.877			0.601	
2. IG2	0.793			0.461	
3. IG3	0.602			0.312	
Intelligence dissemination		3.713	53.041		0.848
1. ID1	0.861			0.709	
2. ID2	0.796			0.698	
3. ID3	0.760			0.635	
4. ID4	0.751			0.641	
5. ID5	0.750			0.640	
6. ID6	0.596			0.466	
7. ID7	0.596			0.473	
Intelligence responsiveness		2.792	46.526		0.761
1. IR1	0.835			0.685	
2. IR2	0.705			0.533	
3. IR3	0.689			0.487	
4. IR4	0.656			0.466	
5. IR5	0.605			0.450	
6. IR6	0.568			0.420	
Marketing culture		3.390	42.390		0.797
1. MC1	0.802			0.679	
2. MC2	0.754			0.630	
3. MC3	0.730			0.584	
4. MC4	0.697			0.571	
5. MC5	0.576			0.444	
6. MC6	0.551			0.405	
7. MC7	0.550			0.416	
8. MC8	0.471			0.340	
Commitment to learning		2.694	67.344		0.830
1. CL1	0.904			0.806	
2. CL2	0.883			0.729	
3. CL3	0.853			0.695	
4. CL4	0.609			0.430	
Shared vision		2.402	60.059		0.777
1. SV1	0.850			0.691	
2. SV2	0.796			0.612	
3. SV3	0.730			0.528	
4. SV4	0.717			0.512	
Open-mindedness		1.953	65.109		0.734
1. OM1	0.871			0.660	
2. OM2	0.813			0.543	
3. OM3	0.731			0.483	
Knowledge sharing		1.977	65.896		0.646
1. KS1	0.761			0.488	
2. KS2	0.651			0.529	
3. KS3	0.565			0.359	
Innovativeness		3.118	62.364		0.747
1. IN1	0.875			0.747	
2. IN2	0.838			0.718	

Table II.
Item loadings and reliability analysis

(*continued*)

Item	Factor loading	Eigen value	Variance explained	Item-to-total correlation	Cronbach α
3. IN3	0.836			0.693	
4. IN4	0.690			0.550	
5. IN5	0.690			0.550	
Business performance		2.451	49.024		0.729
1. BP1	0.827			0.616	
2. BP2	0.821			0.599	
3. BP3	0.640			0.471	
4. BP4	0.621			0.411	
5. BP5	0.546			0.372	

Note: See the Appendix for descriptions of items

Table II.

satisfactory level of discriminant validity using the bivariate Pearson product-movement correlation was conducted. As seen from Table III, the correlation results of less than 1.00 among the ten variables suggest the measures demonstrate satisfactory validity (Bagozzi and Yi, 1991). These findings provide additional evidence of acceptable reliability. The correlation was subject to a two-tailed test of statistical significance at the 0.01 level.

The dependent variable "Innovation: IN2, IN3, IN4, IN5" satisfy the criteria for normal distribution. In evaluating the normality, the skewness was (−0.759, −0.308, −0.508 and −0.423) and kurtosis of (−0.187, −0.918, −0.732, −0.606). However, IN1 does not satisfy the assumption of normality. In evaluating the normality, the IN1's skewness (−1.063) was outside the range of −1.0 and +1.0 but the kurtosis (0.642) falls within the range. Therefore, logarithmic transformation was carried out to improve the normality. The transformed skewness for NI1 is 0.497, and the kurtosis is 0.642.

The dependent variable "Business Performance: BP1, BP4 and BP5" satisfy the criteria for a normal distribution. Their skewness was (−0.208, −0.149 and −0.435) and kurtosis (−0.963, −0.902 and −0.458) were both between −1.0 and +1.0. No transformation is necessary.

However, BP2 and BP3 do not satisfy the assumption of normality. In evaluating normality, the skewness for BP2 (−0.005) and BP3 (−0.143), respectively, were between −1.0 and +1.0, but the kurtosis (−1.459 and −1.160) were outside the range of −1.0 to +1.0. Therefore the logarithmic transformation was done to improve the normality of "BP2 and BP3" without a reduction in the strength of the relationship to "business performance". In reevaluating the normality of BP2 and BP3, the skewness (−0.425 and −0.520) and kurtosis (−0.809 and −0.374) were both within the range of acceptable values from −1.0 to +1.0.

Results

Following suggestions by Rowntree (1981), this study utilized correlation analysis for two purposes: first, to examine whether distinct variables discriminate each other, and second, to explore the relationships between variables. The former has been dealt with already. Thus, this section is interested in the latter. The correlation was subject to a two-tailed test of statistical significance at the 0.01 level (see, Table III).

Innovation was found to be significant and positively correlated with intelligence generation ($r = 0.59$, $p < 0.01$), intelligence dissemination ($r = 0.62$, $p < 0.01$), intelligence responsiveness ($r = 0.56$, $p < 0.01$), and marketing culture ($r = 0.58$, $p < 0.01$).

Table III.
Descriptive statistics

Item	*n* Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	SD Statistic	Skewness Statistic	Skewness SE	Kurtosis Statistic	Kurtosis SE
Innovation									
1. IN1	115	2.00	5.00	4.4000	0.73509	−1.063	0.226	0.642	0.447
2. IN2	115	2.00	5.00	4.3391	0.72411	−0.759	0.226	−0.187	0.447
3. IN3	114	2.00	5.00	3.8684	0.94554	−0.308	0.226	−0.918	0.449
4. IN4	115	1.00	5.00	2.0870	1.03080	0.508	0.226	−0.732	0.447
5. IN5	114	2.00	5.00	3.7807	0.92897	−0.423	0.226	−0.606	0.449
Business performance									
1. BP1	110	1.00	5.00	3.4909	1.19437	−0.208	0.230	−0.963	0.457
2. BP2	111	1.00	5.00	3.4955	1.21261	−0.005	0.229	−1.459	0.455
3. BP3	114	2.00	5.00	3.9474	0.87079	−0.143	0.226	−1.160	0.449
4. BP4	111	2.00	5.00	3.8108	0.89963	−0.149	0.229	−0.902	0.455
5. BP5	114	1.00	5.00	3.4035	1.07851	−0.435	0.226	−0.458	0.449
Valid *n* (listwise)	105								

Similarly, commitment to learning ($r = 0.64$, $p < 0.01$), shared vision ($r = 0.47$, $p < 0.01$), open-mindedness ($r = 0.54$, $p < 0.01$), and inter-organizational knowledge sharing ($r = 0.69$, $p < 0.01$) correlated positively and significantly with innovativeness. Thus, there was a significant positive correlation between business performance and innovativeness, all components of market and learning orientation, with Pearson correlation coefficients ranging from 0.41 to 0.67. These results for correlation analysis provide an indication of moderate positive relationship between, innovativeness, market orientation, learning orientation and business performance in the present study (Rowntree, 1981). To test the five research propositions, we utilized multiple linear regression analysis.

As shown in Table IV, the internal factors which influence the innovation capability of banks are listed in the regression models 1, 2 and 3. It is clear from model l that the four component factors of market orientation including intelligence generation ($\beta = 0.28$, $p < 0.01$), intelligence dissemination ($\beta = 0.23$, $p < 0.01$), responsiveness ($\beta = 0.06$, not significant), and marketing culture ($\beta = 0.25$, $p < 0.01$) have significant impacts on the level of innovation in banks ($R^2 = 0.486$; $F = 25.99$; $p = 0.000$).

In model 2, it is shown that "learning orientation" including commitment to learning ($\beta = 0.34$, $p < 0.01$), shared vision ($\beta = 0.04$, not significant), open-mindedness ($\beta = 0.05$, not significant), and inter-organizational knowledge sharing ($\beta = 0.48$, $p < 0.01$) have significant impact on banks innovativeness ($R^2 = 0.599$; $F = 41.10$; $p < 0.01$).

Model 3 indicates that if the factors of learning orientation are included in regression model 1, the influence of commitment to learning ($\beta = 0.24$, $p < 0.05$), and inter-organizational knowledge sharing ($\beta = 0.41$, $p < 0.01$) on bank innovation are significantly higher than those of market orientation (however, none of the market orientation components has achieved significance). Following Baron and Kenny (1986), and in line with Ismail *et al.* (2006), the above results suggest that learning orientation is a mediator in the relationship between market orientation and banks' innovativeness.

Models 4-6 show individual as well as the combined effect of market orientation, learning orientation, and banks innovativeness on their business performance. Model 4 suggests that through the intelligence generation ($\beta = 0.40$, $p < 0.01$) and marketing culture ($\beta = 0.17$, $p < 0.01$) components, market orientation significantly determines business performance ($R^2 = 0.382$; $F = 16.99$; $p < 0.01$). Moreover, model 5 indicates that the component of learning orientation including commitment to learning ($\beta = 0.43$, $p < 0.01$), shared vision ($\beta = -0.04$, not significant), open-mindedness ($\beta = 0.07$, not significant), and inter-organizational knowledge sharing ($\beta = 0.36$, $p < 0.01$), collectively have a significant impact on business performance ($R^2 = 0.514$; $F = 29.10$; $p < 0.01$).

Evidence in Table V also suggests that bank innovativeness has a significant positive relationship with business performance ($\beta = 0.67$, $R^2 = 0.450$; $F = 92.44$; $p < 0.01$). The impression from these results is to achieve superior performance in the form of service quality, customer satisfaction, employee satisfaction, gross profit margin, and market share. However, the importance of market orientation, learning orientation and bank innovativeness cannot be underestimated (Table VI).

To show the existence of the mediating role of innovation in the relationship of market orientation en route to business performance, Baron and Kenny's (1986) guideline was applied. According to the authors, a mediating effect exists between variables when the following conditions are met: first, the independent variable is significantly associated with the mediator; second, the independent variable is significantly associated with the dependent variable in the absence of the mediator; third,

Table IV.
Constructs correlation, means and standard deviation

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Intelligence generation	3.97	0.74	1									
2. Intelligence dissemination	4.11	0.63	0.655	1								
3. Intelligence responsiveness	3.79	0.61	0.648	0.705	1							
4. Marketing culture	3.77	0.63	0.506	0.670	0.639	1						
5. Commitment to learning	3.90	0.80	0.618	0.607	0.646	0.676	1					
6. Shared vision	3.95	0.74	0.389	0.478	0.504	0.526	0.606	1				
7. Open-mindedness	3.67	0.67	0.534	0.506	0.544	0.627	0.682	0.526	1			
8. Inter-organizational knowledge sharing	3.64	0.71	0.530	0.597	0.455	0.540	0.498	0.407	0.487	1		
9. Innovativeness	3.73	0.75	0.592	0.621	0.561	0.583	0.640	0.470	0.538	0.694	1	
10. Business performance	3.58	0.60	0.577	0.514	0.466	0.468	0.639	0.408	0.524	0.597	0.671	1

Notes: $n = 115$. All correlations are significant at the 0.01 level (two-tailed)

	Dependent variable: innovativeness						Dependent variable: business performance					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Independent variables	β	t	β	t	β	t	β	t	β	t	β	t
Intelligence generation	0.275	2.850**			0.104	1.140	0.400	3.783**			0.159	1.616
Intelligence dissemination	0.232	2.077**			0.086	0.842	0.135	1.101*			−0.006	−0.056
Intelligence responsiveness	0.059	0.549			0.048	0.494	−0.001	−0.011			−0.067	−0.640
Marketing culture	0.250	2.577**			0.037	0.379	0.176	1.654**			−0.107	−1.031
Commitment to learning			0.342	3.70**	0.239	2.324**			0.432	4.276**	0.332	2.956*
Shared vision			0.042	0.538	0.028	0.350			−0.039	−0.460	−0.023	−0.274
Open-mindedness			0.047	0.540	0.013	0.144			0.074	0.778	0.070	0.739
Inter-organizational knowledge sharing			0.483	6.712**	0.409	5.116**			0.362	4.560**	0.209	2.187*
Innovativeness											0.296	2.853**
Constant		0.235		0.876		−0.303		3.497**		4.079**		3.666**
R^2		0.486		0.599		0.620		0.382		0.514		0.570
Adjusted R^2		0.467		0.585		0.591		0.360		0.496		0.533
F-statistic		25.994**		41.102**		21.594**		16.998**		29.103**		15.457**

Notes: *,**p values significant at the 0.05 and 0.01 levels, respectively

Table V.
Regression results for the relationship between business performances, innovation, market and learning orientations

Table VI.
Standard regression coefficients for MO, LO, and INO on BP

Independent variables	Dependent variables LO β (t)	INO β (t)	BP β (t)	BP β (t)
Market orientation (MO)	0.79 (14.04)**	0.31 (2.99)*		0.05 (0.47)
Learning orientation (LO)		0.48 (4.62)**		0.36 (3.02)*
Innovativeness (INO)			0.67 (9.62)**	0.37 (3.77)**
Constant	1.99	−0.63	1.58**	2.99**
R^2	0.64	0.56	0.45	0.52
Adjusted R^2	0.63	0.55	0.45	0.51
F-statistic	197.16**	71.89**	92.44	40.72**
n	115	115	115	115

Notes: MO, market orientation; LO, learning orientation; INO, innovativeness; and BP, business performance. *,**p-value significant at the 0.05 and 0.01 levels, respectively

the mediator variable is significantly associated with the dependent variable; and finally, when the independent variable and the mediator variable are controlled, a previously significant relationship between the independent variable and dependent variable is no longer significant or it is significantly decreased.

Applying Baron and Kenny's (1986) four principles, using market orientations as independent variable and innovativeness as the mediator, and business performance as the dependent variable, it is clear from the five models in Table IV and the information provided in Table V that innovativeness indeed mediates the relationship between market orientation and business performance. Indeed, when innovativeness was included in the regression in model 6, only the significance relationship between innovativeness ($\beta = 0.29$, $p < 0.01$), commitment to learning ($\beta = 0.33$, $p < 0.05$), inter-organizational knowledge sharing ($\beta = 0.21$, $p < 0.05$) and business performance were observed ($R^2 = 0.570$; $F = 15.46$; $p < 0.001$).

Discussion and managerial implications

The aim of this study was twofold: first, to show the relationship between the constructs of market orientation, learning orientation and bank innovativeness; and second, to examine the role of innovativeness, market orientation and learning orientation on banks business performance. To achieve this, five research propositions were formulated following an extensive literature review. The findings indicate that each of the constructs is significantly correlated to each other. Based upon the results of the multiple linear regressions, *P1* is supported given the reported significant positive relationship between market orientation and learning orientation with market orientation explaining 64 per cent of the variance in the learning orientation of the sample. This finding is consistent with the extant literature. Previous studies (e.g. Sinkula *et al.*, 1997; Farrell, 2000) report a positive relationship between these variables. Thus, in line with Slater and Narver (1995), market orientation is the underlying set of organizational values from which a learning orientation is developed.

The implication for bank management is that when aiming to build learning organizations, it is important that they put the customer at the heart of this activity. It was found that bank innovativeness is determined by its degree of market orientations. Thus, results suggest a positive significant linear relationship between all four components of market orientation (i.e. intelligence generation, intelligence dissemination, intelligence responsiveness, and marketing culture) and innovation. This supports *P2*. With regard to market orientation, all the factors of learning orientation also exhibit a

significant and positive relationship with banks' innovativeness, thereby confirming *P4*. These findings are not surprising given Hurley and Hult (1998) postulation that market- and learning-oriented culture promote receptivity to new ideas and innovation as part of an organization's culture. To that end, banks that exhibit the characteristics of market and learning orientations should be the first to introduce, for instance, electronic delivery channels such ATMs, telephone, personal computer, and internet banking facilities, which are renowned for attaining market access in today's banking business especially in developing country (e.g. Ghana) contexts (Abor, 2005; Blankson *et al.*, 2007; Hinson *et al.*, 2009). Moreover, banks' innovation requires the acquisition and utilization of knowledge about the customers, the competitors as well as from the organization (Jiménez-Jimenez *et al.*, 2008).

Despite the significant effect of market orientation on bank innovativeness, when both market and learning orientation are pursued concurrently to generate bank innovativeness, only two component factors of learning orientation, i.e. "commitment to learning" and "inter-organizational knowledge sharing", were effective in promoting innovation in banks. It was an indication that learning orientation partially mediates the relationship between market orientation and banks innovativeness (Baron and Kenny, 1986). For this reason, *P5* is partially supported. This finding is similar to those obtained by Salavao *et al.* and Jiménez-Jimenez *et al.* (2008) and is a reinforcement of Baker and Sinkula's (1999) assertion that although market orientation is crucial in enhancing innovation, it needs to be complemented by an appropriate organizational learning process. Therefore, in line with Baker and Sinkula (1999) it is concluded that market orientation helps the firm in adapting to market needs, but it is organizational learning that makes the company act proactively and facilitates radical innovation. This assertion is supported by Jiménez-Jimenez *et al.* (2008).

With the presence of both learning orientation and innovativeness, none of the components of market orientation significantly affect business performance. Only innovativeness, commitment to learning and inter-organizational knowledge sharing significantly determine the business performance of banks. This is an indication that innovativeness mediates the relationship between market orientation and banks' business performance (Baron and Kenny, 1986). Hence, there is support for *P3*. Hunt and Morgan (1995), Baker and Sinkula (1999), and Farrell and Oczkowski (2002) show that market orientation and organizational learning affect performance because they foster innovation. Notwithstanding the above mediating effect, banks' business performance has a direct significant relationship with all factors of market orientation, except intelligence responsiveness. However, it is related directly with only two components of learning orientation (i.e. commitment to learning and inter-organizational knowledge sharing). This finding is consistent with a meta-analysis put forward by Kirca *et al.* (2005, p. 30), confirming once again that "market orientation has association with performance beyond the mediated effects".

The implications of the above findings in relation to bank executives are uncomplicated. In order to develop a market orientation behaviour, banks are advised to develop the internal processes and structures needed to collect, disseminate and be proactive to both market information and intelligence (Jiménez-Jimenez *et al.*, 2008). Banks attempting to enhance innovation should develop market orientation culture and improve their organizational learning processes. These will enable banks to better anticipate and understand the needs of the customer and competitive situation. Similarly, it will enhance banks' attempts in processing this information quicker and in the development of new products, processes and systems allowing them to achieve

competitive advantage. Finally, banks would be improved in "sensing" the market and closely tying their products to customer wants (Agarwal *et al.*, 2003). In this case, banks would be able to innovate in a way providing superior value for their target customers. They may do this by "developing new services, or by repositioning existing ones, creating new distribution channels or putting in place new approaches to management or competitive strategy" (Agarwal *et al.*, 2003, p. 81).

Limitations and future research directions

Despite the due diligence given to the theoretical development, the research design, the choice of measures, and the analyses procedures; we acknowledge the same limitations to other cross-sectional exploratory studies. Thus results are tentative and situated within the Ghanaian study context. It would be worthwhile to replicate this study in other developing countries. In addition, a limitation of this study pertains to the sample size and response rate, which could have been overcome by conducting a validity test, something recommended by Armstrong and Overton (1977) (i.e. a comparison of early and late responses) which showed no significant differences between groups. Future research should endeavour to work with a large sample size as well.

Future research with a larger sample size could use multiple respondents from each SBU, for both market and learning orientation are not restricted to the activities of a single business function or department (Slater and Narver, 1995). Furthermore, future research should focus on determining the current level of these constructs for a bank, then tracking any changes using a longitudinal study. Hopefully such an approach would provide a clearer picture to the nature of organizational learning in banks, and it's evolution over time (Farrell, 2000). Finally, it would be illuminating if further studies applied objective performance variables.

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Appendix. Main constructs and items

Intelligence generation:

- IG1: our customers' satisfaction and critical factors for satisfaction are regularly measured and compared with other banks in the industry.
- IG2: profitability of segments/services and drivers of profitability are frequently analysed and used for strategic planning.
- IG3: improving employee satisfaction, organizational culture and work conditions are regularly measured and compared with employee effectiveness.

Intelligence dissemination:

- ID1: customer satisfaction and quality improvement are regularly discussed at our bank's strategic conferences and meetings.
- ID2: our mission/vision is written and realized through strategic plans and operational activities of this bank.
- ID3: goals and results of customer satisfaction are systematically communicated to managers and employees through reports and meetings.
- ID4: information on upcoming strategic changes are communicated in comprehensive, logical and objective way – including drawbacks of changes and surveying opinions of employees.
- ID5: measurable (quantitative) goals for customer satisfaction and quality improvement are set and included in strategic plans (similarly financial goals setting).
- ID6: the main focus of our vision is on customer satisfaction and improving the quality of our services.
- ID7: strategic plans are worked out for segments, services and distribution channels and budgeting is also based on the same (market) entities.

Intelligence responsiveness:

- IR1: the system of continuous improvement of critical factors for customer satisfaction and quality of services (queues, relationship management and customer complaints) is implemented.
- IR2: for core processes cycle time and defect rate is measured and improved, which ensures that the result of the processes is improving customer value.

- IR3: managers demonstrate personal involvement in getting closer to customers with specific behaviours – such as open door meetings and personally answering questions.
- IR4: most of the managers and employees are keen to meet new challenges and learn new skills – regardless of their position and age.
- IR5: managers and employees embrace implementation of changes in spite of the fact that changes are often the cause of instability and that they bring inherent risks.
- IR6: implementation of major projects is not disturbed by the fact that more departments are included – we do not experience "barriers" or conflicts between departments as an obstacle for efficient implementation.

Marketing culture:

- MC1: our bank is visibly "obsessed" with the desire to satisfy customers and fulfil their needs, which is apparent in our internal materials, branches and public communications/relations.
- MC2: authority and information for flexible decision making are available where needed (and not treated as the exclusive domain of top managers).
- MC3: bank and customer interests are not treated as "natural conflict" and customer interests are put in the first place (customer interests are a priority).
- MC4: rewarding managers and employees is based on their contribution to customer satisfaction and improving services quality.
- MC5: innovations and suggestions are implemented without multiple approvals by hierarchical round-ups or across bank levels.
- MC6: managers and employees honestly believe that satisfied customers and better quality are the best means for achieving better financial performance of the bank.
- MC7: the flexible interpretation of work procedures, rules and policies is not treated as a problem in our bank – especially when the satisfaction of customer needs is concerned.
- MC8: our managers and employees can precisely tell our mission/vision.

Commitment to learning:

- CL1: the basic values of this bank include learning as key to improvement.
- CL2: the sense around here is that employee learning is an investment, not an expense.
- CL3: learning in this bank is seen as a key commodity necessary to guarantee organizational survival.
- CL4: managers basically agree that our bank's ability to learn is the key to our competitive advantage.

Shared vision:

- SV1: all employees are committed to the goals of this bank.
- SV2: there is total agreement on our bank's vision across all levels, functions, and divisions.
- SV3: there is a commonality of purpose in this bank.
- SV4: employees view themselves as partners in charting the direction of the bank.

Open-mindedness:

- OM1: we are not afraid to reflect critically on the shared assumptions we have made about our customers.

- OM2: personnel in this bank realize that the very way they perceive the market place must be continually questioned.
- OM3: we continually judge the quality of our decisions and activities taken over time.

Inter-organizational knowledge sharing:

- KS1: we have specific mechanisms for sharing lessons learned in our activities from department to department (unit to unit, team to team).
- KS2: we always analyse unsuccessful endeavours of our bank and communicate the lessons learned widely.
- KS3: there is a good deal of conversation throughout our bank that keeps alive the lessons learned from history.

Innovativeness:

- IN1: our bank seeks out new ways to do things.
- IN2: our bank is creative in its methods of operation.
- IN3: our bank frequently tries out new ideas.
- IN4: our bank is often the first to market with new services.
- IN5: our new service introduction has increased over last five years.

Business performance:

- BP1: service quality.
- BP2; customer satisfaction.
- BP3: gross profit margin.
- BP4: employee satisfaction.
- BP5: market share.

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