FINANCIAL INNOVATION IN RETAIL BANKING IN SOUTH AFRICA

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Abstract

Innovation in general refers to an action to do something differently. Financial innovation, which embodies the topic of this research, has therefore the creation of financial products, services and/or systems in mind in order to satisfy the needs of customers and clients and ultimately to improve the financial performance of the enterprises concerned. As the requirements of customers and clients change continuously, financial innovations are important for the survival of enterprises. Capital investments to accommodate financial innovations should be considered very carefully as they will determine the business activities of an enterprise for many years. The objective of this research focuses on the improvement of financial decision-making by executive managers in retail banking when they are engaging in financial innovations. A literature study represented the start of this research to provide a proper basis for compiling the empirical study's questionnaire. The empirical study consisted of an opinion survey where the three pillars of financial innovation were addressed, viz.: products and services innovation, organisational innovation and distribution channel innovation. The empirical study indicated amongst others the importance of these three pillars of financial innovations as perceived by eight of the largest banks in South Africa. Furthermore, the obstacles to financial innovations also received the necessary attention. The empirical results of this research should be valuable to countries which are classified as developing economies with emerging market economies, as South Africa is a member of this group.

Keywords: Capital investments, Distribution channel innovation, Financial innovation, Organisational innovation, Products and services innovation, Retail banking

1. INTRODUCTION AND OBJECTIVE OF RESEARCH

Innovation refers in its simplest form to an action to do something differently. Financial innovation in particular has therefore the creation of financial products, services and/or systems in mind in order to sell these products, services and/or systems to the customers and clients to improve the financial performance of specific enterprises. The employment of financial innovation is consequently essential for the survival as well as growth of any enterprise as the needs of customers and clients change continuously.

The South African banking industry consists of a high market concentration as the five largest banks account for more than 85 per cent of the banking sector's total assets (Mlambo & Ncube, 2011:4). As the competition between various banks can be quite vigorously to ensure their sustainability and to enlarge their market share, while capital investments will shape the business activities of an enterprise for many years, executive managers should be careful when evaluating capital investments in the various types of financial innovations.

The *objective* of this research has the improvement of financial decision-making by executive managers in retail banking in mind when they are employing financial innovation. A literature study was essential to provide an adequate basis to compile a questionnaire for the empirical study. The latter consists of an opinion survey where the three pillars of financial innovation are addressed, viz.:

- products and services innovation,
- organisational innovation and
- distribution channel innovation.

The empirical study focused on the 10 largest retail banks in South Africa. One bank indicated that they felt that the research would provide a competition risk, although it was explicitly stated on the questionnaire that the information would be treated in the strictest confidence and in such a way that no respondent could be identified. Another bank did not complete the questionnaire because they were in the process of changing their business model. It is therefore clear that the empirical survey focused on the perceptions of the eight remaining retail banks when they are employing financial innovation. The following sections focus on the three pillars of financial innovation which were mentioned.

2. PRODUCTS AND SERVICES INNOVATION

Products and services innovation in retail banking consists amongst others of current, savings and other deposit accounts, transactional services, loan products as well as insurance, investment and personal financial management services. These aspects will be discussed in the following sections.

2.1. Current accounts, savings accounts and other deposit accounts

Current accounts usually refer to a bank account which does not earn any interest, but the client may withdraw the money at any time. A *savings account* however usually earns interest on the positive balance, while some other stipulations may be applied by the bank, for example a minimum opening deposit may be required, a notice period may be applicable before the money may be withdrawn and there may be limitations on the withdrawal amount per occasion.

Banks can earn money from current, savings and other deposit accounts is two ways, viz. the bank may lent the money to other parties who are paying a higher interest rate than the cost which may be applicable to the accounts, or the bank may charge fees on these accounts (DeYoung & Rice, 2004:34). Banks however have a problem to differentiate their products from those of their competitors and to create client loyalty (Capgemini & Efma, 2013:6). They may in such a situation opt for a low-cost strategy which may not be to the financial benefit of banks.

2.2. Transactional services

Transactional services provided by banks usually refer to the transferring of money between various accounts, various persons and/or various countries. It is important that banks provide facilities to enable clients to do routine transactions and to simplify the transaction process (Ginovsky, 2013:27). According to The Boston Consulting Group (2012:3) it appears that the strategic importance of transactional banking is enhanced compared to the other segments of the banking industry and that it may provide a pathway to the profitable growth of banks.

Transactional banking can be characterised as “a technology-enabled business” (PwC, 2012:37) which is heavily reliant on the innovative use of technology. It should however be emphasised that a client-focused approach holds the key to the core activities of transactional banking and that capital investments in innovative technology are the means to obtain clients’ satisfaction and loyalty by the banking industry (PwC, 2012:38).

2.3. Loan products

A variety of loan products are offered by banks as well as non-banking institutions in South Africa. Unsecured loans seem to become rather popular in South Africa and the banking sector is paying attention to this trend (O’Neill, 2012:1-5). Innovative loan products by retail banks are therefore vital to retain and increase their market share in this segment of the business sector. There are indications that banks are increasingly interested in the store-card business of various retailers (O’Neill, 2012:2).

Another form of loan facility which is offered by retail banks involve the credit card business. Credit cards may be used as a current payment, where after the owner of the credit card must reimburse the bank on a future date. A credit card is therefore similar to obtaining cash in advance. If the credit balance of a credit card account is not paid on the due date, the bank will charge interest on the outstanding balance. It may be quite possible that some type of innovative device may be available in the future to pay for purchases which may make the credit card obsolete.

2.4. Insurance, investment and personal financial management services

The combination of insurance with banking services is often called “bancassurance”, where the synergies between insurance and banking is utilised to provide cost-effective financial products concerning the insurance and banking activities of the specific financial institution (McGreevy, 1996:17-18). McGreevy further emphasised that the focus should be on the simplicity of the products, the needs of the particular market segment for the financial products, as well as on a new and better way of providing the combined financial services (1996:17-18). The challenge remains to provide the combined financial products in a unique and new way by applying financial innovation.

Although private banking typically focuses on standard banking services, it may also include the management of clients’ investment portfolios, advice regarding their tax situations, their retirement planning and also their estate planning. Financial innovation regarding the clients’ investment and personal financial management is vital to banks as the clients are often wealthy people who will compare the services of various financial institutions to obtain the best value for the fees that they are paying. Organisational innovation is addressed in the following sections.

3. ORGANISATIONAL INNOVATION

Organisational innovation in retail banking focuses mainly on the bank infrastructure concerning banking information systems, risk assessment and management, capital allocation with reference to the Basel Accords and other organisational innovations. These aspects receive the necessary attention in the next sections.

3.1. Bank infrastructure concerning banking information systems

The bank infrastructure refers to the underlying basic structure of the banking system and includes amongst others the banking distribution channels and the banking information systems. This section will specifically focus on the information technology systems which support financial innovation, while the banking distribution channels will be discussed as the third pillar of financial innovation in a separate section.

Information technology systems represents one of the key infrastructure investments made by banks. The heart of any bank consists of the banking software which process the multitude transactions continuously. According to Goh and Kauffman (2013:9) high-performing banks seem to favour investments in information technology. It appears that the emphasis is also on more security features and upgrades to provide be an improved service to the banks’ clients (Wolfe, 2006:8; Wolfe, 2008:7). It should be clear that financial innovation strive through information technology to find a better way of performing activities by reducing costs, becoming more efficient, connecting with new and existing clients and enhancing the experience of clients (McKenzie, 2013).

3.2. Risk assessment and management

Banks are continuously exposed to risks. Two types of risks are prevalent in the banking sector, viz. operational risk and credit risk. Operational risk may lead to losses caused when operations fail due to internal and external factors (Rajendran, 2012:51-52). The factors focus mainly on failures brought about by systems, processes, humans, third parties or nature according to Rajendran (2012:51-52). Operational losses can be huge, for example 23 large institutions in the U.S. recently had operational losses of $25.9 billion (Rosengren, 2007:38). Banks should therefore pay special attention to the impact of their systems and processes as well as the impact of humans, third parties or nature when they are occupied in financial innovation.

Credit risk usually refers to the loss which a lender may suffer when the borrower does not meet its contractual obligations concerning the outstanding debt. Financial innovation may provide sophisticated credit scoring techniques to banks to enable them to assess amongst others the creditworthiness, lending capacity and historic performance of potential borrowers to lower the credit risks and associated costs of these financial institutions (Bofondi & Lotti, 2006:344).

3.3. Capital allocation with reference to the Basel Accords

The global financial crisis of 2007 and thereafter underlined the liquidity and capital risks of financial institutions (Van Grootheest, 2011). The Basel Committee on Banking Supervision plays the important role as an international advisory authority on bank regulation to set prudent standards in order to further the best practices of financial regulators which are embodied in the Basel I, II and III accords (World Council of Credit Unions, 2015). There are however the potential that increases in capital requirements may lower shareholders' returns (Centaur Communications Ltd, 2011). Financial innovations may therefore be necessary in order to maintain the profitability, solvency and liquidity of financial institutions.

How would financial innovation help a bank to maintain its financial position while stringent capital requirements prevail? One example involves the application of alternative risk transfer where a bank converge with the insurance industry and/or the capital market to obtain sufficient financial capacity to shield itself when various types of risks prevail (Mostert & Mostert, 2008:347). Alternative risk transfer can employ various innovative financial strategies, focusing amongst others on securitisation, insuratisation, finite risk insurance and captive insurance companies.

3.4. Other organisational innovations

Except for the above-mentioned organisational innovations, there are also other ways according to which organisational innovations can be employed. *Human resource management* can be utilised to enhance innovation as Sheehan *et al.* found that human resource management should have a positive influence on inter alia leadership, the engagement of employees, the motivation of managers to learn and a learning culture (2014:2). These aspects are essential for the development of innovation activities.

The *business processes, systems and structural innovation* also play an important role in this regard. It was found that decentralised decision-making usually enhance the ability of an organisation to innovate when a formal structure and plans prevail (Cosh *et al.*, 2012:301). It should be clear that by decentralising decision-making, employees are given the opportunity to apply their own mind and enhance innovation activities. Distribution channel innovation receives the necessary attention in the next sections.

4. DISTRIBUTION CHANNEL INNOVATION

The distribution channel innovation in retail banking mainly addresses the functioning of branches, automated teller machines, mobile banking and internet banking. These aspects will receive attention in the following sections.

4.1. Branches

A KPMG survey indicated that branches and automated teller machines are the dominant distribution channels of banking in Africa (2013:2). It is obvious that branches provide face to face contact between the clients and the bank and that personalised solutions can be applied in this way. The size of a bank's branch network does not necessarily have a systematic relationship with its profitability according to the findings of Hirtle (2007:3782). It should however be emphasised that many clients may be highly branch loyal and may require the availability of the personalised service. Banks should take the attitude of their clients concerning bank branches into account when they consider the movement towards more innovative distribution channels such as automated teller machines, mobile banking or internet banking.

4.2. Automated teller machines

The core function of automated teller machines is that cash can be withdrawn at any time of the day and usually outside the bank's premises. The clients save time by using the automated teller machines, while banks may also save operational costs in this way (Chandio, 2013:135). The negative effects of automated teller machines are emphasised by Ogbuji *et al.* (2012:180). They stated that users of automated teller machines may profligate by withdrawing money recklessly. The amount of daily withdrawals may be limited as a safeguard in this way. The security attached to the use of automated teller machines is also of prime importance and measures to protect users should address their education regarding their personal identification numbers (PINs) and the general manner according to which automated teller machines should be used. This type of financial innovation must therefore be carefully managed by banks.

4.3. Mobile banking

The term mobile banking is used for various types of bank transactions through the application of mobile devices including mobile phones (Bećirović *et al.*, 2011:89). Due to the rapid increase in the number of mobile devices globally, banks are currently in a position to offer a variety of financial services to people in developed as well as developing countries at lower costs (Kendall & Voorhies, 2014:9-13).

Mobile banking should provide advantages to banks (Kendall & Voorhies, 2014:9-13), viz. the low cost of connecting to their clients, obtaining huge amounts of data through mobile communications which banks can employ in future, and sending messages to each other when it suits the bank or client personally. The disadvantages of mobile banking are really seriously, as obtaining cyber or physical control of the mobile device, stealing of personal data and using it in malicious manners, obtaining access to the financial records of people and conducting illegal transactions, are but a few to mention (Goodman & Harris, 2010:24-27). Banks should inform their clients on the due diligence needed when employing mobile banking.

4.4. Internet banking

The term internet banking is self-explanatory as it embodies the performance of banking transactions via the internet. Internet banking can save operational cost for banks as a technology based approach is applied. The clients on the other hand can do their routine banking transactions when it suits them, excluding the withdrawal of money.

Research indicated that many clients are still careful to accept the risk associated with internet banking, as they are cautious that their privacy and personal information may be accessed by unauthorised people (Gerrard *et al.*, 2006:164). The threats to internet access can vary widely from viruses and hackers to espionage and software piracy (Henning & Ebersohn, 2001:274). Furthermore, clients often do not obtain access to internet banking because they do not identify a need to have internet banking, or due to a lack of knowledge concerning internet banking, inertia, inaccessibility to connect to the internet, or the need to have a personal touch when doing banking transactions (Gerrard *et al.*, 2006:164). Banks should address these reasons why clients to not obtain internet banking when they want to enhance financial innovation. The following section focuses on the research methodology to obtain the empirical results.

5. RESEARCH METHODOLOGY

Secondary as well as the primary data was necessary to accomplish the *objective* of this research. The objective was already defined as the improvement of financial decision-making by executive managers in retail banking when they are applying financial innovation. After using the secondary data to compile a questionnaire for the empirical study, the opinion survey was undertaken. Copies of the questionnaire as well as the invitation letter to participate in the opinion survey, were sent to the 10 largest retail banks in South Africa. It was already explain in Section 1 of this paper that eight of these retail banks eventually completed the questionnaires. The empirical results are therefore based on the perceptions of these eight retail banks.

The majority of the questionnaire's questions used a five point Likert interval scale. It was explicitly stated on the questionnaire that, where applicable, the five point Likert interval scale forms a continuum which enabled the weighting of the answers (Albright *et al.*, 2002:224-229 & 245). The answers of the respondents were weighted by assigning the following weights when a five point Likert interval scale was used:

Table 1. The weights assigned to the answers of the respondents

Answers of the respondents:	*Weights assigned:*
Extremely important	5
Highly important	4
Moderately important	3
Little important	2
Not important	1

The empirical results which were obtained through the opinion survey are shown and discussed in the following sections.

6. EMPIRICAL RESULTS

The primary data of this paper are depicted and described in the next sections by focusing on the following aspects of financial innovation:

- Capital investments in products and services innovation,
- Capital investments in organisational innovation,
- Capital investments in distribution channel innovation,
- Capital investments in all three areas of financial innovation and
- Obstacles to financial innovation

6.1. Capital investments in products and services innovation

Table 2 shows how important the respondents perceived capital investments in the area of products and services innovation.

Table 2. The importance of capital investments in the area of products and services innovation within a retail bank, as perceived by the respondents

Aspects of innovation	*Extremely important*	*Highly important*	*Moderately important*	*Little important*	*Not important*
Innovation in *current accounts*		4	3	1	
Innovation in *savings accounts*	3	1	4		
Innovation in *transactional services*	5	2	1		
Innovation in *loan products*		6	2		
Innovation in *insurance services*	2	3	3		
Innovation in *investment and personal financial management services*	3	3	2		

It is interesting to note that five of the eight respondents perceived capital investments in innovation in transactional services as extremely important according to Table 2. The responses shown in the preceding table were weighted by applying the weights depicted in Table 1 and the weighted responses appears in Table 3.

Table 3. The weighted responses on the importance of capital investments in the area of products and services innovation within a retail bank, in a declining order of importance

Total weighted scores calculated	*Mean scores*	*Declining order of importance*	*The different aspects of products and services innovation within a retail bank*
36	4.50	1	Innovation in *transactional services*
33	4.13	2	Innovation in *investment and personal financial management services*
31	3.88	3	Innovation in *insurance services*
31	3.88	3	Innovation in *savings accounts*
30	3.75	5	Innovation in *loan products*
27	3.38	6	Innovation in *current accounts*
	3.92		TOTAL for products and services innovation

The weighted responses of the preceding table on the importance of capital investments in the area of products and services innovation within a retail bank, indicates that capital investments concerning the innovation in transactional services is perceived by the respondents as *most* important, while the innovation in investment and personal financial management services is regarded as the *second* most important aspect to take into account.

The *next two* aspects of innovation in the area of products and services innovation shown in the preceding table in a declining order of importance, have the same total weighted scores calculated. These two aspects address respectively capital investments concerning innovation in insurance services as well as innovation in savings accounts. It is concluded that retail banks should pay special attention to the four aspects mentioned in this section when they consider capital investments in the area of products and services innovation. The next section focuses on capital investments in organisational innovation.

6.2. Capital investments in organisational innovation

The importance of capital investments in the area of organisational innovation within a retail bank is depicted in Table 4, based on the perceptions of the respondents.

Table 4. The importance of capital investments in the area of organisational innovation within a retail bank, as perceived by the respondents

Apects of innovation	*Extremely important*	*Highly important*	*Moderately important*	*Little important*	*Not important*
Innovation in *information technology and systems*	6	2			
Innovative *risk assessment and risk management* practices / procedures	4	4			
Innovation in terms of new *capital allocation activities with reference to the Basel accords*	2	6			
Innovation in *human resources activities*	2	5	1		
Business processes, systems and structural innovation	5	2	1		

It should be mentioned that six of the respondents perceived capital investments in innovation in information technology and systems as extremely important in the preceding table, while the remaining two retail banks regard it as highly important. The weights shown in Table 1 were employed to calculate the total weighted scores which appear in the next table.

Table 5. The weighted responses on the importance of capital investments in the area of organisational innovation within a retail bank, in declining order of importance

Total weighted scores calculated	*Mean scores*	*Declining order of importance*	*The different aspects of organisational innovation within a retail bank*
38	4.75	1	Innovation in *information technology and systems*
36	4.50	2	Innovative *risk assessment and risk management* practices / procedures
36	4.50	2	*Business processes, systems and structural* innovation
34	4.25	4	Innovation in terms of new *capital allocation activities with reference to the Basel accords*
33	4.13	5	Innovation in *human resources activities*
	4.43		TOTAL for organisational innovation

Innovation in information technology and systems obtained the highest weighted score calculated according to Table 5, which indicates that this aspect is perceived by the respondents to be *most* important when retail banks are considering capital investments in the area of organisational innovation. It is further concluded that two other aspects seem to be equally important as well as being the *second* most important aspects when retail banks contemplate capital investments in the area of organisational innovation, viz.:

- Innovative risk assessment and risk management practices / procedures and
- Business processes, systems and structural innovation.

These three aspects should therefore receive due attention when retail banks are considering capital investments in the area of organisational innovation. The following section pays attention to capital investments in distribution channel innovation.

Table 6. The importance of capital investments in the area of distribution channel innovation within a retail bank, as perceived by the respondents

Aspects of innovation	*Extremely important*	*Highly important*	*Moderately important*	*Little important*	*Not important*
Innovation relating to a *bank's branches*	4	4			
Innovation in *automated teller machines (ATMs)*	3	3	2		
Mobile banking innovation	6	2			
Internet banking innovation	6	1	1		

6.3. Capital investments in distribution channel innovation

The respondents were requested to indicate how important they perceive capital investments in various aspects of distribution channel innovation. The empirical results obtained are depicted in the following table.

It should be highlighted from the preceding table that six of the eight respondents indicated that capital investments in mobile banking innovation are extremely important, while the remaining two respondents regarded the capital investments as highly important. The total weighted scores were calculated by applying the weights which appear in Table 1 and the results are depicted in Table 7.

Table 7. The weighted responses on the importance of capital investments in the area of distribution channel innovation within a retail bank, in a declining order of importance

Total weighted scores calculated	*Mean scores*	*Declining order of importance*	*The different aspects of distribution channel innovation within a retail bank*
38	4.75	1	*Mobile banking* innovation
37	4.63	2	*Internet banking* innovation
36	4.50	3	Innovation relating to a *bank's branches*
33	4.13	4	Innovation in *automated teller machines (ATMs)*
	4.50		TOTAL for distribution channel innovation

The total mean score for the area of distribution channel innovation amounts to 4.50 (according to the preceding table) while the total mean score for the area of organisational innovation is equal to 4.43 (according to Table 5) and the total mean score for the area of products and services innovation is 3.92 (according to Table 3). It is therefore clear that capital investments in the area of distribution channel innovation is perceived by the respondents to be slightly more important than capital investments in the other two areas of innovation.

Taking the total weighted scores calculated of Table 7 into consideration, it is concluded that capital investments in mobile banking innovation is regarded by the respondents as the *most* important capital investments in the area of distribution channel innovation, while the capital investments in internet banking innovation is considered as the *second* most important aspect to pay attention to. Capital investments in innovation relating to a bank's branches are regarded as the *third* most important aspect in the area of distribution channel innovation by the respondents. These three aspects mentioned in this paragraph should thus receive due attention when retail banks are assessing capital investments in the area of distribution channel innovation. The following section compare the importance of capital investments in all three areas of financial innovation.

6.4. Capital investments in all three areas of financial innovation

The weighted responses on the importance of capital investments in all three areas of financial innovation within retail banks are depicted in a declining order of importance in Table 8. This table is based on the information of Tables 3, 5 and 7 of this paper.

Table 8. The weighted responses on the importance of capital investments in the different areas of innovation within a retail bank, in declining order of importance

Total weighted scores calculated	*Mean scores*	*Declining order of importance*	*The different aspects of innovation within a retail bank (all three areas)*	*Areas of innovation*
38	4.75	1	*Mobile banking* innovation	Distribution channel
38	4.75	1	Innovation in *information technology and systems*	Organisational
37	4.63	3	*Internet banking* innovation	Distribution channel
36	4.50	4	Innovation relating to a *bank's branches*	Distribution channel
36	4.50	4	Innovative *risk assessment and risk management* practices/procedures	Organisational
36	4.50	4	*Business processes, systems and structural* innovation	Organisational
36	4.50	4	Innovation in *transactional services*	Products and services
34	4.25	8	Innovation in terms of new *capital allocation activities with reference to the Basel accords*	Organisational
33	4.13	9	Innovation in *automated teller machines (ATMs)*	Distribution channel
33	4.13	9	Innovation in *investment and personal financial management services*	Products and services
33	4.13	9	Innovation in *human resources activities*	Organisational
31	3.88	12	Innovation in *insurance services*	Products and services
31	3.88	12	Innovation in *savings accounts*	Products and services
30	3.75	14	Innovation in *loan products*	Products and services
27	3.38	15	Innovation in *current accounts*	Products and services

It is important to note that concerning the seven aspects of innovation with the highest total weighted scores calculated according to the preceding table, the area of distribution channel innovation as well as the area of organisational innovation each has three aspects. Some aspects of these two areas of financial innovation seem to be quite important according to the perceptions of the respondents. The area of products and services innovation has only one aspect which made it to the top seven of the list and that is innovation in transactional services. The obstacles to financial innovation are addressed in the following section.

6.5. Obstacles to financial innovation

The respondents were each requested to mention the three most important obstacles for financial innovation which they have experienced. Table 9 depicts the number of respondents who indicated each obstacle.

Table 9. The most important obstacles for financial innovation within a retail bank, as indicated by the respondents

Obstacles	*Number of respondents who mentioned the obstacle*
Inadequate human resources	6
Inadequate technology	6
Inadequate capital resources	5
Inadequate leadership	3
Time constraints	2
Attitude of clients towards innovation	1
Regulatory requirements	1

Three of the obstacles were mentioned by the majority of the eight respondents, viz.:

- Inadequate human resources,
- Inadequate technology, and
- Inadequate capital resources.

It is quite surprising that inadequate human resources are seen as an obstacle by the respondents, while they have indicated that innovation in human resources activities is one of the not so important aspects when they consider capital investments according to Table 8. It can therefore be concluded that the respondents perceived innovation in human resources as an obstacle, but that executive managers do not apparently realise that capital investments in their personnel are of utmost importance to provide this aspect of financial innovation.

It is clear according to Table 8 that innovation in information technology and systems is regarded as a very important aspect when the respondents consider capital investments in financial innovation. This empirical finding shows that the respondents have realised the urgent need to address the obstacle mentioned in Table 9 about inadequate technology. The obstacle about inadequate capital resources is inherent to the nature of capital investments as the availability of capital is usually less than the investments opportunities which exit.

7. CONCLUSIONS

A literature study as well as an opinion survey were undertaken to reach the *objective* of this research, which was defined as the improvement of financial decision-making by executive managers in retail banking when they are employing financial innovation. Based on the literature study as well as the empirical survey, the main conclusions of this research are as follows:

(1) Capital investments concerning the innovation in transactional services is perceived by the respondents as *most* important in the *area of products and services innovation* while the innovation in investment and personal financial management services is regarded as the *second* most important aspect to take into account.

(2) Innovation in information technology and systems represents the aspect perceived by the respondents to be *most* important when retail banks are considering capital investments in the *area of organisational innovation*. It is further concluded that the following two aspects seem to be equally important as well as being the *second* most important aspects when retail banks contemplate capital investments in this area of financial innovation, viz.:

- Innovative risk assessment and risk management practices / procedures and
- Business processes, systems and structural innovation.

(3) It was concluded that capital investments in mobile banking innovation is regarded by the respondents as the *most* important capital investments in the *area of distribution channel innovation*, while the capital investments in internet banking innovation is considered as the *second* most important aspect to pay attention to.

(4) Based on the total mean score for each *area of financial innovation* it is clear that capital investments in the area of distribution channel innovation is perceived by the respondents to be *slightly more* important than capital investments in the other two areas of innovation. It is furthermore important to note that concerning the seven *individual aspects of innovation* with the highest total weighted scores calculated, the area of distribution channel innovation as well as the area of organisational innovation each has three aspects. Some aspects of these two areas of financial innovation seem to be quite important based on the perceptions of the respondents.

(5) Three *obstacles* were mentioned by the majority of the respondents, viz. inadequate human resources, inadequate technology, and inadequate capital resources. The second and third obstacles mentioned make sense, but it seems that the obstacle of inadequate human resources did not correspond with the perceptions of the respondents regarding the importance of capital investments for innovation in human resources activities to solve this obstacle.

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