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Is Currency Depreciation or Appreciation Expansionary in Turkey?

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Abstract

Based on an extended IS-MP-AS model (Romer, 2000), this paper finds that real appreciation raised real GDP in Turkey during 2002.Q2-2011.Q2 whereas real depreciation helped increase real GDP during 2011.Q3-2017.Q1. In addition, a lower government debt-to-GDP ratio, a lower lagged world real interest rate, a lower real oil price or a lower expected inflation rate helped raise real GDP. These results suggest that the relationship between aggregate output and exchange rates may be subject to structural changes and that a prudent fiscal policy would be more appropriate.

Keywords: IS-MP-AS model, currency depreciation or appreciation, government debt, world interest rates, oil prices

JEL Classifications: F41

1. Introduction

Turkey's economy exhibits both progress and concerns. According to the International Monetary Fund (2017), its economic growth rate of 3.184% in 2016 was higher than many other industrialized countries. Its government net borrowing as a percent of GDP declined from a recent high of -5.881% in 2009 to -2.316% in 2016. Its general government gross debt as a percent of GDP dropped from a recent high of 76.401% in 2001 to 28.131% in 2016, which was well below the EU threshold of 60%. The inflation rate has been on the decline from a recent high of 104.54% in 1994 to 7.775% in 2016, which was slightly higher than the 5% inflation target (Central Bank of the Republic of Turkey, 2017). The Turkish lira had depreciated as much as 132.05% versus the U.S. dollar during 2008-2016, suggesting that its potential impacts on aggregate output may need to be investigated.

Several studies including Turkey in the sample have examined the effect of currency depreciation or appreciation on aggregate output. Gylfason and Risager (1984) report that a 10% devaluation would result in a 3.4% increase in real output in Turkey. Nunnenkamp and Schweickert (1990) devaluation is expansionary in the 22 countries including Turkey in the low middle-income group.

Morley (1992) finds that devaluation is contractionary mainly because of a substantial decrease in investment. Domac (1997) indicates that there is lack of evidence of contractionary devaluation. Kalyoncu, Artan, Tezekici, and Ozturk (2008) show that devaluation is contractionary in the short run and that there is cointegration in the long run. Sencicek and Upadhyaya (2010) reveal that devaluation is contractionary in the short run, expansionary in the medium run and neutral in the long run. Tavakoli and Kheradmand (2013) point out that the impact of a currency crash on economic growth in Turkey is statistically insignificant. Gülay and Pazarlioğlu (2016) find that real appreciation has negative effects on economic growth. Yildirim and Ivrendi (2016) discover that significant currency depreciation causes a deep recession, high inflation, and an improved trade balance. Some of these studies have different findings mainly because different models, methodologies and sample periods are used.

This paper focuses on the impacts of exchange rate movements on aggregate output in Turkey based on an extended IS-MP-AS model (Romer, 2000). Other relevant economic variables will also be considered. Several studies of the effect of real depreciation on aggregate output select the money supply as a proxy for monetary policy (Agenor, 1991; Morley, 1992; Moreno, 1999; Bahmani-Oskooee, 1998; Bahmani-Oskooee, Chomsisengphet and Kandil, 2002; Kim and Ying, 2007; Ratha, 2010; An, Kim and Ren, 2014; Kim, An and Kim, 2015). Romer (2000) proposes that a monetary policy function incorporating inflation targeting (Taylor, 1993, 1999; Ege Yazgan and Yilmazkuday, 2007; Yilmazkuday, 2008; Akyurek, Kutan and Yilmaskuday, 2011) would be more appropriate as many countries including Turkey has adopted inflation targeting in setting the policy rate. The innovation of this paper is the consideration of several new variables such as the real effective exchange rate, the world real interest rate and the real oil price in the extended IS-MP-AS model in order to explore the impacts of international trade and finance, an open economy and supply shocks on aggregate output.

2. The Model

Extending Romer (2000), we can express the IS, MP and AS functions as:

$$Y = f(Y, G, T, L, \varepsilon) \quad (1)$$
$$R = g(\pi - \pi^*, Y - Y^*, \varepsilon, R^*) \quad (2)$$
$$\pi = h(\pi^e, Y - Y^*, E, \varepsilon) \quad (3)$$
$$L = w(R) \quad (4)$$

where
Y = real GDP in Turkey,
G = government spending,
T = government tax revenue,
L = the real lending rate,
ε = the real effective exchange rate (An increase means real appreciation.),
R = the real policy rate,
π = the inflation rate,
π^* = the inflation target,
Y^*= potential real GDP,
R^* = the world real interest rate,
π^e = the expected inflation rate, and
E = the real oil price.

Suppose that the inflation target and potential real GDP are constants in the short run. Solving for the three endogenous variables, we can express equilibrium real GDP as:

$$\bar{Y} = x(\varepsilon, G - T,\ R^*, E, \pi^e) \quad (5)$$

The Jacobian for the endogenous variables can be written as:

$$|J| = [(1 - f_Y) - f_L w_R g_\pi h_Y - f_L w_R g_Y] > 0. \quad (6)$$

The partial derivative of $\bar{Y}$ with respect to ε can be expressed as:

$$\partial\bar{Y}/\partial\varepsilon = (f_\varepsilon + f_L w_R g_\pi h_\varepsilon + f_L w_R g_\varepsilon)/|J| > \text{ or } < 0. \quad (7)$$

Note that the first term in the numerator tends to be negative whereas the second and third terms in the numerator tend to be positive. Real appreciation tends to hurt exports, reduce import costs and domestic inflation, and increase international capital inflows. Conversely, real depreciation is expected to help exports, increase import costs and domestic inflation (Yilmazkuday, 2015; Alvarez, Shoja, Uddin, and Yilmazkuday, 2017), and reduce international capital inflows. Therefore, the sign in equation (7) is unclear.

An analysis of the data in Figure 1 shows that real GDP and the real effective exchange rate seemed to have a positive relationship during 2002.Q2-2011.Q2 and a negative relationship during 2011.Q3-2017.Q1, suggesting that real appreciation raised real GDP during 2002.Q2-2011.Q2 whereas real depreciation increased real GDP during 2011.Q3-2017.Q1. Because government debt is an accumulation of the government budget deficit and because investors are more concerned about potential default of government debt, the budget deficit (G – T) is replaced with government debt (D).

Figure 1. Scatter Diagram between real GDP (RGDP) and the Real Effective Exchange Rate (REER)

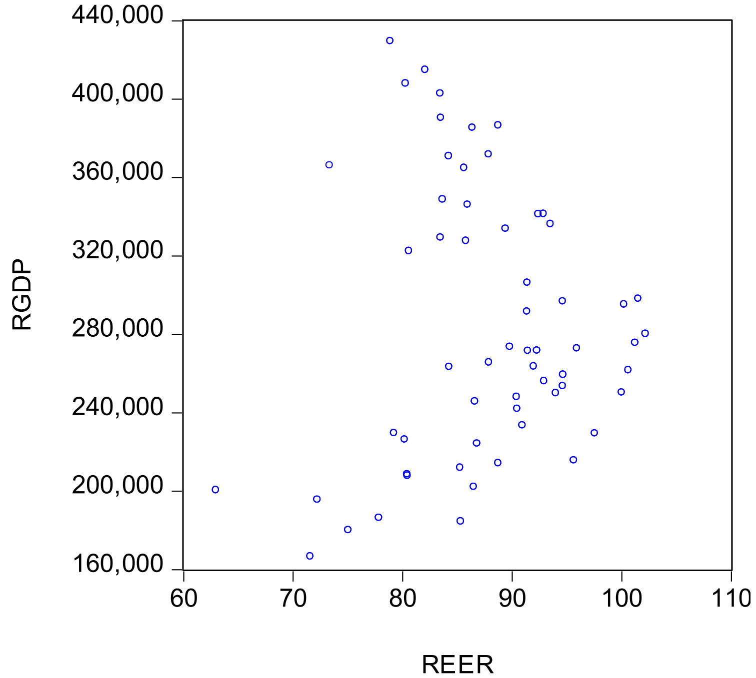

Figure 2. Scatter Diagram between real GDP (RGDP) and the Government Debt-to-GDP Ratio (DEBTY)

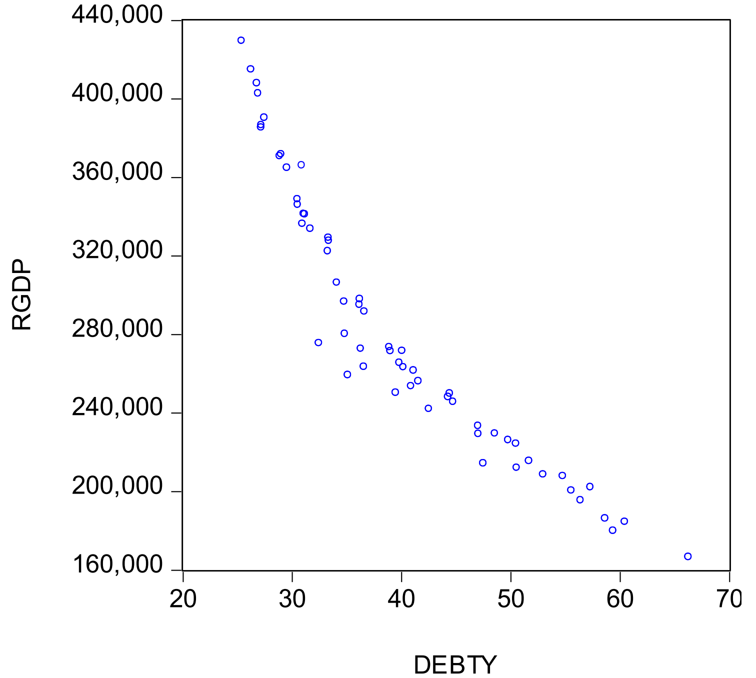

Figure 2 seems to suggest that real GDP and the debt-to-GDP ratio had a negative relationship during the sample period. Real GDP also exhibited seasonal variations. Hence, an interactive binary variable, an intercept binary variable, and three seasonal binary variables are included in the estimated equation:

$$\bar{Y} = z(\underset{+}{\varepsilon}, \underset{-}{\varepsilon \times B}, \underset{+}{B}, \underset{-}{D}, \underset{-}{R^*}, \underset{-}{E}, \underset{-}{\pi^e}, \underset{+}{Q2}, \underset{+}{Q3}, \underset{+}{Q4}) \quad (8)$$

Where B = 0 during 2002.Q2-2011.Q2, B = 1 during 2011.Q3-2017.Q1, and Q2, Q3 and Q4 are binary variables for the second, third and fourth quarters, respectively. The sign beneath each of the independent variables shows the partial derivative of $\bar{Y}$ with respect to a change in an independent variable. As Turkey imports most of the energy needs from abroad, a higher real oil price is expected to shift aggregate supply left and reduced real GDP (Aydın and Acar, 2011; Gülay and Pazarlioğlu, 2016).

3. Empirical Results

The data were collected from the *International Financial Statistics* published by the International Monetary Fund, Eurostat published by the European Commission, the Federal Reserve Bank of St. Louis, the Central Bank of the Republic of Turkey, and the Undersecretariat of Treasury of the Republic of Turkey. Real GDP is measured in million lira. The real effective exchange rate is chosen to represent the real exchange rate, and an increase means real appreciation of the lira. Government debt is measured as the central government debt as a percent of GDP.

A lagged government debt-to-GDP ratio is used to avoid potential endogeneity or to account for a potential impact lag on real GDP. The world real interest rate is represented by the U.S. real federal funds rate, which is the policy rate affected by the Federal Reserve Bank. A lagged real federal funds rate is used as there may a time lag for the Central Bank of the Republic of Turkey to respond to any change in the real federal funds rate. The real oil price is measured in the lira per barrel and adjusted by the consumer price index. The inflation rate is calculated as the percent change in the consumer price index. The expected inflation rate is represented by the weighted inflation rate of past four quarters.

The weights assigned to the first, second, third and fourth lagged inflation rates are 0.4, 0.3, 0.2 and 0.1, respectively (Pretorius, 1994). Except for the binary variable, the real federal funds rate and the expected inflation rate with zero or negative values, other variables are measured on a log scale. The sample ranges from 2002.Q2 to 2017.Q1 and has a total of 60 observations. The data for the central government debt as a percent of GDP are not available before 2002.Q2.

The DF-GLS unit root test shows that each of the variables has a unit root in level and is stationary in first difference and that the value of the test statistic for the regression residuals is estimated to be -3.9456, which is greater than the critical value of -2.6047 in absolute values at the 1% level. Thus, these time series variables are cointegrated.

Table 1 presents the estimated regression. Approximately 97.16% of the variation in real GDP can be explained by the ten right-hand side variables. All the coefficients are significant at the 1% or 5% level. Real GDP has a positive relationship with the real effective exchange rate during 2002.Q2-2011.Q2, the intercept binary variable, and the three seasonal binary variables and a negative relationship with the real effective exchange rate during 2011.Q3-2017.Q1, the lagged debt-to-GDP ratio, the lagged U.S. real federal funds rate, the real oil price and the expected inflation rate. Specifically, a 1% rise in the real effective exchange rate caused real GDP to increase.

Table 1. Estimated Regression of Log(Real GDP) in Turkey

Variable	Coefficient	z-Statistic	Probability
Constant	14.40426	888.9646	0.0000
Log(real effective exchange rate)	0.107066	4.824326	0.0000
Log(real effective exchange rate) × binary variable	-0.521523	-4.078963	0.0000
Binary variable	2.453062	4.304185	0.0000
Log(lagged debt-to-GDP ratio)	-0.644046	-43.73279	0.0000
Lagged real federal funds rate	-0.003748	-2.091705	0.0365
Log(real oil price)	-0.033358	-2.349744	0.0188
Expected inflation rate	-0.001519	-4.623477	0.0000
Q2	0.200320	26.26689	0.0000
Q3	0.222969	22.40331	0.0000
Q4	0.151036	25.09831	0.0000
R-squared	0.971640		
Adjusted R-squared	0.965852		
Akaike info criterion	-3.771092		
Schwarz criterion	-3.317317		
Methodology	EGARCH		
Sample period	2002.Q2-2017.Q1		
Number of observations	60		
Mean absolute percent error	2.870478%		

Notes: The binary variable equals 0 during 2002.Q2-2011.Q2 and 1 during 2011.Q3-2017.Q1. An increase in the real effective exchange rate is a real appreciation of the lira, and a decrease in the real effective exchange rate is real depreciation of the lira.

By 0.1071% during 2002.Q2-2017.Q1 whereas a 1% decrease in the real effective exchange rate would raise real GDP by 0.4145% during 2011.Q3-2017.Q1. The impact of the government debt-to-GDP ratio is relatively large as a 1% increase in the debt-to-GDP ratio would reduce real GDP by 0.6440%. When the lagged U.S. real federal funds rate rises 1 percentage point, the log of real GDP will decline by 0.0037.

There are several comments. The recent decline in the value of the Turkish lira versus the U.S. dollar seems to be consistent with empirical findings that real depreciation would be beneficial to aggregate output after 2011.Q2 as the positive effect of increased exports may dominate the negative effect of higher import costs and domestic inflation. The declining trend in the government debt-to-GDP ratio appears to help aggregate output as the government pursued fiscal prudence and reduced the negative crowding-out effect. In setting its monetary policy, the Central Bank of the Republic of Turkey appears to consider the world real interest rate such as the lagged U.S. real federal funds rate. As Turkey imports most of its energy needs from aboard, a higher real oil price tends to shift aggregate supply to the left and reduce real GDP. In comparison, the positive relationship between real GDP and the real effective exchange rate during 2002.Q2-2011.Q2 and the negative relationship between real GDP and the real effective exchange rate during 2011.Q3-2017.Q1 found in this study are different from the previous studies.

Several other versions have been considered. If the lagged real prime lending rate in the U.S. replaces the lagged U.S. real federal funds rate, the estimated coefficient of -0.0038 is significant at the 1% level. The value of R-squared is estimated to be 0.9716, which is slightly less than the value of R-squared reported in Table 1. Other results are similar. If the lagged real lending rate in the euro area replaces the lagged U.S. real federal funds rate, the estimated negative coefficient is significant at the 1% level and is much smaller than the one reported in Table 1 in absolute values. The value of R-squared is estimated to be 0.9697 and is slightly less than that reported in Table 1. Other results are similar. When the expected inflation rate is replaced with the simple lagged inflation rate, the estimated coefficient of -0.0012 is significant at the 1% level. Other results are similar.

4. Summary and Conclusions

This paper has examined whether real depreciation or appreciation of the Turkish lira and other related variables would affect real GDP in Turkey. An extended IS-MP-AS model is employed. The EGARCH process is used in empirical estimation. Real appreciation raised real GDP during 2002.Q2-2011.Q2 whereas real depreciation increased real GDP during 2011.Q3-2017.Q1. In addition, a lower lagged government debt-to-GDP ratio, a lower lagged world real interest rate, a lower real oil price, or a lower expected inflation rate would raise real GDP.

The results suggest that either real appreciation or real depreciation may raise real GDP depending upon the level of the development stage. Since 2011.Q3, it seems that real depreciation of the lira would be conducive to economic growth. It appears that the continual trend of a lower government debt-to-GDP ratio moves in the right direction and that fiscal discipline works well in Turkey. Turkey's money policy function and aggregate supply are affected by external factors. Monetary tightening by the Federal Reserve Bank or a higher real crude oil price is expected to raise the domestic interest rate, shift aggregate demand and aggregate supply to the left, and reduce real GDP.

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Sustainable Development Polices: Building with Natural Materials in the Children's Playgrounds

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Abstract

This study employs sustainable development in designing a playground. The research structure is based on the concept of sustainable and renewable design. The disadvantages of the current materials used for playground equipment are discussed. Natural environments and sustainable development are also investigated to provide a new direction for industries engaged in designing playgrounds. The environmental context is expressed in different playground design process examples. Thus, this study explains that the character and image of green manufacturing can be established through new environmental effects. We can also regard natural environmental choice that can promote an eco-friendly spirit in future industry.

Keywords: Children's Playground, Sustainable Development, Natural Environment, Children's play spaces, Environmental Politics

1. Introduction

Children's playgrounds are often constructed using various types of plastic or metal materials that are readily available. However, harmful substances such as heavy metals and plasticizers are often present when using these traditional materials to construct playgrounds (Table 1). The decision of the kinds of products available on playgrounds is an important issue. What kinds of activities are currently attractive to children on playgrounds? What is the future direction of the playground industry? How should this industry stay abreast of advancements in renewable environment and find its own new directions and markets? These are important business related issues in the field of education. Children playing on playgrounds constructed using traditional materials such as plastic and metal are exposed to potential health risks, including exposure to heavy metals, such as iron, zinc, copper, manganese, cadmium, and lead (Wong & Mak, 2010). Field designers can either continue using plastic or metal materials that harm the environment and endanger the health of children, or they can adopt sustainable development (SD) materials to build green, environment friendly playgrounds.

Table 1. Metal and plastic air emission levels (International Finance Corporation, 2007)

Pollutants	Units	Guideline Value
VOCs-surface cleaning	mg/Nm^3	20-75(1)
VOCs-metal and plastic coating	80	100 (up to 15 ton/y solvent consumption); 75 (more than 15 today solvent consumption); 50(drying processes)

Volatile Halogenated Hydrocarbons -	mg/Nm^3	20
Metal surface treatments		
Particulate Matter – metal surface treatments	mg/Nm^3	5
Particulate Matter – plastic surface treatments	mg/Nm^3	3
Hydrogen Chloride	mg/Nm^3	10
Nitrogen Oxides(3)	mg/Nm^3	350
Ammonia	mg/Nm^3	50

This study devotes more attention to the five senses experience that are genuinely educational in addition to protecting children from injury and making playgrounds look attractive. In addition, the study case supports the five sense experience as well as changing color and media transmitting functions through SD material utilization. The huge potential market of playgrounds has attracted a lot of attention among investors. In the general SD context of moving towards sustainable production and consumption, environmental issues should be managed throughout all stages of the product life-cycle. This can minimize the overall negative environmental effects of products and their manufacturing. Environmental concerns such as performance, quality, and safety must be integrated with product development (European Commission 2013). Therefore, friendly and educational playgrounds are likely to become a part of the recreation world for children. Especially, playing without fear or tears provides many benefits to a child's development (Thompson, Donna, Hudson, Susan, Olsen & Heather, 2007).

SD thinking about product development involves ecological standards and regulations. It seems necessary to reconsider or redefine towards an ecological friendly nature for playgrounds. This study proposes a new playground design idea to integrate a sustainable view to facilitate 'happy-health-safe design'. From the viewpoint of a product life-cycle, companies should also implement eco-efficiency policies, as these can have immediately positive effects on industries by reducing energy and resource consumption.

1.1 Purposes and methods

SD is based on obligations to nature and the requirements of human welfare (Dobson 1996). Modern playgrounds generally include many structures for playing and education that are constructed with many different equipment. Modern playgrounds often provide recreational equipment to help children develop their physical coordination and flexibility as well as offering recreation and enjoyment (Busuttil and Keeling 2008). A playground also exhibits the local community's perception of life and display a child's emotional perception. As expected, this kind of development is in resonance design. The concept of SD is required to analyze which innovations have the greatest impact on playground design, to explore how to consolidate environmental effects through the use of fluted core board (e.g., Re-board, X-board, and D-board approaches; Figure 1), and to establish a user experience model in line with user demands and concepts of interactive design. A successful playground designer seeks solutions for functional issues when working on a design and considers it useful to convey certain connotations outside expected functions by applying the Re-board (Figure 2) approach as well as other techniques to create a playground with a removable and reusable structure.

Re-board material (Figure 3) can be easily customized to allow the removal of plastic and metal materials to provide a green, safe, and sustainable material for building new playgrounds. The paper has the following three purposes: (1) To discuss the advantages of playgrounds developed through SD; (2) To understand the advantages of using Re-board as a renewable material and discuss the challenging issues of adopting traditional materials and ecological perspectives; (3) To provide insight into a strategic design model for playgrounds and education by applying a sustainable environment.

The five senses comprise the physiological capacity of a child and allow interaction, perception, and recognition in ecological environments. The senses and their operation have been studied in a variety of fields. Cognitive psychology investigates how people perceive, process, etc. Playgrounds have specific sensory systems, dedicated to the five senses experience, including sight (ophthalmoception), hearing (audioception), taste (gustaoception), smell (olfacoception or olfacception), and touch (tactioception). Cognition usually refers to visual views of the psychology of children, such as visual stimulants, sound effects, and light interaction. Kail and Cavanaugh (2008) pointed out that convergent thinking is often associated with creativity and integration with incoming information to form new and more complex concepts. In this study, the interaction, recognition, and environmental communication are the main elements of playgrounds and for education. We also provide a new perspective for designing playgrounds by considering the five senses experience to enhance learning.

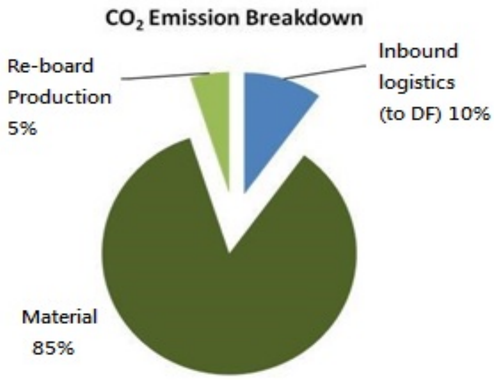

Figure 1. SD of the Re-board (AimCulture Co., Ltd)

Figure 2. Re-board Structure (AimCulture Co., Ltd)

Figure 3. Re-board Structure (AimCulture Co., Ltd)

Figure 4. Re-board five senses application

2. Literature Review

SD can potentially be kept up well into the future without causing harmful repercussions. Recycling technology and an advanced five senses experience approach will change the face of design in the next century. In fact, it is also important to consider the child's needs and how to create a harm free environment through playground design. Playground design will be developed worldwide through various cultures, technologies, and ways of thinking; design will also turn from the tangible to the intangible and from practical product design to greater concern for the five senses experience in product design. Re-board (Figure(s)1–3) can be used in new product design. It can be kept in place all year long and serve as an ancillary tool for engineering in the exhibit manufacturing processes, new recycling prototypes, and five senses experience (Figure(s) 4–7). Another question has to do with how visual stimulation develops brains. While a child grows, the brain receives input from all five senses. This is why visual stimulation is crucial to a child's growth and health (Ask Dr Sears 2013). Thus, a playground provides continuous visual input and the visual part of the child's brain thrives and develops. This study considers how to achieve the best visual stimulation for children in a safe way. A playground is designed with happy-health-safe- sustainable development.

Figure 5. Re-board customizable application (AimCulture Co., Ltd)

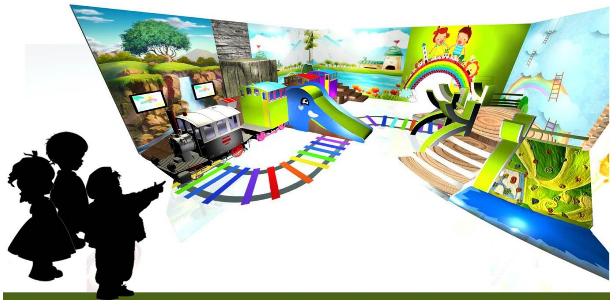

Figure 6. Five senses experience (I)

Figure 7. Five senses experience (II)

Re-board has high rigidity in spite of its light construction. If you increase the area of contact, it can bear more weight. This material is made out of water-based adhesives so that it can be recycled as paper in normal waste paper streams. It also offers stability, strength, and retention of fixings such as screws, and enables rapid cutting of shapes to produce 3D objects as well as allowing for the production of curves and clean edges. Therefore, we can produce weight bearing sign displays, furniture, exhibition booths, and temporary stores with Re-board (NSK Corp. 2014).

Re-board has led to some futuristic re-thinking of the possibilities of creating renewable materials; Re-board is an eco-friendly paperboard with a unique engineered fluted core that challenges traditional methods and is also eco-sensitive. The paper-based sandwich board is capable of replacing medium density fiberboard (MDF). Re-board provides protection for children under different environmental conditions. Thus, this material protects the environment and can be recycled immediately after use

(Repro Arts 2014). In recent years, many countries have encouraged the use of more sustainable, eco-friendly materials as opposed to plastics, MDF, and chipboard. We can explore new materials and offer creative ways to integrate SD and ecological design in playground design. New materials satisfy the needs of playgrounds and result in less pollution than traditional materials such as plastic and metal materials (Table 1).

Printing or decorative lamination on Re-board creates amazing effects. When compared to traditional materials, considering a full project, Re-board is usually a more cost effective form of material utilization (Table 2). Re-board originated under the following 3R framework: reduce, reuse, and recycle. Following the 3Rs, unique 3C concepts were introduced at the Taiwan Meetings, Incentives, Conferencing, and Exhibitions [MICE], including construction, creativity, and content. Light yet strong structures can be assembled/disassembled with ease to lower construction costs. Meanwhile, designers are now free to use their creativity through printing technologies and various decoration methods. Then, with the help of digital technologies and equipment, the contents on display can be duplicated or transferred instantly (Taiwan Green Exhibitions 2012).

Table 2. Comparison of Re-board, metal, plastic (International Finance Corporation [IFC], 2007)

items	Re-board	Metal	Plastic
Safety	H	L	M
Pollution	L	H	M
Aesthetics	H	L	M
Learning	H	L	M
Cycle time	H	M	L
Operation	H	L	M
Colorful	H	L	M
Cost	L	H	M

Re-board is the eco-friendliest material and is the first board in the world to meet CEPI and ISO 14040 guidelines (Eco Rock 2013). The Executive Yuan (2013) pointed out that Taiwan has worked diligently to promote the 3R philosophy to achieve significant progress in minimizing waste and expanding recycling programs. Dryzek (1997) has argued that the discourse of SD is connected to society, nature, and economies and their relationships.

Demand for such a product has increased due to the rapid development of large-scale exhibitions, exhibition displays, and cardboard cut-outs. However, since exhibitions tend to only last a few days, the waste from advertisements made of foam board, PVC, plastic, and other materials has led to an environmental issues. By using recycled Re-board, an extra step toward protecting the environment is taken. Thus, the development of renewable material is an increasingly important issue for developing and developed countries. Figure 8 lists and compares Taiwan's energy supply and consumption in 2011 and 2012. It shows increases of consumption of 3.4% for petroleum, 0.1% for renewables, 0.2% for nuclear, and 0.7% for natural gas, and a decrease of 4% in coal consumption. We believe that new playgrounds can be integrated into indoor spaces in the future to promote SD and reduce energy pollution, especially in Asian weather. In Taiwan, the government constructs sound regulatory incentives for create a high quality environment and support industries via domestic green energy demand, select key industries, integrate and utilize existing industrial advantages to promote cross-industry integration, establish new green energy industry chain from parts to system, and form green energy industrial ecological system with global competitiveness in order to explore global green energy business opportunities (Bureau of Energy, 2017).

The study of playground design includes material utilization and the five senses experience approach. Children develop through experiences in which their five senses are used. Developing a child's attention using the five senses experience and the discussion of this process increases understanding and communication about information and things around them. Like other skills that children learn, listening takes practice (Simon, 2015). Sensory play provides children with sensory experiences that strengthen their cognitive skills. This is why it is important to give children plenty of opportunities to use their senses as they explore and interact with the environment (Amber & Demand, 2015). Thus, developing good playgrounds helps children obtain important information from environmental communication. The five senses experience design covers the identification of functions, equipment, sense of touch, the body and its uses, and sensory manifestations. The Children's Geographies by Horton and Kraftl (2005, 2006a, 2006b) and Horton et al. (2008) have pointed out that the body would get the most attention. They stated that: A closer apprehension of the bodily details of children's lives–as well as wider conceptualisations of bodies and embodiments.

Interactive design approaches include expression through color, material, and visual style for the body's attention. Unlike other types of design, playground design calls for a strategy to integrate the concepts of needs to stimulate the five senses experience and provide fun from the playground business. As mentioned above, Re-board has many interesting properties, but is currently used primarily for exhibitions. In fact, Re-board can be used as a construction material and as a means of vision communication. It offers strength and excellent printing properties. Therefore, we combine the material design approach with this special Re-board material for playground design. In Taiwan, the top policy is to develop knowledge-based industry with low energy intensity so that the share of emerging industries in the total production value of the manufacturing industry can be increased from 4% in 2008 to 30% in 2020 (Bureau of Energy, 2014). Especially, the health risks of being exposed to traditional materials really (metal, plastic….etc). Human exposure occurs through all environmental media. Infants are more susceptible to the adverse effects of exposure. Increasing attention is now being paid to the mental development of children exposed to heavy metals (Simeonov, Kochubovski & Simeonova, 2011). Toxic substances contained inside of artificial turf, who's utility has recently been increasing, and its negative effect on children's health are on the rise as a social issue (Kim, Yang, Yeo, Shin & Lim, 2012).

The below table help inform designers and aid decision-making. The values are relative: 1 is low and 7 is high (Table 3). (Thompson, 2013)

Table 3. Comparison of Pulp, Paper, Board, Steel, Bio-based Plastic (Thompson, 2013)

Essential information	**Pulp, Paper, Board**	**Steel**	**Bio-based Plastic**
Availability	5	3	3
Durability	6	7	5
Recyclability	7	7	1
Biodegradability	7	2	6
Energy	3	4	3
Resources	3	5	3
Pollution	3	5	3
Waste	2	6	2

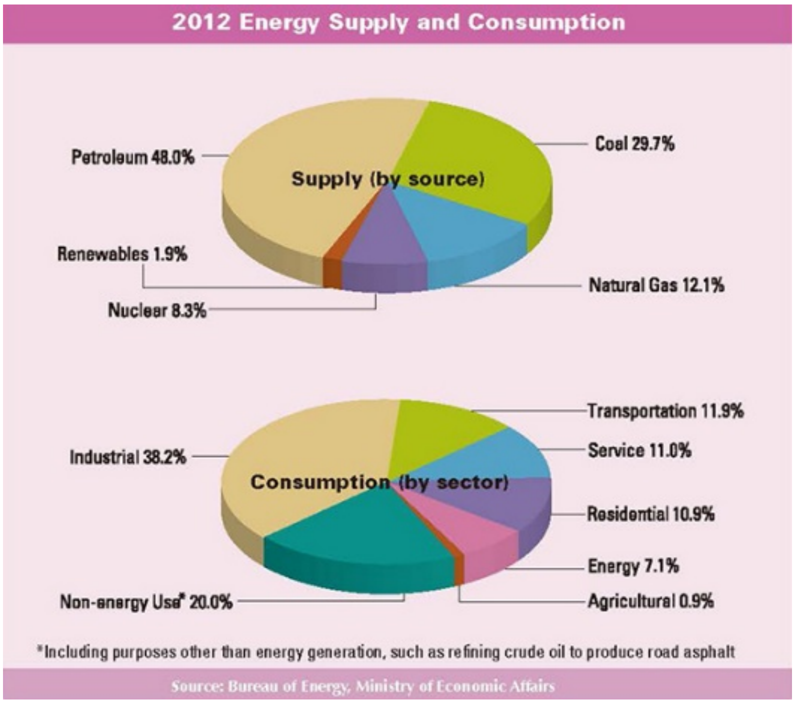

Figure 8. 2012 energy supply and consumption in Taiwan (Ministry of Economic Affairs)

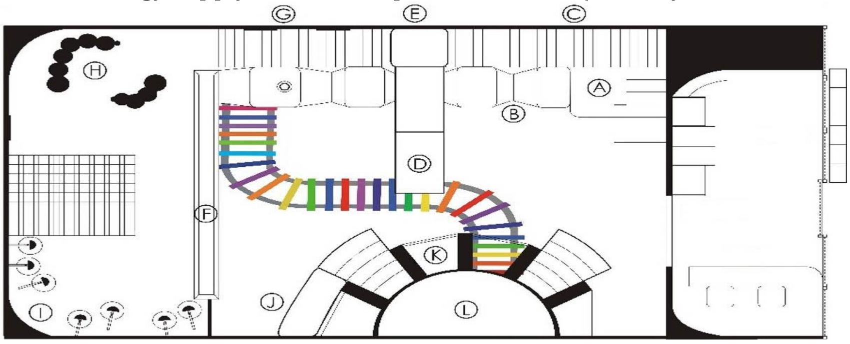

Figure 9. The child playground filed design stages

3. Research Analysis

The Environmental Protection Administration Green Mark Program encourages manufacturers to produce and consumers to purchase products that are recyclable and have a low environmental impact. This paper explores this kind of product through subjective testing. The mock construction site used here is relevant to the overall sensations for the five senses experience. This study further investigates the quality of known materials to promote fun play and exploration of the five senses experience sequences. The focus group method is used to study 20 preschoolers (10 boys and 10 girls) aged between 2 and 6-year-olds. We also conducted in-depth interviews with 10 kindergarten principals (42 to 65-year-old) (Table 4).

Table 4. Interview questionnaire

	Researcher's analysis of children's playgrounds
1	Trying not to offer judgments
2	Usually do something other than playing
3	Usually does something that makes them feel happy or homelike
4	The kind of field that is the best choice
5	Letting the child know how they are playing on the playground
6	Helps the child understand their actions and learn

3.1 Principles of application of child playground design

Play is natural and spontaneous for children. As children grow, play becomes more organized and activity oriented, i.e., running, jumping, and playing with toys, among others (Chetna, 2001). Another important issue is that play must take play in the context of playground safety. Children play games or participate in organized sports or recreational activities where they follow certain rules. The playground in this study is designed so that organized play can take place indoors (Figure 9). We apply the tenon and migration methods in playground design with age appropriate equipment for preschoolers of 2-6 years of age (preoperational stage), including the following items: (1) stepped area; (2) ramp area; (3) pattern learning area; (4). slide area; (5) tunnel area; (6) bean shape climbing area; (7) media education learning area; (8) horizontal bar climbing area; (9) spring bounce area; (10) flag stage area; (11) teaching mapping area; and (12) winner stage area (refer the ASTM F1487).

3.2 Stage for Playground Design

This study employs a domain and migratory playground structure. The opposing traits in the playground space domain constituent elements, such as high — low, dynamic — static, light — dark, wide — narrow, open — closed, and soft — hard, among others. We place a strong emphasis on creative wisdom in playground design to produce an innovative and creative model. Material utilization is also used to convey the cultural communication elements in toy design as well as to reflect new thinking about future playgrounds.

These natural environments can help us investigate playgrounds and also increase the cultural connotation of a product to meet the sensory demands of users, affect social and economic performance, and reshape a sense of value towards playground aesthetics. In order to create a safe, friendly, and positive environment, this study proposes a four-stage refer the in-depth interview (Table 5) for playground design as follows.

(a) Material characteristics: SD should be implemented in a practical environment and created by Re-board to arouse resonance among the children.

(b) Cultural codes (symbol): The performance of a symbol is closely related to learning (knowledge, code, text, and number). It takes a sharp sense of perception for the child to get a grasp of the material utilization, which is also an important element of sensory satisfaction.

(c) Story patterns: Regardless of the mode or expression or application of cultural and emotional materials, the purpose of the integration of culture and story is to make the material surface design more feasible.

(d) Value significance: In addition to reflecting the character of a brand, the value of the SD of the brand serves to convince consumers and improve business image.

Of particular relevance to education are values such as promoting SD, cultural codes, aesthetics, physical, mental and social well-being, and maturing to a responsible member of society. David (1998) mentioned that the point of SD is that future generations should have similar access to fecundity and beauty as well as to use this kind of access indefinitely to derive material advantages. SD can be seen as the most effective way by which society can confront the challenges of the future. Of course, in its broadest sense, SD must be a vital part of all efforts to imagine and create new relations among people and to foster greater respect for the needs of the environmental communication.

Table 5. In-depth interview with a kindergarten principal

Transcription of interviewer’s questions and interviewee’s answers
I: This idea of letting the child play on the playground…it sounds like it’s a problem for some of them. What field of design do you use to assure children’s safety?
R: Well, usually I hope they do it by themselves: ‘How do you feel that went?’ And I see how they like to play
I: How do they play?
R: For example: swing, slide, seesaw, jungle gym, roundabout, jogging trail, cycling track, model toy pool, etc., colorful space, safest-material and visual style …..ladder…light field
I: Can you tell me a bit more about what happens to our brains when we play and how it

makes us happier?

R: When I feel like that I just tell them how to play, you know, then try and say something about different ways to play. You know try and be positive...

I: Do you ever try anything else . . . other questions?

R: Yeah, you know, get them to think about what influence they may or may not have had (facilitating kids' safest-playing); and sometimes that works really well. It gets them thinking. You know and when they remember that they realize the effect it would have. So that was good (facilitating kids' self-understanding; valuing kids' safest-playing)

4. Discussion

According to our vision of a better playground, we want to offer kids some valuable educational information, not just play structures. We refer to these spaces ecological schoolyards, which are environments that combine diverse ecosystems with various play environments and learning experiences (Shanti 2011). In more environmental communication, it is less about who is the strongest and the fastest and more about using imagination. This changes the dynamics of who is in charge. Moreover, there is less conflict because the children will not get bored. Thus, SD thinking is used to develop the following suggestions:

(a) Manufacture safe equipment with social value is good for playgrounds.

(b) Discourage the production of toys that are not beneficial to children and the environment.

(c) Visualize and recognize play in all its forms and disseminate its value to parents and teachers and spot talent among children for various creative endeavors.

In this study, a social vision model (Figure 10) is proposed to improve the manufacturing process using a new and renewable material. Moreover, the vision model is introduced to guide the management and policy for sustainable manufacturing. As a result, the social vision model can also be used as an effective and feasible tool for playground designers. It ensures that the play equipment and indoor space are safe and takes social and environmental responsibility into account. We maybe not identify what the product wasn't get the greatest solution of any materials. But the design mission is to translate observation into insights and insights into products that will improve lives for SD.

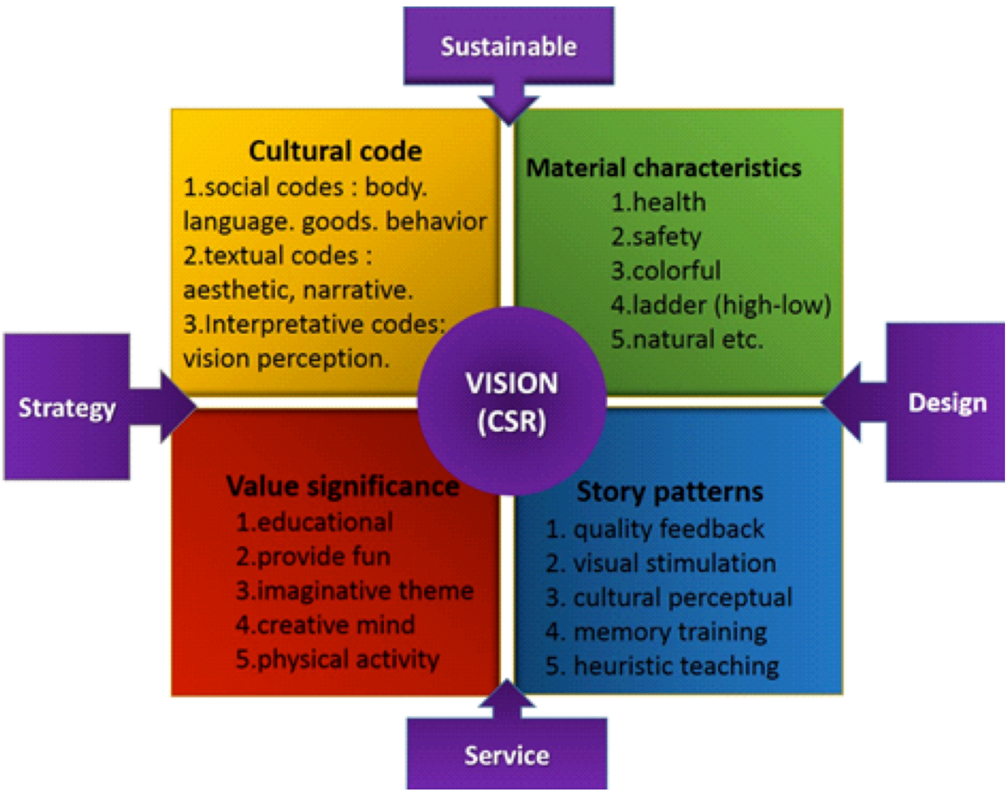

Figure 10. A social vision model of the child playgrounds child playground bSustainable Development Polices

5. Conclusion

The concept of SD is pervasive and applies in all value levels. In addition, material utilization is used to convey the cultural communication elements in toy design as well as to reflect new thinking for crowded environments. The materials will help our search for new design elements for products and also increase the cultural connotation of a product to meet the sensory demands of users, affect physical and psychological performance, and reshape a sense for playground aesthetics. In other words, the environmental effects of different playground types have become a unique way to recover playground material utilization. It is also important to note that the eco-material for a playground is innovative. Moreover, we would welcome more comprehensive thinking to better understand educative communication practices. This study explains that the character and image of a brand can be established through new environmental communication and mitigation of environmental pollutants through the expression of material contexts in different playground design process examples. The findings of this study contribute to the development of social polices for diversified development of children and the active expansion of SD research related to the development of children's environments by promoting benevolence and charity. Furthermore, our findings will promote green growth in the future development of pluralistic playgrounds.

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Marketing Environment and Marketing Mix: The Basic Factors in Increasing Sales Performance (Survey on Agribusiness Small and Medium Enterprises)

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Abstract

The purpose of this study was to confirm the extent of the marketing environment implications and marketing mix on sales performance in small-medium enterprises (SMEs). SMEs had an important role in absorbing employment, economic services, income distribution, economic growth and national stability. Primary data was collected through survey technique from 155 respondents and taken by random sampling method and was analyzed by path analysis. The result showed that marketing environment, marketing mix, and competitive advantage simultaneously had positive and significant implications toward sales performance in terms of increase of market share and profitability. In an effort to improve sales performance, an understanding of the marketing environment and the application of the marketing mix were a must.

Keywords: Marketing Environment, Marketing Mix, Competitive Advantage, Sales Performance, Small and Medium Enterprises (SMEs).

1. Introduction

The Flexible Specialization thesis appeared in the 1980s concluded that small-medium enterprises (SMEs) would be more important in the development process. Some Western European countries such as Germany, Italy and the Scandinavian countries have proved that in these countries the number of SMEs is very large and have grown rapidly. When West Europe faced economic instability in the 1980s, SMEs survived; whereas many big enterprises had difficulties. In EU countries, 99.8% of SMEs contributed 56% for GDP and absorbed 67% of the workforce (European Commission, 2008). The empirical facts of SMEs significantly contributed to the economy of a country, both in terms of absorbing workforce and economic growth and development (Turner, *et al*., 2009).

Small and Medium Enterprises (SMEs) have a very strategic role in improving the welfare of the society, not only in developing countries such as Indonesia but also in countries where SMEs have played a significant role. In Indonesia, the SMEs have important roles either developing economic development or addressing unemployment issues. The growth and development of SMEs make them as sources of growth, job, and income opportunities as well as poverty and unemployment reductions, income distribution, and even entrepreneurial skills (Ayanda & Laraba, 2011; Jasra *et al*., 2011; Tastan, 2013).

Viewing the role and the existence of SMEs, these developing countries have changed their orientation by empowering SMEs sectors. This is due to the importance of SMEs sectors in strengthening society economy, income distribution, economic growth, developing and sustaining national competition and even in global level (Muritalla *et al*., 2012). Considering this, some policies to increase competition power by giving empowerment to either financial or non-financial sectors are necessary.

In Indonesia, SMEs are as people's economic enterprises in the national economy and the existence cannot be ignored, in addition; they have significant roles in the economic life. SMEs are business sectors to absorb a lot of unabsorbed labor force formally so that they reduce government burden in solving unemployment. SMEs are also able to cope with the problems of the population. The expansion of SMEs in rural and suburb areas at least will have impacts on population distribution. In many developed countries, SMEs have roles and importance as a driving force of economic growth, creativity, and innovation in conducting productive business activities (Tastan, 2013).

SMEs sector contribution toward Gross Domestic Product (GDP) of Indonesia increased from 57.84% to 60.34% in the last five years. The workforce absorption of these sectors has increased from 96.99% to 97.22% in the same period (Indonesian Statistic Bureau, 2016). Although the contribution to the GDP has not maximized yet, SMEs have strategic roles in national economic development. In the past economic crisis occurred in the past, most of the big enterprises faced stagnation, even stopped their activities in dealing with the crisis (Hafsah 2004).

SMEs as the object of research is often found in South Sumatera Province as the research areas. With the available potencies and supported by the availability of local resources, SMEs are essential to give a contribution to the investment development and employment absorption. Of the total SMEs noted, 14,623 units of SMEs were with investment value 15 billion IDR and 56,796 workforces were absorbed (South Sumatra Trade Office, 2016); this percentage is important to the growth and economic development of the region, especially in the absorption of unabsorbed labors in the formal sector. This means reducing unemployment and reducing the growing number of poor people directly from year to year.

From the facts above, it shows SMEs have not been completely away from problems or obstacles faced, in addition to existing production problems, SMEs are also lack of accurate information about the marketing environment, especially about market demand. In the business world, the marketing environment is an important and valuable part. An accurate understanding of the marketing environment can help the company in making decisions about which marketing strategy is chosen and determining the steps taken to maintain and grow the business. An understanding of the marketing environment also supports the operational and managerial activities of the organization. For all, it takes a reliable and accurate data processing and can be displayed precisely and easily if needed.

Every business should understand the marketing environment that serves as an information provider for decision making. Marketing environment either micro or macro marketing environments are systems related to the collecting, recording and analyzing of buyers and prospective buyers data (Mcleod, 2001). By understanding the marketing environment, the enterprises can gather information in an integrated and reliable way to anticipate market issues, so that it can finally seize market opportunities. Because of the importance of making marketing decision, the understanding of the marketing environment as a source of information is critical to business success.

Accurate information about the marketing environment can be directed towards developing accessibility to the opportunities gained by the environment. It can also be directed to develop adaptability to future threats. The introduction of good environments will have impacts on the gained strategy quality which in turn give an impact on marketing performance. Likewise, the understanding of the marketing environment is one of the factors of competitive advantage source for companies (Hemmatfar and Salehi, 2010; Shaqiri, 2015), competitive advantage will be a basis for success in winning the competition and support sales performance (Hunt and Arnett, 2004; Porter, 2001 in Hameed, 2009).
An understanding of the marketing environment is a foundation key in setting marketing strategies. The marketing strategy consists of the basic principles underlying management to achieve their business and

marketing objectives in a target market; marketing strategy contains basic decisions about marketing, marketing mix, and marketing allocation (Kotler and Keller, 2012).

Marketing mix strategies consisting of product mix, price mix, promotion mix and distribution mix are part of effective marketing strategies (Kotler, 2001). The product is everything that the company tries to offer to its customers; in the product mix, the company tries to adapt the product to the needs of its potential buyers. In the price mix, the setting of price policy is not only based on the willingness of consumers to pay the price of a product but more than that they must also consider the cost set for similar products or competitors products. In the promotion mix, the employer should be able to provide information about products to the consumers, that the product has been available in the market and the product is able to provide adequate benefits and able to satisfy the needs of consumers. Likewise, in the distribution mix, it is how the delivery of products to the hands of consumers. The company considers when and where the product can be obtained by consumers when consumers need it. The company tries to bring its products closer and simplify the consumers in obtaining the product as satisfying their needs whenever they need.

Thus, with information from the marketing environment, management is able to perform marketing mix strategy, a marketing mix strategy is one way of winning competitive advantage. The competitive advantage comes from company-owned resources, this perspective is known as Resource Based View or resource-based perspective initiated by Penrose (1959) in Hameed (2009). According to him, a competitive advantage can be achieved by creating an economic scale and improving management capabilities and technological capacity (Penrose, 1959 in Hameed, 2009).

A sustainable competitive advantage to increase sales performance. Sales performance is the achievement level of the company's sales achievement as measured in the form of results or performance outcome (Rue & Byard, 1997). Based on the research result of Szimansky, *et al*., (1993) indicators of sales performance measurement and the competitive advantages commonly used are market share and profitability.

From the description above, it would be relevant to conduct research on SMEs marketing strategy as a source in formulating employers' policies to increase sales. This applicative research was expected to provide useful information to create business synergies interrelated with increasing agribusiness SMEs sales better in accordance with the principles of ideal marketing. This increase in sales of the ideal agribusiness SMEs was able to improve yield productivity, increase revenues, and contribute to the development of entrepreneurs' income as economic actors.

From the explanation above, the research hypothesis can be as follow:

H_1. The marketing environment both the micro-marketing environment and the macro marketing environment had positive implications for the marketing mix.

H_2. Micro and macro marketing environments and marketing mix either product mix, price mix, distribution mix and promotion mix had positive implications for competitive advantage.

H_3. Micro and macro marketing environments and marketing mix either product mix, price mix, distribution mix and promotion mix, and competitive advantage in price strategy, differentiation strategy, and focus strategy had positive implications on sales performance.

2. Method

2.1 Types of Research

This study was to obtain an overview of the marketing environment and marketing mix and to test the hypothesis about the marketing environment implications and marketing mix on sales performance. In accordance with the objectives, the form of descriptive research and verification were used. Descriptive research is a study that aims to obtain a description of the characteristics of variables (marketing environment, marketing mix, and sales performance). Verificative Research is a kind of research that aims to determine the relationship between variables through a hypothesis testing (Sekaran, 2013).

2.2 Population and Sample

The population in this study was all the available agribusiness SMEs in South Sumatera Province, 14,623 units from seventeen cities and districts. Samples were taken using Slovin method with 8% error level; the obtained samples were 154,598 or 155 employers. Primary data were collected through a closed questionnaire given to the respondents, while secondary data were obtained from relevant agencies, or from some previous research results that had relevance to the review. The other data were taken through direct observation. The involved observation provided many possibilities for the researchers to know the actual phenomenon. This could provide an overview of the research objects more deeply.

The agribusiness SMEs were selected as the object of research because the number of agribusiness SMEs either business units number or labor absorption was relatively more in number than the other SMEs. Besides, it was equally important that most of the raw and subsidiary materials of the SMEs used in the production process were local products (South Sumatra in Figure, 2017). The increase in sales turnover was expected to directly increase the society economic income as entrepreneurs and the maximum development on the utilization of the local resources; this would directly bring improvements to the society as producers.

2.3 Variable Identification and Variable Operationalization

In this research, there were three types of variables: independent variable, intervening variable, and dependent variable.

a. The independent variable used was:
   Marketing Environment
b. Intervening variables
   Marketing Mix and Competitive Advantage
c. Dependent variable
   Sales Performance

The operational definitions of the variables in this study were as follows:

- Environment Marketing Variable (X_1):
  It was a component of powers out of the marketing aspect that could affect management`s ability to build and maintain customers relationships consisting of micro and macro marketing environments.
- Marketing Mix Variables (X_2):
  It was a set of marketing means that companies use to continuously achieve their marketing objectives in target markets classified into 4 P (Product, Price, place, and Promotion).
- Competitive Advantage (X_3):
  It was the ability obtained through the characteristics and resources of a company to have higher performance compared than other companies in the same industry or market that consisted of three types of generic strategies, namely cost leadership, differentiation, and focus.
- Sales Performance (X_4):
  It was the achievement level of the company from the result of the product sales within a certain period of time measured with market share and profitability.

2.4 Measurement Technique of Research Variable

Measurement of scores for questioned items on the problems investigated was Likert scale. The assessment alternatives in the item measurement consisted of five option alternatives that had very high to very low levels applied variably based on the question categories. For testing purposes in the Path Analysis, it required data requirements that had a measurement level at least intervals. Therefore, data in ordinal scale should be increased to the interval scale through methods of successive intervals (Hays, 1969).

2.5 Analysis Methods

The analytical methods used to test all hypotheses in this study were the Analysis Path or the standardized Multiple Regression Analysis and calculated by using SPSS program version 23. The model of research analysis could be seen in Figure 1 below.

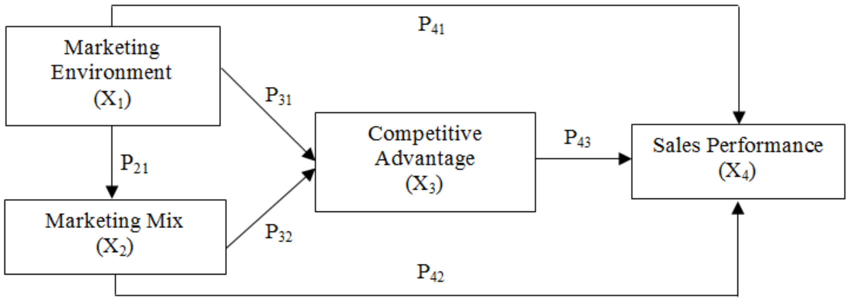

Figure 1: The Influential Model among variables

To find the direct effect, it was obtained through the following equation:

$X_2 = P_{21}. X_1$

$X_3 = P_{31}. X_1 + P_{32}. X_2$

$X_4 = P_{41}. X_1 + P_{42}. X_2 + P_{43}. X_3$

F test (over all tests) was done to test the effect of simultaneously independent variables to dependent variables, while t-test (individual test) was done to test the effect of partial independent variables to the dependent variables.

3. Results

3.1 Validity Test and Reliability

The testing of instrument validity was done statistically by using Pearson product-moment coefficient of correlation test with SPSS program version 23. Testing of instrument validity was done by the item analysis; the instruments were valid if the correlation coefficient were higher than r_{table} product moment (Sekaran, 2013). The testing of instrument reliability was intended to know the how far the measurement results remained statistically consistent by calculating the Cronbach alpha scores. The results were shown in Table 1 which showed that the research instruments were reliable because their alpha value was higher than 0.60 (Nunally and Bernstein, 1994).

Table 1. The results of Validity Test and Reliability of the Research Instruments

Variable	Indicator	Item	r_{calc}	r_{table} (.05; n=30)	Explana-tion	Reliabi-lity	Explana-tion
X_1 Marketing Environment	$X_{1.1}$	$X_{1.1.1}$	.637				
		$X_{1.1.2}$	.562				
		$X_{1.1.3}$	.543				
		$X_{1.1.5}$	.584				
		$X_{1.1.6}$	.712				
				.361	Valid	.718	Reliable
	$X_{1.2}$	$X_{1.2.2}$	.484				
		$X_{1.2.3}$	.512				
		$X_{1.2.4}$	.385				
		$X_{1.2.5}$	.568				
		$X_{1.2.6}$	.421				
		$X_{1.2.7}$	.569				

X_2 Marketing Mix	$X_{2.1}$	$X_{2.1.1}$	.736				
		$X_{2.1.2}$	.449				
		$X_{2.1.3}$	.774				
		$X_{2.1.4}$	.721				
		$X_{2.1.5}$	.464				
	$X_{2.2}$	$X_{2.2.1}$	.613				
		$X_{2.2.2}$	.439				
		$X_{2.2.3}$	.654				
		$X_{2.2.5}$	.449	.361	Valid	.873	Reliable
	$X_{2.3}$	$X_{2.3.1}$	.542				
		$X_{2.3.2}$	.631				
		$X_{2.3.4}$	.417				
		$X_{2.3.5}$	.385				
	$X_{2.4}$	$X_{2.4.1}$	.392				
		$X_{2.4.2}$	.536				
		$X_{2.4.3}$	.629				
		$X_{2.4.4}$	.449				
X_3 Competitive Advantage	$X_{3.1}$	$X_{3.1.2}$	.389				
		$X_{3.1.3}$	.412				
		$X_{3.1.5}$	.536				
	$X_{3.2}$	$X_{3.2.1}$	.673				
		$X_{3.2.2}$	.531				
		$X_{3.2.3}$	.568	.361	Valid	.641	Reliable
		$X_{3.2.4}$	.427				
	$X_{3.3}$	$X_{3.3.1}$	.446				
		$X_{3.3.2}$	.537				
		$X_{3.3.3}$	.614				
X_4 Sales Performace	$X_{4.1}$	$X_{4.1.1}$	.563				
		$X_{4.1.2}$	.417				
		$X_{4.1.3}$	.384				
		$X_{4.1.5}$	.618				
				.361	Valid	.702	Reliable
	$X_{4.2}$	$X_{4.2.1}$	.582				
		$X_{4.2.2}$	.619				
		$X_{4.2.3}$	.493				
		$X_{4.2.4}$	.447				

Normality test

The Normality test was conducted with the purpose that the model resulted had a residual scores spreading normally. The test could be done by using chi square test to the residual standard value of the equation result. If the probability of chi square results was less than 0.05, it was normally distributed and otherwise not normally distributed. The test results showed the scores of chi square were 4824.641 and probability was 0.000 which meant the residual data were normally distributed.

Heteroscedasticity Test

Heteroscedasticity was tested using the Spearman rank correlation coefficient test, which correlated between absolute residual regressions results with all independent variables. If the probability of a correlation result was less than 0.05, the regression equation contained heteroscedasticity, and vice versa. A good regression model should not occur in neutralization or homoscedasticity

Table 2. Results of Heteroscedasticity Test

Independent Variable	Correlation Coefficient	Probability	Explanation
Marketing Environment	.048	.558	Homoscedasticity
Markeing Mix	.024	.821	Homoscedasticity
Competitive Advantage	.035	.763	Homoscedasticity

Multicollinearity Test

The Multicollinearity test was to test whether the regression model found a correlation between independent variables. The Multicollinearity test could be done through the value of VIF (variance inflation factor) and Tolerance. The data did not contain multicollinearity if VIF < 10 or tolerance > 0.10. From the result of calculation by using program of SPSS for Windows Version 23, it was obtained the variable value of tolerance as follows.

Table 3 Results of Tolerance and VIF Calculation

Model	Collinearity Statistics	
	Tolerance	VIF
Marketing Environment	.867	1.153
Marketing Mix	.872	1.141
Competitive Advantage	.914	1.094

From the above table calculation, the tolerance scores of marketing environment variable were 0.867, marketing mix was 0.877, and competitive advantage was 0.914 meant tolerance value was > 0.10. The scores of VIF marketing environment was 1.153, marketing mix was 1.141, and competitive advantage was 1.094 meant the value of VIF < 10 could be concluded that the above data did not contain multicollinearity.

4. Discussion

The Hypothesis testing was done using statistical analysis of Multiple Regression by using the Path analysis. Here was the explanation of the proposed research hypothesis.

Hypothesis 1: The marketing environment (X_1) in both the micro and macro marketing environment had a positive implication on the marketing mix (X_2).

After testing through the path analysis of both variables X_1 and X_2, the variable of marketing environment (X_1) both micro and macro environment gave significant effects to the marketing mix variable (X_2) where the significance t had value 0.000. While the determination coefficient (R^2) was 0.283 or the contribution is given of variable X_1 to variable X_2 was 28.3%, so there was still contribution from other variables 71.7%. Thus, the proposed hypothesis 1 was accepted, the path coefficient recapitulation could be seen in Table 4.

Table 4. The Path Coefficient between Variables X_1 to Variable X_2

Dependent Variable	Independent Variable	B	Beta	t	Sign	Explanation
X_2	X_1	.488	. 532	5.741	.000	Significant

R = .532
R^2 = . 283
Adjusted R^2 = .273
F_{calc} = 31.842
Sig F = .000

Hypothesis 2: The marketing environment (X_1) and the marketing mix (X_2) had positive implications on the competitive advantage (X_3).

After being tested through the path analysis it could be seen that hypothesis 2 was accepted, because simultaneously the variables of marketing environment (X_1) and marketing mix (X_2) had a significant influence on competitive advantage (X_3) with significance level t = 0.000 and the determination coefficient ($R^2_{adjusted}$) = 0.254, which meant the contribution to the variable of competitive advantage was 25.4%, while the contribution of other variables out of the model was 74.6%. The simultaneous test results (GF) showed that the value of Sig F 0.000 < Sig $\alpha = 0.05$.

From the calculation of X_1 and X_2 to X_3, the marketing environment (X_1) gave a significant influence to the competitive advantage (X_3) with (sign t = 0.025) and β = 0.294 while marketing mix variable (X_2) also gave significant influence to competitive advantage (X_3) where significance t = 0.002 and β = 0.316. The recapitulation results of the calculation could be seen in Table 5.

Table 5. The Path Coefficient between Variables X_1 and X_2 to Variable X_3

Dependent Variable	Independent Variable	B	Beta	t	Sign	Explanation
X_3	X_1	.426	.294	2.283	.025	Significant
	X_2	.484	.316	3.129	.002	Significant

R = .514
R^2 = . 278
Adjusted R^2 = .254
F_{calc} = 18.726
Sig F = .000

Hypothesis 3: The marketing environment (X_1) the marketing mix (X_2) and competitive advantage (X_3) had a positive impact on sales performance (X_4).
After testing through the Path analysis it was seen that hypothesis 3 was accepted, because simultaneously the variables of marketing environment (X_1), marketing mix (X_2), and competitive advantage (X_3) had significant influence on sales variable (X_4) with significance level t = 0.000 and the determination coefficient ($R^2_{adjusted}$) =

0.184, which meant the contribution to the competitive advantage variable was 18.4%, while the contribution of other variables out of the model was 81.6%.

From the calculation to the variables X_1, X_2 and X_3, the marketing environment (X_1) had a significant effect on the sales turnover (X_4) with (sign t = 0.041) and β = 0.186, while the marketing mix variable (X_2) gave a significant effect to sales turnover variable (X_4) where the significance of t = 0.032 and β = 0208, and variable of competitive advantage (X_3) also gave a significant influence to variable sales turnover (X_4) where significance t = 0.016 and β = 0.221. To know the results of the calculation recapitulation, it could be seen in Table 6. The simultaneous test results (GF) showed that the value of Sig F 0.005 < Sig α = 0.05.

Table 6. The Path Coefficient among Variables X_1, X_2, and X_3 on Variable X_4

Dependent Variable	Independent Variable	B	Beta	t	Sign	Explanation
X_4	X_1	.309	.186	1.836	.041	Significant
	X_2	.341	.208	2.180	.032	Significant
	X_3	.382	.221	2.563	.016	Significant

R = .446
R^2 = . 201
Adjusted R^2 = .184
F_{calc} = 5.268
Sig F = .005

Model Testing
The following section would explain about the model test formulated through the identification of the path coefficients at each stage to complete the explanation of the hypotheses testing that had been done previously.

The Path analysis test phase 1 (p_{21})
The path of marketing environment variable (X_1) to marketing mix variable (X_2) as the path p_{21}, with direction coefficient value β = 0.532, sign F = 0.000 and sign t = 0.000. This indicated that the SMEs' marketing environment had a significant influence on the SMEs' marketing mix, because the t_{test} was t significance < 0.05.

The Path analysis test phase 2 (p_{31} and p_{32})
The path of the marketing environment variable (X_1) to the competitive advantage variable (X_3) was as the path p_{31}, with the direction coefficient value β = 0.294, and the sign t = 0.025. This indicated that the marketing environment had a significant influence on SMEs' competitive advantage in the research object, because of the result of t_{test} (sign t < 0.05).

While the path of marketing mix variables consisting of product mix, price mix, distribution mix, and promotion mix (X_2) to competitive advantage variable was as path p_{32}, with direction coefficient value β = 0.316 and sign t = 0.002. This also indicated that the marketing mix had a significant influence on the SMEs competitive advantage in the research object, because of the result of t_{test} (sign t < 0.05).

The Path analysis test phase 3 (p_{41}, p_{42}, and p_{43})
The path of the marketing environment variable (X_1) to the sales turnover variable (X_4) was as the path p_{41}, with the direction coefficient value β = 0.186, and the sign t = 0.041, and the marketing mix (X_2) to sales turnover (X_4) as the path p_{42}, with value 0.208 and sign t = 0.032. This showed that both the marketing environment and the marketing mix variables had a direct influence on sales turnover variable achieved by SMEs.

While the path of the competitive advantage variable (X_3) to the sales turnover variable (X_4) was the path p_{43}, with the direction coefficient value $\beta = 0.221$ and sign $t = 0.016$. The results above showed that the competitive advantage achieved by SMEs had a significant effect on sales turnover. The result of the influential model among research variables could be seen in Figure 2.

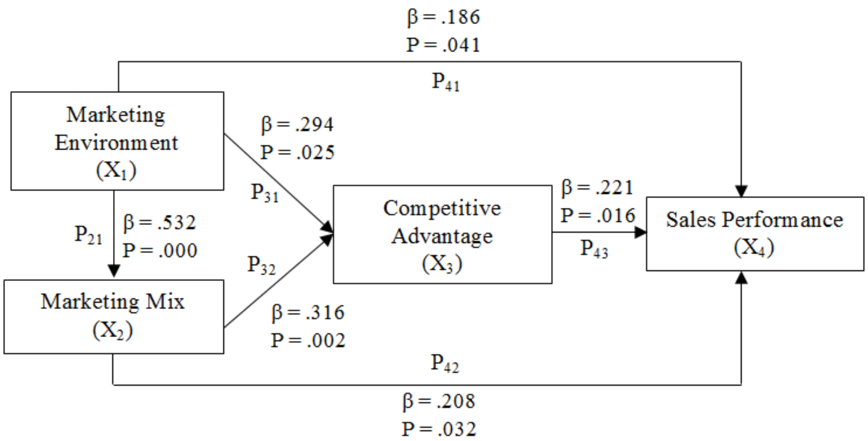

Figure 2. The Results of Influential Model among Research variables

The Implications of Variable X_1 on Variable X_2

According to Bird (2009), the marketing environment is an arrangement of events,
Surrounding circumstances, situations, environmental arrangements surrounding events in a business, where in a large-scale marketing environment it consists of micro and macro environments. The success of an industry depends on how industry relation with its environment (Porter, 2001). Elements of the marketing environment should be studied more deeply because one of the business failures in achieving sales growth from the management inability in analyzing the changes occurred in the marketing environment. Knowledge about the marketing environment can encourage creativity because knowledge about the marketing environment highlights the opportunities shown and the weaknesses taken into account (Menon *et al*., 1999).

The marketing environment includes: (a) the micro-marketing environments (suppliers, competitors, the public, intermediaries, and customers), and (b) macroeconomic environments (economy, technology, socio-cultural, government, regulatory and legal policies and demography). Both environments have a strong influence on the company’s marketing mix (Pinddiche, 2013). The environment is often challenging and complex because its effect on company performance, a company must develop its ability to identify opportunities and existing threats in its external environment. The external environments have two parts (Michael *et al*., 1995) they are the general environment (elements in the broader society affecting industry and companies within it) and the industrial environment (the threatening factors of participants, suppliers, buyers, replacement products and competition intensity that affects companies, actions, and competitive responses).

Based on the results of hypothesis testing had been done, hypothesis 1 was accepted, meaning that the marketing environment had a significant influence on the marketing mix variable. The better the entrepreneurs understood the environment around the business both the micro and the macro environments the better they set the marketing mix strategy.

The determination of the ideal marketing mix strategy could not be separated from the condition of micro marketing environment. Research data showed that among the factors of suppliers, competitors, public, intermediaries, and customers as elements of the micro-marketing environment, the most considered factors were competitors and costumers factors; this was because the main competitors for the products of small and medium enterprises the large businesses that produced similar goods from the import sector were processed with more advanced technology and attractive appearance. This factor was also the reason why customers were less interested in small and medium business products that the shape and looks were less attractive and sometimes potluck.

For the macro marketing environment among factors of economy, technology, socio-culture, government policy, regulatory and legal factors, as well as demography as the elements of the macro marketing environment, the most widely considered was the government policy factor. This was due to the existence of SMEs still in urgent need of attention and government support to develop. A conducive business climate should be pursued by the government in the setting of legislation and policies in various aspects of economic life so that SMEs entrepreneurs obtain the same certainty, equal opportunity, and wide business support so that they develop into strong and independent businesses. Legislation and policies for a conducive business climate for SMEs business development might include financing aspect competitive aspect, business infrastructure aspect, business information aspect, business licensing aspect, and business protection aspect. Governments at various levels of support and facilitate opportunities for business ventures (Mwobobia, 2012).

The implications of Variables X_1 and X_2 on Variable X_3

With information from the marketing environment, management is able to perform marketing mix strategy; a marketing mix strategy is one way of winning sustainable competitive advantage. A competitive advantage is a function of identifying right market product dimensions for the company's positioning (Ansoff, 1965 in Hameed, 2009). Similarly, Porter (2001) states that competitive advantage as an effort to create customer value better than its competitors by performing specific activities economically or with superior quality or combination of both compared with its competitors.

Marketing mix strategy can be viewed as one of the foundations used in preparing a company's overall planning. Viewed from the extent of existing problems within the company, it is necessary to have a comprehensive plan to serve as a guideline for the company segment in carrying out its activities, another reason that indicates the importance of marketing strategy is the increasingly tough competition of companies in general. Abell and Hammond (1985) argue that marketing mix strategies are primarily concerned with portraying target segments and product policies, communications, marketing channels and prices or being referred to as a marketing mix to reach and serve targeted market segments.

Based on the results of hypothesis testing had been done, hypothesis 2 was accepted, meaning that the variables of marketing environment variables and marketing mix had a significant influence on the competitive advantage variable. The better the entrepreneurs understood the environment around the business, both the micro and the macro environments, the determination of the marketing mix either product mix, price mix, distribution mix or promotion mix the better they generated to achieve the company's competitive advantage in winning the competition.

In business activities, the competition can be viewed as resource management in such a way that it exceeds the competitor performance. To implement it, a company needs to have competitive advantages that are a core of the company performance in a competitive market (Porter, 2001). Competitive advantages will be achieved if the company is able to provide a higher customer value than competitors for the same cost or same customer value for lower costs. Therefore, a proper understanding of the marketing environment is a must to do, because an industry's success depends on how it relates to its environment (Porter, 2001). Elements of the marketing environment should be studied more deeply because one of the business failures in achieving sales growth starts from the management inability in analyzing the changes that occur in the marketing environment. Knowledge of the marketing environment can encourage creativity because knowledge of the marketing environment highlights the opportunities that can be highlighted and the weaknesses are to be taken into account (Menon *et al*., 1999).

In addition to the marketing environment, the marketing function in the form of the marketing mix is the key for the company in winning the competition (Blanch and Christele, 2006). The marketing strategy is primarily concerned with portraying target segments and product policies, communications, marketing channels and prices or called as the marketing mix to achieve and serve targeted market segments (Abell and Hammond, 1985). Kotler (2001) states that marketing mix strategies consisting of product mix, price mix, promotion mix and distribution mix are parts of effective marketing strategies.

From the opinions and theories above, an understanding of the marketing environment generally changes, and the setting of the marketing mix is the basic capital for SMEs entrepreneurs to enhance their competitive advantages. This is because in facing the increasingly complex competition both coming from large companies and imports that produce relatively similar goods; it is time for SMEs to pay attention to this so that they are able to face increasingly keen competitions. The statistical results showed that both the marketing environment and the marketing mix significantly influenced the SMEs' competitive advantage.

The competitive advantage comes from company-owned resources, this perspective is known as Resource Based View or resource-based perspective initiated by Penrose (1959) in Hameed (2009). According to him, a competitive advantage can be achieved by creating an economic scale and improving management capabilities and technological capacity (Penrose, 1959 in Hameed, 2009).

This concept is later redefined by Barney (1991) who explains that valuable resource characteristics for competitive advantage are those related to valuable, complex, exclusive, easy to generalizable resources and elusive for competitors. In that perspective, the strategic competitive advantage is derived from core sources and core competences which are valuable, rare, hard to imitate, and no substitutability. Ability and resources are said to be substitutability in two meanings. First it cannot be replicated, and second, it can instead replace competitor's similar resources (Barney, 1991), so it is important for a company to make its products difficult to imitate or shift its competitors.

In SMEs the competitive advantage requires an involvement or roles of business actors, company resources (Hannon and Atherton, 1998 in Hameed 2009), capabilities (Collis and Montgomery, 1995), support of related partners (Kettunen, 2002), branding (Anarnkaporn, 2007), and clustering (Guzey and Tasseven, 2011). Other important factors in building SMEs' competitive advantage include the marketing environment supports from both government and private sectors in providing various facilities for SMEs. According to Kettunen (2002), government and industry associations, training centers, financial institutions, educational and training institutions play important roles in facilitating SMEs in improving their competitive advantages.

The competitive advantage is the heart of a company's performance that operates in a competitive market. A company advantage basically grows from the value or benefits created by the company or organization to its buyers. If then the company is able to create advantage through one of the three available generic strategies (price strategy, differentiation strategy, and focus strategy), it will gain a competitive advantage (Aaker and Fournier, 1995). The competitive advantage can be understood by looking at the company as a whole and entirely, coming from many different activities undertaken by the company in designing, producing, marketing, giving and supporting sales (Porter, 2001 in Hameed, 2009), so that the competitive advantage is a position of the company in order to win the competition in the form of cost advantage strategy, differentiation strategy and focus strategy.

The Implications of Variables X_1, X_2, and X_3 on Variable X_4

Based on the result of hypothesis test had been done, hypothesis 3 could also be accepted, meaning that the variables of the marketing environment, marketing mix, and competitive advantage had significant influences to the variable of sales performance.

The rapid and dramatic developments and changes in the environment, including changes in consumer passions, technological advances, and socio-economic changes, have resulted in business competition in various tight industries and will directly affect sales performance. Such conditions require companies to be able to explore and develop sources of competitive advantage in order to survive. Sources of competitive advantage can be found from management ability in exploring competences of the company's functional fields that is competence in the marketing field, product development, and design as well as production (Porter, 2001; Heene & Sanches, 1997).

Efforts to increase sales performance can be done by improving the performance of competitive advantage factors, by first understanding the condition of the marketing environment as the basis for determining the marketing mix strategy. In this study several sources of competitive advantages in the field of marketing recognized by the respondents were the main responsibility of the marketing function, they were as follows (viewed from what the percentage of responsibility was): how to create a company reputation and to build a good brand image, to identify market appropriately and able to meet the demands of the target market, to promote advertising, to expand the distribution scope and to perform selective distribution. Services before and after sales, setting price, and distribution costs were the responsibility of the marketing function for less than 50%. In other words, the sources of the advantages became the responsibility of other functions in the company of more than 50%. Although the responsibility of the marketing function was less than 50% of services before and after sales, setting price and distribution costs, the marketing functions remained to be responsible for improving the sources of the company's competitive advantage so that directly affect the product results. If a product is produced by a good reputation company, then the product will get more consumers than products produced by not good reputation companies. According to some management experts, this good company reputation is in turn expected to increase company profitability, one of which can be through the market share expansion and high profitability.

5. Conclusion

The results of this research indicated that marketing environment both micro and macro environment had positive implication to the marketing mix. Because information about marketing environment influenced to the marketing mix, hence reliable information was a determinant to choose a great strategy in reaching competitive advantages in reaching the market.

The marketing strategies focused on marketing mix strategies (product mix strategy, price mix strategy, promotion mix strategy, and distribution mix strategy) had significant effects on competitive advantages. The impacts of competitive advantage strategies focused on generic strategies (cost strategy, differentiation strategy, and strategy focus), they also significantly influenced to sales. Competitive advantages could be created if the entrepreneurs could implement the marketing mix strategy appropriately by first anticipating the always changing marketing environment. Competitive advantages were the heart of the company performance operating in a competitive market which existence was determined by the powers of the company.

From the above results, it meant that the increase of understanding of the marketing environment would be the basis for determining the marketing mix strategy that would affect the competitive advantages and would end on the improvement of sales performance. The findings were consistent with the results of the previous studies that had proven a positive relationship between the marketing environments and the marketing mix to sales performance.

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A Review of Fintech Regulations in China, Singapore, and Hong Kong

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Abstract

The world has transformed from traditional business model into digitalised business model, financial services as well. As financial sector is strictly regulated by worldwide regulator in the past, there's the dilemma on the regulation in the combination of Financial Technology ("Fintech"). This paper has selected three samples of emerging countries in Asia to examine the current regulations development. In the end of the paper, there is a comparison of regulatory framework between the samples of countries in order to have more understanding on how the regulator had been working on the Fintech industry to overcome the uncertainty.

"Banking service is necessary, but not banks."
Bill gates

The world economy has been transforming from traditional banking to digital ecosystem. Internet based services have become the most powerful distribution channel tools for businesses environment as well as changing of consumer behaviour nowadays. Following with rapid development in technology and application around the world, there are more opportunities created for businesses. There are many empirical studies on how does internet has changed the business environment and customer's behaviour (Elena-Iulia 2014, Glova, Sabol and Vajda 2014, Muzellec, Ronteau and Lamkin 2015). Majority of world's retail banks dominating the financial landscape through providing deposit, payment and credit services, however, they are no longer the only players in the industries. In the recent year, there are increasing of alternative finance gains tractions with customers. Nowadays, the financial services required convenience, fast and data collation. Fintech is the combination of "financial" and "technology". The raising of Fintech companies, who are coming into the industries through internet-based services such as online funding, lending service, online payment systems, asset management as well as new money capabilities e.g. Bitcoin and block chain technology. However, how would financial institutions look into this disruption?

Collaboration or Competition

For decades, traditional banking service are competing with other competitor bank among the industry but the banks have to compete with technology based Fintech companies nowadays. In view of early disruptive Fintech companies around the world such as Alibaba Group & Tencent, Paypal, M-PESA etc., the communities such as government, investors, entrepreneurs and consumers around the world started to grant attention to the Fintech services. The global investment in Fintech companies raised to USD3.2 billion in the first quarter year 2017 across 260 deals (KPMG International Cooperative 2017). Here's come with the question with collaboration or competition? While the developing countries has lack of chances deal with financial services, the only way to get them into financial inclusion is the infrastructures. There are believes in Fintech solutions could generate more options than banking options for poor infrastructures developing countries such as India and Pakistan (Kendall 2017). On the other hand, McKinsey (2016) also pointed that the offers from Fintech such as low cost driver and innovative uses of data could be a threat to the banks' revenues.

The collaboration between banks and Fintech companies is better off as banking sector could easier get customer acquisition with collaborate with the advanced technology offering from Fintech companies. There's no doubt on the traditional financial services are moving into digital era, banks and Fintech companies believe that financial technology is not only able to provide products opportunities growth but also build a new architecture which are faster, efficient and more secured across border to another country. In the report of World Payment Report (2016), the volume of global non-cash transaction have accelerated and growth by 10.1 % which up to USD426.3 billion in year 2015. Therefore, Fintech companies seized the opportunities by reaching their customers more easily and less initiative costs during engaging on mobile technology (Kiem, et al. 2016). Despite Fintech provided an exciting landscape to the community, however, there are challenges on whether Fintech's products are fail to be trusted, fail to be secured or fail to comply to local regulatory framework.

According to the survey of White & Case Fintech M&A (2016), 59% do not think that Fintech subject to tighter regulations as this may stifle new innovative ideas (Kiem et al., 2016). In order to maintain financial and economy stability, financial sectors are well regulated by worldwide regulator (domestic and international regulator). In the existing regulatory frameworks are not structured and incompetent to supervise the rapid growth in Fintech industries [Kiem et al. (2016)]. The government's support is the key growth in Fintech industry which are contributing by the entry barriers, funding, infrastructure and regulatory support. In the US, there is complex regulator and state-level structure to oversee the financial services provider, hence created entry barrier to Fintech companies where UK has more friendly regulation to welcome Fintech start-up (Desai 2015). As Fintech promises to provide better customer experience, the Fintech companies must consider on how to use the regulation for advantage their further growth and development. Therefore, the regulatory have crucial responsibility to ensure the customers are protected. For an instance of international body, New York's Financial Stability Board ("FSB") has been requested from national authorities to assess a supervisory and regulation framework on the cyber risk issue of Fintech from financial stability perspective such as concern on the security of customer's database being available to Fintech third party companies (Financial Stability Board 2017). On the other hand, there is no clear declaration from deposit insurance scheme if customers are refundable when hijacked by third party Fintech companies. Moreover, there are investment risk caused the lack of investor's confident while there are case studies on fallen of POWA TAG, a UK mobile payments companies as well as a high profile crowd funding company, ZANO (Cellan Jones 2016a, Cellan-Jones 2016b).

Furthermore, different regulatory approaches across jurisdictions are also the challenges in Fintech. However, this may not be able to achieve due the existence of Cyber threats and Cyber risk. Therefore, the world financial service regulators such as United States and United Kingdom getting more involving as Cyber risk is the threat to financial operating activities (Deloitte & Touche LLP 2016). In the report, they also highlighted the cultures of Fintech companies are distinctly different from financial institutions. For example, regulators are more concerning on risk management framework and would prefer banks to maintain their relationship with their customers, hence transform more slowly while comparing to Fintech companies which operate their business in rapid growth of innovation. On the other hand, "big data analysis" is also the one of the new technology paradigm in Fintech industry. There are some of the studies revealed the challenges and technical issues on how big data could accelerates the developments of Fintech industries in near future (In 2017).

In the section below, the recent developments of Fintech regulation will be conducted by selecting three countries who initiated in Fintech investment and regulations: China, Hong Kong and Singapore.

CHINA

China, is the home of operating mobile payment and global Fintech services leader by recorded USD1.8 trillion in internet finance sector of the market size of country in year 2015 (McKinsey & Company 2016). Among the internet finance, third party payment ("TPP") is one of the well-known Fintech development in China, which also the core transformation of China's e-commerce industries (Miao and Jayakar 2016). According to EY survey report (The Rise of Fintech In China 2016), there are several factors contributing to disintermediation in China with the raising of digital connectivity. In an instance of Alibaba Group, which affiliated with Ant Financial and Tencent becomes global leader in Fintech industries with their TPP in e-commerce business. As a global Fintech player in the world, the central bank People's Bank of China ("PBC") has set up Fintech committee to study the impacts of financial technology on monetary policy, stability and clearing mechanisms in order to seek ways to mitigate the risks (Angier 2017).
In the past, the financial services industries in China is highly state ownership and controls which had been nationalised under regulation of PBC (Yongwoon and Dong-Hee 2016). There are several largest Chinese Bank presence in China such as the Bank of China ("BOC"), the China Construction Bank ("CCB"), the Agricultural Bank of China ("ABC"), and the Industrial and Commercial Bank of China ("ICBC") owned by Chinese central government, which carry commercial banking operation (Kumaravadivel 2013). Nonetheless, the abovementioned China's banks are heavily regulated by the China Banking Regulatory Commission ("CBRC"), which established in 2003 and took over supervisory and regulatory framework from PBC.

In China's e-commerce service industries, Elinor and Xia (2011) stated that there are five regulator departments presence to oversee and focus on the growth of e-commerce industries which including PBC, the Ministry of Commerce ("MOFCOM"), the State Administration of Industry & Commerce ("SAIC"), the Ministry of Industry and Information Technology ("MIIT"), and the State Administration of Taxation ("SAT").
According to Yongwoon and Dong-Hee (2016), most of the Fintech companies which providing in TPP are un-regulated before year 2010. Therefore, the Chinese government, PBC established a new regulation on granting payment license for those non-financial institutions (Fintech companies) to operate on TPP services (TransAsia Lawyers 2010). Under the new government regulatory regime published, PBC had brought 27 Fintech companies, which included Alibaba Group officially legalised on the TPP payment services through granted license.

Subsequently, Alibaba Group extended its finance business to Small-Medium Enterprise ("SME") lending segment through collaborate with financial institutions in China (Meng Jing 2014). Moreover, the risen of mobile phone payment increasing rapidly also boost the China's e-commerce business, which benefit TPP providers. However, the rapid growth of Fintech businesses in China caused the dilemma of banks (Yongwoon and Dong-Hee 2016). In year 2014, the Fintech industry in China is no longer restricted in TPP and mobile payment services, which reform the financial industries in China by allowing Fintech companies to set up private banking services such as investment platform by Tescent and fund lending services (Yongwoon and Dong-Hee 2016). As such, the Fintech companies grow strong and rapidly through government's supporting in the field innovations.

In the aggressive growth pace of China's Fintech industries, the regulator has established a series of regulatory framework to restrict the online services to maintain financial stability and country growth. For example, PBC and CBRC will be regulating online lending fund depository business; Equity- based crowdfunding and sales of financial products will go under regulation of the China Securities Regulatory Commission ("CSRC"); and online insurance will be going under regulation of the China Insurance Regulatory Commission ("CIRC") (Han Kun Law Offices 2015). Under the Guiding Opinions on Promoting the Healthy Development of Internet Finance ("the regulation"), China regulatory created a more focus regulatory approach transparency since year 2015 (Jiamin 2015).

In China, there are financial inclusions through internet based services as aforementioned. Due to Fintech services booming in China in the recent several years, the regulator has endeavoured the potential risks in the disruptors. The authorities in China have established a series of guideline in order to promoting healthy development of internet finance (Jiamin 2015). Under the new regulation, all the non-bank account would be required to use real name for registration in order to classify the services provider according to security levels (Barbara 2015). Moreover, the online payment limited the amount in range of RMB1,000 to RMB200,000 in a year. Meanwhile, the regulations don't apply to those transactions which make through banking online payment platforms as banking sector in China is strictly guided by the authorities (The State Council - The People's Republic of China 2015). The new regulation issued in online payment mainly for avoid the large amounts of fund transfer to third party account as beyond of insurance deposit scheme if any fraud as well as to comply with Anti Money Laundering framework.

As China differentiated with rural and urban are in the country, most of the rural areas have difficulties to have financial inclusion and hence lack of chances to contact with traditional financial services. P2P always linked to one term of financial awareness called as "Shadow Banking". In year 2013, there are survey report on 65% respondents agreed on the "Shadow Banking" would generate another crisis in China (Caixin Survey 2013). In an instance of high profile scandal of internet lender Ezubo alleged defrauded USD7.6 million from 900,000 peoples, which exposed the biggest Ponzi scheme (Bloomberg 2016). On the other hand, there is reported of 1,263 out of 3,853 Chinese P2P lenders were having financial difficulties and 266 P2P lender fled away in year 2015 (The Economist 2016). As such, Chinese government has finalised a series of rules and regulation to tighten the P2P lending platform in year 2016. Shen Wei (2015) conducted an investigation on potential risk in China's P2P lending platform and suggested options to regulator to tackle the issues in earlier year. After the P2P tighten regulation been released on 24 August 2016, there are expected more than 2,400 lending platform has been which doesn't comply with new regulations (Reuters 2016). Under the new rules, the regulator seems turning P2P into supplement of banking industries where risk compliance applies (Weinland, Don; 2017).

For an instance, P2P companies are restricted to sell management products and issue asset-backed security. Also, those Fintech companies who providing P2P services will be limiting to have third party custodian to manage the funds (Reuters 2016). In order to ensure the P2P lending platform in China remain transparency, the Chinese government also set up the National Internet Finance Association, which run by PBOC to oversee the risk in sector as well as supervise Fintech companies in China (QuanLin 2016). Among the new regulations imposed, there are credit limits cap on individual of RMB200,000 and RMB1,000,000 on lending companies (Lockett 2017). In the result of new regulation applied, there is reported the P2P growth rate in China slows amid which consequence nearly half dropped in the transaction in year 2016 (Xueqing 2017). Nonetheless, there are still the risk exists despite the new regulations imposed such as no capital requirement to start up the lending services and do not need to be licensed (China Banking Regulatory Commission 2017). "The P2P business are not strictly regulated, but the regulator is taking step forward," Xu Hongwei says (Bloomberg 2016).

Equity crowdfunding is referring to a financing method which raise fund from public to offer equity as investment thorough internet technology. Belleframme et al. (2015) described the types of crowdfunding platform in the sectors and the challenges. On the other hand, there are potential risks involved money laundering and fraud etc. (Shen Wei 2015). The Chinese regulator came up regulations to tackle the issues. For examples, a qualified individual investor must able to meet one of the following criteria: invest at least RMB1 million in a single project; obtaining net assets of RMB10 million or RMB3 million net worth with average annual income of RMB500, 000 over the past 3 years (Andrew 2015). Moreover, there are also the regulations on the requirements of setting up crowdfunding platform and the platform doesn't allow offering P2P lending services at the same time. Meanwhile, the sales of financial products through online, there is no any specific regulation but Chinese government encouraged the collaboration between banks and Fintech companies to deliver their services to customers (Nicholas 2015). In order to tackle the possible illegal activity, the Chinese regulatory are still working on specific regulatory which believe there are more specific requirement to be published soon (Erdenebileg 2016).

Although China's financial services heavily regulated by multiple of Chinese regulator, but there are still lack of specific supervision and guideline in coordinate scheme. In China, MIIT and CIRC are in charge of supervision and regulatory work of online insurance. Following by the rapid growth of online platform such as offering financial products and online insurance, CIRC has issued an interim measure in supervisory of online insurance business (Martin 2015). Under the interim measure report, the insurance institutions may not need to have physical presence but have to fulfil the insurance service requirement (Middle East Insurance Review 2015). Furthermore, the insurance products also have been limited to offer to public through online insurance business.

HONG KONG

Hong Kong has the honour of leading financial centres with its unique location in the heart of Asia Pacific region. Although Singapore have been widely recognised as leading premier Fintech hub in Asia currently but Hong Kong has confident to catch up the progress (Bermingham 2017). In past several years, Hong Kong has been working on Fintech landscape to accelerate the industry in order to become Fintech hub in Asia Pacific region (Barberis 2014). As China's mainland financial centre, Hong Kong also the largest offshore financial centre, which ideal financial service centre for asset management and capital formation centre. Although there are USD300 million invested in Fintech industries but the regulations are restricted the Fintech innovations (Strait Times 2016). Indeed, Hong Kong financial services are strictly regulated by the authority, which this explained Hong Kong is world's leading financial centre. However, Hong Kong is urged to focus on establishing their payment technology and cybersecurity in order to compete with its international rivals (Barreto 2017).
The Hong Kong Monetary Authority ("HKMA") is the central bank in Hong Kong who regulate over the banking sector such as bank and deposit-taking institution (Hong Kong Monetary Authority , About the HKMA 2017). Meanwhile, there are presence of authorities such as the Securities and Futures Commission ("SFC") who regulating over intermediaries dealing in securities, futures and certain investment products (Securities and Futures Commission, Our Role 2015). In the insurance sectors, the Office of the Commissioner of Insurance ("OCI") who overseeing the financial conditions and insurance operations, moreover, there also the presence of three self-regulatory institutions who regulate activities of insurance intermediaries (Office of the Commissioner of Insurance, Regulatory framework 2013). In data privacy matters regime, which is in charge under regulation of the Office of the Privacy Commissioner ("OPC") where the Communications Authority ("CA") is overseeing the regulation framework of broadcasting and telecommunication industries. For those activities involved in money lending must be under supervision and regulation by the Registry of Money Lender.

In order to provide healthy development in Fintech industries and compete with Singapore to promote as Fintech Hub in Asia, the central bank HKMA has established Fintech Facilitation Office ("FFO") in the recent year (Hong Kong Monetary Authority 2016). Under the main function of FFO, the focus areas are: promote research in Fintech solutions with collaborate with industry; provide a platform to industry communications and interface between Fintech companies and regulators. Subsequently, HKMA launched Fintech Innovation Hub to support the regulatory environment which initiative in regulatory regime, herein called as "Fintech Supervisory Sandbox" (Weiting 2016). As Fintech growth rapidly in the recent year, therefore there are recent concern raise from the Hong Kong authority such as distribution ledger technology ("Blockchain"). HKMA believe the new technology – Blockchain could have potential money laundering potential risk (The Business Times 2016). As such full of uncertainty in the process of financial innovation, Hong Kong government has been urged to establish Fintech office to better address on issue of regulatory and risk management areas (Zen 2017).

Following by China has strong presence of digital payment system but not been regulated in past several years, HKMA has established online payment of stored value facilities ("SVF") and retail payment system ("RPS") in year 2014 (Securities and Futures Commission 2014). The following regime of SVF and RP are amended from consultation paper 2013 (Securities and Futures Commission 2013). Hong Kong Lawyer (2015) has pointed the consultation paper in year 2013 received the criticism from respondents due to different on competitive advantages between non-bank entities and banking industries and some of requirements issues. However, the new regime has been finalised and followed by a number of respondents. For an instance the well-known smart card payment company, Octopus, who are authorised by HKMA as deposit taking company to operate multi-purpose SVF. Under the new regulation, SVF operator must be able to fulfil the requirements such as licensing, capital requirements, business plan and maximum store value of different SVF (Securities and Futures Commission 2014). However, for RPS regulation, there are no specific criteria currently as long as there is no impact to the public confidence, financial stability and public confidence day-to-day commercial activities.

Due to lesson learned from global financial crisis in 2008, HKMA has strictly restricted bank and deposit taking companies to approve loan application. As result, there is increasing of non-bank money lender over the year due to easier obtain the mortgage loan from market in borrowers' point of view (HKEXnews 2013). According to the report, there is approximately HKD30.5 billion of market scale of money lenders and HKD6.6 billion in mortgage market in year 2013. Following by the rapid growth of financial technology, P2P platform could be easier to access the market place by providing lower interest rate. Although the money lenders in Hong Kong are regulated by Companies Registry by license issuing (Companies Registry 2016), however, there are reported of increasing of illegal loans (Nikki 2016). According to the Legislative Council (2016), there are the cases on how borrowers are being induced to apply for loan and high fees applies in the process, which is prohibited form current regime. In order to maintain financial stability and health economy in Hong Kong, the Legislative Council urged the government to impose more stringent regulation to restrict P2P service platforms (Legislative Council 2017).

The crowdfunding services is considered a new field in Hong Kong. In year 2015, the SFC had issued a notice in relation of crowdfunding (Secrities and Futures Commission 2014). Under the notices, there are the series of risks and types of crowdfunding are imposed to the existing regulatory regime. Currently, there are no specific regulations on equity crowdfunding and sales of financial products. However, for those companies who want to operate in equity crowdfunding must able to fulfil the requirements under Securities and Futures Ordinance Act and the Companies Winding Up and Miscellaneous Provisions Ordinance Act. In order to better address the crowding issues, the Financial Services Development Council has released a proposal on the regulatory framework for equity crowding funding in 2016 (FInancial Services Development Council 2016). However, the proposal is still under discussion on the execution.

The insurance business in Hong Kong are fall under Insurance Companies Ordinance currently. There was a report of the current authority OCI to be replaced by new regulatory body – Independent Insurance Authority ("AII") to supervise the insurance companies and regulation in Hong Kong (Norton Rose Fulbright 2010). There is a report shown that wearable devices in Hong Kong, which enabled the insurer able to accumulate information of customers' behaviour (Computer World 2016). However, there are concerns on the data privacy and technology risks raised when dealing with internet based of insurance services. To overcome such risk, the OCI has issued "Guidance Note on the Use of Internet for Insurance Activities" in year 2001 to minimise the risk exposure (Office of the Commissioner of Insurance, Guidance Note On The Use of Internet for Insurance Activities 2001). Under the guideline, the insurance provider must obtain the advanced Internet security technologies.

SINGAPORE

Singapore, which is a country pushing itself into invention of Fintech industries and aim to be Asian Fintech Hub. The central bank, Monetary Authority of Singapore ("MAS") continued to lead and support Fintech activities in the country among Asia following by Hong Kong (Strait Times 2016). Singapore has been more aggressive in pursuing Fintech investment over the past years, however, Singapore faced the immigration law on giving priorities to local Singaporean, which created an obstacle to foreign talents in the Fintech Industries. In an instance of Singaporean complaint on the foreigner taking of their job opportunity in the country, the authority Ministry of Manpower ("MOM") has working in tighten the criteria of foreign employment over the years (Startup Decisions 2016). Moreover, Singapore as an offshore private financial centre also exposed to the risk from the threaten by multibillion dollars' money laundering scandal from its neighbourhood country as well as tax amnesty to recall the funds from low tax rate countries. In view of Fintech businesses such as Airbnb and Uber etc. growth rapidly over the island, Singapore foresee that uncertainty and risks when Fintech industries are not being regulated.

In Singapore, there are several authorities overseeing and regulating the regime. The major regulators in Singapore of course is the Monetary Authority of Singapore (MAS) who supervising financial institutions which including insurance companies, capital markets intermediation, financial markets infrastructure and money lenders. The other regulator involved in Fintech industry such as the Info-Communications Media Development

Authority of Singapore ("IMDA") in charge the regulations of information and communication media sectors and taking over the responsibility of personal data protection after merging of the Infocomm Development Authority of Singapore ("IDA") and the Media Development Authority of Singapore ("MDA") in year 2016 (Strait Times, Singapore's media and infocomm authorities IDA and MDA will merge to form IMDA 2016).

As Singapore aiming to be promoted as Fintech Hub, MAS and National Reserve Foundation ("NRF") has established Fintech office as one-stop service department to serve all the matters related to Fintech (Monetary Authority of Singapore 2016). Further in the budget 2017, Singapore introduced the "SMEs go digital Programme" in order to strengthen their core business economies to integrate with digital economy (Ministry of Finance 2017). Under the programme, there are SGD80 million set aside to help the local SMEs to adopt the digital solutions.

Moreover, there is regulatory framework established in recent year to support and encourage the Fintech innovation, the central bank has issued Fintech regulatory sandbox to supervise and ensure the innovative product comply to the financial requirements in year 2016 (Monetary Authority of Singapore, MAS FinTech Regulatory Sandbox 2017). Under the sandbox regulatory environment, MAS aims the financial innovation products could increase efficiency, manage risk better, open up new opportunities as well as improve lifestyle of Singaporeans (Monetary Authority of Singapore 2016). To tackle the uncertainty over innovation process yet not to stifle the opportunity on testing new technology, MAS allowed the Fintech products supported by more relaxing regulations and compliances. For example, the sandbox entities are provided 6 months to define the experiment is not replicated in the market scale. Upon a series of evaluation requirements, the sandbox entity must fully comply with the relevant regulatory requirements (Monetary Authority of Singapore 2017). In order to have better experiment space for the Fintech innovative products, Singapore regulatory also emphasises in the framework of enabling the growth and innovation for Fintech companies (Ministry of Finance 2017).

MAS collaborated with international financial bodies to come up a series of Fintech landscape. For an instance, MAS collaborated with International Financial Corporation ("IFC") to establish Asean Financial Innovation Network ("Afin") which focus on the standardizing compliance duties, cross border connectivity, increase financial inclusion and remove some inappropriate national restrictions over Fintech industries (Ainger 2017).Following by the increase of cashless payment linked through advanced digital devices in the past several years, MAS aimed to cashless countries in the future (Hardasmalani 2016). According to KPMG report (2016), there are several of e-payment platforms which promote faster and convenient to the consumers. As Singapore aware that online settlement is the main component in Fintech industries in the future, hence, MAS issued new regulatory on payment framework and established National Payment Council (Monetay Authority of Singapore 2016). Under the new regulation, MAS able to better envisage and address the issues on e-payment ecosystem regulation such as accessibility, customer data protection and corporate governance. Moreover, the regulatory framework helps the authority to have better understanding on risks and risk management such as cyber security risk, technology risk, money-laundering and terrorism financing risk. In Singapore, there are also the presence of regulation on SVF (Monetary Authority of Singapore, Stored Value Facility Guidelines 2006). For wide accepted SVF such as EZ-Link and NETS, the holders required an approval from MAS if the aggregate amount more than SGD30 million. Despite there are no licensing and capital base requirement as Hong Kong as aforementioned, but the regulatory framework still have restrictions guideline to prevent money laundering.

In Singapore, there are many P2P platforms such as MoolahSense and Validus who lending money to SMEs and investors. The P2P lending platform is strictly regulated by Securities and Futures Act and Financial Advisers Act in Singapore. The lender and borrower subjected to a series of lending and borrowing requirements (Monetary Authority of Singapore 2016). Moreover, the operator of P2P lending services must obtain Capital Market Services license issued by MAS. Under the regulation, there is a statement stated that the P2P lending businesses which used promissory notes to issue to borrower previously need to be licensed for their further lending business services. Under the Fintech activities which involved in money lending is guided by the Moneylender Acts.

Crowdfunding or online crowdfunding platform considered is a new phenomenon in Singapore in recent year. For an instance, the reward based crowdfunding and donation based crowdfunding. In order to support and encourage SMEs business start-up in Singapore, the central bank announced the regulatory framework for security based crowdfunding in 2016 (Monetary Authority of Singapore 2016).

Under the regulation (essentially are Securities and Futures Act and Financial Advisers Act), the company who wants to offer its shares through crowdfunding platform has required to register with MAS (Monetary Authority of Singapore 2016). Moreover, there are two ways for SMEs access into equity-crowdfunding platforms. First, MAS will make this platform rely on current regulatory framework with "small offer" for those SMEs who wish to raise their fund less than SGD5 million within 12 months from retail investors. The another way is accredited institution and investors will be required a base capital requirement to start up their business at least SGD50,000 which reduced from SGD250,000 previously (Monetary Authority of Singapore 2016). On the other hand, the firm who duel with retail investors have to apply for Capital Market Services license and minimum capital of SGD500,000 to set aside before business operation (Yahya 2016).

In Singapore, all the activities which involving in insurance businesses, foreign insurer or insurance intermediaries are subjected to regulate by Insurance Act (Singapore Statues Online 2015). For those insurance intermediaries would like to start up their business through internet service based must be able to comply with the Insurance Act and doesn't breach any terms in existing license condition. In order to have better supervision the risk during innovation process and support the online based insurance services, MAS has urged the insurance intermediaries to avail themselves in Regulatory sandbox (Monetary Authority of Singapore 2017). For overseas registered insurance provider subjected to seek for MAS's approval before operating domestic business in Singapore (Monetary Authority of Singapre 2016). This action had provided the unregistered insurer places the customer at risk.

SUMMARY OF CURRENT REGULATORY FRAMEWORK IN FINTECH[1]

	CHINA	HONG KONG	SINGAPORE
REGULATOR	PBC, CBRC, CSRC,CIRC	HKMA, SFC, OCI, OPC, CA, AII	MAS, IMDA
E-PAYMENT	License is required	Clearing and Settlement license is required; License and minimum capital of HK25 million is required for SVF but no designated regulation for RPS	License is required for Payment and settlement regulation; License and capital doesn't required for SVF but subjected to MAS approval if the aggregate amount more than SGD30 million
P2P	Online P2P lending platform required third party financial institution to manage the funds; Credit limits imposed RMB200,000 for individual and RMB1,000,000 for lending companies; No capital requirements and license registry from local authority	Guided by current legislative SFC Ordinance, no specific regulation on the field	Capital Market license is required for P2P lending platform; base capital requirement for institutional investors reduced to SGD50,000 from SGD250,000; institution who deal with retail investor required SGD500,000 base capital
EQUITY CROWDFUNDING/ SALES OF	No P2P lending services to be deliver after registered for equity	License is required depending on the nature of activity under	Categorised under P2P regulations

[1] Regulations are fast changing and new regulations could have come in place since the writing of this paper.

FINANCIAL PRODUCTS	crowdfunding services; remain membership with Securities Association of China; no specific regulation on online sale of financial products	legislative SFC Ordinance and the Companies (Winding Up and Miscellaneous Provisions) Ordinance, no specific regulation on the field	
ONLINE INSURANCE ("INSURTECH")	Insurance license is required for direct insurance sale; where through third party platform, no license is required	Insurance license is required under Insurance Cos. ordinance, no specific regulation	Insurance license is required and regulated under Insurance Act
OTHER DEVELOPMENTS	Looking forward on more regulations developments	Fintech Supervisory Sandbox	Fintech Regulatory Sandbox

DISCUSSIONS

An integration of financial and technology have become a popular topic and exciting areas for exploration in the recent year. From the literature review, there are proactive investment made in Fintech industries around the world, according to the report of KPMG (KPMG International Cooperative 2017). However, the business challenges and issues are still bugging the start-up of the Fintech industries which including the regulatory framework and entry barriers. Due to the world had been changed to digital ecosystem and the changes of business model over the business industries, the regulatory framework have become more challenges as the current legislative is ill-equipped (Kiem, et al. 2016). The challenges could be more wide range over the uncertainty in Fintech industry such as data privacy protection and cyber security (Shen Wei 2015). Positively, the regulatory around the world had been working very hard to understanding the risks could be aroused in the industries and findings solutions to mitigate the risks.

China is the global Fintech player in the early century but the regulations are too lax (Yongwoon and Dong-Hee 2016). In view of China's internet finance activities proactive in year 2014, as well as the high profiled scandal of Ezubo, PBC had been worked with others authorities on the regulation framework in year 2016. Compared to financial leading centre in Hong Kong and Singapore, HKMA and MAS had been working and amending the regulatory framework over the time. In most of the comparison areas, there are different of regulatory approach among the samples countries. For an instance, digital payment services in China required business operating license but no specific regulation SVF; while Hong Kong issued the new SVF regime in year 2014 to prevent money laundering through Multi-purpose SVF (Hong Kong Lawyer; 2015). Under the regime, license and minimum capital of HKD25 million is required. In Singapore, there are no specific regulations in SVF but the holders subjected to approval if the holder has aggregate sum of SGD30 million.

China has the biggest P2P lending platform and equity crowdfunding compared to Hong Kong and Singapore, according to the report of EY and DBS (Sachin and Lloyd 2016). Therefore, China has more specific regulations in term of licensing and minimum capital requirements for business operator. For Hong Kong, there is no specific regulations under P2P and equity crowdfunding services as this is considered a new phenomenon in the country. For Singapore, the capital market license is required for business operator but the requirements of base capital requirement reduced for institutional investors in order to fostering SMEs start-up. In insurance sector, China required insurance providers must have obtained insurance license but no license is required through if the sales of insurance third party platform. Although there is no specific regulation on overseas registered internet financial services, but Singapore still giving advises to investors who wants to invest through internet platform. For an instance, Singapore warned investors in unregulated platform of binary options trading platform (Nicole 2017). Going forward, Singapore would have more specific legislative framework for online financial services.

As Hong Kong and Singapore in the competition to become Fintech Hub in Asia, there will be more regulatory framework to be issued in near future. For an instance, the regulatory sandbox published in Hong Kong and Singapore to supervise the innovative process in order to mitigate the risks before enter into large scale market. In the comparison of the regulatory sandbox between Hong Kong and Singapore, the purpose is the same approach to mitigate the possible risks but there are different views in the innovative process. For an instance, HKMA has no intention to relax the possible regulation but MAS do. Moreover, there has no details on HKMA's supervisory sandbox but MAS had given all the details for the application and evaluation process. However, the capital is required for the start-up Fintech activities in the competition of Fintech hub. According to a report conducted by KPMG (Fintech in India - The Global Growth Story 2016), Singapore has higher government incentives and funding in Fintech start-up compared to Hong Kong. Although Singapore has lead in front of Hong Kong currently but Hong Kong has confident to catch up with the trend.

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A Review of Fintech Regulations in China, Singapore, and Hong Kong

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Abstract

The world has transformed from traditional business model into digitalised business model, financial services as well. As financial sector is strictly regulated by worldwide regulator in the past, there's the dilemma on the regulation in the combination of Financial Technology ("Fintech"). This paper has selected three samples of emerging countries in Asia to examine the current regulations development. In the end of the paper, there is a comparison of regulatory framework between the samples of countries in order to have more understanding on how the regulator had been working on the Fintech industry to overcome the uncertainty.

"Banking service is necessary, but not banks."
Bill gates

The world economy has been transforming from traditional banking to digital ecosystem. Internet based services have become the most powerful distribution channel tools for businesses environment as well as changing of consumer behaviour nowadays. Following with rapid development in technology and application around the world, there are more opportunities created for businesses. There are many empirical studies on how does internet has changed the business environment and customer's behaviour (Elena-Iulia 2014, Glova, Sabol and Vajda 2014, Muzellec, Ronteau and Lamkin 2015). Majority of world's retail banks dominating the financial landscape through providing deposit, payment and credit services, however, they are no longer the only players in the industries. In the recent year, there are increasing of alternative finance gains tractions with customers. Nowadays, the financial services required convenience, fast and data collation. Fintech is the combination of "financial" and "technology". The raising of Fintech companies, who are coming into the industries through internet-based services such as online funding, lending service, online payment systems, asset management as well as new money capabilities e.g. Bitcoin and block chain technology. However, how would financial institutions look into this disruption?

Collaboration or Competition

For decades, traditional banking service are competing with other competitor bank among the industry but the banks have to compete with technology based Fintech companies nowadays. In view of early disruptive Fintech companies around the world such as Alibaba Group & Tencent, Paypal, M-PESA etc., the communities such as government, investors, entrepreneurs and consumers around the world started to grant attention to the Fintech services. The global investment in Fintech companies raised to USD3.2 billion in the first quarter year 2017 across 260 deals (KPMG International Cooperative 2017). Here's come with the question with collaboration or competition? While the developing countries has lack of chances deal with financial services, the only way to get them into financial inclusion is the infrastructures. There are believes in Fintech solutions could generate more options than banking options for poor infrastructures developing countries such as India and Pakistan (Kendall 2017). On the other hand, McKinsey (2016) also pointed that the offers from Fintech such as low cost driver and innovative uses of data could be a threat to the banks' revenues.

The collaboration between banks and Fintech companies is better off as banking sector could easier get customer acquisition with collaborate with the advanced technology offering from Fintech companies. There's no doubt on the traditional financial services are moving into digital era, banks and Fintech companies believe that financial technology is not only able to provide products opportunities growth but also build a new architecture which are faster, efficient and more secured across border to another country. In the report of World Payment Report (2016), the volume of global non-cash transaction have accelerated and growth by 10.1 % which up to USD426.3 billion in year 2015. Therefore, Fintech companies seized the opportunities by reaching their customers more easily and less initiative costs during engaging on mobile technology (Kiem, et al. 2016). Despite Fintech provided an exciting landscape to the community, however, there are challenges on whether Fintech's products are fail to be trusted, fail to be secured or fail to comply to local regulatory framework.

According to the survey of White & Case Fintech M&A (2016), 59% do not think that Fintech subject to tighter regulations as this may stifle new innovative ideas (Kiem et al., 2016). In order to maintain financial and economy stability, financial sectors are well regulated by worldwide regulator (domestic and international regulator). In the existing regulatory frameworks are not structured and incompetent to supervise the rapid growth in Fintech industries [Kiem et al. (2016)]. The government's support is the key growth in Fintech industry which are contributing by the entry barriers, funding, infrastructure and regulatory support. In the US, there is complex regulator and state-level structure to oversee the financial services provider, hence created entry barrier to Fintech companies where UK has more friendly regulation to welcome Fintech start-up (Desai 2015). As Fintech promises to provide better customer experience, the Fintech companies must consider on how to use the regulation for advantage their further growth and development. Therefore, the regulatory have crucial responsibility to ensure the customers are protected. For an instance of international body, New York's Financial Stability Board ("FSB") has been requested from national authorities to assess a supervisory and regulation framework on the cyber risk issue of Fintech from financial stability perspective such as concern on the security of customer's database being available to Fintech third party companies (Financial Stability Board 2017). On the other hand, there is no clear declaration from deposit insurance scheme if customers are refundable when hijacked by third party Fintech companies. Moreover, there are investment risk caused the lack of investor's confident while there are case studies on fallen of POWA TAG, a UK mobile payments companies as well as a high profile crowd funding company, ZANO (Cellan Jones 2016a, Cellan-Jones 2016b).

Furthermore, different regulatory approaches across jurisdictions are also the challenges in Fintech. However, this may not be able to achieve due the existence of Cyber threats and Cyber risk. Therefore, the world financial service regulators such as United States and United Kingdom getting more involving as Cyber risk is the threat to financial operating activities (Deloitte & Touche LLP 2016). In the report, they also highlighted the cultures of Fintech companies are distinctly different from financial institutions. For example, regulators are more concerning on risk management framework and would prefer banks to maintain their relationship with their customers, hence transform more slowly while comparing to Fintech companies which operate their business in rapid growth of innovation. On the other hand, "big data analysis" is also the one of the new technology paradigm in Fintech industry. There are some of the studies revealed the challenges and technical issues on how big data could accelerates the developments of Fintech industries in near future (In 2017).

In the section below, the recent developments of Fintech regulation will be conducted by selecting three countries who initiated in Fintech investment and regulations: China, Hong Kong and Singapore.

CHINA

China, is the home of operating mobile payment and global Fintech services leader by recorded USD1.8 trillion in internet finance sector of the market size of country in year 2015 (McKinsey & Company 2016). Among the internet finance, third party payment ("TPP") is one of the well-known Fintech development in China, which also the core transformation of China's e-commerce industries (Miao and Jayakar 2016). According to EY survey report (The Rise of Fintech In China 2016), there are several factors contributing to disintermediation in China with the raising of digital connectivity. In an instance of Alibaba Group, which affiliated with Ant Financial and Tencent becomes global leader in Fintech industries with their TPP in e-commerce business. As a global Fintech player in the world, the central bank People's Bank of China ("PBC") has set up Fintech committee to study the impacts of financial technology on monetary policy, stability and clearing mechanisms in order to seek ways to mitigate the risks (Angier 2017).
In the past, the financial services industries in China is highly state ownership and controls which had been nationalised under regulation of PBC (Yongwoon and Dong-Hee 2016). There are several largest Chinese Bank presence in China such as the Bank of China ("BOC"), the China Construction Bank ("CCB"), the Agricultural Bank of China ("ABC"), and the Industrial and Commercial Bank of China ("ICBC") owned by Chinese central government, which carry commercial banking operation (Kumaravadivel 2013). Nonetheless, the abovementioned China's banks are heavily regulated by the China Banking Regulatory Commission ("CBRC"), which established in 2003 and took over supervisory and regulatory framework from PBC.

In China's e-commerce service industries, Elinor and Xia (2011) stated that there are five regulator departments presence to oversee and focus on the growth of e-commerce industries which including PBC, the Ministry of Commerce ("MOFCOM"), the State Administration of Industry & Commerce ("SAIC"), the Ministry of Industry and Information Technology ("MIIT"), and the State Administration of Taxation ("SAT").
According to Yongwoon and Dong-Hee (2016), most of the Fintech companies which providing in TPP are un-regulated before year 2010. Therefore, the Chinese government, PBC established a new regulation on granting payment license for those non-financial institutions (Fintech companies) to operate on TPP services (TransAsia Lawyers 2010). Under the new government regulatory regime published, PBC had brought 27 Fintech companies, which included Alibaba Group officially legalised on the TPP payment services through granted license.

Subsequently, Alibaba Group extended its finance business to Small-Medium Enterprise ("SME") lending segment through collaborate with financial institutions in China (Meng Jing 2014). Moreover, the risen of mobile phone payment increasing rapidly also boost the China's e-commerce business, which benefit TPP providers. However, the rapid growth of Fintech businesses in China caused the dilemma of banks (Yongwoon and Dong-Hee 2016). In year 2014, the Fintech industry in China is no longer restricted in TPP and mobile payment services, which reform the financial industries in China by allowing Fintech companies to set up private banking services such as investment platform by Tescent and fund lending services (Yongwoon and Dong-Hee 2016). As such, the Fintech companies grow strong and rapidly through government's supporting in the field innovations.

In the aggressive growth pace of China's Fintech industries, the regulator has established a series of regulatory framework to restrict the online services to maintain financial stability and country growth. For example, PBC and CBRC will be regulating online lending fund depository business; Equity- based crowdfunding and sales of financial products will go under regulation of the China Securities Regulatory Commission ("CSRC"); and online insurance will be going under regulation of the China Insurance Regulatory Commission ("CIRC") (Han Kun Law Offices 2015). Under the Guiding Opinions on Promoting the Healthy Development of Internet Finance ("the regulation"), China regulatory created a more focus regulatory approach transparency since year 2015 (Jiamin 2015).

In China, there are financial inclusions through internet based services as aforementioned. Due to Fintech services booming in China in the recent several years, the regulator has endeavoured the potential risks in the disruptors. The authorities in China have established a series of guideline in order to promoting healthy development of internet finance (Jiamin 2015). Under the new regulation, all the non-bank account would be required to use real name for registration in order to classify the services provider according to security levels (Barbara 2015). Moreover, the online payment limited the amount in range of RMB1,000 to RMB200,000 in a year. Meanwhile, the regulations don't apply to those transactions which make through banking online payment platforms as banking sector in China is strictly guided by the authorities (The State Council - The People's Republic of China 2015). The new regulation issued in online payment mainly for avoid the large amounts of fund transfer to third party account as beyond of insurance deposit scheme if any fraud as well as to comply with Anti Money Laundering framework.

As China differentiated with rural and urban are in the country, most of the rural areas have difficulties to have financial inclusion and hence lack of chances to contact with traditional financial services. P2P always linked to one term of financial awareness called as "Shadow Banking". In year 2013, there are survey report on 65% respondents agreed on the "Shadow Banking" would generate another crisis in China (Caixin Survey 2013). In an instance of high profile scandal of internet lender Ezubo alleged defrauded USD7.6 million from 900,000 peoples, which exposed the biggest Ponzi scheme (Bloomberg 2016). On the other hand, there is reported of 1,263 out of 3,853 Chinese P2P lenders were having financial difficulties and 266 P2P lender fled away in year 2015 (The Economist 2016). As such, Chinese government has finalised a series of rules and regulation to tighten the P2P lending platform in year 2016. Shen Wei (2015) conducted an investigation on potential risk in China's P2P lending platform and suggested options to regulator to tackle the issues in earlier year. After the P2P tighten regulation been released on 24 August 2016, there are expected more than 2,400 lending platform has been which doesn't comply with new regulations (Reuters 2016). Under the new rules, the regulator seems turning P2P into supplement of banking industries where risk compliance applies (Weinland, Don; 2017).

For an instance, P2P companies are restricted to sell management products and issue asset-backed security. Also, those Fintech companies who providing P2P services will be limiting to have third party custodian to manage the funds (Reuters 2016). In order to ensure the P2P lending platform in China remain transparency, the Chinese government also set up the National Internet Finance Association, which run by PBOC to oversee the risk in sector as well as supervise Fintech companies in China (QuanLin 2016). Among the new regulations imposed, there are credit limits cap on individual of RMB200,000 and RMB1,000,000 on lending companies (Lockett 2017). In the result of new regulation applied, there is reported the P2P growth rate in China slows amid which consequence nearly half dropped in the transaction in year 2016 (Xueqing 2017). Nonetheless, there are still the risk exists despite the new regulations imposed such as no capital requirement to start up the lending services and do not need to be licensed (China Banking Regulatory Commission 2017). "The P2P business are not strictly regulated, but the regulator is taking step forward," Xu Hongwei says (Bloomberg 2016).

Equity crowdfunding is referring to a financing method which raise fund from public to offer equity as investment thorough internet technology. Belleframme et al. (2015) described the types of crowdfunding platform in the sectors and the challenges. On the other hand, there are potential risks involved money laundering and fraud etc. (Shen Wei 2015). The Chinese regulator came up regulations to tackle the issues. For examples, a qualified individual investor must able to meet one of the following criteria: invest at least RMB1 million in a single project; obtaining net assets of RMB10 million or RMB3 million net worth with average annual income of RMB500, 000 over the past 3 years (Andrew 2015). Moreover, there are also the regulations on the requirements of setting up crowdfunding platform and the platform doesn't allow offering P2P lending services at the same time. Meanwhile, the sales of financial products through online, there is no any specific regulation but Chinese government encouraged the collaboration between banks and Fintech companies to deliver their services to customers (Nicholas 2015). In order to tackle the possible illegal activity, the Chinese regulatory are still working on specific regulatory which believe there are more specific requirement to be published soon (Erdenebileg 2016).

Although China's financial services heavily regulated by multiple of Chinese regulator, but there are still lack of specific supervision and guideline in coordinate scheme. In China, MIIT and CIRC are in charge of supervision and regulatory work of online insurance. Following by the rapid growth of online platform such as offering financial products and online insurance, CIRC has issued an interim measure in supervisory of online insurance business (Martin 2015). Under the interim measure report, the insurance institutions may not need to have physical presence but have to fulfil the insurance service requirement (Middle East Insurance Review 2015). Furthermore, the insurance products also have been limited to offer to public through online insurance business.

HONG KONG

Hong Kong has the honour of leading financial centres with its unique location in the heart of Asia Pacific region. Although Singapore have been widely recognised as leading premier Fintech hub in Asia currently but Hong Kong has confident to catch up the progress (Bermingham 2017). In past several years, Hong Kong has been working on Fintech landscape to accelerate the industry in order to become Fintech hub in Asia Pacific region (Barberis 2014). As China's mainland financial centre, Hong Kong also the largest offshore financial centre, which ideal financial service centre for asset management and capital formation centre. Although there are USD300 million invested in Fintech industries but the regulations are restricted the Fintech innovations (Strait Times 2016). Indeed, Hong Kong financial services are strictly regulated by the authority, which this explained Hong Kong is world's leading financial centre. However, Hong Kong is urged to focus on establishing their payment technology and cybersecurity in order to compete with its international rivals (Barreto 2017).
The Hong Kong Monetary Authority ("HKMA") is the central bank in Hong Kong who regulate over the banking sector such as bank and deposit-taking institution (Hong Kong Monetary Authority , About the HKMA 2017). Meanwhile, there are presence of authorities such as the Securities and Futures Commission ("SFC") who regulating over intermediaries dealing in securities, futures and certain investment products (Securities and Futures Commission, Our Role 2015). In the insurance sectors, the Office of the Commissioner of Insurance ("OCI") who overseeing the financial conditions and insurance operations, moreover, there also the presence of three self-regulatory institutions who regulate activities of insurance intermediaries (Office of the Commissioner of Insurance, Regulatory framework 2013). In data privacy matters regime, which is in charge under regulation of the Office of the Privacy Commissioner ("OPC") where the Communications Authority ("CA") is overseeing the regulation framework of broadcasting and telecommunication industries. For those activities involved in money lending must be under supervision and regulation by the Registry of Money Lender.

In order to provide healthy development in Fintech industries and compete with Singapore to promote as Fintech Hub in Asia, the central bank HKMA has established Fintech Facilitation Office ("FFO") in the recent year (Hong Kong Monetary Authority 2016). Under the main function of FFO, the focus areas are: promote research in Fintech solutions with collaborate with industry; provide a platform to industry communications and interface between Fintech companies and regulators. Subsequently, HKMA launched Fintech Innovation Hub to support the regulatory environment which initiative in regulatory regime, herein called as "Fintech Supervisory Sandbox" (Weiting 2016). As Fintech growth rapidly in the recent year, therefore there are recent concern raise from the Hong Kong authority such as distribution ledger technology ("Blockchain"). HKMA believe the new technology – Blockchain could have potential money laundering potential risk (The Business Times 2016). As such full of uncertainty in the process of financial innovation, Hong Kong government has been urged to establish Fintech office to better address on issue of regulatory and risk management areas (Zen 2017).

Following by China has strong presence of digital payment system but not been regulated in past several years, HKMA has established online payment of stored value facilities ("SVF") and retail payment system ("RPS") in year 2014 (Securities and Futures Commission 2014). The following regime of SVF and RP are amended from consultation paper 2013 (Securities and Futures Commission 2013). Hong Kong Lawyer (2015) has pointed the consultation paper in year 2013 received the criticism from respondents due to different on competitive advantages between non-bank entities and banking industries and some of requirements issues. However, the new regime has been finalised and followed by a number of respondents. For an instance the well-known smart card payment company, Octopus, who are authorised by HKMA as deposit taking company to operate multi-purpose SVF. Under the new regulation, SVF operator must be able to fulfil the requirements such as licensing, capital requirements, business plan and maximum store value of different SVF (Securities and Futures Commission 2014). However, for RPS regulation, there are no specific criteria currently as long as there is no impact to the public confidence, financial stability and public confidence day-to-day commercial activities.

Due to lesson learned from global financial crisis in 2008, HKMA has strictly restricted bank and deposit taking companies to approve loan application. As result, there is increasing of non-bank money lender over the year due to easier obtain the mortgage loan from market in borrowers' point of view (HKEXnews 2013). According to the report, there is approximately HKD30.5 billion of market scale of money lenders and HKD6.6 billion in mortgage market in year 2013. Following by the rapid growth of financial technology, P2P platform could be easier to access the market place by providing lower interest rate. Although the money lenders in Hong Kong are regulated by Companies Registry by license issuing (Companies Registry 2016), however, there are reported of increasing of illegal loans (Nikki 2016). According to the Legislative Council (2016), there are the cases on how borrowers are being induced to apply for loan and high fees applies in the process, which is prohibited form current regime. In order to maintain financial stability and health economy in Hong Kong, the Legislative Council urged the government to impose more stringent regulation to restrict P2P service platforms (Legislative Council 2017).

The crowdfunding services is considered a new field in Hong Kong. In year 2015, the SFC had issued a notice in relation of crowdfunding (Secrities and Futures Commission 2014). Under the notices, there are the series of risks and types of crowdfunding are imposed to the existing regulatory regime. Currently, there are no specific regulations on equity crowdfunding and sales of financial products. However, for those companies who want to operate in equity crowdfunding must able to fulfil the requirements under Securities and Futures Ordinance Act and the Companies Winding Up and Miscellaneous Provisions Ordinance Act. In order to better address the crowding issues, the Financial Services Development Council has released a proposal on the regulatory framework for equity crowding funding in 2016 (FInancial Services Development Council 2016). However, the proposal is still under discussion on the execution.

The insurance business in Hong Kong are fall under Insurance Companies Ordinance currently. There was a report of the current authority OCI to be replaced by new regulatory body – Independent Insurance Authority ("AII") to supervise the insurance companies and regulation in Hong Kong (Norton Rose Fulbright 2010). There is a report shown that wearable devices in Hong Kong, which enabled the insurer able to accumulate information of customers' behaviour (Computer World 2016). However, there are concerns on the data privacy and technology risks raised when dealing with internet based of insurance services. To overcome such risk, the OCI has issued "Guidance Note on the Use of Internet for Insurance Activities" in year 2001 to minimise the risk exposure (Office of the Commissioner of Insurance, Guidance Note On The Use of Internet for Insurance Activities 2001). Under the guideline, the insurance provider must obtain the advanced Internet security technologies.

SINGAPORE

Singapore, which is a country pushing itself into invention of Fintech industries and aim to be Asian Fintech Hub. The central bank, Monetary Authority of Singapore ("MAS") continued to lead and support Fintech activities in the country among Asia following by Hong Kong (Strait Times 2016). Singapore has been more aggressive in pursuing Fintech investment over the past years, however, Singapore faced the immigration law on giving priorities to local Singaporean, which created an obstacle to foreign talents in the Fintech Industries. In an instance of Singaporean complaint on the foreigner taking of their job opportunity in the country, the authority Ministry of Manpower ("MOM") has working in tighten the criteria of foreign employment over the years (Startup Decisions 2016). Moreover, Singapore as an offshore private financial centre also exposed to the risk from the threaten by multibillion dollars' money laundering scandal from its neighbourhood country as well as tax amnesty to recall the funds from low tax rate countries. In view of Fintech businesses such as Airbnb and Uber etc. growth rapidly over the island, Singapore foresee that uncertainty and risks when Fintech industries are not being regulated.

In Singapore, there are several authorities overseeing and regulating the regime. The major regulators in Singapore of course is the Monetary Authority of Singapore (MAS) who supervising financial institutions which including insurance companies, capital markets intermediation, financial markets infrastructure and money lenders. The other regulator involved in Fintech industry such as the Info-Communications Media Development

Authority of Singapore ("IMDA") in charge the regulations of information and communication media sectors and taking over the responsibility of personal data protection after merging of the Infocomm Development Authority of Singapore ("IDA") and the Media Development Authority of Singapore ("MDA") in year 2016 (Strait Times, Singapore's media and infocomm authorities IDA and MDA will merge to form IMDA 2016).

As Singapore aiming to be promoted as Fintech Hub, MAS and National Reserve Foundation ("NRF") has established Fintech office as one-stop service department to serve all the matters related to Fintech (Monetary Authority of Singapore 2016). Further in the budget 2017, Singapore introduced the "SMEs go digital Programme" in order to strengthen their core business economies to integrate with digital economy (Ministry of Finance 2017). Under the programme, there are SGD80 million set aside to help the local SMEs to adopt the digital solutions.

Moreover, there is regulatory framework established in recent year to support and encourage the Fintech innovation, the central bank has issued Fintech regulatory sandbox to supervise and ensure the innovative product comply to the financial requirements in year 2016 (Monetary Authority of Singapore, MAS FinTech Regulatory Sandbox 2017). Under the sandbox regulatory environment, MAS aims the financial innovation products could increase efficiency, manage risk better, open up new opportunities as well as improve lifestyle of Singaporeans (Monetary Authority of Singapore 2016). To tackle the uncertainty over innovation process yet not to stifle the opportunity on testing new technology, MAS allowed the Fintech products supported by more relaxing regulations and compliances. For example, the sandbox entities are provided 6 months to define the experiment is not replicated in the market scale. Upon a series of evaluation requirements, the sandbox entity must fully comply with the relevant regulatory requirements (Monetary Authority of Singapore 2017). In order to have better experiment space for the Fintech innovative products, Singapore regulatory also emphasises in the framework of enabling the growth and innovation for Fintech companies (Ministry of Finance 2017).

MAS collaborated with international financial bodies to come up a series of Fintech landscape. For an instance, MAS collaborated with International Financial Corporation ("IFC") to establish Asean Financial Innovation Network ("Afin") which focus on the standardizing compliance duties, cross border connectivity, increase financial inclusion and remove some inappropriate national restrictions over Fintech industries (Ainger 2017).Following by the increase of cashless payment linked through advanced digital devices in the past several years, MAS aimed to cashless countries in the future (Hardasmalani 2016). According to KPMG report (2016), there are several of e-payment platforms which promote faster and convenient to the consumers. As Singapore aware that online settlement is the main component in Fintech industries in the future, hence, MAS issued new regulatory on payment framework and established National Payment Council (Monetay Authority of Singapore 2016). Under the new regulation, MAS able to better envisage and address the issues on e-payment ecosystem regulation such as accessibility, customer data protection and corporate governance. Moreover, the regulatory framework helps the authority to have better understanding on risks and risk management such as cyber security risk, technology risk, money-laundering and terrorism financing risk. In Singapore, there are also the presence of regulation on SVF (Monetary Authority of Singapore, Stored Value Facility Guidelines 2006). For wide accepted SVF such as EZ-Link and NETS, the holders required an approval from MAS if the aggregate amount more than SGD30 million. Despite there are no licensing and capital base requirement as Hong Kong as aforementioned, but the regulatory framework still have restrictions guideline to prevent money laundering.

In Singapore, there are many P2P platforms such as MoolahSense and Validus who lending money to SMEs and investors. The P2P lending platform is strictly regulated by Securities and Futures Act and Financial Advisers Act in Singapore. The lender and borrower subjected to a series of lending and borrowing requirements (Monetary Authority of Singapore 2016). Moreover, the operator of P2P lending services must obtain Capital Market Services license issued by MAS. Under the regulation, there is a statement stated that the P2P lending businesses which used promissory notes to issue to borrower previously need to be licensed for their further lending business services. Under the Fintech activities which involved in money lending is guided by the Moneylender Acts.

Crowdfunding or online crowdfunding platform considered is a new phenomenon in Singapore in recent year. For an instance, the reward based crowdfunding and donation based crowdfunding. In order to support and encourage SMEs business start-up in Singapore, the central bank announced the regulatory framework for security based crowdfunding in 2016 (Monetary Authority of Singapore 2016).

Under the regulation (essentially are Securities and Futures Act and Financial Advisers Act), the company who wants to offer its shares through crowdfunding platform has required to register with MAS (Monetary Authority of Singapore 2016). Moreover, there are two ways for SMEs access into equity-crowdfunding platforms. First, MAS will make this platform rely on current regulatory framework with "small offer" for those SMEs who wish to raise their fund less than SGD5 million within 12 months from retail investors. The another way is accredited institution and investors will be required a base capital requirement to start up their business at least SGD50,000 which reduced from SGD250,000 previously (Monetary Authority of Singapore 2016). On the other hand, the firm who duel with retail investors have to apply for Capital Market Services license and minimum capital of SGD500,000 to set aside before business operation (Yahya 2016).

In Singapore, all the activities which involving in insurance businesses, foreign insurer or insurance intermediaries are subjected to regulate by Insurance Act (Singapore Statues Online 2015). For those insurance intermediaries would like to start up their business through internet service based must be able to comply with the Insurance Act and doesn't breach any terms in existing license condition. In order to have better supervision the risk during innovation process and support the online based insurance services, MAS has urged the insurance intermediaries to avail themselves in Regulatory sandbox (Monetary Authority of Singapore 2017). For overseas registered insurance provider subjected to seek for MAS's approval before operating domestic business in Singapore (Monetary Authority of Singapre 2016). This action had provided the unregistered insurer places the customer at risk.

SUMMARY OF CURRENT REGULATORY FRAMEWORK IN FINTECH[1]

	CHINA	HONG KONG	SINGAPORE
REGULATOR	PBC, CBRC, CSRC,CIRC	HKMA, SFC, OCI, OPC, CA, AII	MAS, IMDA
E-PAYMENT	License is required	Clearing and Settlement license is required; License and minimum capital of HK25 million is required for SVF but no designated regulation for RPS	License is required for Payment and settlement regulation; License and capital doesn't required for SVF but subjected to MAS approval if the aggregate amount more than SGD30 million
P2P	Online P2P lending platform required third party financial institution to manage the funds; Credit limits imposed RMB200,000 for individual and RMB1,000,000 for lending companies; No capital requirements and license registry from local authority	Guided by current legislative SFC Ordinance, no specific regulation on the field	Capital Market license is required for P2P lending platform; base capital requirement for institutional investors reduced to SGD50,000 from SGD250,000; institution who deal with retail investor required SGD500,000 base capital
EQUITY CROWDFUNDING/ SALES OF	No P2P lending services to be deliver after registered for equity	License is required depending on the nature of activity under	Categorised under P2P regulations

[1] Regulations are fast changing and new regulations could have come in place since the writing of this paper.

FINANCIAL PRODUCTS	crowdfunding services; remain membership with Securities Association of China; no specific regulation on online sale of financial products	legislative SFC Ordinance and the Companies (Winding Up and Miscellaneous Provisions) Ordinance, no specific regulation on the field	
ONLINE INSURANCE ("INSURTECH")	Insurance license is required for direct insurance sale; where through third party platform, no license is required	Insurance license is required under Insurance Cos. ordinance, no specific regulation	Insurance license is required and regulated under Insurance Act
OTHER DEVELOPMENTS	Looking forward on more regulations developments	Fintech Supervisory Sandbox	Fintech Regulatory Sandbox

DISCUSSIONS

An integration of financial and technology have become a popular topic and exciting areas for exploration in the recent year. From the literature review, there are proactive investment made in Fintech industries around the world, according to the report of KPMG (KPMG International Cooperative 2017). However, the business challenges and issues are still bugging the start-up of the Fintech industries which including the regulatory framework and entry barriers. Due to the world had been changed to digital ecosystem and the changes of business model over the business industries, the regulatory framework have become more challenges as the current legislative is ill-equipped (Kiem, et al. 2016). The challenges could be more wide range over the uncertainty in Fintech industry such as data privacy protection and cyber security (Shen Wei 2015). Positively, the regulatory around the world had been working very hard to understanding the risks could be aroused in the industries and findings solutions to mitigate the risks.

China is the global Fintech player in the early century but the regulations are too lax (Yongwoon and Dong-Hee 2016). In view of China's internet finance activities proactive in year 2014, as well as the high profiled scandal of Ezubo, PBC had been worked with others authorities on the regulation framework in year 2016. Compared to financial leading centre in Hong Kong and Singapore, HKMA and MAS had been working and amending the regulatory framework over the time. In most of the comparison areas, there are different of regulatory approach among the samples countries. For an instance, digital payment services in China required business operating license but no specific regulation SVF; while Hong Kong issued the new SVF regime in year 2014 to prevent money laundering through Multi-purpose SVF (Hong Kong Lawyer; 2015). Under the regime, license and minimum capital of HKD25 million is required. In Singapore, there are no specific regulations in SVF but the holders subjected to approval if the holder has aggregate sum of SGD30 million.

China has the biggest P2P lending platform and equity crowdfunding compared to Hong Kong and Singapore, according to the report of EY and DBS (Sachin and Lloyd 2016). Therefore, China has more specific regulations in term of licensing and minimum capital requirements for business operator. For Hong Kong, there is no specific regulations under P2P and equity crowdfunding services as this is considered a new phenomenon in the country. For Singapore, the capital market license is required for business operator but the requirements of base capital requirement reduced for institutional investors in order to fostering SMEs start-up. In insurance sector, China required insurance providers must have obtained insurance license but no license is required through if the sales of insurance third party platform. Although there is no specific regulation on overseas registered internet financial services, but Singapore still giving advises to investors who wants to invest through internet platform. For an instance, Singapore warned investors in unregulated platform of binary options trading platform (Nicole 2017). Going forward, Singapore would have more specific legislative framework for online financial services.

As Hong Kong and Singapore in the competition to become Fintech Hub in Asia, there will be more regulatory framework to be issued in near future. For an instance, the regulatory sandbox published in Hong Kong and Singapore to supervise the innovative process in order to mitigate the risks before enter into large scale market. In the comparison of the regulatory sandbox between Hong Kong and Singapore, the purpose is the same approach to mitigate the possible risks but there are different views in the innovative process. For an instance, HKMA has no intention to relax the possible regulation but MAS do. Moreover, there has no details on HKMA's supervisory sandbox but MAS had given all the details for the application and evaluation process. However, the capital is required for the start-up Fintech activities in the competition of Fintech hub. According to a report conducted by KPMG (Fintech in India - The Global Growth Story 2016), Singapore has higher government incentives and funding in Fintech start-up compared to Hong Kong. Although Singapore has lead in front of Hong Kong currently but Hong Kong has confident to catch up with the trend.

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Entrepreneurs Experience and Firm Innovativeness: Multiple Mediation of Attitudinal and Behavioral Competencies

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Abstract
This study was anchored on a postpositivism paradigm and the Theory of perceived attributes and individual innovativeness, regarding the multiple serial mediations of attitudinal and behavioral competencies in the relationship between the entrepreneurs' experience and firm innovativeness. To test the hypothesized relationship a cross-sectional design and qualitative approach were employed. The study drew on a sample of 698 Micro and Small-scale entrepreneurs in Western Kenya. Questionnaires were the main data collection tools. Results indicate that entrepreneurial attitudinal and behavioral competencies had a mediating effect on the relationship between the entrepreneurs' experience and firm innovativeness among adult women entrepreneurs while among youth men were partial mediation. The direct effect of entrepreneurial experience on the level of innovativeness was significant for youth respondents but not adult women respondents. This study identifies entrepreneurial attitudinal and behavioral competencies as critical inputs for enhancing firm innovativeness hence, appropriate supportive policies and programmes are required.

Keywords: Attitudinal competencies, Innovative, Entrepreneurial experience, Mediation, Western Kenya.

1. Introduction

1.1 Context of the problem

Innovation is perceived to be highly developed in developed countries in comparison to the developing world (Szirmai, Naudé and Goedhu 2011). However, innovation is an activity which entrepreneurs engage in all the time in the course of running a firm. Szirmai, Naudé, & Goedhu, (2011) argues that not all entrepreneurs are innovative at the same level, neither are firms managed and owned by entrepreneurs are more innovative. Continuous learning is considered to be important is sustaining industrial knowledge and experiences (Wang 2016), which can result in firm innovativeness. Apart from being highly knowledgeable, experienced, and skilled entrepreneurs, also require highly skilled laborers (Szirmai, Naudé and Goedhu 2011). This implies that human capital is important in the successful operation of a firm. The success of firm demand innovativeness in order to provide competitive value.

In order to upscale, the capacity required for innovative behavior appropriate government interventions and policies, with respect to the operation of markets is vital especially in investment in knowledge and innovation. If the system of innovation is weak then, fewer efforts of individual entrepreneurs will not contribute to accelerated economic development (Goedhuys and Srholec 2010). Adequate innovation performance requires sound policies and appropriate institutions (Szirmai, Naudé and Goedhu 2011). This aspect impacts directly on the existence of not only entrepreneurship policies in a given country but also on innovation policies. A proper investment in education, labor skills, and human capital is vital for the creation of an innovative population (Szirmai, Naudé and Goedhu 2011).

An entrepreneurs' innovative ability is key in the entrepreneurial process given that creation of value is tied to one's ability to innovate hence beat the competition. Innovation is widely recognized as an important variable in creating a competitive advantage and driving economic growth globally. Innovation is also a relatively vague concept, yet its absence results in stagnation and loss of competitive behaviors among firms. Innovativeness is a characteristic of individuals as well as organizations (Ikhlaq Sidhu et al., 2016). Hence, an appropriate orientation of individuals and the firm are vital inputs in the innovative process.

Entrepreneurial characteristics have an impact on the innovative capability of a company (Omerzel, 2016). Firm innovativeness can foster the ability of enterprises to survive the turbulent business landscape and contribute to venture a success. Firm innovation is, therefore, core to economic development and social well-being in an economy yet, context specific. According to the Republic of Kenya (2012), innovation in firms is a tool for economic development through enhancing productivity. The Kenya vision 2030 focuses on anchoring adoption of science and technology and innovation as key tools in the economic development process.

There are limited studies in the developing context of the entrepreneurial profile, competencies, and firm innovativeness. However, the entrepreneur's profile seems to play a central role in the innovation process (O'Brien 2015). In addition, a definition of firm innovativeness remains a complex concept in the African context. In most cases, studies on direct relationships in entrepreneurship have been attempted, but not on serial multiple interactive effects hence, the need for this study.

1.2 Theoretical orientation

This study was anchored on two theories, the theory of perceived attributes and theory of individual innovativeness. The diffusion of innovations in the trade sector can be very limited owing to the nature of the sector, which deals in the conveyance of goods and services. Kumar & Kaur (2014) suggests that different theories can be used to study firm innovativeness, owing to the interactive effects of many aspects. The assertion suggests that for a productive study on firm innovativeness multiple theories have to be examined. Majorly, all these theories have weaknesses and strengths which are unique in every aspect. The current study focused on the respondent's perceptions of their firm innovativeness with respect to the product, process, marketing and organizational. The theory of diffusion of innovation is applicable in various disciplines.

1.2.1Theory of perceived attributes

The theory of perceived attributes is anchored on the belief that entrepreneurs will adopt an innovation if the innovation has some relative advantage over an existing innovation, it is compatible with existing values and practices, it is not too complex, and it has trialability, and the innovation must offer observable results (Rogers, 1995). Entrepreneurs adopt innovations depending on its effectiveness (Musa, Ezra and Monsurat 2015). The diffusion approach has some limitations, for example, an innovation may be rejected in spite of the knowledge level of the user. It is construed in this study that the entrepreneurs' ability to adopt an innovation is dependent on the entrepreneurial experience and firm innovativeness.

1.2.2 Individual Innovativeness Theory

According to the theory of individual innovativeness, individuals are categorized depending on their innovative ability (Kumar and Kaur 2014). There are four categories according to the classification of innovators, by

Rogers, early adopters, early majority, late majority, and laggards. Despite the classification on the basis of innovativeness, inconsistencies have been noted in individual innovativeness. In this study, the focus was on the product, process, marketing and organizational. Firm innovativeness perspectives can be very diverse in the four aspects depending on the entrepreneurial orientation of an individual.

2. Related Literature

2.1 Entrepreneurial experience and firm innovativeness

Entrepreneurs work experience is perceived to contribute minimally to students' entrepreneurial attitudes (Al Bakri & Mehrez, 2017). This perspective implies that entrepreneurial experience can equally, influence firm Innovative in some contexts. Several studies conducted on the effect of entrepreneurial experience on the determination of entrepreneurial attitudes have yielded mixed results (Singh, 2014; Khan, Malekifar, & Jabeen, 2013). However, a higher work experience promotes a higher, innovative capacity. Saleh & Salhieh (2014) alludes that entrepreneurial intentions of students was higher for those with work experience in comparison to those without such entrepreneurial experience. Experience thus constitutes a driver to one being entrepreneurial, and by extension, this could result in firm innovativeness as a strategy to sustain competitiveness. Entrepreneurial experience, increases with age, hence boosts the performance of the enterprise (Strangler and Marion 2013). Generally, the idea that an entrepreneur or firm pursues is in most cases based on the experience of an individual or the firm (Link 2014). The human capital that goes into the firms' innovative ability includes experience among other factors hence to achieve innovativeness one requires increasing managerial experience (Tehseen 2015).

While examining gender differentials in firms operated by male entrepreneurs, it was found that men owned firms performed than those operated by women (Sagire 2017). An entrepreneurial experience gained over a period of time in relation to the age of the entrepreneurs enhances enterprise performance (ibid). Equally, gender comparisons show that men had a higher work experience than women (Varamäki et al. 2015). This may be attributed to gender roles in society that may put heavier demands on women in comparison to men. On the aspect of gaining technical experience, it has been found that innovative entrepreneurs obtained it through work experience while working in large companies. In most cases when such entrepreneurs come up with innovative ideas, they then left the company to go out on their own (Manocha 2012).

Firm innovativeness is realized in firms when employees contribute to an advantage, encourage innovation, and use their knowledge to make the firm to work successfully (Schmitz, Lapolli and Lapolli 2014). The owner-manager plays a key role in firm innovativeness especially family firms given that the owner-managers spend a relatively long time in the firm, hence accumulates knowledge and experience in the operation of a firm (Varamäki et al. 2015). An entrepreneurs' context and their prior experience is a major source of creativity and knowledge for innovation (Adhama et al. 2012). The entrepreneurs experience for example in production is important in fostering innovative potential in a firm (Pollock, Chen, Jackson, & Hambrick, 2010). The gain in entrepreneurial experience can result in product improvements and cost declines in a firm.

The most successful experiences are associated with a gradual building-up of eco-innovation networks over time from the bottom-up (Greenacre, Gross and Speirs 2012). Experience as a dimension of the demographic characteristics of entrepreneurs defines their behaviors with respect to entrepreneurship (Welmilla et al., 2011). While, Lai, Nathan, Tan, & Chan, (2010) allude that innovation and experience are equally important aspects of a successful firm.

Education and exposure to the actual entrepreneurship experience were seen to supersede indoctrination (Hameed et al. 2016). Grassroots innovations are commercialized or scaled-up only rarely as innovators experience lack of tangible and intangible resources (Centre for Social Innovation (ZSI) 2016). In this regard access to both knowledge and physical resources in supportive in the firm innovativeness. Successful frugal innovation is facilitated by having local people on the R&D team that brings personal experience to the environment in which the product will be used (Zeschky, Widenmayer and Gassmann 2015). This aspect of R&D in small-scale firms could not be a reality given that most of them employ up to 10 employees on average.

Lack of expertise, skills, and experience with new products and services and lack of familiarity with technology can result in lack of firm innovativeness (Hissa, Pekkala and Lammi 2016). Entrepreneurial experience thus takes a center stage in the firms' innovativeness. According to Pansera & Sarkar, (2016) entrepreneurs use their previous experience to create innovations with minimal resources. Hence, innovation is important when it is deeply experienced and is a matter of its cultural or organizational context, and its degree of generalization. The extent to which entrepreneurs are experienced (Autioa et al. 2014) defines their innovative ability in entrepreneurial firms.

Lack of involvement of others, and a lack of key knowledge and experience input from other perspectives. Entrepreneurial experience is a measure of enterprise performance (Md Isa, Bakar and Ahmad 2016), this could equally imply that firm innovativeness is affected by the level of entrepreneur experience. The personality traits of an entrepreneur have been found to be of significant impact on the firm innovative capability in Malaysia (Alam 2011). An entrepreneur's ability to identify and exploit opportunities is a critical trait that influences a micro-enterprise performance (Al Mamun and Ekpe 2016). In this regard, firm innovativeness is considered to be an integral dimension of a firm's performance.

An entrepreneur's innovation ability stems from expert knowledge and entrepreneurial experience with the firm (Yun and Kyungbae 2016). The impact of entrepreneur's demographic characteristics varies in different contexts, Yet opportunity and the right orientation are core in the process of innovation (Sajilan, Noor Ul, & Shehnaz, 2015). Lwamba, Bwisa, & Sakwa, (2013) suggests product innovativeness, process innovativeness, and organizational innovativeness affected the financial performance of manufacturing firms in Kenya. In a study in Western Kenya, statistically, significant differences were found between adult women and youth men respondents on work experience (Nassiuma, Masasabi and Nangulu 2017). Innovative new firms constitute the core of economic development in most nations especially with start-ups (Agarwal & Shah, 2014). Generally, the start-up entrepreneurs think through the models of the kind of ventures they intent to start. The conceptualization stage harnesses experiential learning from successful entrepreneurs. The preceding discussion shows that a relationship exists between entrepreneurial experience and firm innovativeness, hence as stated in the hypotheses:
H_1 Entrepreneurial experience is positively related to firm innovativeness

2.2 Entrepreneurial competencies and firm innovation
Entrepreneurial competencies could fall into three categories; as attitudinal, behavioral, and managerial competencies (Mitchelmore and Rowley 2010). According to Kahan (2012 entrepreneurial competencies include the psychological characteristics of entrepreneurs, the locus of control, attitude towards risk-taking and innovativeness. Some studies have shown that many entrepreneurial competencies are strongly associated with the average time an entrepreneur spend on the firm in a week (Shenura, Haile and Negash 2016). Equally, entrepreneurial characteristics and entrepreneurial competencies are positively related to venture performance (Mahadalle and Kaplan 2017). This suggests that ventures which are innovative, have a high stock of entrepreneurial competencies. The business start-up experiences of the leaders of the enterprise are related to the relationship competence. Other studies have suggested a direct and indirect relationship between different competencies and the firms' long-term performance. While other studies have suggested that entrepreneurial competencies in the relationship with firm performance are not moderated by gender (Nassiuma, 2017). This finding suggests that the gender of the entrepreneur does not have much influence on firm success and by extension firm innovativeness. Tehseen (2015) on the other hand asserts that entrepreneurial competencies alone cannot ensure firm survival and success. Experience and innovation constitute some of the core factors which determine the birth and death of entrepreneurial firms (Braunerhjelm 2010). The two factors can thus not be ignored in examining the entrepreneurial process.

Studies have suggested that women are handicapped in their ability to network as extensively as men owing to their role in society and within the family unit. This has translated into Female entrepreneurs networking less in comparison to men. There are a number of factors which influence behavior for example ability, previous experience, age, education, family history, and environment; this enhances the entrepreneur's decision to be an innovative entrepreneur (Sudi, Edith, & Christopher, 2013). Garud, Gehman, & Paco (2014) argue that entrepreneurs' simply try to contextualize innovation through ongoing narratives. The entrepreneur's experience as a result of one's success in earlier ventures can enhance the type of entrepreneurial innovation undertaken. Entrepreneurial competencies can be those that deeply rooted in a person's background or those gained through experience (Mitchelmore, Siwan and Rowley 2013). Other scholars allude that the more successful experienced entrepreneurs believe that they have learned aspects of the ecosystem (Autio, Erkko Kenney, Martin Mustar, Philippe Siegel, Don Wright, Mike, 2014). The ecosystem essentially envelopes the context within which entrepreneurial activities take place. The preceding discussion demonstrates that a relationship exists between entrepreneurial competencies and firm innovativeness, hence as stated in the hypotheses:

H_2 Entrepreneurial attitudinal competencies mediate in the relationship between entrepreneurial experience and firm Innovative

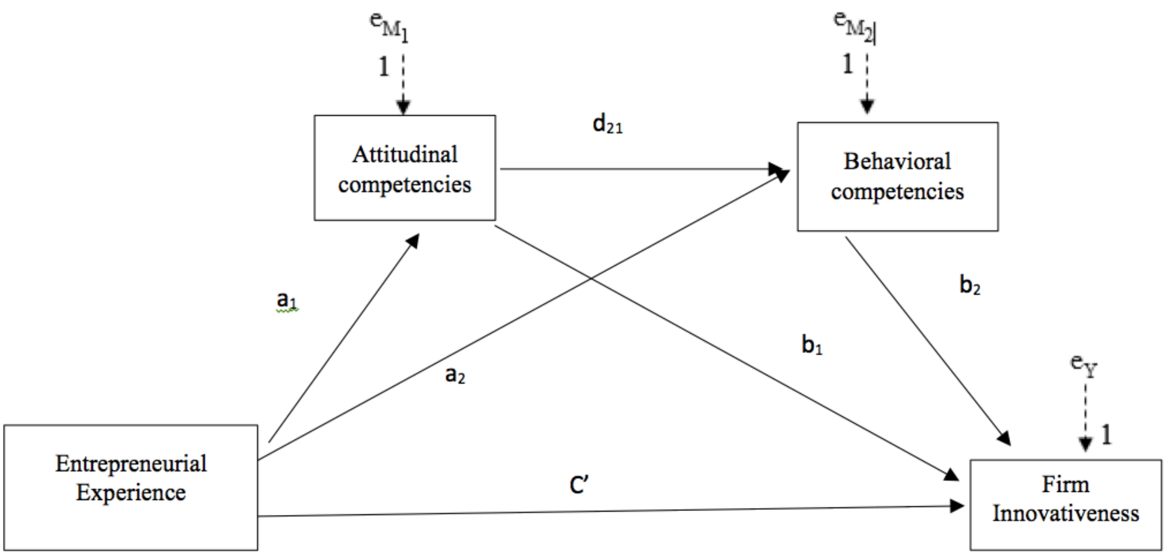
H_3 Entrepreneurs entrepreneurial behavioral competencies mediate in the relationship between entrepreneurial experience and firm innovativeness

H_4 Entrepreneurs entrepreneurial attitudinal and behavioral competencies mediate in the relationship between entrepreneurial experience and firm innovativeness

2.3 The Conceptual Mediation Model

The conceptual serial multiple mediation models for this paper is presented in Figure 1. This study was conceptualized on a mediation process model 6 (Andrew Hayes, 2013). The predictor variable in the study was entrepreneurial experience, measured on a metric scale. The dimensions of entrepreneurial competencies were attitudinal competencies and behavioral competencies. The outcome variable was firm innovativeness as measured by the dimensions, product innovation, market, process and organizational innovation (See Figure 1).

Figure 1: The Serial Multiple Mediation Model



The predictor variable in this model was the entrepreneur's experience (Adult women, youth women, and youth men), the mediating variable, entrepreneurial competencies (Attitudinal & Behavioural), and the outcome variable is firm innovativeness (product, process, marketing and organizational innovativeness). The aim of this study was to examine the interactive effect of entrepreneurial competencies in the relationship between entrepreneurial experience and firm innovativeness in the trade sector, in Western Kenya.

3. Method

3.1 Philosophical paradigms

The need for an appropriate philosophical paradigm to guide entrepreneurship research is vital in enhancing an understanding of the meaning and to bring out clear philosophical orientation (Punch 2013). This study was based on a post-positivist paradigm (Bryman 2012). It holds a deterministic philosophy in which causes determine effects or outcomes (Creswell 2014). The study aimed at discovering the relationship between entrepreneurs' experience and firm innovativeness through the effects of entrepreneurial competencies that are generalizable. The philosophical underpinnings of the study were informed by realism, idealism and critical realism (Blundel, 2007). While, the ontological assumptions were based on reality, knowable within probability. Nature of knowledge was based on objectivity. The study was based on the precise measurement that is verifiable. The methodology for the study was Quantitative; correlational; causal comparative; survey. The data was captured using a questionnaire (Creswell 2014).

3.2 Research Design

There is growing evidence for researchers in the field of entrepreneurship to acknowledge the need for carrying out entrepreneurship research at multiple levels of analysis (Wiklund et al. 2011). This essentially helps in enhancing an understanding of entrepreneurship phenomena. Entrepreneurial competencies in a number of studies have been found to have a profound influence on the entrepreneurial activities. This study was a correlational design; it examined the relationships which were based on hypotheses that it existed. A cross-sectional design was used, meaning that questionnaires were administered only at a single point in time (Singleton, and Straits 2010).

In this study, it was hypothesized that entrepreneurial attitudinal and behavioral competencies could play an important serial multiple mediating roles in the relationship between entrepreneurial experience and firm innovativeness. In examining a number of studies in entrepreneurship robust quantitative analysis remain limited (Marlow 2014). Most of the existing studies focus on direct relationships which are limited to understanding the entrepreneurship phenomenon (Wiklund et al. 2011). The intervention of erroneous factors impacts heavily in most cases on the hypothesized relationship, justifying the inclusion of a third variable.

3.3 Participants

The study sample was 698 respondents comprising of adult women (85, 12%), youth women (277, 40%) and youth men (336, 48%) entrepreneurs in the trade sector in western Kenya. The two major categories in the study were Women aged above 35 years and youth aged between 18-35 years. A sampling frame of entrepreneurs in the two counties was obtained from Uasin Gishu and Bungoma County governments. The frame was then organized on the basis the respondent categories in the study before selecting a sample using simple random sampling strategy.

3.4 Instruments

The main data collection instrument was a questionnaire. It was divided into sections covering the respondents' entrepreneurial experience, the attitudinal competencies, behavioral competencies and the firm innovativeness. The predictor variable entrepreneurs experience was measured on a metric scale and had a cronbach alpha reliability test was Adult women experience (α=.665), Youth women (α=.683) and Youth men (α=.683).

Elements of firm innovativeness were four (product, process, marketing and organizational innovation) measured on a likert type scale. The Cronbach alpha reliability test for firm innovativeness indicated a high level of reliability (α=.929). The dimension of owner's attitudinal competencies had seven indicators (self- confidence, self-esteem, dealing with failures, tolerance for ambiguity, performance, concern for high quality and locus of control) measured on a likert type scale. The cronbach alpha reliability test for attitudinal competencies indicated a high level of reliability (α=.944). Behavioral competencies had ten indicators (initiative, acting on opportunity, persistence, assertiveness, need for achievement, need for autonomy, risk-taking, drive and energy, innovation and creativity) measured on a likert-type scale. The cronbach alpha reliability test for behavioral competencies indicated a high level of reliability (α=.917). All measures for the likert type scale was on a five-point scale.

Predictive validity of the variables was examined, the KMOs for firm innovativeness was .926, attitudinal competencies .926, behavioral competencies .681, while entrepreneurs experience was .504. The measures for firm innovativeness, attitudinal competencies, and behavioral competencies was on a Likert five-point type scale. While work experience was measured on a metric scale. The predictive validity was well above the threshold except for work experience which was relatively lower than the rest.

3.5 Data Analysis

Data analysis was undertaken in two parts; firstly, the descriptive statistics, mean, standard deviation, correlation, the cronbach alpha and factor analysis (Field 2012). Secondly, the serial multiple mediation process models 6 (Hayes, 2012; Hayes, 2013) using SPSS software. The hypothesized serial multiple mediated relationships were investigated with a cross-sectional research design. The statistical significance tests were executed using the process macro model 6 developed by Hayes (2013). Direct and specific indirect effects were examined in the serial mediation model using 10000 bootstrap samples. The significance level of the study was set at 95% confidence. Data analysis was undertaken using IBM SPSS software Version 20.

4. Results

4.1. Descriptive statistics

Table 1. Shows descriptive statistics, reliability test, and Pearson correlation analysis. The results indicate a positive significant relationship between work experience and attitudinal competencies, behavioral competencies and firm innovativeness variables.

Table 1

Descriptive Statistics, Cronbach Alpha Coefficients and Pearson Correlation Coefficient Values

Sno.	Variable	Mean	S.D	Cronbach Alpha	1	2	3	4	5	6
1	Adult Women Experience	8.45	7.943	.665	1					
2	Youth Women Experience	4.8757	5.21276	.683	-.149**	1				
3	Youth Men experience	7.8601	7.04705	.770	-.159**	-.342**	1			
4	Attitudinal Competencies	3.0065	1.25627	.944	.026	.184**	.196**	1		
5	Behavioural Competencies	2.1732	.92037	.917	.255**	.091*	-.096*	.503**	1	
6	Firm innovativeness	2.8725	1.34040	.929	.060	.153**	.224**	.881**	.484**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Adult women entrepreneurs constituted 12% of the study respondents. The profile of respondents in this category indicates a mean work experience of 8.45 years, mean age of 45 years, the majority (37,44%) had a secondary level of education, followed by college level (19, 22%) and ownership mode was one proprietor (73%) followed by joint ownership with the husband (18%).

Youth women entrepreneurs constituted 40 % of the study respondents. The respondents in this category had a mean entrepreneurial experience of 4.8 years, marital status married, the mean age of 32 years, the majority (144,52%) had college level of education, and ownership mode was one proprietor (209,76%) followed by joint ownership with the husband (28, 10%).

Youth men entrepreneurs constituted 336, 48 % of the study respondents. The profile of respondents in this category shows a mean entrepreneurial experience of 7.8 years, marital status married, mean age of 31 years, most (154, 46%) had college level of education, followed by first degree (69, 21%) and the ownership mode was one proprietor (260, 77%) followed by multiple proprietors –blood related (34, 10%).

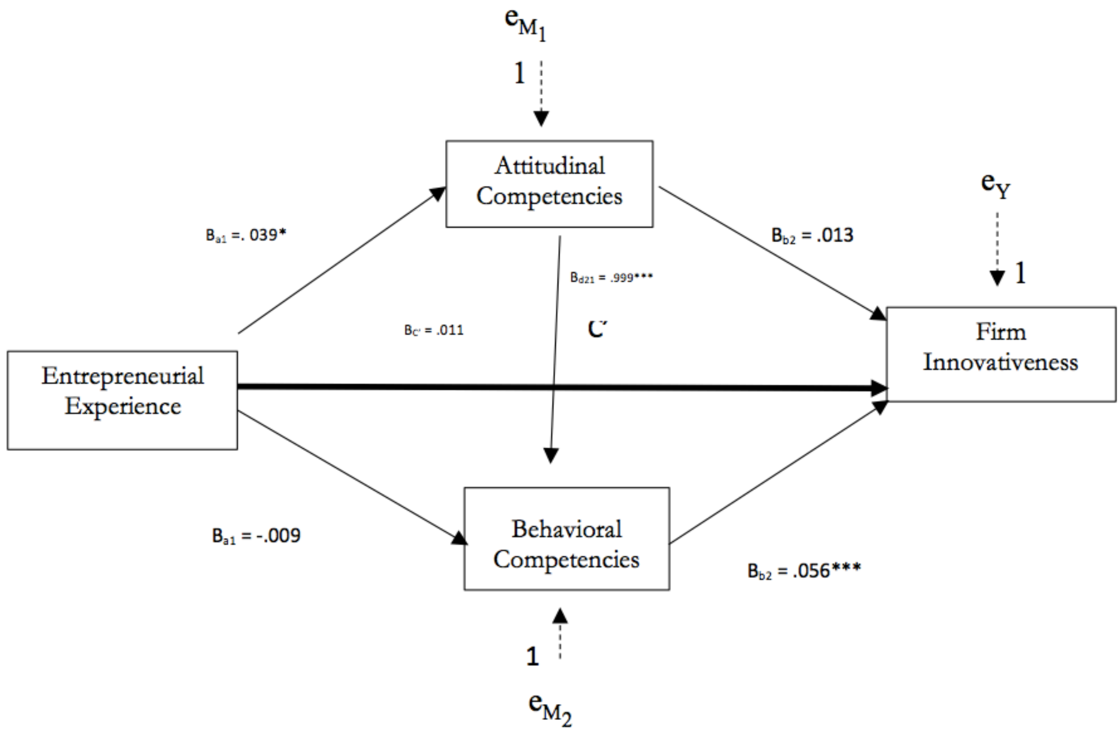
The profile of respondents in this study shows that the majority 56% were married and had pursued college (45%) level education. The ownership arrangement differed with gender among the respondents in the study. Women entrepreneurs were either sole proprietorships or jointly owned the firm with the spouse. The male sole proprietorship was the highest (39%). While the male respondents, apart from sole proprietorships, had multiple proprietors, who were blood-related. This can be construed to be a gender socialization issues in society that confines women to the family cycles. The challenge arising in limited ownership can result in less access to growth opportunities. Hence, male-owned enterprises have the potential to access more knowledge and resources as compared to the female-owned enterprises.

4.2 Structural equation modeling

Process macro model 6 was used to determine the serial –multiple mediations of attitudinal and behavioral competencies in the relationship between entrepreneurs experience and firm innovativeness. The three categories in the study were Adult women and female and male youth. The analysis was based on a regression-based approach (Hayes, 2012).

The results on adult women are presented in Figure 2, total effect (c=.011, SE=.008, t=1.382, p=.171) of entrepreneurs experience on firm innovativeness was not significant (step 1). The direct effects of entrepreneurs experience on Attidunal competencies (B=.039, SE =.017, t=2.321, p= .023) was at significant level while behavioural competencies (B=-.004, SE=.006, t =-.599, p > .009) was at a significant level. The direct effect of Attidunal competencies as the first mediating variable on the second mediating variable of behavioral competencies (B=.999, SE=.039, t=25.658, p <.001) was significant (Step 2). The direct effects of the mediating variables on firm innovativeness on the other hand, indicated the effects of attitudinal competencies (B= .013, SE=.152, t=.087, p>. 005) was not significant and while behavioural competencies (B= .856, SE=.144, t =5.963, p<.001) was significant (Step 3). When the entrepreneur's experience was entered in the equation (Step 4), the relationship between entrepreneurs' experience, in relation to direct effect, was not at a significant level (c' =.042, SE=.017, t =2.424, p <.005). The model on overall was seen to be at a significant level ($F_{(81.0)}$ =119.66, P< .001). And explained 31 % of the variance in firm innovativeness.

Figure 2: Adult Women entrepreneurs' mediation model for entrepreneurial attitudinal competence influence on innovativeness



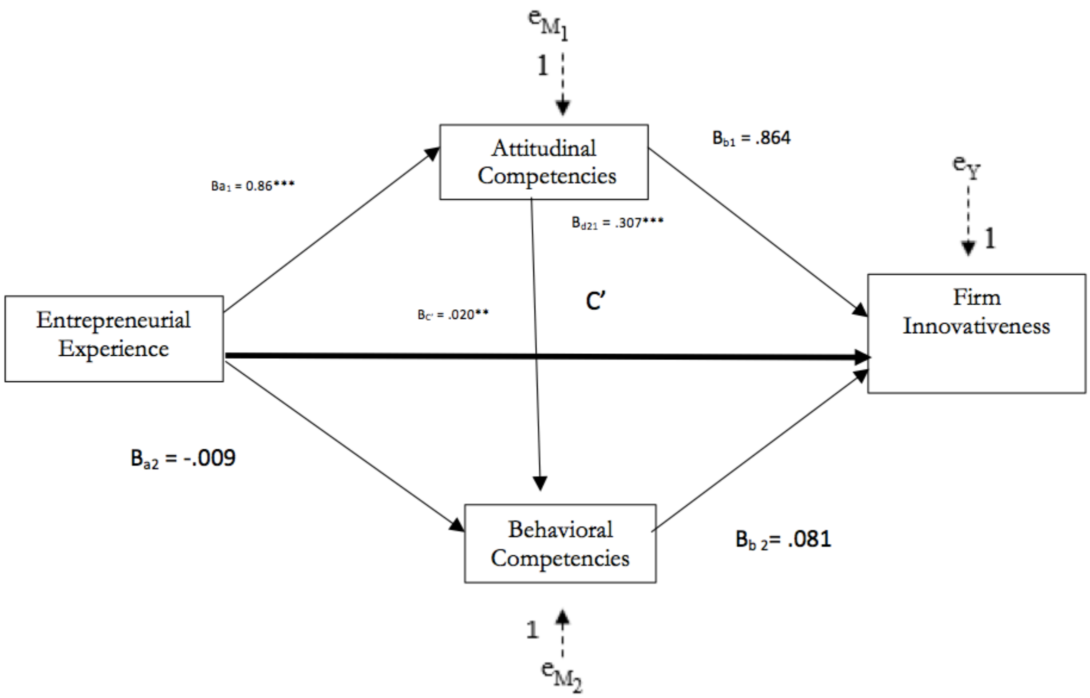
The multiple serial mediations of attitudinal and behavioral competencies in the relationship between entrepreneurs experience and firm innovativeness for youth women are presented in Figure 3 and Table 3. The results in Figure 3, total effect, (c=.020, SE=.008, t=2.646, p= *.009)* of entrepreneurs experience on firm innovativeness was significant (step 1). The direct effects of entrepreneurs experience on attitudinal competencies (B=.086, SE=.014, t=6.361, p< *.001*) was at significant level while behavioral competencies (B=-

.009, *SE*=.010, t =.974, p > .005) was not at a significant level. The direct effect of attitudinal competencies as the first mediating variable on the second mediating variable of behavioral competencies (B=.307, *SE*=.040, t= 7.640, *p* <.001) is significant (Step 2).

The direct effects of the mediating variables on firm innovativeness on the other hand, indicated the effects of attitudinal competencies (B= .864, SE=.035, t. =24.488, p< .001) was significant and behavioural competencies (B= .081, SE=.048, t =1.679, p>.005) was not significant (Step 3).

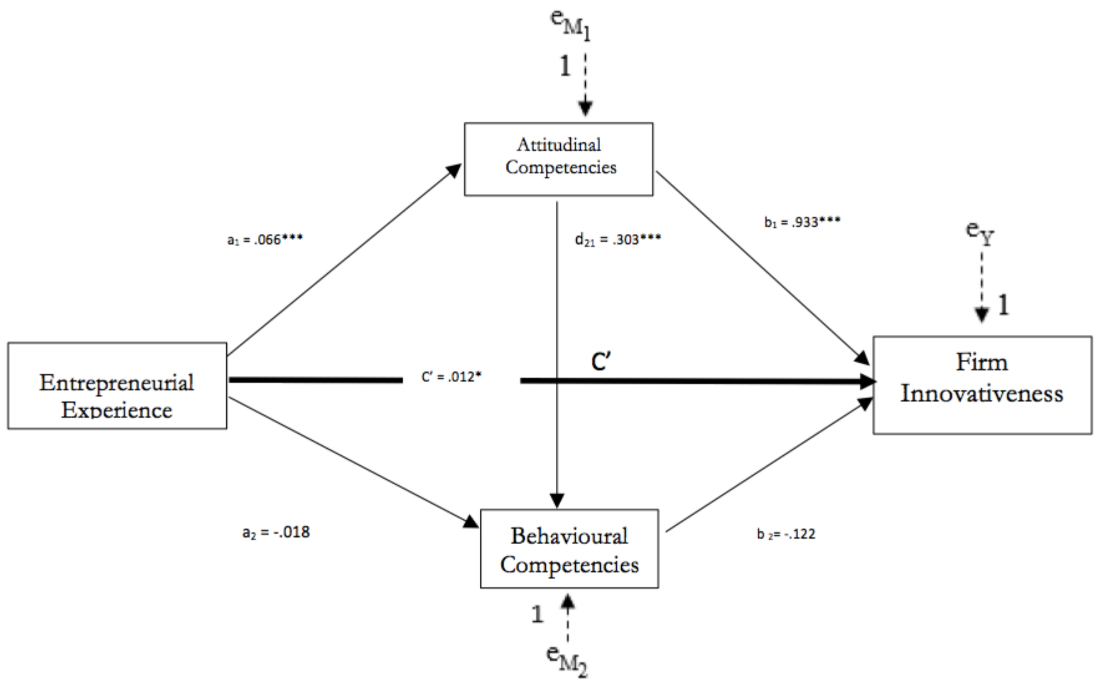
When the entrepreneur's experience was entered in the equation (Step 4), the relationship between entrepreneurs' experience, in relation to direct effect, was at a significant level (c' =.086, SE=.014, t= 6.968, p< .001). The model on overall was seen to be at a significant level ($F_{(2273)}$ =319.069, *P*< .001) and explained 79 % of the variance in firm innovativeness.

Figure 3: Youth women mediation model for entrepreneurial attitudinal competence influence on innovativeness



The multiple serial mediations of attitudinal and behavioral competencies in the relationship between entrepreneurs experience and firm innovativeness for male youth are presented in Figure 4 and Table 4. The results in Figure 4, total effect, (*c*=.012, *SE*=.005, t=2.378, *p= .018)* of entrepreneurs experience on firm innovativeness was significant (step 1). The direct effects of attitudinal competencies on entrepreneurs experience on (B=.066, *SE*=.009, t=7.120, *p< .001*) was at a significant level. While behavioural competencies (B= -.018, *SE*=.006, t= -3.145, *p* =.002) was at a significant level. The direct effect of attitudinal competencies as the first mediating variable on the second mediating variable of behavioral competencies (B=.303, *SE*=.031, t= 9.772, p <001) is significant (Step 2). The direct effects of the mediating variables on firm innovativeness, on the other hand, indicated the effects of attitudinal competencies (B= .933, SE=.032, t=28.767, p< .001) was significant and behavioral competencies (B= .064, SE=.051, t= 1.274, *p*=.204) was not significant (Step 3). When the entrepreneur's experience was entered in the equation (Step 4), the relationship between entrepreneurs' experience, in relation to direct effect, was at a significant level (c' =.074, SE=.010, t= 7.375, *p*< .001). The model on overall was seen to be at a significant level ($F_{(332.0)}$ =448.83, *P*< .001) and explained 84 % of the variance in firm innovativeness.

Figure 4: Youth men mediation model for entrepreneurial attitudinal competence influence on innovativeness



4.2.1 Summary of Indirect Effects

Comparison of indirect effects and specific effects of adult women entrepreneurial experience on their firm innovativeness through attitudinal and behavioral competencies are presented in Table 5. The total indirect effect of entrepreneurial experience (adults women) was.735, which was accounted for by H_2 (Entrepreneurial experience *attitude*firm innovativeness) .012, H3 (Entrepreneurial experience *attitudinal competencies*behavioural competencies*firm innovativeness) .798). While the H_4 (entrepreneurial experience *behavioural*firm innovativeness) -.076. This finding implies that the multiple serial mediators in the model played a significant role in the relationship between entrepreneurial experience and firm innovativeness as compared to the individual mediators.

The indirect effects for the youth women were examined in three path models. The H_2 (entrepreneurial experience *attitudinal competencies*Firm innovativeness) accounted for .761 of the total indirect effects of .791. The H_3 (Entrepreneurial experience *attitude*behavioural*Firm innovativeness) accounted for .022 of .791, and finally, H_4 (Entrepreneurial experience *behavioural*firm innovativeness) accounted for .008 of .791.

Indirect effects for the youth men entrepreneurs were examined in three path models. The H_2 (entrepreneurial experience *attitudinal competencies*Firm innovativeness) accounted for .821 of the total indirect effects of .831. The H_3 (Entrepreneurial experience *attitude*behavioural*Firm innovativeness) which had the full indirect effect accounted for .017 while theH_4 (entrepreneurial experience *behavioural*firm innovativeness) accounted -.015 of the .821.

In evaluating the serial mediation models, it is evident that among adult women, the two mediators in the serial mediation played a significant role, while among the youth behavioral competencies played a dismal role. This finding suggests that behavioral competencies counted least to the youth in the entrepreneurial experience and firm innovativeness relationship. The elements used to measure attitudinal competencies were self- confidence, self-esteem, dealing with failures, tolerance for ambiguity, performance, concern for high quality and locus of control. While behavioral competencies were measured through, initiative, acting on opportunity, persistence, assertiveness, need for achievement, need for autonomy, risk-taking, drive and energy, innovation and creativity. In examining the size of the mediation effects, it was observed to be higher among the youth in comparison to adult women. This finding could point to the intensity of maturity and exposure to various aspects of the entrepreneurial process. Given the fact that entrepreneurship draws greatly, on experiential learning, as a key driver in the success of firms. Nevertheless, all aspects concerning the behavioral competencies were either negative or very low. This raises issues with respect to the comprehension or the entrepreneurial competencies capacity status (See Table 2, 3, and 4 respectively).

5. Discussion

5.1 Summary

This study analyzed the serial multiple mediating effects of attitudinal and behavioral competencies in the relationship between entrepreneurs' experience and firm innovativeness among women and youth entrepreneurs in western Kenya. A summary of the results shows attitudinal and behavioral competencies had an interactive effect on the relationship between entrepreneurs' experience and innovativeness among adult women entrepreneurs in western Kenya. This finding is supported by the finding of Strangler & Marion (2013) on the correlation between the increase in age and its effects entrepreneurial experience and enterprise performance. The serial mediation effect was full of adult women entrepreneurs' entrepreneurial experience through entrepreneurial competencies to firm innovativeness. The results on the path through behavioral competencies to firm Innovative was significant. While through attitudinal competencies was not supported.

The youth women respondents in the serial mediation through attitudinal competencies and behavioral competencies was partially supported. While through entrepreneurial experience through attitudinal competencies to firm innovativeness was fully supported. The path through behavioral competencies was not supported. Youth men respondents in the serial mediation through attitudinal competencies and behavioral competencies was partially supported. While through entrepreneurial experience through attitudinal competencies to firm innovativeness was fully supported. Through behavioral competencies to firm innovativeness was not supported. These findings are supported by various studies (Mahadalle & Kaplan, 2017; Saleh & Salhieh, 2014; Ikhlaq Sidhu et al., 2016).

The direct effects of entrepreneurial experience on firm innovativeness for adult women were not supported, the path a_2 was supported, while path a_1 was supported. The youth women path a_1, c_1, a_2 were all supported. Youth men respondents' path c_1, a_1 were significant while path a_2 was not significant. This finding supports that of Szirmai, Naudé, & Goedhu, (2011) which suggests that not all entrepreneurs can be innovative at the same level. Entrepreneurs can possess all the required competencies yet may not succeed owing to lack of highly skilled laborers (Szirmai, Naudé and Goedhu 2011). At the heart of innovation in the entrepreneurial ventures lies the aspect of human capital that cannot be ignored.

5.2 Managerial Implications

This finding brings in the gender differential effects in the operation of entrepreneurial firms which cannot be ignored. Entrepreneurial competencies are thus critical in attaining firm innovativeness in small firms. These findings are supported by the findings of Nager, Hart, Ezell, & Atkinon, (2016) who argues that innovators are not found in the category of dropouts but experienced and highly educated individuals.

The findings further suggest that in order to develop firm innovativeness among entrepreneurs an appropriate entrepreneurial attitudinal and behavioral competencies should be developed. Variations found among women and male entrepreneurs on the effects point to emotional orientation perspectives. The newness in this study is founded on the premise that this is among the few studies undertaken in the developing country context to examine the serial multiple interactive effects of attitudinal and behavioral competencies in the relationship between entrepreneurs' experience and firm innovativeness.

This study concludes that the multiple serial mediations of attitudinal competencies and behavioral competencies in the relationship between entrepreneurs experience and firm innovativeness was significant for women entrepreneurs while partial for men. The hypothesized direct relationship for youth women and men was supported by the study. Entrepreneurial competencies hence had a mediating effect with gender differentials on firm innovativeness. The study thus considers entrepreneurial competencies as critical inputs in enhancing firm innovativeness. It identifies attitudinal and behavioral competencies as drivers of firm innovativeness in the trade sector. This study contributes to a better understanding of the role of competencies in the entrepreneurial process. It thus raises the need for supportive policies and programmes to enhance the entrepreneur's capability through experiential exposure with a specific focus on gender differentials.

5.3 Study limitations

This study was limited in a number of ways including; firstly, very few studies were found on the subject of this study in literature. Secondly, the study didn’t include the male adult entrepreneurs thus the findings may only be generalized to women adults and youth, thirdly, the study was based on a sample selected from a specific location owing to ASALI site, and therefore generalization issues can arise even though a probability sampling strategy was adopted. Fourthly, the study was limited to the features assessed by the tool used. Hence the responses from participants may not have conveyed their true feelings. Fifthly, the managerial competence was not included in this study on assumption that its contribution to firm innovativeness was dismal. Sixthly, the drivers for firm innovativeness are diverse and may not necessarily be tied to experience and competencies. Equally, owners may not have been interested in firm innovativeness at the outset. It, therefore, demands any evaluator of this study to consider the limitations as mentioned above.

5.4 Directions for future studies

In light of the limitations faced in this study future studies could focus on:

i. Enhancing the multiple serial mediations to a moderated mediated analysis in order to capture a wide range of potential indicator that can influence firm innovativeness.
ii. This study was limited to the ASALI project sites hence could have raised some shortcomings concerning coverage of the study. Future studies should focus on a national level in order to capture a diverse respondent group
iii. Future studies could consider using mixed method approach in order to capture the soft aspects of entrepreneurship

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An Empirical Investigation on Impact of Interest Rates on Agricultural Investment in Nigeria

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Abstract
The main thrust of this study is to examine the impact of interest rate on agricultural investment in Nigeria for the period 1980–2015. In a bid to finding the nexus between interest rate and agricultural investment in Nigeria, the study relied on agricultural investment, lending interest rate, deposit interest rate and agricultural output as variables. The study employed the ARMA Least Square technique to determine the impact of interest rate on agricultural investment in Nigeria. The empirical findings showed that deposit interest rate and agricultural output have a positive impact on agricultural investment, growth, and development while lending interest rate impacts negatively on agricultural investment in Nigeria. Based on the findings, the study recommends that government and various stakeholders in the agricultural sector should improve on the macroeconomic policies such as interest rates, inflation, the income level that could impact on the level of investment that would contribute positively to agricultural development in Nigeria.

Keywords: Interest Rate, Agricultural Investment, Nigeria

1.1 Background to the study

Over the years, investing in agricultural production has been a critical factor in the growth and development of the agricultural sector and by extension economic growth. Its importance cannot be overemphasized. Investment is the engine of economic activity and the primary cause of economic growth accounting for the change in capital stock during a period. It is the accumulation of newly produced physical entities, such as factories, machinery, houses and goods inventories. Consequently, unlike capital, investment is a flow term and not a stock term. This means that investment is measured over a period of time. Investment plays a very important role in economic growth in a country. Countries rely on investment to solve economic problems such as poverty, unemployment, etc. (Muhammad 2004). As such determinants of the level of investment become paramount in an economy.

One of the most topical issues in Nigeria today is that of agricultural development, investment, and its sustainability. Agriculture is important because it provides food and employment for the populace, raw materials for industries, and market for industrial goods. Eboh, Ujah, and Nzeh (2009), observed that the contemporary economic significance of agricultural sector is even more remarkable. They opined that in the past half a decade, the impressive growth rate of the nation's economy had been driven by the non-oil sector, particularly the agricultural sector. This, in other words, according to them means that the growth rate of the overall economy is to a large extent dependent on the growth rate in agriculture GDP.

The relationship between financial reform, development, agricultural development and investment and economic growth has been the subject of a growing literature in both developed and developing countries (World Bank, 2008). To enhance the development of the financial system in the economy, interest rate reform, a policy under the financial sector liberalisation was formulated. The expectation of this reform was that it would encourage domestic savings and make loanable funds available in the banking institutions. Obute, Adyorough, and Itodo (2012) defined interest rate deregulation as an economic term used to refer to a situation whereby forces of demand and supply are allowed to determine the value of interest rates rather than its value being administered directly by monetary authorities. Interest rate policy in Nigeria is a major instrument of monetary policy with regards to the role it plays in the mobilization of financial resources aimed at promoting investment, economic growth, and development. The interest rate is the price paid for the use of money. It is the opportunity cost of borrowing money from a lender. It can also be seen as the return being paid to the provider of financial resources and thus an important economic price.

The Agricultural sector, one of the sources of economic growth, has been looked unto to pave the way for economic development because of its potentials. The realization of this fact led the Nigerian government to embark on several agricultural development programmes, many of which, unfortunately, failed (Manyong et al. 2005; and Ogungbile, 2008). Among these agricultural programmes is the establishment of the Nigerian Agricultural Credit Guarantee Scheme Fund (ACGSF) in 1977 aimed at mobilizing funds from the banking sector for rural development by guaranteeing loans through the commercial banks for investment in agriculture, thereby minimizing the risks involved in financing the sector. The fluctuations in the financial sector appeared inseparable from the performance of the ACGSF in meeting up with its goals of mobilizing adequate credit for the agricultural sector (Onoja, Onu, and Ajodo-Ohiemi, 2012).

According to Anna (2012) and Singhania (2011), the interest rate is determining factor in return on investment. Thus investor will channel their investments from low-interest rates to higher interest rate because it provides an incentive to investors looking for higher returns. Therefore high-interest rate can lead to increased agricultural investment. The transmission mechanism between interest rate and investment is a bidirectional relationship. High-interest lending could deter agriculture investors from sourcing fund from the financial sector, but low-interest rate will spur the agricultural investment prospects. On the other hand, high deposit interest rate will encourage savings thereby making loanable funds available for investment. Conversely, low deposit interest rate will dissuade the public from savings thereby reducing the availability of investible fund.

1.2 Statement of the Problem

Agriculture development is very vital to the development of every economy. The development of agriculture relies on the availability of investible fund (agricultural investment) by both private and public sector. The availability of investible fund invariable depends on the volatility of interest rate.

Prior to SAP in 1986, the interest rate in Nigeria was generally fixed by the CBN with periodic adjustments depending on the government sectoral priorities. The monetary authority in promoting investment in key sectors in the economy (Agricultural, Manufacturing, etc.) charged special interest rates on loans taken by these sectors so as to encourage the growth in the output of the sectors for a possible improvement in economic growth (Udoka, 2000). The prevailing rates of interest were regulated by the government through the Central Bank of Nigeria (CBN) so as to guide the economy towards economic growth through these key sectors. The period is considered as a financial repression period (government regulations, laws, and other non-market restrictions preventing financial intermediaries from functioning at full capacity) as explained by Mckinnon & Shaw (1973), such regime was characterized by a highly regulated monetary policy environment in which policies of directed credits, interest rate ceiling and restrictive monetary expansion were the rules rather than exception (Soyibo and Olayiwola, 2000). However, the strict regulatory regime could not be sustained. The deposit rate increased from 4% in 1975 to 9.5% in 1986, while the lending rate rose from 6 to 10.5% within the same period.

The low and sometimes negative real interest rates discouraged savings, increased the demand for loan able funds. The demand for credit soon exceeded the supply of funds while essential sectors of the economy were starved of funds (Obute, Asor and Idoko 2012).

As a result of the link between the financial sector and the real sector of the economy, and since lending rate translates into a cost of capital, the relationship has a direct implication for agricultural investment. Thus the objective of this paper is to examine the impact of interest rate on Agricultural investment in Nigeria.

1.3 The objective of the study

The general objective of this study is to determine the impact of interest rate on Agricultural investment in Nigeria.
The specific objectives include:

i. Examine the interest rate policy in Nigeria;
ii. Examine the relationship between interest rate and Agricultural investment in Nigeria;
iii. Examine the relationship between interest rate and Agricultural production in Nigeria;
iv. Make appropriate policy recommendations.

1.4 Research Question

i. What is the interest policy of Nigeria?
ii. Is there any relationship between interest rate and agricultural investment in Nigeria?
iii. Is there any relationship between interest rate and Agricultural production in Nigeria?

1.5 Hypothesis

i. There is no relationship between interest rate and agricultural investment in Nigeria;
ii. There is no relationship between interest rate and agricultural production in Nigeria.

Literature Review

2.0 Introduction

The Nigerian Agricultural Sector is among the most heavily regulated sector of the Nigerian Economy. The special interest of Government in the Agricultural sector is due to its relevance in the provision of raw materials for industries and most importantly the provision of food for the teaming Nigeria population and also serving as a source of foreign exchange for the economy. The Nigerian Agricultural section is not alone in government intervention in terms of regulation, according to Akiri and Adofu (2007), opined that the banking industry owing to the nature of activities role, and function it performs in the economy, is also one of the widely and heavily regulated sectors in both developing and developed countries of the world. As a financial intermediary, banks help in channeling funds from surplus economic regions to the deficit ones in order to facilitate the business transaction and economic development in general. The Agricultural sector is not left out in benefits of the surplus fund from the surplus spenders in the economy.

Oni (1993) opined that the structure of Nigeria agriculture identified three distinct phases namely, the period of agricultural discrimination (1960-1970), the period of government intervention(1970-1985), and the period of the structural adjustment programme (1986-till date). The period of agricultural discrimination was characterized by active discrimination against agriculture. This period was also marked by export restrictions and duties on food crops, all of which served as disincentives to domestic agricultural production. During the period of government intervention, agricultural policies attempted to promote rural development and enhancement of food supplies. During the period of the Structural Adjustment Programme (SAP) the policy sought to eliminate price distortion and promote market liberalization among other things, in a bid to promote healthy growth and development.

Anyanwu (1997) opined that, Commercial banks encourage savings. Since investments are made out of savings, the establishment of commercial banks, especially in the rural areas, makes savings possible hence economic development is accelerated.

2.1 Conceptual Framework

The interest rate is the return on investment, the investor will channel their investments from low-interest rates to higher interest rate because it provides an incentive to foreign investors looking for higher returns therefore high-interest rate can lead to increased agricultural investment.

Ibimodo (2005) defined interest rates, as the rental payment for the use of credit by borrowers and return for parting with liquidity by lenders. Like other prices, interest rates perform a rationing function by allocating the limited supply of credit among the many competing demands. Okopi (2008) sees the agricultural sector in the Nigeria contexts to embrace all the sub-sectors of the primary industries. They include farming (which include livestock rearing and growing crops) fishing and forestry. Agricultural production, therefore, refers to the final output of the agricultural sector of the economy.

2.2 Trends in Interest Rate Policy and reforms and its attendant Impact on Agro-investment in Nigeria

Over the years, the role of agriculture as the mainstay and driver of growth of the Nigerian economy has been recognized through government initiated policies to increase investment in food and agricultural production (Uniamikogbo, 2006). Such policies include the National Accelerated Food Production Programme (NAFPP) of 1972; the Operation Feed the Nation (OFN) of 1976 and the Green Revolution (GR) of 1980, among other agriculture-related programmes aimed at boosting agricultural production. These were the River Basin Development Authorities (RBDAS) and the Agricultural Development Project (ADP) (Ekpo, Ndebbio, Akpakpan & Nyong, 2004). The government has also attempted to increase investment in Nigerian agriculture through budgetary allocations and the provision of cheap and readily available credit facilities. The indications are that government budgetary allocation has become an important determinant of agricultural production in Nigeria (Nwosu, 1995). Yet, government budgetary allocation to agriculture is not without limitations.

The first is the relatively low allocation to the agricultural sector. The second is the actual expenditure which often falls short of budgeted expenditure and the high rate of under spending which is usually higher for agriculture than for other economic sectors. The third is the vast proportion of the funds allocated to agriculture which does not go directly to farmers (Nwosu & Akpokodje, 1993). Besides the above constraints, scholars are of the opinion that the existing financial institutions in the country never induced the much needed process of industrialization and modernization, advancing reasons such as the existing of foreign banks, inaccessible and insufficient loans with high interest rate, and indigenous negative mentality on investment, inconsistent government policies, volatile inflation, unguided government borrowing, and uncertainty about borrowers' prospect (Ikhide, 1996). These were some of the obvious reasons that prevented financial institutions from granting long-term loans to intending borrowers. These situations made the Nigerian government seek for an easy way out with the compelling desire to use financial sector in financing investment projects for the purpose of distributing resources and incomes to project with high social returns.

Prior to the introduction of Structural Adjustment Programmes (SAP) in Nigeria in 1986, the Nigerian financial sector was characterized by rigid exchange rate and interest rate controls, mandatory sectoral allocation of bank credit to the private sector, all of which engendered distortion and inefficiencies that result to low direct investment. Funds were inadequate, the Nigeria currency was overvalued, and the monetary and credit aggregate moved rather sluggishly such that the economy was sort of engulfed with a general lull. The introduction of SAP led to some financial regulations like; interest rate, exchange rate, and other deregulations according to Ogwuma and Ojo (1993).

In August 1987, was 15.0% and was reduced to 12.75% in December of 1987 with the objective of stimulating investment and growth in the economy. In 1989, the MRR was raised to 13.25% in order to contain inflation.

2.2 Trends in Agricultural Investment in Nigeria

Investing in agriculture has been a critical factor in the quest for food sufficiency and poverty alleviation in the Nigeria economy. This section takes a critical look at the trends in agricultural investment and production over the years.

The 2005 Appropriation Bill presented to the National Assembly, projected the Nigerian economy to grow at the rate of 7 percent over the fiscal year. As evidenced in the bill, much of the expected growth of the economy was to be derived from growth in agricultural sector. This situation brings into focus the level of agricultural investments required to sustain the projected growth given that, Nigerian agriculture consist of large numbers of smallholder farmers, scattered across the Country (Nwosu, 2004). Undoubtedly, agricultural production in Nigeria is dominated by small-scale farmers characterized by small, uneconomic and often fragmented holdings that make use of simple implements and unimproved planting materials for farming. The attendant economic plight of these small household farmers has been aptly described as a vicious web of low productivity in output, income and capital investment. This self-perpetuating web is said to inhibit the participation of the traditional farmers in economic development (Nwosu and Ogunfowora, (1977). This in addition to poor funding and access to finance renders the sector unproductive.

Therefore, for traditional agriculture to break out of this vicious cycle, there is a need for a massive injection of capital from outside the farming system as well as encouraging organized private sector participation. It is obvious that government alone cannot provide all the funds required to cause traditional agriculture to break out of the low capital investment and low productivity-syndrome. To address this, financial stakeholders have greater roles to play in providing funds for agricultural investment as well as other relevant supports that would spur the desired growth in the sector. However, in recent years, successive government in Nigeria in attempt to promote investment and growth has formulated several policies prominent among which are: The National Economic Empowerment and Development Strategies (NEEDS) I and II, the Comprehensive Africa Agriculture Development Program (CAADP), the National Food Security Program (NSFP), as well as other Presidential initiatives tailored towards boosting the output of preferred crops such as cassava and rice. Diao et al. (2010) attributed the increase in annual agricultural growth rate from 3.5 percent in 1990-1999 periods to 5.9 percent in 2000-2007 periods to the policies mentioned above of the government. In addition, these policies, (Central Bank of Nigeria, 2004) posited that a high level of capital accumulation, with the right combination of the other factors of production, is capable of bringing about higher output growth rates in the sector. Interestingly, capital accumulation alone, without appropriate human capital, policies and conducive macroeconomic environment may not lead to economic growth.

2.4 Empirical Literature Review

Agricultural Credit enhances productively and promotes a standard of living by breaking Vicious Cycle of poverty. Adegeye and Ditto (1985) described agricultural credit as the process of obtaining control over the use of money, goods, and services in the present in exchange for a promise to repay at a future date.

The crucial rate of interest rate and credit in agricultural production and development can also be appraised from the perspective of the quantity of problems emanating from the lack of it. In modern farming business in Nigeria, provision of agricultural credit is not enough, but efficient use of such credit has become an important factor in order to increase productivity.

Ekwenem (2005), studied interest rate and investment behavior in Nigeria from the period 1976- 2006 using time series data, he found out that the behavior for investment has a significant influence on interest rate and inflation rate. Majed and Ahmad (2010) investigated the impact of interest rate on investment in Jordan between 1990 and 2005 using co integration technique. The study found that real interest rate has a negative impact on investment. An increase in the real interest rate by 1% reduces the investment level by 44%. Greene and Villanueva (1990) studied the determinants of private investment in less developing countries for 23 countries between 1975-1987 period and found that the real deposit interest rate has a negative impact on private investment. Hyder and Ahmad (2003) investigated the slowdown in private investment in Pakistan. They found that higher real interest rate reduces private investment. Mahmudul and Gazi (2009) in their study in Jordan on stock investment (based on the monthly data from January 1988 to March 2003) found that interest rate exerts significant negative relationship with share price for markets of Australia, Bangladesh, Canada, Chile, Colombia, Germany, Italy, Jamaica, Japan, Malaysia, Mexico, Philippine, South Africa, Spain, and Venezuela. For six countries from this sample, they argued on the availability of significant negative relationship between changes in interest rate and changes of the share price. Recently, Olubanjo, Atobatele, and Akinwumi (2010) simulated the inter-relationships among interest rates, savings and investment in Nigeria between 1993 and 2010 using two stages least square method. Their result suggested that a marked decrease in the real lending rate would not result automatically in increased domestic investment.

The empirical works by Mackinnon (1994) and Fry (1995) have shown evidence to support the hypothesis that interest rate determines investment. Thus, there are two transmission channels through which interest a rate affects investment. They relate to investment as the cost of capital. They also opined that interest rates encourage loans (external finance). Many studies have investigated these transmission mechanisms, which tallies with interest rate policy regimes articulated in Nigeria prior to and after the 1986 deregulation. Khat and Bathia (1993) used the non-parametric method in his study of the relationship between interest rates and other macroeconomic variables, including savings and investment. In his study, he grouped (64) Sixty-Four developing countries including Nigeria into three bases on the level of their real interest rate. He then computed economic rate among which were gross savings, income, and investment for countries. Applying the Mann - Whitny test, he found that the impact of real interest was not significant for the three groups. However, his method of study was criticized by Balassa (1989) that a relationship has been established by the use of regression analysis.

Ani (1988) opined that the central Bank is too eager in its objective to accelerate the attainment of the objectives of the on-going structural adjustment which among other recommended the deregulation of the economy. He believes that the central bank is trying to deregulate the interest rate aim at strangulating a lot of industries particularly the small and medium scale industries because interest rate deregulation will lead to a very high lending rate which in his own opinion, the medium scale industries could not afford because of their limited capital and production base. The central bank in its policy increases its lending rates from 11 to 15% in a situation where Naira is undervalued. In view of these increase, the commercial banks increased their own lending rate to between 17 to 22%. Also, the liquidity ratio was to be increased from 25% and their credit expansion reduced from 8 to 7.54%.

Ani (1988) thus maintained that the central bank of Nigeria measures would reduce the lending capacity of the banks and with a reduction in the quantity of money in circulation there would be no money to save. Ani (1988) was also of the view that money which would have been saved are already in the vault of the central bank in the form of drew back of money awaiting remittance to the second tier foreign exchange market, profit and petroleum subsidies. He thus, concluded that the fixing of interest rates at such a high level does not give Nigerian business any chance of competing with their foreign counterpart, particularly those from countries where interest rates are low compared to our own.

Methodology

3.1 Sources of Data and Method of Analysis

The data used for this research are secondary and were obtained from several sources. The sources include Central Bank of Nigeria's Statistical Bulletin and Annual Report, Statement of Accounts, National Bureau of Statistics, Annual Abstract of Statistics. The data collected includes Lending Interest rate, Deposit (saving) interest rate, Agricultural investment and Agricultural output. The annual time series data collected covers the period of 1980- 2014.

The ARMA (Auto-Regressive Moving Average) Least Squares (LS) method of the classical linear regression model was the econometric technique adopted in the study and other statistical tests.

3.2 Model Specification and Theoretical Consideration

In line with the objective of this study, which is to estimate the impact of interest rate on agricultural investment in Nigeria, Agricultural investment will be used as the dependent variable. The explanatory variables include; lending interest rate, deposit interest rate, and agricultural output.
The model can be stated in it functional form as;
AGI = F (Lintr, Dintr, AgricQ) ……………………………….………………………….. (3.1)
The equation above implies that Agricultural investment is a function of lending rate, Deposit interest rate, and Agricultural output.

The specification of an appropriate econometric model border on the prevailing economic situation and the availability of economic data relating to the variable(s) being examined (Kotusoyiannis, 1997). It is therefore necessary that, a suitable model is specified in this study, to estimate the impact of interest rate on agricultural investment in Nigeria.
The relation in equation (3.1) above is expressed as;
$AGI = \alpha_0 + \alpha_1 Lintr + \alpha_2 Dintr + \alpha_3 AgricQ + \in$ ………………………………………….. (3.2)
Where;
AGI = Agricultural investment
Lintr = Lending Interest rate
Dintr = Deposit Interest rate
AgricQ = Agricultural Output
$\in$ = Stochastic Error Term that captures every other variable that may affect Agricultural investment in Nigeria as a result of interest rate fluctuation but not included in the model.
α_0 is the constant intercept parameter which shows the level of agricultural investment even when the explanatory variables; Lintr, Dintr, and AgricQ remain unchanged (no increase or decrease) or are equal to zero.
$\alpha_1, \alpha_2, \alpha_3, \alpha_4$ = coefficients (parameters) measuring the Impact of the respective explanatory variables on Agricultural Investment.

3.3 Methodology

The data used for this research are secondary in nature and were sourced from Central Bank of Nigeria's Statistical Bulletin and Annual Report, Statement of Accounts, National Bureau of Statistics and Annual Abstract of Statistics. The annual time series data collected covers the period of 1981-2015.

The ARMA (Auto-Regressive Moving Average) Least Squares (LS) method of the classical linear regression model is the econometric technique adopted in the study because of the simplicity of its computation and because it possesses the BLUE (Best, Linear, Unbiased Estimator) properties.

A priori Expectation

At the end of this analysis, it is expected that the model would yield a result such that; $\alpha_0>0$, $\alpha_1 \gtrless 0$, $\alpha_2>0$, $\alpha_3<0$,.

Recall that α_1 is the coefficient of Lending interest rate which can either be greater than, or less than zero depending on the interest rate reform, α_2 is the coefficient of Deposit interest rate which can either be greater than, or less than zero depending on the interest rate reform Theoretically, Agricultural outputs (α_3) are expected to have a positive relationship with the growth Agricultural Investment in Nigeria.

Empirical Analysis

This chapter presents and discusses the empirical findings of the study. In other words, the results from the models estimated are presented and discussed.

4.1 Empirical Results

The major objective of this study is to determine the impact of interest rate on agricultural investment in Nigeria. The results of the descriptive statistics and the estimation are presented in Table 4.1 and 4.2 below.

Table 4.1 DESCRIPTIVE STATISTICS

	L_AGI	L_AGRICQ	L_DINTR	L_LINTR
Mean	3.194968	3.464743	2.400252	2.836655
Median	3.551053	3.489068	2.458805	2.878918
Maximum	6.232193	3.882922	3.145947	3.454738
Minimum	-0.510826	3.007449	1.740320	2.187922
Std. Dev.	2.052209	0.219422	0.341861	0.307216
Skewness	-0.311368	-0.597789	-0.045609	-0.665119
Kurtosis	1.858083	2.714067	2.465814	2.986804
Jarque-Bera	2.467170	2.203781	0.428277	2.580823
Probability	0.291247	0.332242	0.807237	0.275158
Sum	111.8239	121.2660	84.00882	99.28293
Sum Sq. Dev.	143.1931	1.636967	3.973539	3.208984
Observations	35	35	35	35

Source: Author's Computation using E-Views 8

The summary statistics of all the variables used in this exercise were presented and discussed in Table 4.1 above. The mean of each of the variables indicates the average of the respective variables used in the study. The standard deviation further reveals how dispersed the variable is from the average; thus it shows the explosiveness of the variables. Furthermore, the skewness and kurtosis values indicate asymmetry and peakedness of the distribution while the normality test was carried out using the Jarque-Bera statistics. The Jarque-Bera statistics and the respective probability values are further stated.

Table 4.2 Ordinary Least Squares Result

Dependent Variable: L_AGI
Method: Least Squares
Date: 11/13/17 Time: 08:54
Sample (adjusted): 1982 2015
Included observations: 34 after adjustments
Convergence not achieved after 500 iterations
MA Backcast: 1975 1981

Variable	Coefficient	Std. Error	t-Statistic	Prob.
L_INTR	-0.07135013	4.375721	-1.630592	0.1142
L_DINTR	0.08939399	4.691629	1.905393	0.0670
L_AGRICQ	0.2001334	1.196998	-1.671961	0.1057
C	0.09202277	1.36E+08	0.001485	0.9988
AR(1)	0.999924	0.051613	19.37342	0.0000
MA(7)	-0.816168	0.065386	-12.48231	0.0000

R-squared	0.948674	Mean dependent var	99.47559
Adjusted R-squared	0.939509	S.D. dependent var	137.8889
S.E. of regression	33.91373	Akaike info criterion	10.04430
Sum squared resid	32203.95	Schwarz criterion	10.31366
Log likelihood	-164.7531	Hannan-Quinn criter.	10.13616
F-statistic	103.5067	Durbin-Watson stat	1.975683
Prob(F-statistic)	0.000000		

Inverted AR Roots	1.00			
Inverted MA Roots	.97	.61+.76i	.61-.76i	-.22-.95i
	-.22+.95i	-.88-.42i	-.88+.42i	

Source: Author's Computation using E-Views 8

The estimated result shows that there exists a negative relationship between Lending interest rate and Agricultural investment in Nigeria. Specifically, one percent change in Lending rate will lead to a decrease in agricultural investment by 0.07 (7%) percent. In other words, the negative nature of the variable indicates that it has a tendency to reduce agricultural investment in Nigeria. This conforms with the theoretical 'a priori' expectation as regards the impact of Lending interest rate on Agro-investment. Interestingly, the t–statistic shows that variable is statistically significant when considering the key factors influencing Agricultural investment in Nigeria. The coefficient of Deposit interest rate is positive. It indicates that one percent change in the deposit rate will induce agricultural investment by 0.08 (8%) percent. This also conforms with the 'a priori' expectation. It is indicative of the fact that, the higher the deposit interest rate in Nigeria, the more people are willing to save, these savings by extension will lead to higher the level of agricultural investment through the availability of loanable funds.

From the results, the coefficient of Agricultural output is positive which conforms with the theoretical 'a priori' expectation. However, it implies that a one percent change in agricultural output will induce agricultural investment by 0.20 (20%) per cent. This is as a result of the obvious linkage between agricultural output growth and agricultural investment. In other words, the increase or improvement in agricultural output is indicative of increased investment in the agricultural sector. It will also spur people to invest in agriculture. The coefficient of the constant intercept showed that, even if all the explanatory variables are held constant, the level of agricultural investment will increase by 0.05 (5%) percent. The coefficient of determination R^2 and it adjusted counterpart indicates that about 93 percent of the systematic variations in the explained variable (Agricultural investment) is accounted for by the joint influence of the explanatory variables. The F–statistic is highly significant, indicating a rejection of the null hypothesis. In other words, the study concludes that the explanatory variables are significant in determining the impact of interest rate on agricultural investment in Nigeria.

4.2 Policy Implications

From the estimated result above, we discovered that all variables are found to be very vital as indicated by the t-statistics. The main inference that can be drawn here is that for a certain level of agricultural investment to be achieved in Nigeria, due attention must be given to all variables captured in the model. This implies that lending interest rate, Deposit interest rate, and agricultural output are very crucial factors to be considered when designing macroeconomic policies aimed at enhancing Agricultural investment in Nigeria. From the results above, the lending interest rate was found to be negative. The negative nature of the variable indicates a tendency to depress agricultural investment in Nigeria. The Nigerian monetary authority (Central bank of Nigeria) adopted a new interest rate policy, which implies a floating interest rate. In other words, the interest rate in Nigeria will be determined by market forces, such that both appreciation and depreciation of the value of the domestic currency will have great implications for the Nigerian agricultural sector. Since agricultural investment is heavily dependent on the interest rate volatility, a rise in the lending rate will depress agricultural investment. So also, a fall in the lending rate will induce agricultural investment. This positive relationship between deposit interest rate and agricultural is evident in the inevitable linkages between saving and investment. It indicates that the higher the deposit interest rate, the higher the saving, the higher the amount of loanable fund available for agricultural investment. From the result, agricultural output shows a direct and positive relationship with agricultural investment. This implies that the growth of agricultural output will drive investment into the agricultural sector.

Summary, Recommendation, and Conclusion

5.1 Summary

The main thrust of this study is to examine the impact interest rates on agricultural investment in Nigeria. The Empirical analysis shows that Deposit interest rate and agricultural output have a positive and significant impact on agro-investment in Nigeria. This invariably implies that both variables tends to induce positive growth and development of the Nigeria agricultural sector. The importance of these variables is an indicator to policy makers to pay adequate attention to the use of these variables in policy formulation as it relates to the growth, development, and expansion of the Nigerian agricultural sector.

The variable lending interest rate shows a negative relationship, with the growth of agro-investment in Nigeria. The behaviour of these variables does not negate from what is obtainable in the financial/ investment sector. In other words, the lower lending interest rate will induce more capital inflow or investments into the agricultural sector thereby improving agricultural production.

5.2 Recommendations

In line with one of the objectives of this study, which is to make recommendations on appropriate policies, the following measures are recommended for policy-making;

1. Given the bidirectional effect and significant impact of Deposit interest rate on savings and agro-investment in the country, efforts must be made by all strata of government within the country to ensure appropriate determination of interest rate level that will break the bidirectional effect of interest rate on savers and local investors, because high-interest rate attract domestic savings, but at the same time it discourages local investors. Only the interest rate policy that can attract savings mobilization and encourage domestic investment will help the growth of agricultural investment.
2. The Nigerian Government should build a strong institutional framework, mainly in areas of investment facilitation and investor protection. Investors should be convinced of the efforts being made regarding tackling political instability, insecurity, and uncertainty in the Nigerian agricultural sector.
3. There is a need for the authorities to improve the macro-economic indicator such as inflation the level of income and investment. The significance of the level of income to increased investment cannot be overemphasized as the level of income determines the level of savings and further determines investment that can be made to increase agricultural production in Nigeria.

4. The study also recommends that deregulation should be carried out with some measures of check and balances to frustrate the negative effect of interest rate deregulation on real term deposit rate which makes savings benefit insignificant.

5.2 Conclusion

From the preceding discussions, it is obvious that agricultural investment in Nigeria is inadequate and lacking the necessary characteristics of a well-developed agricultural sector that is capable of ensuring food sufficiency and security of her citizens. The empirical analysis showed that all explanatory variables are critical to the growth of agricultural investment and by extension agricultural output in the agro-sector. This invariably, urges policy makers to take drastic measures regarding these vital policy variables (explanatory variables) and also ensure full implementation of the strategies and policies recommended by the study in other to revamp agricultural production in Nigeria.

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A Meta-Analysis of Corporate Governance in a Developing Country

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Abstract
There is an increasing body of research on corporate governance in Nigeria. This academic paper endeavours to classify, categorize, map and synthesize the research on this topic during 1998–2017. In the analysis of the body of research in corporate governance in Nigeria, five key themes emerge. (1) Several research studies focus on institutional influences of corporate governance and discussions centre on how a country's culture, laws, regulations, norms and institutions inform corporate governance practice. (2) Other studies address concerted effort by international organizations and the Nigerian government to change corporate governance practices in Nigeria. (3) Further, studies have been conducted on the state of shareholder activism in Nigeria (4) corporate governance disclosure of publicly listed companies and (5) corporate governance and firm performance (6) corporate social responsibility in Nigeria. Based on the extensive review, missing perspectives on corporate governance research in Nigeria have been identified and propositions are made for future research directions.

Keywords: Corporate Governance, Corporate Social Responsibility, Corporate Governance Disclosure, Shareholder Activism, Developing Countries

Introduction

Corporate governance has been defined extensively in the corporate governance literature (Trickster, 1984; Gillan & Stark, 2003; Larcker et al. 2005; Huse, 2007; Monks and Minnow, 2008); these definitions can easily be classified into two broad groups (narrow perspective and broad perspective of corporate governance). The narrow definition is as explained by Larcker et al. (2005) suggests that corporate governance generally refers to a set of mechanisms that influences the decisions made by managers when there is a separation of ownership and control. This definition is largely drawn from the agency theoretical literature which deals with the problems that arise from agency costs and are centered on the problems that result from shareholders delegating the responsibility of running the firm to managers (Jensen and Meckling, 1976; Hills & Jones, 1992; Kulik, 2005).
However, in many developing and transition economies this definition of corporate governance may likely be totally unsuitable as it fails to capture the systemic issues that lie at the heart of corporate governance (Oyejide and Soyibo, 2001; Oman, Fries, & Buiter, 2003). This includes the dearth of existing of institutional infrastructure that is fundamental corporate governance to thrive, the existence of these institutions are taken for granted in developed countries (Adegbite & Nakajima, 2012; Isukul and Chizea, 2015). Most developing and emerging economies have poorly defined property rights and judicial and regulatory institutions (Okike, 2007;

Adegbite, 2012). For corporate governance to be inclusive, a broader definition is necessary to take into consideration the deficiencies of corporate governance in developing countries.

As such, the broader definition of corporate governance is needed, one that tends to go beyond the internal dynamics of the firm, its shareholders and managers to include institutional infrastructure such as political tradition, the rule of law, regulatory institutions(Ahunwa, 2002; Tsamenyi and Uddin, 2008; Wanyama, Burton and Helliar, 2013). Oman et al. (2003) emphasize that corporate governance comprises of a country's private and public institutions, both formal and informal, which together govern the relationship between people who manage corporations (corporate insiders) and others who invest their resources in the country. These institutions include the country's security laws, corporate law, accounting rules, acceptable business norms and practices (Ahunwan, 2002; Okike, 2007). In defining corporate governance in this context, it is possible to encapsulate the broader themes and influences of corporate governance in developing countries.

It is misleading to assume that corporate governance is not important for developing countries because developing countries are characterized by weak financial institutions, inadequately defined property rights, poor protection for minority investors, pervasive public and private sector corruption, and a small number of public listed companies (Claessens, 2006; Siddiqui, 2010; Agyei-Mensah, 2017). Nothing can be further from this narrow misconception of corporate governance. As a result of this narrative, the corporate governance literature has been framed within the context of principal-agency problem that fits the narrative of developed countries (Adegbite and Nakajima, 2012; Isukul and Chizea, 2015).

Consequently, while this description captures the issues, difficulties and problems of corporate governance in developed countries falls short in explaining the complexity, challenges and of corporate governance in developing countries (Wanyama, Burton, and Helliar, 2009;Adegbite & Nakajima, 2012; Nakpodia et al., 2016). This is so because corporate governance in developing countries is faced with peculiar challenges, hurdles and problems that are different from their developed country counterpart (Ahunwan, 2002; Oman et al., 2003; Tsamenyi and Uddin, 2008).

And as such, there is an enormous difference between the most important issues facing corporate governance in developed countries from that of developing countries. In developed countries, the most important problem facing corporate governance stems from the principal agency relationship problem (Gillan, 2006; Monks and Minnow, 2008; Brenan and Solomon, 2008). For developing countries, the most important challenges facing developing countries is the establishment of a rule-based system of corporate governance as opposed to the prevailing system of relationship-based governance, tackling vested interests, disaggregating pyramidal ownership structure, prevention of asset stripping, protection of the rights of minority shareholders and promoting the culture as well the practice of good corporate governance (Wanyama, Burton and Helliar, 2009; Adegbite, 2015).

There has been a limited amount of research on corporate governance in developing countries such as Nigeria, however all that is beginning to change, as corporate governance researchers in developing are increasing delving into researching corporate governance problems in developing countries (Wanyama, Burton and Helliar, 2009; Chanda, Burton and Dunne, 2017). This research is borne out of the need to review and assess the research on corporate governance in Nigeria, with a view of identifying what has been done, what is being done, what has been left out and to point in the direction of where future research in corporate governance in Nigeria should be focused on. The review will be an important tool not only for corporate governance researchers in developing countries but also for investors and policymakers who make either make decisions on investing in developing countries or develop policy framework guiding corporate governance policies and practices in developing countries.

Methods

In finding the important academic articles on corporate governance in Nigeria, internet searches were performed meticulously on a number of academic electronic databases, this was done with the intention of identifying relevant research publications on corporate governance in Nigeria. The following reputable electronic databases were used: Google Scholar, Social Science Research Network (SSRN), Wiley, Journal Storage (JSTOR), Science Direct, Emerald Insight, Interscience, and Springerlink. A variety of important keywords in the corporate governance lexicon employed as the search terms such as; corporate governance in Nigeria, corporate governance and financial performance, board effectiveness, ownership structure, corporate social responsibility, shareholder activism and Nigeria, corporate governance disclosure and Nigeria.

Secondary data has been employed in the analysis of corporate governance research in Nigeria. In conducting research with secondary data, the research requires the collecting or summarizing existed data as opposed to primary data which is collected from the respondents (Stewart, 1984; Cowton, 1998). Long-Sutehall, Sque, and Addington-Hall (2010) maintain that the selection of secondary data for the research can be employed for the following rationale: the original datasets need the performing of additional analysis, and when there is the need to apply a new perspective to a previous research problem. Secondary data is not without its shortcomings; the collection of secondary data is normally intended for some other purpose, and as such the data lacks the flexibility that data collected for a specific purpose has (Church, 2002; Bryman and Bell, 2007).

In the systematic analysis of the research papers published on corporate governance in Nigeria, a content analysis was performed. Content analysis can be explained as a research method or instrument that can be employed objectively and systematically in the analysis of specific words, phrases, and sentences (Weber, 1990; Lederman, 1991). The purpose of the content analysis is in providing of a new perspective, and insight from the analysis of the data. In content analysis, the emergence of themes may occur as a result of the following: the characteristics of the subject being studied, a theoretical and understanding of the subject matter (Bryman and Bell, 2007; Collis and Hussey, 2009). The content analysis was relevant in identifying articles published on corporate governance in Nigeria. Furthermore, in all of the research papers identified, the reference lists were thoroughly examined – this was done with the intention of identifying other relevant papers that could be included in the research review. The screening of research papers on corporate governance in Nigeria resulted in the selecting of 41 publications. Critiques of content analysis have regarded it as too simplistic and maintain that it fails to use robust statistical procedures. Quinlan (2011) disregards the critique of content analysis as being simplistic; he suggests that there is the possibility of obtaining simplistic outcomes by any method when the analysis is deficient.

Publishing Facts

The identified research studies on corporate governance in Nigeria were published between 1998 and 2017. There appears to be a large spread in the number of journals publishing papers on corporate governance in Nigeria. A total of 26 journals were identified. Although the spread is quite significant, a few journals tend to have more publications on corporate governance than others. The following journals tend to have more publications on corporate governance in Nigeria than others: Journal of Business Ethics, Corporate Governance: An International Review, Corporate Ownership and Control, Accounting Forum, and Sage Opens. Journal of Business Ethics has the highest number of publications, a total of 6, Corporate Governance: An International Review takes the 2nd position with a total of 3 papers and rest of the other journals have 2 publications in their respective journals. The journal themes include corporate governance to business to finance to corporate social responsibility and environmental sustainability issues.

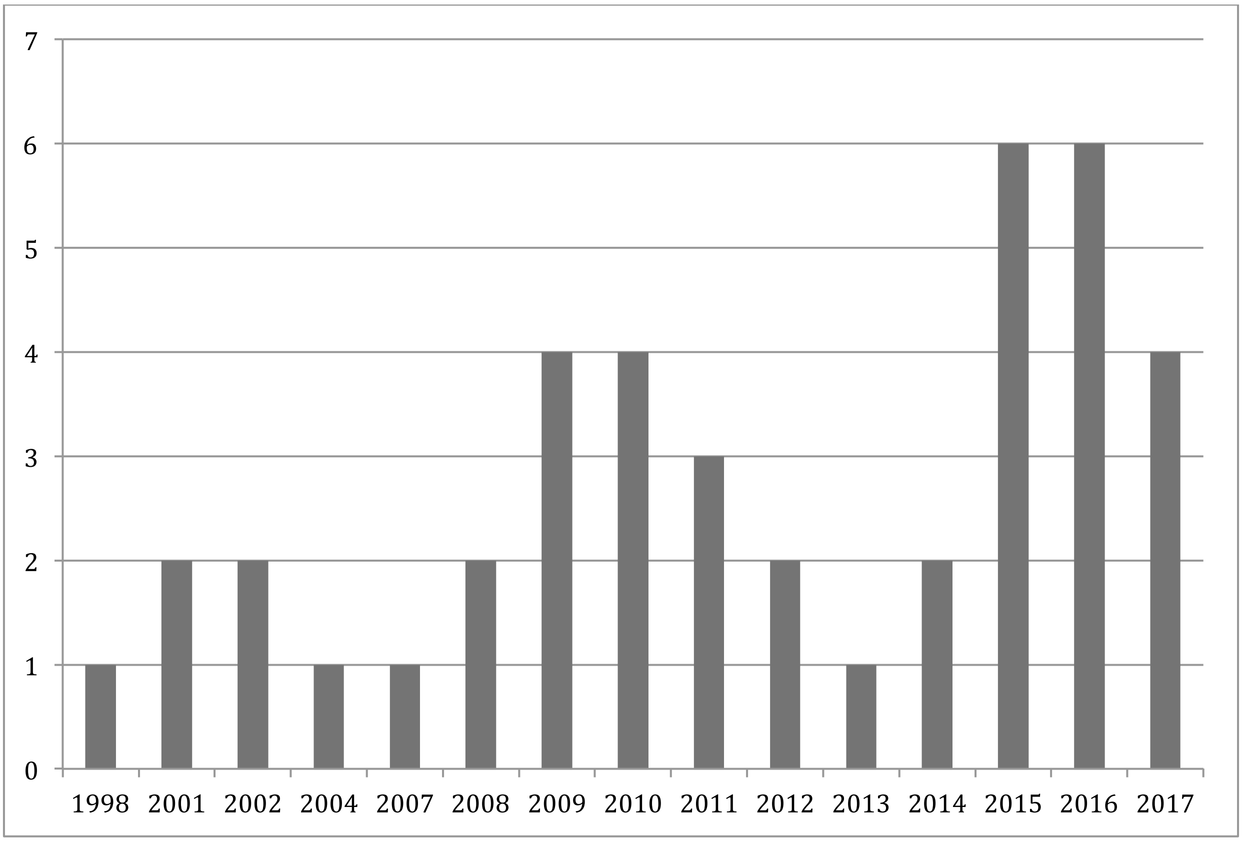
Earlier publications on corporate governance in Nigeria were few; however, in 2009-2011, there was a significant increase in the number of articles published in corporate governance from 1 paper a year to 3 papers a year for 2 years. Unfortunately, this trend did not continue, publications on corporate governance in Nigeria nosedived to 1 or 2 papers for the next 3 years. In 2015, there was a surge in the number of articles on corporate governance published in Nigeria, that surge was sustained in 2016. A total of 12 papers were published between 2015 and 2016.

However, this surge was not sustained in 2017, a decline in the number of published articles from 6 to 4. Clearly, it appears there is an increasing interest in corporate governance research in Nigeria. This is significant, when you consider that the total number of papers published between 1998 and 2009, an 11 year period was 12. This improvement in publications on corporate governance can be attributed to increased awareness of the importance of corporate governance to economic well-being and also the increasing number of academics who have taken a keen interest on corporate governance issues in Nigeria.

Table 1: Identified Journals for Publication of Corporate Governance Research in Nigeria

Journals	Publications
Accounting Forum	2
Advances in Accounting incorporating Advances in International Accounting	1
Asian Journal of Business, Economics and Accounting	1
Canadian Journal of Development Studies	1
Centre for the Study of Globalization and Regionalization CSGR Working Paper	1
Corporate Governance International Journal of Business in Society	1
Corporate Governance: An International Review	3
Corporate Ownership and Control	2
Corporate Social Responsibility and Environmental Management	1
Economics and Business Review	1
International Business Review	2
International Journal of Auditing	1
International Journal of Business Governance and Ethics	1
International Journal of Innovation and Economic Development	1
International Journal of Law and Management	1
International Studies of Management and Organization	1
International Journal of Research in Computer Application Management	1
Journal of Business Ethics	6
Journal of Business Policy and Research	1
Journal of Change Management	1
Journal of Commonwealth Law and Legal Education	1
Managerial Law	1
Management Research News	1
Procedia - Social and Behavioural Sciences	2
Sage Opens	2
The International Journal of Accounting	1
The Journal of Risk Finance	1

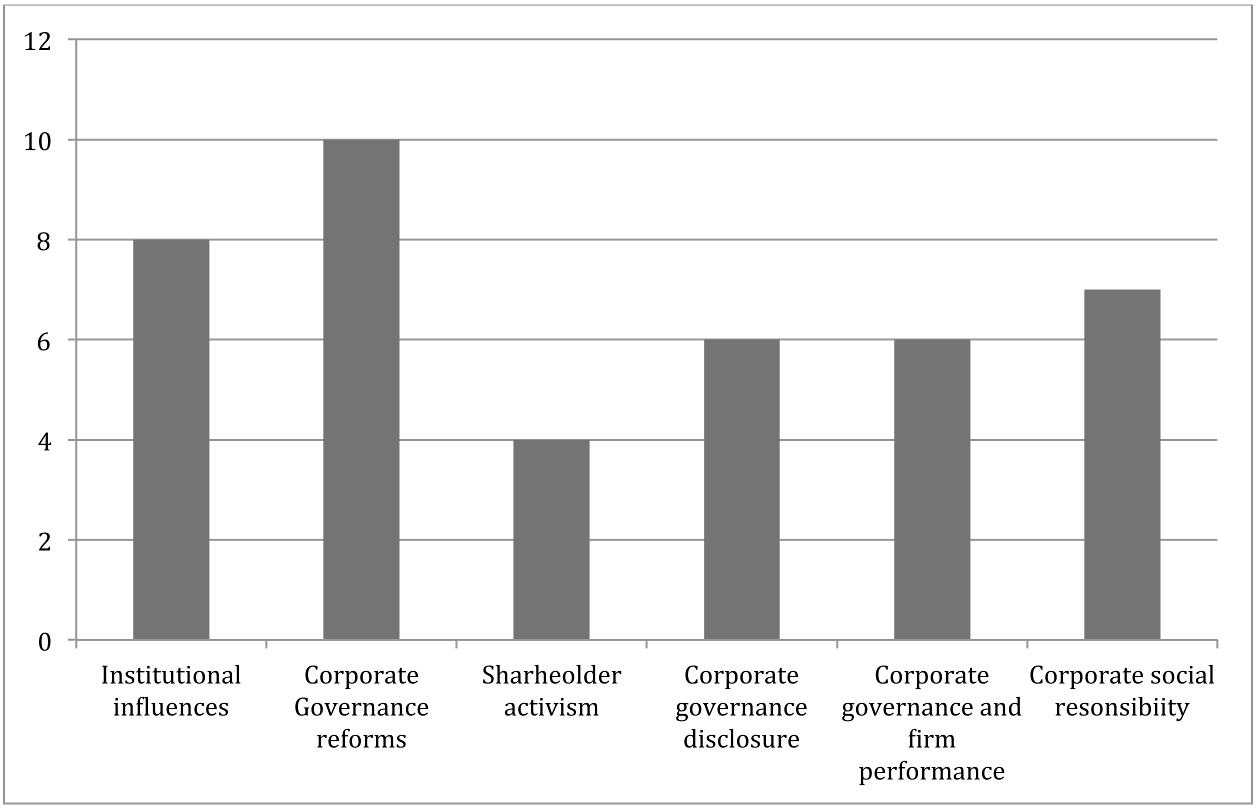
Figure 1: Number of Articles Per Year



Key Issues in Corporate Governance in Nigeria

After meticulously analyzing the research publications on corporate governance in Nigeria, six key themes emerged as the dominant issues on corporate governance: institutional influence of corporate governance, corporate governance reforms, shareholder activism, corporate governance disclosure, corporate governance and firm performance and corporate social responsibility. Figure 2 sums up the key themes of corporate governance in Nigeria and also categorizes the number of articles within each theme. These themes are not based on theoretical frameworks, but on empirical issues the papers address. It was very difficult to categorize the papers on theoretical framework since most of the papers published were empirical in nature. In the literature, a number of studies have focused on examining the influences on corporate governance in Nigeria; these studies examined influences based on historical influences resulting from Britain's colonizing Nigeria, influences based on requirements, regulations by financial institutions such as the International Monetary Fund, World Bank and the Organization for Economic Cooperation and Development. The research reveals that outcomes of some of the policies and regulations of these international financial institutions have been mixed. More important in the research of influences on corporate governance in Nigeria is the internal influences that continue to restrain, hinder and hamper the growth of corporate governance practices.

Figure 2: Key themes of Corporate Governance in Nigeria



The following issues continue to be reiterated in the literature as obstacles to improving corporate governance in Nigeria: weak financial markets and regulatory institutions, poor protection for minority investors, systemic corruption, frequent policy summersaults, and shareholder passivity. To address these issues, a series of corporate governance reforms have been instigated targeted at enhancing transparency in corporate governance disclosure and encouraging shareholder activism. The literature on corporate governance in Nigeria discusses extensively, the issue of corporate governance disclosure and shareholder activism. Disclosure levels have been poor and shareholder activism weak, most of the literature on these issues have been intended to resolve poor disclosure and weak activism. The last issue that has been given considerable attention in the literature is on corporate social responsibility. Corporate social responsibility in Nigeria has not emerged as a result of business genuine need to give back something meaningful contribution to the society, rather it emerged as a result of youth restiveness and militancy in the Niger Delta region – where the exploration for oil by multinational companies has devastated the region, causing erosion, loss of biodiversity, formation of sinkholes, contamination of groundwater, surface water and soil water. Consequently, this has significantly affected the health and source of livelihood of the local population.

Institutional Influences of Corporate Governance in Nigeria

A fiercely contested debate in the corporate governance literature is focused on examining the question of which is more important in determining the quality of corporate governance, country-level governance mechanisms or firm level mechanisms? So far, the available research does show that both country-level factors and firm-level characteristics matter in determining the adoption of good corporate governance practice (La Porta et al., 1998; Hugill and Siegel, 2014). The country-level governance mechanisms tend to include the following: a country's culture, laws, regulations, norms, and institutions (Adegbite et al., 2015). Firm-level governance mechanisms can simply be described as those mechanisms that function within the firm such as the board of directors, competitors, customers, bankers, employees, stock exchange rules and shareholders (Siegel, 2005; Aggarwal, Erel, Stulz and Williamson, 2009). However, the outcome of the influence of country-level governance or firm level governance was dependent on the countries in the study. For developed countries, firm-level governance tended to be more influential on corporate governance than country-level governance. The opposite holds true for developing countries where country-level governance tended to have a far more reaching influence than firm-level governance.

In a research on the influence on country-level governance mechanisms on corporate governance, using the following country characteristics: legal protection for minority investors and the level of financial and economic development - Doidge, Karolyi, and Stulz (2007) find that country variables explain 39-73% of the governance choices of firms, while firm variables explain 4-22% of governance variables. Moreover, in the case of developing countries, firm characteristics explains none of the governance variations because the costs of adopting good corporate governance practices outweigh any perceived benefits in such locations (Hugill and Siegel, 2014).

The findings of the research reveal that both external and internal influences have a significant influence on corporate governance practices. On the external front, pressures from multinational agencies such as the World Bank, International Monetary Fund, Organization for the Economic Co-operation and Development and globalization have had far-reaching influences on corporate governance practices in developing countries such as Nigeria. As conditions for renegotiating loans in the mid-eighties, these global financial institutions imposed severe structural reforms that have significantly altered corporate governance practices in developing countries. These measures largely intended to move developing countries to embrace an Anglo-America model of corporate governance with an emphasis on the following measures: fiscal austerity that consisted of severe cutbacks pressured government in developing countries to abandon interventionist industrial policies and drastic reduction of stated-owned participation in the production process (e.g. encouraged the privatization and sale of state-owned business enterprises). Also, these international financial institutions placed a significant emphasis on equity financing and encouraged developing countries to deregulate interest rates, and exchange rates and liberalize financial markets. Furthermore, in an attempt to encourage standardization, enforcement, compliance and integrating of national financial economies, these international institutions employed a cross-border supervision and monitoring strategies in observing compliance to codes of best practice in accounting, corporate governance, financial reporting practices and codes of best practice.

Internally, the peculiar institutional configurations are such that the systemic deficiencies continue to overwhelm the attainment of any significant improvement in corporate governance practices. Internal deficiencies include the enormous infrastructural deficit that continues to escalate the costs of doing businesses, as business firms have to run personal power plants to supply electricity to run their businesses. Unstable economic and socio-political environment, inclusive is escalating prices of goods and services as a result of poor economic policies. The inability of successive governments to curb corrupt practices in public and private institutions, as government actions against corruption are geared towards in paying lip service to the problem than actually resolving and combating it. However, Adegbite is quick to the point that the issue of corruption is an international plague that is of serious consequence not only to developing countries but to the international community as well. Of recent, there have been high profile corporate scandals (such as Worldcom and Enron in America, Parmalat in Italy and Polly Peck in the UK). While the issue of corruption remains pertinent, there are other issues that are equally important such as the weak legal environment that offers little or no protection for investors. Unfriendly legal climate not only discourages investors from entering the market, but it also ensures that those who ignore the weak regulatory infrastructure do so at their own peril. As such, investors and their investments are not secure.

Given the complexity of the interactions between external influences and internal influences it is difficult to categorically state which has more influences on corporate governance in Nigeria, both the external and internal influences to a great extent continue to exert influences in corporate governance, the internal influences continue to hinder, contaminate and repress the imbibing of good corporate governance practice. While external influences in terms of the standard from codes of corporate governance maybe a welcome development, however many of the codes do not emanate from corporate governance narrative in Nigeria, at best, they could be regarded as western solutions and as such may not necessarily be suitable to address the issues of corporate governance in Nigeria.

Corporate Governance Reforms

The intent of corporate governance reforms is meant to improve the quality of corporate governance through institutional reforms, market reforms, country-level reforms, and firm-level reforms. The essences of these reforms are to improve transparency, accountability, market efficiency, market performance, oversight management and handing over of state-owned enterprises to the private sector. It must be emphasized that these reforms were not the initial design of the Nigerian government; rather these reforms were as a result of international pressures brought to bear on the Nigerian government. In the corporate governance reforms literature on Nigeria, three strands of research tend to permeate the field. The first category are those who believed that the corporate governance reforms were of immensely benefit in improving the quality of corporate governance in Nigeria, the second category are those who believed that the corporate governance reforms outcomes could be regarded as mixed and the last category who maintain that the corporate governance reforms have not achieved any significant outcome as a result of institutional deficiency that is systemic.

The preliminary sets of corporate governance reforms were intended to decrease government involvement in corporate governance activities through policies that were intended to privatize, deregulate and liberalize state-owned enterprises (Oyejide and Soyibo, 2000; Reed, 2002; Ahunwan, 2002). In doing this, the motive was to gradually reduce government intervention in economic activities while allowing for market forces and market mechanisms to become the dominant forces determining economic activities. Consequently, the Nigerian government sold its ownership stakes in state-owned enterprises such as banks, hotels, insurance firms, telecommunication companies and cement industries. The works of Oyejide and Soyibo (2001) maintained that the privatization of state-owned enterprises posed a serious challenge to government, especially in the implementation of the privatization exercises, such problems such as vehement opposition by managers, employees and labour unions, philosophical and ideological opposition as well as non-existence of a competitive and regulatory framework to guide the privatization exercise. As a result, the privatization exercise was abandoned for a three year period, after which government decided to continue the exercise, and it did so by disengaging itself from business activities that it knew could be more efficiently and effectively executed by the private sector.

The next set of reforms focused on deepening financial institutions and markets. To do this, a two-prong approach was adopted. The first element of the reform involved designing and developing corporate governance code that helped strengthen corporate governance practice. The 2003 code of conduct for corporate governance, code of corporate governance for Nigerian banks, code of conduct for shareholder association in Nigeria, PENCOM code and NAICOM code. In their assessment of corporate governance regulation in Nigeria Ahunwan (2002), Okike (2007) and Adegbite (2010) suggest that corporate governance regulations in Nigeria have been largely characterized as an imitation of corporate governance regulations in the United Kingdom. Consequently, these regulations have woefully failed to address and resolve the myriad of corporate governance problems that are peculiar to the Nigerian institutional environment.

Furthermore, Osemeke and Adegbite (2016) examined the multiplicity of corporate governance codes that have been developed to guide and regulate the behaviour of different stakeholders; designed with the intent of encouraging good corporate governance culture and practices. They find evidence to suggest the presence of conflict among the various codes has serious implications for corporate governance practices in Nigeria. The proliferation of corporate governance codes in Nigeria does more harm to corporate governance as it weakens regulatory enforcement and also reduces compliance by public listed firms. Thus, while the development of corporate governance codes can be seen as a positive development, the multiplicity of codes does not in any way enhance the quality of corporate governance practices in Nigeria if it ends up weakening the same process it is meant to strengthen (Nakpodia et al., 2016).

The second element of the reforms focused on strengthening existing financial capacity of banks and insurance firms. The Central Bank of Nigeria formally requested the recapitalization of banks and insurance companies, banks and insurance companies who failed to meet this requirement by the stipulated dates would face severe penalties. As a result, several banks who could not meet the minimum capital requirements were forced to merge; the bank consolidation exercise caused a reduction in the total number of banks from 89 to 24. Also, the consolidation exercise ensured the strengthening of the capital base of existing banks – bank capitalization rose significantly after the exercise from USD 15 million to USD 192 million. While the banking reforms were a tremendous success a few years later, several banks in the Nigerian banking industry collapsed, a bank crisis resulted that resulted in a bailout and financial intervention to rescue distressed banks (Aliyu et al., 2014). This event appeared to have tarnished feat achieved by recapitalization of the banking sector.

Shareholder Activism

Shareholder activism can be regarded as a mechanism used by investors and shareholders to influence decisions of managers of firms they have vested interest in (Gillian and Stark, 1998; Romano, 2000). This is especially so, when the companies are performing poorly in terms of earnings and returns to investments (Karpoff, 2001; Hendry et al., 2005). In situations like this, the shareholders use shareholder activism as a tool to change the directors of the board, replace them with a competent team of directors (Nelson, 2006 Gillian and Starks, 2007). Shareholder activism is a mix of strategies adopted by investors such as a written letter to the board expressing discontent, meeting, and negotiations with the board over pertinent issues, the threat of divestment, shareholder resolutions and the use of media pressure to influence corporate behaviour (Black, 1998; Bainbridge, 2005). Gillian and Stark (2007) maintain that the primary motive for shareholder activism is to address the agency conflict that arises as a result of shareholders outsourcing the responsibility of running the firm to managers. Agency conflicts are likely to occur for the simple reason that the interest of shareholders and managers are conflicting. Shareholders are interested in maximizing shareholder value, while managers are focused on earning bigger pay and bonus. Often times, when managers are left to pursue their personal interest, managers may fail to maximize shareholder wealth. It is this diversion in interests that creates the need for shareholder intervention, to ensure that managers of firms focus on creating wealth for shareholders.

Particularly worrisome is the paucity of literature on shareholder activism in Nigeria. Research on shareholder activism have been few and far-fetched, one explanation for the dearth of research in shareholder activism is the practice of shareholder activism in Nigeria sorely lacking (Okike, 2007; Adegbite, Amaeshi and Amao, 2010). To be candid, shareholder activism is almost non-existent; this is in spite of the introduction of corporate governance codes which encourage shareholder intervention and the presence of powerful shareholder associations. The literature on shareholder activism in Nigeria has focused on examining the likely causes of poor shareholder activism in Nigeria, and suggesting possible measures that can be taken to improve shareholder activism in Nigeria (Amao and Amaeshi, 2007;Uche, Adegbite and Jones, 2016).

In a research paper on corporate governance in Nigeria, Oyejide and Soyibo (2001) found that in conducting of shareholder meetings Nigeria scored poorly when compared to other developing countries in North and Middle-East Africa. The research shed light on some of the most important issues affecting shareholders right Nigeria: handling and conducting general meetings, inadequate notification of scheduled meetings, poor access to information to shareholders and issues relating to insider dealing. The passivity displayed by Nigerian shareholders is borne out of personal interest, investors in Nigeria are more concerned with protecting their business interest rather than taking the time and effort to correct erring businesses they have vested interest in (Uche et al., 2016). Liquidating and divesting is the preferential strategy of shareholders in Nigeria rather than shareholders focusing on engaging erring companies to improve performance, consequently, shareholder activism and corporate governance suffer as a result of shareholders adopting this strategy (Uche et al., 2015). In the short term, shareholders tend to benefit by liquidating and divesting their assets, in the long term shareholder activism and corporate governance lose as a result of the short-sightedness of these shareholders.

To resolve this peculiar problem, Amao and Amaeshi (2008) suggest the increase in participation in annual general meetings; as one measure that can be taken to increase shareholder influence. To do this, they recommend the employing of information communication technology – the use of the internet and global system for mobile communication (GSM) as tools to increase shareholder participation. While these maybe seen as a good start and there is evidence to suggest that there is an improvement in shareholder disclosure for publicly listed companies having information for shareholders available on company's websites and copies of the annual report. Yet, these improvements have not led to an increase in shareholder activism in Nigeria. For obvious reasons, it does appear that the issue of shareholder passivity cannot simply be resolved with better disclosure of information. Although this may help in some way, it is clear that the issue of shareholder passivity in Nigeria is complex and would need several other measures such as strengthening weak regulations, judicial reforms, and addressing the issue of corruption (Amao and Amaeshi, 2008; Adegbite and Nakajima, 2012).

Even with the recent reforms, the problem of shareholder passivity continues to remain unresolved. While there have been modest improvements in corporate governance codes that require a shareholder to be more engaged in the activities of running their companies, shareholders are yet to embrace the opportunities they have been given to engage in shareholder activism actively. The crux of the matter remains to find ways of creating an enabling environment and the right atmosphere that ensures greater shareholder involvement and participation in the governance of corporations. Even though America and Europe are more advanced in shareholder activism and other areas of corporate governance, important lessons can be drawn from then on increasing the level of shareholder participation. America and Europe have strong institutions that enhance corporate governance practice, of particular importance, are strengthening existing institutions that can enhance the quality of corporate governance such as judicial reforms, strengthening compliance of existing regulations and penalizing corruption practices.

Corporate Governance Disclosure

An emerging trend in developing countries is the increasing call for enhancing the levels of corporate governance disclosure (Ntim et al., 2013; Agyei-Mensah, 2017b). With the current spate of financial scandals across the globe and seemingly thriving multinational companies going bust, the need for corporate governance disclosure has never been so important (Ntim et al., 2013; Sheheta et al., 2014; Okike et al., 2015) A strong disclosure ethos is a rudimental feature of market-based scrutiny of corporate conduct and is fundamental requirement in enabling shareholders to exercise their voting rights effectively (Brenan & Solomon,2008; Beekes et al., 2016) More importantly, disclosure can be considered as an important instrument for influencing the behaviour of firms and for protecting shareholders as well as potential investors (Guttentag, 2004; Dembo & Rasaratnam,2014). Simply explained, corporate governance disclosure is the intentional communicating of information by management personnel working inside public companies towards the general public (Healy& Palepu, 2001; Farvaque et al., 2011).

The purpose of the disclosure is to communicate and disseminate information about the firm's performance and governance to outside investors (Patel, & Dallas, 2002; Maingot & Zeghal, 2008). This information is not only called for by investors and shareholders to assess the performance of their investments but also by other critical stakeholders who are particularly concerned about the social and environmental policies. Thus far, there is a general consensus in the research outcomes of corporate governance disclosure in emerging economies is that corporate governance disclosure is poor (Akhtaruddin, 2005; Barako, 2007; Samaha & Dahawy, 2011; Agyei-Mensah, 2015). However, firms in developing countries tend to have a better percentage score in mandatory disclosure than voluntary disclosure. A genuine explanation for this is that regulatory requirements that mandate firms to disclose specific information regarding the financial performance of the firms. But in the case of voluntary disclosure, the disclosure is not a mandatory requirement; rather it is dependent on the discretion of the firms.

Research on corporate governance disclosure in Nigeria is poor; the numbers of papers published in reputable journals are few. The focus of the research on corporate governance disclosure in Nigeria has been on improving the quality of corporate governance disclosure. Three papers have examined the voluntary disclosure; Okike (1998) examined audit reporting in Nigeria for publicly listed companies over a ten year period and finds that audit reporting in Nigeria has been having significant external influences. The main contribution of her work is in the identification of the sources of external influences, she classified these influences into three core areas: influences that have emerged from embracing international financial accounting standards, an affiliation of Nigerian auditors with the 'big 4' international accounting organizations and the multinationality of the reporting firms. The results of the other two papers that examine the influence of voluntary disclosure on corporate governance attributes appear to have conflicting results. Adelopo (2011) investigates the relationship between voluntary disclosure index and corporate governance attributes. The results of his analysis reveal that board size has a significant and positive relationship with the level of voluntary disclosure in publicly listed companies, while all the other corporate governance variables such as board composition, leverage, company size, profitability and auditor type have positive but insignificant relationships. The results of Adebimpe and Okougbo (2011) differ from Adelepo (2011). Adebimpe and Okougbo find that there is a significant positive relationship between voluntary disclosure and company performance and firm size, however, there is a negative relationship between block ownership and managerial ownership and the extent of voluntary disclosure.

The research on corporate governance disclosure had been limited to investigating the disclosure of publicly listed companies in Nigeria; very few studies have extended the investigation of disclosure to include a comparative analysis of disclosure practices of other countries in African countries. Two research papers studies have been published in this field, these papers have examined disclosure practices in Nigerian and South African Banks and Nigerian and Ghanaian Banks. Isukul and Chizea (2017a) examine corporate governance disclosure of publicly listed banks in Nigeria and South Africa and find high levels of mandatory disclosure for Nigerian and South African firms. However, in the area of voluntary disclosure, Nigerian and South African banks recorded poor levels of disclosure. Moreover, there appears to be a significant difference in reporting of voluntary governance disclosure, Nigerian banks reporting on voluntary disclosure appears to be done perfunctorily, with no linkage to the overall business strategy of the banks. South African banks have a more intentional approach to voluntary disclosure as they not only implement international guidelines for voluntary disclosure; there is also a link between disclosure and their overall business strategy.

In the second paper investigating disclosure practices between Nigerian and Ghanaian banks, the findings of Isukul and Chizea (2017b) reveal that Nigerian banks had a higher level of corporate governance disclosure when compared to their Ghanaian counterparts. However, both Nigerian and Ghanaian banks score low on voluntary governance disclosure. A major finding of the research corporate governance disclosure in Nigerian and South African banks and Nigerian and Ghanaian banks is the introduction of corporate social responsibility disclosure as an essential element in the corporate governance disclosure literature. This is of significant import as it begins to show an emerging trend in corporate governance disclosure literature in developing countries. Corporate governance disclosure goes beyond the reporting of the financial performance of the businesses but also reporting of corporate social responsibility initiatives, as business inform critical stakeholders of environmental and social contributions they make to better the lot of the local communities in which they run their business operations. The findings of this research should not be generalized, as the embracing of corporate social responsibility initiatives in the banks may not be reflective of what is occurring in other industries. But at the same time, it is worthy of note recognize this emerging trend is occurring not only in the Nigerian banking industry but also in the South African and Ghanaian banking industry. There is still a lot that needs to be done in this area, as both studies made use of small sample sizes that do not lend themselves to rigorous statistical analysis.

Corporate governance and firm performance

The literature maintains that particular corporate governance attributes such as chief executive compensation, board size, board diversity, and ownership structure can significantly influence the performance of a firm (Agrawal et al., 1996; Core et al., 1999; Gompers, Ishii and Metrick 2003) Corporate boards have immense power to make important decisions about management compensation policy, investment policy, and board governance. Chief executive officers compensation, for instance, is seen to have a positive influence on the firm's financial performance. Gompers, Ishii, and Metrick (2003) investigated the impact of corporate governance on the performance of firms. Their findings reveal that firms with strong shareholder rights outperformed firms with weak shareholder rights by an estimated 8.5% per year.

Given the findings of his results, corporate governance proponents have continued to cite this result as evidence that good corporate governance has a positive influence on corporate performance. A similar study by Bocean and Barbu (2007) finds that corporate governance has an immense influence on corporate performance, insider ownership influences corporate performance while outside ownership concentration tends to destroy market value. As earlier stated, most of the research studies on corporate governance and corporate performance have examined activities in the developed markets in America and Europe, very few having of the research publications have looked at corporate governance and firm performance in developing countries.

In developing countries, corporate governance and firm performance is hindered by institutional weaknesses such as poor property rights, weak institutions, and systemic corrupt practices embedded in the system. These systemic problems hinder, constrain and limit the potential of corporate governance practices. Policy makers have come to understand that corporate governance is important and can influence a firm's ability to attract capital, and weak corporate governance systems, together with cronyism and corruption, distort efficient allocating of resources, undermine a firm's opportunity to compete on a level playing ground and contribute in hindering investment, economic growth and economic development. Corporate performance in developing countries cannot be investigated without putting into consideration the weak institutional influences that will corporate performance.

A few papers have examined corporate governance and corporate performance in Nigeria and the results of the research point to some contradiction on specific corporate governance attributes. Sanda Mikalu and Garba (2005) find that board size significantly affects corporate performance; they also suggest that the roles of chairman and the chief executive officer be separated, as they find vesting the roles of chairman and chief executive officer in one person negative influences corporate performance. Babatunde and Olaniran (2009) reach a similar conclusion with regards to the board size, they find that the size of the board has a positive influence on corporate performance and recommend that regulatory agencies should encourage publicly listed firms to maintain sensible board size since large board size can destroy corporate value and shareholders wealth. However, Ehikioya (2007) finds that there is no evidence to suggest that board size positive affects corporate performance, he also finds that separating the roles of chairman and chief executive officer negatively affects corporate performance. Kyereboah-Coleman (2007) investigated the influence of corporate governance on corporate performance for firms in Ghana, Nigeria, South Africa and Nigeria. His findings reveal that that large and independent board size enhances the value of a firm and that combining the position of chairman and the chief executive officer has a negative influence on corporate performance. Finally, he finds that the tenure of chief executive officer increases firms profitability and the size of the audit committee, as well as the frequency of audit committee meetings, have a positive influence on corporate performance. Irrespective of the contradictory results with regards to corporate performance, the fact remains that corporate governance attributes do have a significant influence on corporate performance.

Corporate Social Responsibility in Nigeria

At the core of corporate social responsibility is the premise that businesses have a measure of responsibility that extends beyond the boundaries of their firms (Hills and Jones, 1992; Jamali, 2007). In addition to conducting business operations, businesses need to meet the needs of other critical stakeholders within the business environment in which they conduct their business activities. In reality, corporate social responsibility emanated from developed market-oriented economies that have successfully built strong institutional and regulatory capabilities that are capable of efficiently and fairly enforcing the law (Lantos, 2001; Amaeshi, 2010). However, in developing countries that are bedevilled with weak institutional and regulatory environment, an absence of the rule of law, inability of the government to protect the life and property of its citizens, bureaucratic bottle-necks and wanton levels of corruption, the phrase corporate social responsibility takes an entirely different meaning and interpretation (Eweje, 2007; Dobers and Halme, 2009). Consequently, the definition of corporate social responsibility in this research paper will adopt a definition that applies to developing countries. In the context of developing countries, CSR is 'the formal and informal ways in which business makes a contribution to improving the governance, social, ethical, labour and environmental conditions of the developing countries in which they operate, while remaining sensitive to prevailing religious, historical and cultural contexts' (Visser et al., 2007; Matten and Moon, 2008).

Corporate social responsibility in developing countries tends to be a response by corporations to the failures of governances; the case of Nigeria is no different (Jamali, 2007;Amao, 2008). In the corporate social responsibility research in Nigeria, the research in this field can be classified into three broad themes: corporate social responsibility by multinational companies, corporate social responsibility by indigenous companies and the role of government should play in ensuring that the right laws and regulations guiding the practice of corporate social responsibility in Nigeria should be enacted.

Corporate social responsibility of multinational companies in Nigeria emerged as a result of the conflict and crisis in the Niger Delta region, the operations of mining companies had devastated the region, polluting waters, and farmlands (Idemudia & Eweje, 2006; Eweje, 2007;Idemudia, 2007; Idemudia, 2008; Idemudia, 2014). Consequently, it is has made it impossible for people of the Niger Delta region to earn a decent living since the main source of their livelihood has been contaminated and destroyed. Two particular strands of research on corporate social responsibility and multinational companies in Nigeria has emerged – those who maintain that corporate social responsibility by multinational companies has significantly improved the welfare of the people in the region through the provision of social and communal services such as health care facilities, building schools, markets and road infrastructure. In some sense, they argue that multinational companies are providing basic infrastructure mainly because of negligence and failure of the government to provide these basic facilities (Ite, 2007).

However, there is the school of thought who argue that the opposite holds true, that oil has been more of a curse than a blessing and that the people in the Niger Delta region are worse off, that the gains and benefits the multinational companies make from crude oil extraction far outweigh any corporate social contribution they make to the host communities (Eweje, 2007; Idemudia, 2009; Idemudia, 2011). The host communities they argue have become impoverished and are not significantly better off than they were. In fact, they argue they are worse off, apart from the pollution from the oil fields; there is the violent conflict that has become the norm in the region. The resultant violence between communities, between the community and multinational companies, has led to the wanton loss of live, property and destruction of villages. Consequently, corporate social responsibility policies have not been able to reduce the incidents of violent conflicts between the oil companies and host communities in the Niger Delta Region.

A particular interesting narrative in the corporate social responsibility literature is the increasing participation of indigenous companies in corporate social responsibility. Indigenous participation in corporate social responsibility is different from the multinational oil companies whose participation is intended to reduce strife and conflict between the host communities and the oil companies. Indigenous participation in corporate social responsibility is more philanthropic in nature, as the indigenous companies are sincerely interested in making meaning contributions the host communities that provide the enabling environment and resources that allow them to operate their business activities. Amaeshi et al. (2006) examined corporate social responsibility practices by indigenous firms in Nigeria, the findings of the study reveals that indigenous business perception and practice of corporate social responsibility is mainly targeted at addressing the socio-economic developmental challenges facing Nigeria. In so doing, companies that practice corporate social responsibility in Nigeria tend to focus on issues such as education, poverty alleviation, provision of health care facilities, reducing infant mortality, providing social amenities, and development of infrastructure. This is entirely different from focus of corporate social responsibility in America and Europe where the issues of concern are entirely different, they are not targeted at improving infrastructure or alleviating poverty, rather they tend to address issues of fair trading, consumer protection, environmental concerns such as global warming, climate change and managing carbon emission.

Finally, the last strand of corporate social responsibility research in Nigeria focuses on the role of government in CSR practices. The research on the role of government in corporate social responsibility is borne out of the dissatisfaction with the way corporate social responsibility is current practice in Nigeria. While the multinational companies and indigenous companies have engaged in some levels of corporate social responsibility, there is evidence to suggest that there is some dissatisfaction with the way corporate social responsibility is practiced and that discontentment has led for calls for the government to get involved in regulating the way corporate social responsibility is practiced. Amao (2008) maintains that while corporate social responsibility by multinational corporations has become entrenched, this development should not and cannot replace the need for effective state regulation. Unfortunately, efforts to control the activities of multinational companies at international levels have been ineffective, and voluntary corporate social responsibility initiative has been unsuccessful. Consequently, there is the need for state laws to do more to contain the negative externalities of multinational activities. Idemudia (2011) argues that the criticism of corporate social responsibility practice in Nigeria has been that it has been driven by the priorities and concerns of western countries and as a result, it has been insensitive in meeting the needs of local priorities. To further entrench the role of government in corporate social responsibility, a legislative bill on corporate social responsibility has been put together, but the bill has not been successfully passed into legislation.

Missing Perspective on Corporate Governance in Nigeria and Opportunities for Future Research

The research on corporate governance in Nigeria is young and has a limited number of published research papers. Therefore, there are ample opportunities to address new issues as well as re-examine, challenge and further develop previous findings by examining the findings from a different theoretical perspective or applying different methodologies from what has been previously applied. A significant amount of the papers published in corporate governance in Nigeria have largely been descriptive and qualitative in nature. The papers have adopted the use of the following methodologies, case study, questionnaires, interviews and observations in executing the research. The research investigation on institutional influences of corporate governance in Nigeria has focused on a small group of people, usually industry experts in corporate governance. While the descriptive research has come as a welcome development, it is of significant import that researchers on corporate governance in Nigeria do not shy away from embracing theoretical perspectives or refrain from an in-depth analysis that contributes towards giving meaningful and valuable insights into various aspects of corporate governance in Nigeria.

Among the articles on corporate governance, there is only limited analysis on the role of the boards in corporate governance, the role of institutional investors in corporate governance, corporate governance failures, internal controls and risk management in corporate governance. Ehikioya (2007) and Uche et al. (2016) have to some extent have addressed the issue of the role of the board in corporate governance and institutional investors activism, but there is the need for improvement and further development of the research in that area in order to understand the issues and gain a deeper insight into these issues. Also, the research on the impact of executive remuneration on corporate performance in Nigeria is another direction the research can corporate governance can be can be directed towards; to see whether remunerations enhance or decrease the performance of publicly listed firms. Furthermore, while the research on corporate governance has given ample evidence that institutional influences have considerable influence on corporate governance, the research on governance needs also to examine how informal institutions, religious dispositions and value system shape and influence corporate governance practices Nigeria. The problem of corporate governance in Nigeria may not be limited to institutional deficiencies alone, there may be other subtle systemic issues that may lie beneath the surface that need to be examined.

Finally, one criticism within the corporate governance literature is the need for researchers in corporate governance to pick specific research interests and delve deeply into the area to develop that aspect of the research in corporate governance. For example, Adegbite (2012) has focused extensively on institutional weaknesses on corporate governance; Idemudia (2011) have researched extensively on corporate social responsibility. These are a few examples of the exception, the norm in corporate governance research is researchers not focusing on specific research interest and delving into the research area by consistently writing and publishing in that area with the intention of developing the research in that area.

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Internet Addiction: A Research Study of College Students in India

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Abstract

Internet was created to facilitate our lives. However, the dramatic increase in use the internet among students in last years has led to pathological use (Internet addiction). This study is a preliminary investigation of the extent of internet addiction in a management institute in India, where sampled were 300 students (first, second and third years' students). This study was conducted using an Internet Addictions Scale developed by Young (1998) to measure the level of internet addiction. The study used a survey methodology design. Respondents were classified into two categories, "younger" and "older." There was a significant difference between the two groups, the older group clearly showing higher internet usage. It is possible that older students were more addicted to the internet than younger students due to increased exposure to the internet. It is also possible that older students needed to spend more time because they were in senior years requiring the investment of more time on the internet. When differences between gender and internet usage were examined, there were statistically significant differences obtained between the students in terms of this variable. An ANOVA was also done looking at differences in the sample, for both males and females and for the overall sample with GPA as the dependent variable. It was surprising to note that there were no significant differences in internet usage and GPA for all 3 ANOVAS. In general, we found no evidence of severe internet addiction. The addiction was more in the range of moderate to mild addiction. However, it is possible that the reported scores were related to internet work in the campus and did not include the use of smartphones and the time spent on using social websites using smartphones. This study indicated that there is a high degree of correlation between age and internet addiction with older students being more addicted to the Internet than younger students. Also with regard to Internet usage, there were significant differences with regard to gender with men being more addicted than women. The study, however, found no differences between the students in terms of the study year.

Keywords: Internet Addiction, College Students, India.

1. Introduction

Internet addiction has become a reality. Due to the advancement of technology and the use of the internet as a tool for working, information seeking, education and socializing, it has become pervasive in the lives of many people. The addiction is itself pervasive and takes place in several ways for example by joining social networks, creating groups or joining existing groups of users, messaging, blogging, and the pervasive email systems (Anderson, 2001). These methods of communication never existed even a decade back, and today they have become dominate our lives and more importantly our time.

Despite the advantages of social networking and the extensive use of the internet these technological advances it has also created several problems of a psychological and social nature that tend to exacerbate and with the increasing passage of time become addictive and affect the personality of the individual. Researchers in fields as diverse as management, psychology, sociology, and anthropology are today studying these problems especially as it relates to Internet Addiction (Yung et al., 2015, Yen et al. 2008, Young, 1996).

Internet Addiction has created a new area of relevant research, and many researchers in the field of management are interested in understanding the phenomenon since it has a pervasive on factors as diverse as workforce productivity, student performance in school and college, the effect on student health (both physical and mental) and socially unacceptable behaviors. (Griffith 1995; 1996; 1998).

2. Literature review

Internet addiction is a result of extensive unlike a drug, and other addictions have been defined variously as a technological addiction created as a result of extensive human-machine interaction over an extended period of time. This prolonged interaction creates various psychopathological conditions that may interfere with normal functioning. It has been noticed that excessive use of the internet can over time affect psychological and mental health that manifests in numerous problems like loss of social skills, sleep disturbance patterns, and extreme obsession with websites, social networks and the internet in general. Various research studies were done in the past support these assertions (Ghassemzadeh, Shahraray, & Moradi, 2008; Liu & Potenza, 2007).

Several studies have indicated that the problems can range across a broad spectrum from less problematic to more problems related to the job and academic performance like not showing up for work or getting low grades to more severe addiction that results in depression and other mental illness like phobias interacting with others. (Shaffer, 2004; Kim & Haridakis, 2009). Other research also came up with similar findings that Internet addiction can have a negative impact on personal life and relationships and can affect the interactions with others negatively. Kraut et al. (1998)

Several researchers alike have found that extensive use of the internet can result in more depression and extensive stressful episodes apart from a feeling of separation. As revealed in other studies it can have a negative effect on a young person's lie both in personal and professional terms. (Morahan-Martin & Schumaker, 2003; Morgan & Cotton, 2004; Anderson, 2001).

Several studies indicate that IA can become a pathological state when an individual spends a lot of time on the internet to the neglect of other activities (Young 1996). Kendall (1998) describes internet addiction as "psychological dependence." Other researchers have tried to fine tune the concept of Internet Addiction which now encompasses behavior related to instant messaging (IM) as well.

Addiction to the internet also has been associated with lowered academic performance (Huang & Leung, 2009). Young people who make extensive use of the internet could become shy and alienated and develop other more serious social and psychological problems. Young (1998) has developed Internet Addiction Test (IAT) which has been used a reliable and valid measure of addictive use of the internet globally, and several studies have found that this scale is very appropriate for use globally

However, the concept of Internet Addiction has not been clarified in the research literature, and much research needs to be done at the conceptual level. For example, there are questions on definitional issues related to what constitutes "addiction." Also, the Internet can manifest itself in several different forms like chat rooms, social networking websites, instant messaging systems and email systems. This makes it difficult to define and determine as to what constitutes IA in each context.

Chak and Leung (2014) found extensive addiction among younger people in terms of ICQ, chat rooms, newsgroups, social network sites and gaming. Their results pertained to the Net-generation. The study found that full-time students were more addicted to the internet compared to part-timers because of flexible times and unlimited access.

3. IA and the College population in India

Although there are no large-scale studies related to IA at a global level, statistics indicate the widespread prevalence of internet usage including the use of social websites and chatting. Information related to the Internet World Statistics related to internet usage in the world for the fourth quarter of 2018(www.internetworldstats.com/stats.htm) indicates that there are about 4.1 billion internet users in the world and that the increase in internet usage between 2000 and 2018 has been about 1052 percent with the largest increase being in Asian countries.

Studies also indicate that the youth population is most vulnerable to internet addiction (Kuss et al. 2013). Although there are no specific statistics related to internet addiction among Indian youth, there is a reason to believe based on some research evidence of an exponential increase in the numbers of internet users. (Beard, 2005; Binder, 2013; Boyd, 2014; Young, 1999; ;).

In the context of India, there have been several studies into this phenomenon.
Sharma A, Sahu R, Kasar PK, Sharma R. (2014) found that internet addiction was significant among professional courses students. The student population was found to have moderate to severe internet addiction. Other studies (Grover S, Chakraborty, K, Basu D. 2010) investigated internet use pattern among professionals and found similar results.

Some other studies (Krishnamurthy S, Chetlapalli SK. 2015). Indicate the prevalence and risk factors as they relate to internet addiction and suggest ways to ameliorate the situation.

Sakthivel Arthanari1, Najam Khalique2, Mohammad Athar Ansari3, Nafis Faizi4 (2017) conducted a study of internet addiction among Indian adolescents and found that there was a high incidence of addiction (35.6 percent) among internet users.

In India the entire country has been networked and Indians even in remote areas can access the internet owing to the wide availability of cell phones. People widely use social networking, instant messaging, video streaming and emailing and their use is only increasing. However, there is the potential for this to result in internet addictions emerging which need to be addressed early.

In India, there is a lack of information related to internet addiction as the phenomenon is quite recent and there are very few studies that address this issue among youth populations. Since there is a growing youth population India, this issue becomes even more important. Overall there is a need to have a better understanding of the nature of this problem so that preventative measures can be taken at the appropriate level (Masters 2015).

4. Methodology

Despite the fact that that internet assessment instruments have been increasing the researchers have used different criteria in ascertaining the psychometric properties of the scales used. This is another measurement issue. This study was conducted using an Internet Addictions Scale developed by Young (1998) to measure the level of internet addiction. The study used a survey methodology design. Several instruments have been used in previous studies related to Internet Addiction in India including the Bergen Facebook Addiction Scale (Andreassen et al.2012) and Online Video Gaming Instrument (Van Rooij et al., 2010). These show good psychometric properties.

In this study, the Internet Addiction Test, (IAT) developed by Young (1998) was used. It is a 20 item self-reported Likert scale and the score ranges from 0 to 100. The six factors measured by the scale include Salience, Excess Use of the Internet, Neglecting Work, Anticipation, Lack of Self Control. The reliability measure using Cronbach's Alpha ranged between .54 and .82, and the scale was also found to have good validity. High reliability was also found in studies conducted in India (Krishnamurthy S, Chetlapalli SK, 2013)

5. Sample

This research study sampled 300 students, from a management institute in India. The students were first, second and third-year students in management and were representative of the modern educated population who made extensive use of the internet in their daily lives. There were 144 females and 156 males in the sample. Other demographic data such as class, age, and gender were also collected. GPA data was also collected as a dependent variable to assess the relationship between internet addiction and GPA.

6. Results

The data from all the surveys were analyzed by using the SPSS package, and the results are shown below.

Differences between categories of Age:

Although some research has suggested there could be differences in the relationship between internet usage and age, there were statistically significant differences obtained between the students in terms of this variable. The means and standard deviations are displayed in Table 1. Respondents were classified into two categories, "younger" and "older." Table 2 shows the ANOVA results. There was a significant difference between the two groups, the older group clearly showing higher internet usage. It is possible that older students were more addicted to the internet than younger students due to increased exposure to the internet. It is also possible that older students needed to spend more time because they were in senior years requiring the investment of more time on the internet.

Table 1. Descriptive statistics for internet usage by Age level

Age category	*Mean*	*SD*	*N*
Older	*57.56*	*17.80*	*141*
Younger	*47.23*	*15.14*	*159*

Table 2. ANOVA – Internet Usage and Age

	Sum of Squares	*df*	*variance*	*F*	*Sig.*
Between Groups	*7974.36*	*1*	*7974.36*	*26.43*	*.000*
Within Groups	*89910.6*	*298*	*301.71*		

When differences between gender and internet usage were examined, there were statistically significant differences obtained between the students in terms of this variable. The means and standard deviations are displayed in Table 3. Table 4 shows the ANOVA results. There was a significant difference between the two groups, males showing higher internet usage.

Table 3 - Descriptive statistics for internet usage by Gender

Gender	Mean	SD	N
Male	52.56	17.80	156
Female	46.23	15.14	144

Table 4 – ANOVA – Internet Usage and Gender

	Sum of Squares	df	variance	F	Sig.
Between Groups	3000.35	2	3000.35	10.91	.0011
Within Groups	81888.60	298	274.79		
Total	65474.07	298			

These statistically significant differences between males and females with males showing a higher addiction compared to females is consistent with earlier studies. Similar results were found by other researchers. (Yadav P, Banwari G, Parmar C, Maniar R. 2013; Goel D, Subramanyam A, Kamath R, 2013).

Differences Between categories of GPA

An ANOVA was also done looking at differences in the sample, for both males and females and for the overall sample with GPA as the dependent variable. It was surprising to note that there were no significant differences in internet usage and GPA for all 3 ANOVAS.

Level of Internet usage – One variable we looked at was the level of usage as described in the criteria by Young (1998), the author of the survey on internet addiction.
When we looked at the level of usage, it appeared that the mean score was 54.
Using a criterion of 0-49 as not being addicted it was appearing that the respondents in this study were not severely addicted but were approaching a high level of usage bordering addiction. -Approximately 33 percent of the sample had an average score of 54 suggesting borderline addiction as the scale values range to 100.

7. Conclusion

In this study, we found no evidence of severe internet addiction. The addiction was more in the range of moderate to mild addiction. However, it is possible that the reported scores were related to internet work in the campus and did not include the use of smartphones and the time spent on using social websites using smartphones. If this were included, it is possible that the level of internet addiction could be much higher. This study indicated that there is a high degree of correlation between age and internet addiction with older students being more addicted to the Internet than younger students. This may be because they have been exposed to the internet in its various forms including chatting, emailing and messaging and the use of social media. Also with regard to Internet usage, there were significant differences with regard to gender with men being more addicted than women. This is in accordance with precious studies that also indicate similar findings. The reason for this is not very clear and needs to be investigated further. The study, however, found no differences between the students in terms of the study year.

There is increasing evidence today from research worldwide that internet addiction is an ongoing problem and it is rapidly increasing. (Huang, H.Y. & Leung, L. 2009; Kuss, D. J., Griffiths, M. D., & Binder, J. F. 2013) Just like compulsive gambling, overeating and taking alcohol or drugs some individuals who continuously and excessively use the internet have become addicted to this in much the same way as other addictions. Use of the internet particularly in recent years have dramatically seen an increase in college and many students have become overly dependent on this medium.

This study aimed at understanding internet addiction among university students in India. More studies need to be done, and qualitative methods and other methodologies need to uses with larger samples and more diverse populations and not just students. This is a problem that extends beyond just youth. The psychological and social effects also need to be examined in more depth, and additional questionnaires need to be used to measure several outcomes of internet addiction. Studies could isolate those users who have a severe internet addiction and do longitudinal analysis and follow on them to examine how this affects cognitive, behavioral and social outcome in their lives. We could also sample parents, teachers, and employers and relate performance to their level of addiction.
In terms of implications especially in colleges and university settings, there needs to be some proactive interventions and awareness and recognition that both students and employees, could potentially become addicted to a technology that is being provided directly by the college or institution (Beard, K. W. 2005). Future studies can also examine internet addiction by types like videos, electronic games, chat rooms, and social media that can be researched further. Future studies could also focus on the relationship between IA and anxiety, depression and stress.

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Non-Performing Loans and Banks' Performance in Nigeria: Evidence From First Bank Nigeria Plc

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Abstract

In recent past, many Nigerian banks became weak and highly unprofitable due to high non-performing loans portfolio accumulated by the banks. It is widely believed that the major reason for the huge non-performing loan portfolio can be attributed to insider dealing due to excessive and collaterised loans to bank directors that eventually became bad and irrecoverable. The study seeks to examine the effects of Non-performing loans on the performance of the banking sector in Nigeria. The exploratory research design was adopted in the study. The result of the analysis showed that high level of non-performing loans reduces the performance of banks in the long run in Nigeria. The study, therefore, recommends amongst other things that credit reporting and supervising authorities should be enhanced to stem the ugly tide of the high level of non-performing loans in the Nigerian banking sector.

Keywords: Non-Performing Loan, Banks, Bad Debts.
JEL Classification: G21, H81, N27

1.1 Background of the Study

As bad debts triggered a global financial and banking crisis, Nigerian banks also endured her own home-grown troubles. Bad debts and overdependence on stock market returns had pushed almost half of Nigerian banking sector's outstanding loans into default. Poor oversight resulting from weak institutional capacity on the part of regulators resulted in the banking crisis of 2004. Hence the then CBN Governor Professor Charles Soludo mandated an increase in bank's minimum capital base from N2bn to N25bn, triggering a wave of foreign investments in Nigerian banks, bank mergers and provided share offerings on the Nigerian capital market. This reduced the number of banks from 89 in 2004 to 25 well-capitalized banks in 2005; including potential 'regional' or 'continental powers.'

At the end of the CBN induced consolidation in 2005, Nigerian banks further voluntarily increase their capital bases beyond the stipulated N25 Billion to attract more foreign investments and properly handle major transactions within and outside the country. Hence, between 2006 and 2007 not less than $12Bn (N1.9Trillion) had been raised in equity through the Nigerian Stock Exchange (NSE), raised **not** solely by investor demand but due to some financial interests from security underwriters and brokers skilled at share price manipulation. Banks typically lent to securities firms which use the money to buy equities at the Exchange. A JP Morgan Chase report alleging that Nigerian bank stocks were overpriced coupled with the global meltdown which was already sending ripples to Nigeria from other parts of the globe created panic and accelerated foreign investors exit from the market. Consequently, and with so many shares available and so many people selling, the long grind into a deep bear market began affecting most bank loans which had been raised to finance share purchase.

Series of reforms introduced by Sanusi further restored confidence in the banking sector. Following the audit exercise conducted by CBN's examiners, it was discovered that five of the banks had accumulated margin loans of N500 billion, among other loans, which had gone bad and eroded their shareholders' funds. Hence, it was imperative to move in to send a strong signal to avert future recklessness on the part of bank executives. Due to the need to sanitize the banking sector, an Asset Management Company was created to absorb the bad loans and allow for buyers of the banks to recapitalize them. To ensure efficiency of every part of the economy functions, economic reforms were undertaken, hence achieving price stability, full employment, high economic growth and internal and external balances. Thus banking reforms in Nigeria were undertaken to sanitize the sector, restore confidence and reposition the Nigerian economy to achieve her macroeconomic goals.

1.2 Statement of Problem and Research Objective

The CBN's recapitalization decree was expected to bring about financial stability and engender economic development. Instead, signs of looming distress were already hitting the Banks barely three years after consolidation. A holistic investigation into what went wrong in Nigeria leading up to the banking crisis in 2008 found eight interrelated factors responsible, they are: Macroeconomic Instability caused by large and sudden cash inflows, Non-performing loans and major failures in corporate governance at banks, Lack of investor and consumer sophistication, Inadequate disclosure and transparency about financial position of banks, Critical gaps in the regulatory framework and regulations, Uneven supervision and enforcement, Unstructured governance and management processes at CBN and Weaknesses in the business environment.

The crucial question then is that if banks have procedures for managing loans and measuring lending risks, why do bank loans become non-performing and bad ultimately? What is the quality of lending decisions in Nigerian banks? Do Nigerian banks Executives possess adequate knowledge and skills to manage depositors' funds? How can the incidents of non-performing loans and bad debts be minimized or eliminated in Nigeria? Do banks actually adopt standard credit analysis techniques that focus on certain variables related to the borrower, its industry (in the case of corporate customers), and the prevailing general economic conditions? Under the assumption that risks correlates positively with bad debts, it appears that the real problem of Non-performing loans lies in the approach to risk identification, poor analysis, unforeseen risk elements, environmental vicissitudes, economic factors as well as the unpredicted nature of the borrowers and the extent to which they contribute to the problem of bad bank debts.

The objectives of this study are to assess the implication of Non-performing loans on the performance of the banking sector and the entire financial sector at large. And to assess the state of lending by Nigeria banks after the first banking consolidation and the impact of CBN reforms post-consolidation. Looking at the main purpose of this research, we hereby pose the following Hypothesis:

H_0: Non-performing loans in banks have no effect on bank's profitability.

2.0 LITERATURE REVIEW

2.1 Concept of Bank Loan

In its general term, a loan is a written or oral agreement for a temporary transfer of a property (usually cash) from its owner (the lender) to a borrower who promises to return it according to the terms of the agreement, usually with interest for its use. However, in the ambiance of banking, a loan is regarded as money which is borrowed from a lending institution or a government agency and repaid at a future date. According to Onyiriuba (2015), a loan is m*oney that a bank lets a borrower to have the use of as a credit facility on condition that they pay it back with interest to the bank at an agreed future date.* Effective risk management is critical to the success of any bank. Credit risks must be anticipated, measured and planned for at any point in the lending

cycle. The main methods for solving the risk problem are the prevention of the loss, assumption of the risk and insurance.
Insurance is generally considered as anti-dote for business-related risks but according to Nwankwo (2011), not all risks are transferable by means of insurance as most credit risks would not satisfy the characteristics of insurable risks.

Commercial banks are the most relevant financial institution which encourages and mobilize savings and also channel such savings into productive investment due to their high network of offices, strength and deposit base. Commercial banks accept deposits from customers and lend to borrowers for various purposes; this role is paramount and outweighs every other one. They serve as intermediaries between borrower and savers. In the process of lending, new money is created by banks through the deposit lending multiplier effect, allowing commercial banks influence the level of the money stock, the allocation of fund, the direction and use of resources in the economy.

2.1 The Cannons of Lending

Factors considered by banks in assessing a loan request are the ingredients that determine the lending officers' faith in the debtor's ability and willingness to pay the obligations in accordance with the terms of loan agreement.
They are classified as the four Cs; **Character, Capacity to borrow, Capital, Collateral**

- **a) Character:** The borrower character is the most important of all factors since the willingness and determination to redeem the credit obligation are innately induced by the character.
- **b) Capacity:** This refers to the legal capacity to borrow.
- **c) Capital:** Credit is not usually granted to a business unless capital, which is one of the measures of financial strength, management prudence, and resourcefulness, has been supplied to support the facility.

2.1.3 Negative Effects of Non-Performing Loans on Banks

Before proffering solutions to some of the highlighted problems, it would be apt to mention some of the negative effects of non-performing loans on banks namely:

1) Loss of public confidence in the Banks
2) Loss of profit – Adequate provisioning must be made on non-performing loans. This results in a reduction in profit which would otherwise have been earned by the shareholders of the Banks;
    a) Substandard where the principal and interest remain unpaid for more than 90 days but less than 180 days: 10% of the outstanding balance
    b) Doubtful where the principal and interest remain unpaid for at least 180 days but less than 360 days: 50% of the outstanding balance
    c) Lost where facilities on which unpaid principal and interest remain outstanding for 360 days or more and are not secured by legal title: 100% of the outstanding balance
    d) In addition to the above, every licensed bank is required to make a general provision of at least 1% of risk assets not specifically provided for.
3) Inability to meet withdrawal demand obligations
4) Loss of banking license

2.1.4 Learning Points for Banks in Nigeria

The success or failure lessons bordered on the efficacy of credit management in the respective banks. To further buttress the effect of non-performing loans we highlight recent banks in Nigeria which failed primarily due to non-performing loans, poor corporate governance and outright abuse of the credit process. These banks have been bought over, absorbed or nationalized by the Federal Government of Nigeria.

Table 1: Table of Acquired/Absorbed/Nationalized Banks due to Non-Performing Loans

S/N	Old Bank Name	Total NPL (N'Bn)	Acquiring Entity	Status	Current Bank Entity
1	Intercontinental Bank	210.9	Access Bank Plc	Absorption	Access Bank
2	Oceanic Bank Plc	278.2	Ecobank PLC	Absorption	Ecobank
3	Equatorial Trust Bank	46.15	Sterling Bank Plc	Merger	Sterling Bank Plc
4	FINBANK	42.45	FCMB	Absorption	FCMB
5	MainStreet Bank	141.86	Skye Bank	Absorption	Skye Bank
6	Bank PHB	170.07	FGN	Nationalized	Keystone Bank
7	Enterprise Bank	95.59	FGN	Nationalized	Heritage Bank
Source: CBN NPL Circular (October 2009)					

2.2 Empirical Review

2.2.1 Causes of Non-Performing Loans in Nigeria

According to CBN (2009), the factors that led to the crisis (beside the ripple effects of the global financial meltdown) include: Macroeconomic instability due to sudden high capital losses; Major failures in corporate governance at banks; Lack of investor and consumer sophistication; Inadequate disclosure and transparency about financial position of banks; Critical gaps in Prudential Guidelines and Uneven supervision and enforcement in addressing the above listed challenges.

The hidden or sometimes overlooked factors that create risk management difficulties for lending officers include, but not limited to: Inability to monitor loan utilization and the performance achieved by the borrower, Lack of credit analysis capabilities in several lending areas into which the bank ventures, Use of distorted financial statements and business information as a credit analysis base, Relying on uncertain operational cash flows, projected on some assumptions or from historical data, for loan repayment, Failure to observe significant credit approval and disbursement rules by loan officers, including top management staff with credit approval authority and board members (especially those with majority equity investment in the bank).

1) Unanticipated adverse changes in the original terms and conditions of a credit facility.
2) Insider abuse and dealings perpetrated by bank officials through fraudulent loans and transactions.

In managing the lending portfolio to attain the desired results, the bank should give adequate attention to the above factors. These considerations might not be applicable in all lending situations, or they could be of less consequence in some loan proposals. But it is important that whenever risk is indicated on account of the poor analysis of any or all of these factors, the lending decision should be suspended, declined, or made with satisfactory mitigating conditions. In the following discussions, we have tried to analyze the incidences and possible effects of these contributory to the crises of bad debts in banks. Other Causes of Non-Performing Loans in Nigeria are essential: Poor Loan Monitoring, Lack of credit analysis capability, Distorted Financial Statements and Unanticipated Adverse Conditions.

3.0 RESEARCH METHODOLOGY

3.1 Research Design and Instrument.

The research design employed was the exploratory variant of descriptive design, which is a one – time only observation method involving a survey of the research population. A well-structured questionnaire was prepared to serve both as research schedule and research instrument. This was administered to respondents within the identified working population.

3.2 Validity and Reliability of Test Instruments

A pre-test validity of the instrument used here was taken by administering it on 20 sample elements of the population. The result showed that the instrument had the ability to measure the intended variables for content, criterion and concept validity requirements of a good measuring instrument. The pre-test administration of the instrument was repeated four times, and the result proved its consistency between independent measurements of the same phenomenon.

3.3 Population and Sampling Techniques

Samples are drawn from target population which according to Lucey (2011) is the aggregate of all units in a target universe. In this research the population was drawn from the Nigerian banking community namely, the Management, the staff of First Bank Nigeria Plc and their customers, as well as other Banks in Nigeria and their staff and customers. The population was divided first based on 'Name of Bank' then by 'Location.' Samples were drawn at random from these populations. These parameters were believed to be able to sufficiently capture the entire essence of the exercise as they relate to individual Banks, their respective employees, and customers.

The strategic sampling Technique was used in the survey. Strategic random sampling was preferred since according to Osuagwu (2014) this technique estimates a population parameter with better precision. As stated above, the population was divided into 'Name of Bank' and five 'socio-economic' branches namely Marina, Ladipo, Alaba -suru, Burma-road, and Ikeja all in the city of Lagos. The personnel for the test included Directors and other top Management personnel First Bank, the Head, Credit Risk Management, shareholders, Relationship Managers, Loan beneficiaries and a cross-section of high volume customers within the years under review.

The primary data were collected from a well-structured questionnaire designed by the researcher to capture in detail the relevant data for analysis. Details of the questionnaire in question are shown in the appendix section of this research work. The questionnaire was administered through mail to the various locations. The return rate was quite encouraging as 200 out of the total 220 questionnaires were completed and returned.

3.4 Methods of Data Analysis

The regression method was used to test the correlation between NPL and bank's profitability for the years under review. The responses received were presented as a percentage (%) of the total number of respondents to each of the research questions.

In analyzing the data collected using the questionnaire; the researcher used the simple percentage method of data analysis. Chi-square was used as the statistical tool for testing more than two populations using the data base of two independent random samples.

The test statistic thus becomes;

$$X^2 = \frac{\sum (O_i - e_i)^2}{e_i}$$

where O_i=*observed frequency*, e_i=*expected frequency*

Decision rule:

Reject Null Hypothesis if the calculated value of (X^2) is greater than the critical value and accept Null Hypothesis if the calculated value of (X^2) is less than the critical value.

The Df = (r - 1) (c - 1)

Where Df =Degree of freedom, r = Number of rows, c = Number of columns

Hypothesis 1

H_0: That Non-performing loans in banks have no effect on bank's profitability.

4.0 PRESENTATION AND ANALYSIS OF DATA

In order to adequately capture the effect of non-performing loans on the growth of banks, we shall use two statistical techniques to capture the essence of the subject matter holistically. The following methods shall be employed namely:

1) Correlation Analysis Method
2) Chi Square Statistical Technique

While the correlation analysis technique was used to test the existence or otherwise of the relationship between non-performing loans and bank's profitability, the chi square technique was utilized in the test of hypothesis as to whether non-performing loans affected bank's growth. Analytical data for the test of correlation was obtained from past financial records of First Bank while the chi square was utilized on the data collected from a well-structured questionnaire which was designed by the author for this paper. 220 questionnaires were given out, but 200 (91%) were received and deemed for the analysis.

4.1 Distribution of Questionnaire

A total of 220 questionnaires were distributed to bank workers and customers in five branches where the commercial hub is very high out of which 200 were returned representing 91% return rate.

Table 2: Distribution of Questionnaires

Area/ Branches	Distributed	Returned	% Returned	% Return to Total Questionnaires
MARINA	122	117	95.9	53.18
LADIPO	58	51	87.93	23.18
ALABA-SURU	18	13	72.22	5.91
BURMA-ROAD	12	10	83.33	4.55
IKEJA	10	9	90	4.09
TOTAL	**220**	**200**		**90.91**

4.2 Analysis of Responses from Questionnaire

From the above, it can be inferred that high non-performing loans in banks which reflect poor risk management in the banks could lead to a reduction in profits in such banks, loss of jobs and collapse of the banking system in Nigeria as it threatens the Banks' corporate existence. It is also safe to infer that CBN's reforms saved the Nigerian banking sector from collapse, reduced incidents of non-performing loans in Banks and assisted in restoring public confidence in Nigerian Banks as strong banking systems are prerequisite for a strong financial industry. Furthermore, incidents of non-performing loans in Banks could increase where loan monitoring activities are weak, hence the need for adequate and sufficient collateral against loans advanced in case of default.

4.3 Questionnaire Analysis

Section A: This section covered the personal data of the respondents

Table 3: By Sex

Gender	Responses	%
Male	122	61
Female	78	39
Total	**200**	**100**

Table 4: By Age

Age Range	Responses	(%)
Below 30 years	70	35
31-40 years	100	50
41-50 years	30	15
Total	**200**	**100**

Table 5: By Marital Status

Status	Responses	%
Single	128	64
Married	72	36
Total	**200**	**100**

Table 6: By Qualification

Qualification	Responses	%
OND	30	15
B.SC/HND	110	55
M.SC/MBA	34	17
OTHERS	26	13
Total	**200**	**100**

Table 7: By Length of Service

Tenure Range	Responses	%
Below 5 Years	30	15
5-10 years	130	65
10 years and above	40	20
Total	**200**	**100**

Section B: In this section, the responses gotten from the questionnaires returned were tabulated and analyzed. It should be noted that the responses were fair enough, thanks to the Management, the staff of First Bank Plc. and the sample public. In this section, the responses gotten from the questionnaires returned were tabulated and analyzed.

4.4 Test of Hypotheses

According to Ojikutu (2012), a test of Hypothesis is a statistical tool that is used to test and determine whether there is any significant difference between the observed and expected theoretical frequency obtained from a distribution. In this study, the test of the hypothesis was carried out using the chi square (x^2) statistical technique and the Correlation analysis method;

For Correlation analysis method:

$$\frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

Where:

$\sum$= Summation

For Chi square(x^2) statistical technique:

$$X^2 = \frac{\sum(o-e)^2}{e}$$

Where:

X^2=chi Square; O=Observed Frequency; Df=Degree of Freedom= (R – 1) (C – 1);

H_o=Null Hypothesis; H_1=Alternative Hypothesis; R=Rows; C=Columns

Decision Rule: It follows that if the computed value of x^2 is greater than the theoretical value (tabulated value), at 5% level of significance and degree of freedom, the null hypothesis **HO,** is rejected and H1 accepted.

Hypothesis 1

HO_1: That there is no effect of non-performing loans on Bank's profitability

In this section, we shall analyze the relationship between non-performing loans and profitability in First Bank Nigeria Plc using the primary data gotten. We shall use the data from the Institutions' financial report for a period of five years to compute the correlation between the two variables.

Non-performing loans and profitability in First Bank Nigeria Plc					
Year	**2012 (N'Bn)**	**2013 (N'Bn)**	**2014 (N'Bn)**	**2015 (N'Bn)**	**2016 (N'Bn)**
Profit before Tax (y)	19.831	22.097	38.02	46.11	33.537
Non-perf. Loans (x)	6.176	7.003	8.919	10.944	8.235

To establish the degree of relationship, we shall use the regression analysis statistical technique. The formula for the product moment is denoted by **r** and is given as follows:

$$\frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

We shall now compute the correlation between non-performing loans and profit in First Bank Plc using the data as contained in the financial statements for the years under review as collated and presented in the table below;

Relationship between Profit & NPL in First Bank					
Year	**X (N'Bn)**	**Y (N'Bn)**	**XY (N'Bn)**	**X^2 (N'Bn)**	**Y^2 (N'Bn)**
2012	19.831	6.176	122.4763	393.27	38.143
2013	22.097	7.003	154.7453	488.28	49.042
2014	38.02	8.919	339.1004	1,445.52	79.5486
2015	46.11	10.944	504.6278	2,126.13	119.7711
2016	33.537	8.235	276.1772	1,124 .73	67.8152
Total	**159.595**	**41.277**	**1,397.13**	**5,577.93**	**354.3199**
Culled from FBN Financial statements and Designed by author, Okoro, N.J. (2017)					
KEY: X = NPL (N 'Billion); Y= PBT (N' Billion)					

From the above table the following can be drawn

N = Number of years = 5; $\sum$XY = 1,397.1270; ($\sum$X) = 159.5950

($\sum$Y) = 41.2770; X^2 = 5,577.9288; Y^2 = 354.3199

By substituting from the formula above we have

$$\frac{5(1397.1270) - (159.5950)(41.2770)}{\sqrt{[5\sum 5{,}577.9288 - 25{,}470.5640][5\sum 354.3199 - 1703.791]}}$$

$$\frac{6985.1270 - 6587.603}{\sqrt{[2419.0760][67.8090]}}$$

$$\frac{398.0322}{405.00}$$

$$= 0.983$$

Interpretation

The correlation co-efficient of 0.983 shows that there is 98.3% correlation between non-performing loans and profitability in First Nigeria Plc. This indicates a very strong relationship.

Using primary data to test hypothesis 1 question 1 was used

Recall, where question 1 says, Non-performing loans in Banks could lead to a reduction in profit

Response variables	Frequency	Percentage %
Strongly agree	5	2.5
Agree	10	5
Undecided	5	2.5
Disagree	80	40
Strongly Disagree	100	50
Total	**200**	**100**

The resultant computations based on the observed variables above are shown below:

Hypothesis 1 Analysis Table					
	Observed (O)	Expected €	Residual (O-E)	$(O-E)^2$	$X_2=\{(O-E)^2\}/E$
S/ agree	5	40	-35	1225	30.625
Agree	10	40	-30	900	22.5
Undecided	5	40	-35	1225	30.625
Disagree	80	40	40	1600	40
S/Disagree	100	40	60	3600	90
Total	**200**	**40**			**213.75**

DR = Degree of Freedom = (R-1)(C-1) = (5-1)(2-1)
= (4)(1) = 4

Theoretical value for the degree of freedom of 4 using 95% level of significance is 9.488.

Interpretation

Decision Rule: Since the computed value (213.75) is greater than the value derived from the statistical table the null hypothesis is rejected, and the alternative hypothesis accepted.

Interpretation: Based on the above analysis, we can conclude that there is a significant effect of non-performing loans on profitability and general performance of banks.

HO_2: That huge portfolio of non-performing loans in banks could not lead to banking distress and failure.

Question 2; Huge Non-performing loans in Banks could lead to banking distress and failures.

To test this hypothesis 2 question 2 was used		
Response variables	**Frequency**	**Percentage %**
Strongly agree	10	5
Agree	10	5
Undecided	10	5
Disagree	70	35
Strongly Disagree	100	50
Total	**200**	**100**

The resultant computations based on the observed variables above are shown below:

Hypothesis 2 Analysis Table					
	Observed (O)	**Expected E**	**Residual (O-E)**	**$(O-E)^2$**	**$X_2=\{(O-E)^2\}/E$**
SA	10	40	-30	900	22.5
A	10	40	-30	900	22.5
U	10	40	-30	900	22.5
D	70	40	30	900	22.5
SD	100	40	60	3600	90
Total	**200**				**180**

DR = Degree of Freedom = (R-1)(C-1) = (5-1) (2-1)
= (4)(1) = 4

Theoretical value for the degree of freedom of 4 using 95% level of significance is 9.488.

Interpretation

Since the theoretical value (9.488) is less than the calculated (chi-square) value (180.0), the null hypothesis is rejected; hence it is true that huge portfolio of non-performing loans in banks could lead to banking distress and failure.

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

From the questionnaire items used in testing Hypothesis 1, it is worthy to note that the majority (92%) of those who strongly agreed to the proposition that non-performing loans had significant effects on bank's profitability were aged between 30 and 48 years representing those who were in their active working years. They showed a clear understanding of the link between loan provisioning and profit. Since it has been established that non-performing loans have a tremendous negative impact on bank's profitability and general performance, it would only be prudent to take urgent steps to prevent and minimize to barest minimum the incidents of non-performing loans in banks so as to enhance shareholder value.

Hence, it is clear that the effects of non-performing loans on Banks cannot be underestimated and could pose a fundamental danger to the very existence of the Banks as corporate business entities. Although there may be other causes of bank losses and failures, the bank failure phenomenon in Nigeria in the 1990s, and beyond was caused mainly by huge nonperforming loans portfolio created by bank promoters and management which had a negative effect on the profitability of the banks. To clean up the banking system and return banks to the paths of sound management and profitability, the CBN had to replace some bad management teams with Interim Management Boards (IMBs) among other regulatory actions.

Based on the outcome of the findings in this research work, the following are hereby recommended for Nigerian banks as well as the regulatory authorities:

1. Good corporate governance should be continually entrenched in Banks in order to protect stakeholders' investments.
2. Banks should set up a Monitoring Unit to watch loan performances. They should meet regularly to review the status of non-performing risk assets as well as make conscious towards their recovery
3. Banks should collect and perfect all collaterals which are used for obtaining loans. The collateral should be more than the value of loan approved, in case of default

4. The Bank should, after restructuring any loan on mutually agreed new terms and conditions between it and the customer, ensure that the parties fulfill the agreements. There should be more and effective monitoring of the customer's business, transactions, and social activities so as to detect and, if possible, prevent any avoidable abuses that can result in another default on the loan.
5. The customer should be encouraged to repay his loans instead of restructuring each time the loan is due
6. Good customer relationship should be established between the bank and the customer to ensure that the repayments are received as at when due.

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APPENDIX 1
Afe Babalola University, Ado Ekiti, Ekiti State
Department of Banking and Finance, College of Social and Management Science

QUESTIONNAIRE ON THE EFFECT OF NON-PERFORMING LOANS ON THE GROWTH OF BANKS IN NIGERIA

Dear Respondent,
This questionnaire was designed to elicit your response to questions on the effect of non-performing loans on Banks Growth. Kindly tick the appropriate box for each question
NAME OF ORGANIZATION: ……………………………………………………………

BRANCH: Marina Ladipo Alaba-Suru Burma-Road Ikeja
QUALIFICATION: SSCE BSc. MSc. PhD
SEX: Male Female
LENGTH OF SERVICE: 0-5yrs 6-10yrs >10 yrs
AGE: <30yrs 30-40yrs 41-50yrs 51-60yrs >60yrs

KEY:

5	4	3	2	1
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Always	Often	Sometimes	Seldom	Never

S/N	**QUESTIONS\SCORE**	**5**	**4**	**3**	**2**	**1**
1	Non-performing loans in Banks could lead to reduction in profit					
2	Non-performing loans in Banks could lead to banking distress and failure					
3	High rates of non-performing loans in Banks could lead to collapse of the banking system in Nigeria					
4	Non-performing loans in Banks could threaten the Banks' corporate existence					
5	CBN's reforms under Sanusi's governorship saved the Nigerian banking sector from collapse					
6	Sanusi's reforms have assisted in restoring public confidence in Nigerian Banks					
7	A strong banking system is prerequisite for a strong financial industry					
8	Recent CBN's reforms under Sanusi as Governor have assisted in reducing incidents of non-performing loans in Banks					
9	Banks with long history of huge non-performing loans may not survive for long before they fold up					
10	Non-performing loans in Banks could be a sign of poor risk management in the banks					

11	Incidents of non-performing loans in Banks could increase where loan monitoring activities are weak					
12	How often do you think borrowers should repay back the loans they took from banks?					
13	Banks should consider the integrity of the borrower before loans are granted					
14	Banks should ensure to collect adequate and sufficient collateral against loans advanced in case of default					
15	Failure to repay bank loans may arise from outright unwillingness to repay the loan or it could arise from circumstances beyond the borrower's control					

APPENDIX 11

Q1: Non-performing loans in Banks could lead to reduction in profit		
Response variables	**Frequency**	**Percentage %**
Strongly agree	100	50
Agree	80	40
Undecided	5	2.5
Disagree	10	5
Strongly Disagree	5	2.5
Total	**200**	**100**

Q2: Huge Non-performing loans in Banks could lead to banking distress and failures		
Response variables	**Frequency**	**Percentage %**
Strongly agree	10	5
Agree	10	5
Undecided	10	5
Disagree	70	35
Strongly Disagree	100	50
Total	**200**	**100**

Q3: High rates of NPL in Banks could lead to collapse of the banking system in Nigeria		
Response variables	**Frequency**	**Percentage %**
Strongly agree	90	45
Agree	80	40
Undecided	5	2.5
Disagree	15	7.5
Strongly Disagree	10	5
Total	**200**	**100**

Q4: NPL in Banks could threaten the Banks' corporate existence		
Response variables	**Frequency**	**Percentage %**
Strongly agree	110	55
Agree	70	35
Undecided	10	5
Disagree	5	2.5
Strongly Disagree	5	2.5
Total	**200**	**100**

Q5: CBN's reforms saved the Nigerian banking sector from collapse		
Response variables	**Frequency**	**Percentage %**
Strongly agree	90	45
Agree	80	40
Undecided	15	7.5
Disagree	5	2.5
Strongly Disagree	10	5
Total	**200**	**100**

Q6: Sanusi's reforms have assisted in restoring public confidence in Nigerian Banks		
Response variables	**Frequency**	**Percentage %**
Strongly agree	112	56
Agree	76	38
Undecided	4	2
Disagree	5	2.5
Strongly Disagree	3	1.5
Total	**200**	**100**

Q7: A strong banking system is prerequisite for a strong financial industry		
Response variables	**Frequency**	**Percentage %**
Strongly agree	60	30
Agree	70	35
Undecided	5	2.5
Disagree	35	17.5
Strongly Disagree	30	15
Total	**200**	**100**

Q8: Recent CBN's reforms have assisted in reducing incidents of NPL in Banks		
Response variables	**Frequency**	**Percentage %**
Strongly agree	120	60
Agree	60	30
Undecided	5	2.5
Disagree	10	5
Strongly Disagree	5	2.5
Total	**200**	**100**

Q9: Banks with long history of huge NPL may not survive for long before they fold up		
Response variables	**Frequency**	**Percentage %**
Strongly agree	90	45
Agree	88	44
Undecided	15	7.5
Disagree	5	2.5
Strongly Disagree	2	1
Total	**200**	**100**

Q10: NPL in Banks could be a sign of poor risk management in the banks		
Response variables	**Frequency**	**Percentage %**
Strongly agree	111	55.5
Agree	59	29.5
Undecided	5	2.5
Disagree	10	5
Strongly Disagree	5	2.5
Total	**200**	**100**

Q11: Incidents of NPL in Banks could increase where loan monitoring activities are weak		
Response variables	**Frequency**	**Percentage %**
Strongly agree	98	49+
Agree	62	31
Undecided	8	4
Disagree	7	3.5
Strongly Disagree	5	2.5
Total	**200**	**100**

Q12: How often do you think borrowers should repay the loans they took from banks		
Response variables	**Frequency**	**Percentage %**
Always	114	57
Often	66	33
Sometimes	6	3
Seldom	9	4.5
Never	5	2.5
Total	**200**	**100**

Q13: Banks should consider the integrity of the borrower before loans are granted		
Response variables	**Frequency**	**Percentage %**
Strongly Agree	102	51
Agree	68	34
Undecided	5	2.5
Disagree	10	5
Strongly Disagree	5	2.5
Total	**200**	**100**

Q14: Banks should collect sufficient collateral against loans advanced in case of default		
Response variables	**Frequency**	**Percentage %**
Strongly Agree	115	57.5
Agree	64	32
Undecided	6	3
Disagree	10	5
Strongly Disagree	5	2.5
Total	**200**	**100**

Q15: Failure to repay bank loans may arise from outright unwillingness to repay the loan or circumstances beyond the borrower's control		
Response variables	**Frequency**	**Percentage %**
Strongly Agree	110	55
Agree	70	35
Undecided	7	3.5
Disagree	8	4
Strongly Disagree	5	2.5
Total	**200**	**100**

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