



FACTORS INFLUENCING THE GROWTH OF FINANCIAL INNOVATION AT THE NAIROBI STOCK EXCHANGE

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Abstract

The study sought to examine the factors influencing financial innovation at the Nairobi Stock Exchange. Financial innovation is beneficial as it spurs growth, thanks to the greater easiness with which funds flow from agents with high productive projects towards agents with low productive projects. Secondly, the amount of risk that investors bear is reduced, as a consequence of the availability of a broader set of assets, allowing greater diversification and risk sharing. Though Kenyan securities market is slightly more advanced than in some African countries, it still has a long way to go to be at leverage as those of developed countries. The research project will identify the factors that have led to the low levels of financial innovation in Kenya's securities market. The key objective of this study is to determine the factors that influence the rate of financial innovation in Kenya's Securities Market and to give insights on the immense benefits that accrue from financial innovation and thus encourage companies and the Government to embrace financial innovation. Based on the findings, the study concluded that price stability variables such as price volatility, money value and customer price index influence financial innovation by a great extent. In regards to information asymmetry, the study established that timeliness of information, type of information and insider trading influence financial innovation to a great extent. The study also found out that new products and new techniques influence financial innovation.

Keywords: Generic Strategies, Cost Leadership, Differentiation Strategy, Focus Strategy

INTRODUCTION

In Kenya, financial innovation has grown at a slow pace as compared to the international market, Sichei and Kamau, (2012). For example; few companies in the whole country are listed in the Nairobi Stock Exchange, there is only one stock exchange in the whole country despite Kenya devolving its government. There are both Macro-environmental factors and Micro-environmental factors that influence innovation. The macro-environmental factors include: technological advances, regulation, increased financial competition, global financial integration and historical dynamics of innovation. The micro-environmental factors which influence innovation are; increased market risk, price volatility, liquidity, information asymmetry, corporate governance, cost and increased demand for credit. This study will focus on micro-environmental factors and in particular, on; cost of innovation, product diversification and information asymmetry.

Information asymmetries and transaction costs are a hindrance to financial innovation (Duffie and Rahi, 1995). Most managers of financial institutions are not sure whether committing funds in a particular project will deliver the required capabilities and whether the cost of committing funds in such a system is justified. Moreover, the costs of some technology systems are prohibitive that companies without a strong capital cannot afford to acquire. Firms will require seed capital to start the business, to operate and manage the business enterprise. Orser (2000) noted that unavailability or lack of information about alternative sources of finances and inability of firms to evaluate financing option were some of the major problems facing financial innovation. Mambula (2002) singled out lack of access to finances as the main bottleneck facing financial innovation which was similarly echoed by Florida *et al.* (1996) and Livard Pang, (2006). Levine and Zervos (1996) included measures of stock market development and found a positive partial correlation between both stock market and GDP per capita growth. NSE only trades in shares and bonds as compared to the developed Nations that trade in many financial products such as options, futures, swaps and forward contracts. Policies, regulations, and institutions that impede financial innovation have large effects on the rate of technological innovation. Thus, countries in which it is more expensive to innovate financially will tend to experience slower rates of technological growth.

Nairobi Stock Exchange (NSE)

NSE is Africa's fourth largest stock exchange in terms of trading volumes and fifth in terms of market capitalization. In view of the world, trade markets have experienced their most explosive

growth over the past decade, emerging equity markets have experienced an even more rapid growth, taking on an increasing share of this global boom. For example, while overall capitalization rose from \$4.7 trillion to \$ 15.2 trillion globally, the share of emerging markets jumped from less than 4 to 13 percent in this period. Trading activity in this markets surged equally fast; the value of shares traded in emerging markets climbed from less than 3 percent of the \$1.6 trillion world total in 1985 to 17 percent of the \$9.6 trillion shares traded in all world's exchanges in 1994. With this in mind, Kenya needs to have a share of this global pie for advantages in both economic growth and development and increase in investment levels.

Innovations in the Nairobi Stock Exchange (NSE)

In Kenya, dealing in shares and stocks started in the 1920's when the country was still a British colony. However the market was not formal as there did not exist any rules and regulations to govern stock broking activities. Trading took place on a 'gentleman's agreement.' Standard commissions were charged with clients being obligated to honour their contractual commitments of making good delivery, and settling relevant costs. At that time, stock broking was a sideline business conducted by accountants, auctioneers, estate agents and lawyers who met to exchange prices over a cup of coffee. Because these firms were engaged in other areas of specialization, the need for association did not arise. In 1954 the Nairobi Stock Exchange was then constituted as a voluntary association of stockbrokers registered under the Societies Act. Since Africans and Asians were not permitted to trade in securities, until after the attainment of independence in 1963, the business of dealing in shares was confined to the resident European community. At the dawn of independence, stock market activity slumped, due to uncertainty about the future of independent Kenya. In 1963, Africans were allowed to join and trade in the market. 1988 saw the first privatization through the NSE, of the successful sale of a 20% government stake in Kenya Commercial Bank. The sale left the Government of Kenya and affiliated institutions retaining 80% ownership of the bank.

The NSE received formal approval in October 2015 from the country's financial markets regulators to operate derivatives market. This is a financial market of instruments like futures contracts and options. This will provide advantages such as minimal upfront investment, lower transaction costs and risk mitigation. NSE is in the process of finalizing the membership of market participants and on-going regulatory requirements while enhancing industry and investor awareness on the products to be rolled out.

Statement of the Problem

Though Kenyan security market is slightly more advanced than in some African countries, it still has a long way to go to be at leverage as those of developed countries. Other factors that have caused the slow growth rate of Kenyan financial market are market imperfections such as moral hazard, information asymmetry, transaction costs, fewer market participants and less sophisticated and skilled investment analysts. Finance theory supports the slow growth of financial innovation in developing nations such as the Diffusion of Innovation (DOI) Theory, developed by E.M. Rogers in 1962, which explains how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The end result of this diffusion is that people, as part of a social system, adopt a new idea, behaviour, or product. Adoption of a new idea, behaviour, or product (i.e., "innovation") does not happen simultaneously in a social system; rather it is a process whereby some people are more apt to adopt the innovation than others. Therefore according to this theory developing nations have lagged in the growth of financial innovation because they are less apt to adopt innovation. Despite the importance of financial innovation, it has not been fully embraced in Kenya Sichei and Kamau (2012). This paper will therefore add to the growing literature on Kenyan stock market by identifying the factors that influence the growth of financial innovation in Kenya Securities Market.

Objectives of the Study

The overall objective of the study was to determine the factors influencing the growth of financial innovation in Kenya's securities market.

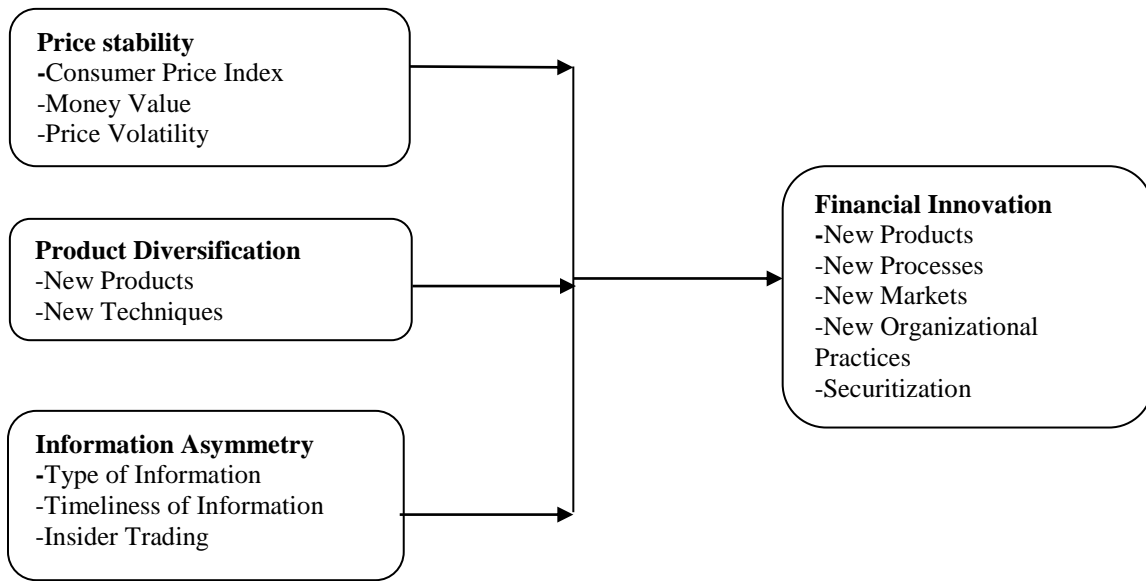
Specific Objectives

Specific Objectives were to;

1. To examine the effect of price stability on financial innovation in Kenya's securities market
2. To investigate the effect of product diversification on financial innovation in Kenya's securities market
3. To determine the effect of information asymmetry on financial innovation in Kenya's securities market

These objectives have been expounded further by the conceptual framework below;

Figure 1: Conceptual Framework



LITERATURE REVIEW

The study was guided by the Diffusion of Innovation Theory, Chain Linked Innovation Theory, Fiscal Theory of Price Level, and

Diffusion of Innovation Theory

Diffusion of Innovation (DOI) Theory, developed by E.M. Rogers in 1962, is one of the oldest social science theories. It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The end result of this diffusion is that people, as part of a social system, adopt a new idea, behaviour, or product.

Chain Linked Innovation Theory

The model identifies five major paths of innovation processes: the central chain of innovation starts with the invention/production of a design, based on market signals, that is then developed, produced and marketed. The process includes feedback loops iterating the steps and controlling for perceived market signals and users' needs, and linkages between science and innovation representing the recourse to various knowledge stocks accompanying the whole process.

Fiscal Theory of Price Level

The fiscal theory of the price level is the idea that government fiscal policy affects the price level. For the price level to be stable (to control inflation), government finances must be sustainable: they must run a balanced budget over the course of the business cycle, meaning they must not run a structural deficit.

METHODOLOGY

The research used both primary and secondary data. In collecting the necessary data to satisfy the objective of the study; this research also employed both quantitative and qualitative techniques. A sample size of 30 companies was used for the study based on Adler and Adler's (1987) concept of sampling. Having established the sample, the researcher formulated well-structured open, close-ended and Likert-scaled questionnaires which was administered to the 30 independently systematically selected respondents (company representatives). The data analysis was performed in a number of stages. Once the questionnaires were collected, data from the questionnaire was coded and analyzed, items grouped into the various dimensions of constructs. Data screening was also be performed. Both descriptive and inferential statistics was be used to analyze the data collected. Descriptive statistics included measuring of central tendency and dispersion. With descriptive statistics, causal linkage between independent variables and the dependent variable was evaluated. Correlation analysis was used to establish the relationship between the independent variables (price stability, product diversification and information asymmetry) and financial innovation. Multiple regression analysis was used to test the study hypotheses. Also a pilot test of the questionnaire was conducted to a few companies trading actively in the NSE.

RESEARCH FINDINGS AND DISCUSSION

Price Stability and Financial Innovation

The relationship between the price stability and financial innovation was also assessed in this research. The results measuring the relationship is as shown in the table below;

Table 4.1: Relationship between price stability and financial innovation

		Price Stability	Financial Innovation
Price Stability	Pearson Correlation	1	.32**
	Sig. (2-tailed)		.020
	N	30	30
Financial Innovation	Pearson Correlation	.32**	1
	Sig. (2-tailed)	.020	
	N	30	30

The correlation reported in the table 4.1 above is positive and significantly different from 0 because the t-value of 0.020 is less than 0.10. This suggests that Nairobi Stock Exchange should also consider other factors affecting the financial innovation in line with the price stability.

Product diversification and Financial Innovation

The researcher wanted to identify the relationship between the Product diversification and financial innovation. Pearson correlation test was used to identify the strength of the relationship. This is as represented in the table 2 below.

Table 2: Relationship between Product diversification and financial innovation

		Product diversification	Financial Innovation
Product diversification	Pearson Correlation	1	.15**
	Sig. (2-tailed)		.028
	N	30	30
Financial Innovation	Pearson Correlation	.15**	1
	Sig. (2-tailed)	.028	
	N	30	30

The correlation represented in the table 2 is positive, and the value of 0.15 is significantly different from 0 because the t-value of 0.028 is less than 0.10. This indicates that apart from product diversification asymmetry, Nairobi Stock Exchange should also consider other factors affecting the financial innovation.

Information Asymmetry and Financial Innovation

The researcher wanted to identify the relationship between the information asymmetry and financial innovation. Pearson correlation test was used to identify the strength of the relationship. This is as represented in the table 3 below.

Table 3: Relationship between information asymmetry and financial innovation

		Information asymmetry	Financial Innovation
Information asymmetry	Pearson Correlation	1	.310**
	Sig. (2-tailed)		.027
	N	30	30
Financial Innovation	Pearson Correlation	.310**	1
	Sig. (2-tailed)	.027	
	N	30	30

The correlation represented in the table 3 is positive, and the value of 0.310 is significantly different from 0 because the t-value of 0.027 is less than 0.10. This indicates that apart from information asymmetry, Nairobi Stock Exchange should also consider other factors affecting the financial innovation.

Regression analysis

Multiple regression analysis was conducted so as to determine the relationship between the dependent variable and the independent variables.

($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon$) become:

$$Y = 1.407 + 0.662X_1 + 0.756X_2 + 0.785X_3$$

Regression Coefficients

Standardized error

Unstandardized Coefficients

Model	B	r	Beta	t
				Sig.
(Constant)	1.407	1.342		1.623 0.35
Information Asymmetry	0.662	0.310	0.172	4.342 .027
Product Diversification	0.756	0.15	0.210	3.53 .028
Price Stability	0.785	0.32	0.067	3.54 .020

The regression equation above has established that taking all factors into account that is (price stability, product diversification and information asymmetry) constant at zero, financial innovation will be 1.408. The findings presented also shows that taking all other independent variables at zero, a unit increase in price stability will lead to a 0.662 increase of financial innovation; a unit increase in product diversification will lead to a 0.756 increase of financial innovation and a unit increase in information asymmetry to a 0.785 increase in financial innovation.

This implies that price stability variable contributes the most to implementation of financial innovation followed by product diversification and finally information asymmetry had the least influence to financial innovation.

SUMMARY

Influence of Price Stability on Financial Innovation

In regard to price stability, the study established that price volatility, money value and consumer price index influence financial innovation. Availability of stable prices promotes innovative means of payments, reduces transaction costs, thereby facilitating trading and the exchange of goods and services. . In the long term, this should be favourable for economic growth. This financial innovation leads to the proliferation of new financial products that help to make markets more complete. This is, for instance, the case of the development of financial technology such as derivatives and securitisation, which, by enabling risks to be unbundled and repackaged, has greatly expanded the range of tradable risks. As a result, markets have become deeper and more liquid, and prices have become more competitive.

Influence of product diversification on Financial Innovation

In the area of product diversification, the study established that new products and new techniques influence financial innovation to a great extent.

Influence of Information Asymmetry on Financial Innovation

The study found out that type of information, timeliness of information and insider trading are factors that influence financial innovation. The study found out that when entire markets are widely perceived to be tainted by insider trading, average people who are also potential investors avoid the markets.

CONCLUSION

The findings of this study indicate that quite a number of factors were important in influencing financial innovation. Some had more impact than others. Based on the findings, the study concluded that price stability variables such as price volatility, money value and customer price index influence financial innovation by a great extent.

In regards to information asymmetry, the study established that timeliness of information, type of information and insider trading influence financial innovation to a great extent. The study also found out that new products and new techniques influence financial innovation.

RECOMMENDATIONS

This study recommends that the government should have proper monetary and fiscal policies in order to promote financial innovation in Kenya's securities market. Offering incentives like low tax rates and investment climate to investors. Efforts should be made to Speed up integration of east African stock markets and increase the listing of securities in this market. Regulatory authorities should critically address the question of small, illiquid, in- effective, expensive and bothersome stock market and relax excessive barriers to entry to foreign investors and promote public knowledge of securities market.

Unique financial products suited to the Kenyan stock markets should be developed. Possibilities of introducing derivatives such as options and futures should be explored. Securities markets participants such as stockbrokers, fund managers, and other market participants should adhere to ethics and should have basic qualifications in investment as a qualification.

Areas for Further Study

The study sought to establish the factors that influence financial innovation at the Nairobi Stock Exchange. The researcher thus recommends further comparative research studies on the factors that influence financial innovation in other countries stock markets. The researcher also suggests a further research on ; the impact of investors' ability to trade in financial markets electronically.

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