MAKERERE UNIVERSITY

MAKERERE UNIVERSITY BUSINESS SCHOOL

INNOVATION, FINANCIAL DISCIPLINE AND BUSINESS PERFORMANCE; A CASE OF SMALL BUSINESSES IN ARUA MUNICIPALITY.

ENIMA APOLONIAS 2013/HD10/2816U
Email: e.apolonias@gmail.com
Tel: +256 754 655 133/78 880 1818

A DISSERTATION SUBMITTED TO MAKERERE UNIVERSITY BUSINESS SCHOOL
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PLAN A

October, 2018
DECLARATION

I Enima Apolonias declare that the report is an original work and has not been submitted to any University, College or School for any award.

Signature: [Signature] Date: 16/10/18

ENIMA APOLONIAS

2013/HD10/2816U
APPROVAL

This report titled "Innovation, Financial Discipline and Business Performance; Small Businesses in Arua Municipality" by Enima Apolonias was conducted under our supervision and submitted for examination with our approval.

Signature: [Signature] Date: 18/10/18

Ass. Prof. Laura Orobia

Makerere University Business School

Signature: [Signature] Date: 18/10/18

Dr. Twaha Kigongo Kawaase

Makerere University Business School
DEDICATION

This research report is dedicated to my beloved children; Divine Joselyn, Kean Jonathan, Didiyo Joshua, Titia Jesse and Ayiko Feni Jeremy, my sister Orijaru Irene, brothers Butele Cosmas Alfred, Ocima James Diku, cousin brothers; Obia Richard, Andima Simon and friends Malero James and Oluru B. Josephine. I’m in a special way very grateful to you.
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LIST OF ACRONYMS

CAP = Common Agricultural Programme
GDP = Gross Domestic Product
GEM = Global Entrepreneurship Monitor
PLE = Primary Leaving Examination
PSFU = Private Sector Foundation Uganda
PWC = Price Water Coopers
ROA = Return On Assets
ROI = Return On Investments
SMEs = Small & Medium Enterprises
SPSS = Statistical Package for Social Science
TIN = Tax Identification Number
UIA = Uganda Investment Authority
URA = Uganda Revenue Authority
VIF = Variance Inflation Factor
ABSTRACT

The purpose of the study was to establish the relationship between innovation, financial discipline and businesses performance of small businesses with a view to establishing a coherent model directed at improving their performance. A respondent sample of 169 small businesses within Arua municipality was used, whose owners/managers were the unit of inquiry. The study adopted cross sectional research design. A questionnaire tool was used. And out of 169 questionnaires issued, 145 questionnaires were duly filled and returned representing a response rate of 85.8%. The findings show that there is significant positive relationship between innovation, financial discipline and performance of small businesses with (r = .307, p<.01; r = .449, p< .01) for innovation and financial discipline respectively. This implies positive changes in performance are associated with positive changes in innovation and financial discipline. Nonetheless, Innovation and financial discipline explain 21.5% (Adj R² = .215) of the variations in performance of Small business. The remaining 78.5% is explained by factors not considered in this study. However, business performance was more responsive to financial discipline than innovation. The study adopted a multi-theoretic approach in explaining performance of small businesses in Uganda. The study also adopted Kline and Rosenrg’s 1986 “chain-linked innovation theory in explaining innovation; the CAP reform, 2013 model in explaining financial discipline that together help in explaining performance of small businesses. The study has provided a model of innovation, financial discipline and business performance. This model can then be used to provide a trajectory for improving performance of small businesses in Uganda. Policy makers, business experts, owners and managers of small businesses may use these findings to improve performance of small businesses in Uganda since they are great contributors to the Ugandan economy. The study recommends that small business owners/managers need to always have a unique package of
products to gain competitive edge in the market. Always have a budget for expenditure(s) and stay held to it unless the budget falls short for factors beyond management control; innovate and stay financially disciplined to achieve the desired business performance.
CHAPTER ONE: BACKGROUND

1.0 Introduction

This chapter contains the background of the study, the statement of problem, purpose and objectives of the study, research questions, scope and significance of the study.

1.1 Background of the study

Business performance determines the ability of the business, Mohd & Syasuriana (2013). It’s the achievement of results, ensuring the delivery of desirable outcomes of; profits, revenues, market share, etc. for the firm’s stakeholders, Atkinson (2012). However, business performance globally is poor with 60% of the new businesses failing within the first five years of operation, Boachie et al. (2005). In Uganda, business performance is not good either; majority (35%) of businesses in Uganda are aged between 1 and 5 years and those that reach 25 years or more being only 4%, PSFU (2013). Studies by Uwonda et al. (2013) put Uganda’s business failure statistic at 50% annually. Businesses in Arua municipality too have collapsed (UBOS, 2014; Arua municipal licensing report, 2015). Various reasons have been advanced to explain the poor business performances among them; lack of innovation (GEM, 2015; Kubalako, 2015) and financial indiscipline (Deloitte, 2015; Sanya & Juuko, 2015).

GEM (2015, p.17 ) defines innovation as “the provision of a product or service that is new to some, if not all, consumers in a given market in which few, or no other businesses offer the same product”. Kline and Rosenrg’s 1986 “chain-linked innovation theory” established that for innovation to exist, the “market-pull” and “technology push” aspects must exist and are symbiotic. The theory further states that perceived demand is only met when the appropriate knowledge and technology are available, and innovation is realized only when there is a market for it. According to the theory, innovation evolves through; creation of a design (invention), based on market
signals, that is then developed, produced and marketed. Schumpeter (1934) found out that where there’s innovation in a business, it has a positive impact on the business performance in that new innovative products when first introduced to the market allow firms to enjoy relatively high profits due to limited direct competition but over time, these high profits erode due to imitation and competition resulting in poor performance.

On the part of financial discipline, it’s a behavior of ensuring responsible credit procurements, best saving options, financial plan and accountability, Sanya & Juuko (2015). It’s the adoption of a more prudent investing criteria or a leaner cost structure, Deloitte (2015). The Common Agricultural Programme (CAP) reform (2003) introduced the “financial discipline” model/mechanism to ensure that the CAP budget was not exceeded in any given financial year. Sanya & Juuko (2015) established that financial discipline influences business performance in a way that financial discipline creates good harvest-wealth. Deloitte (2015, p.3) further established that financial discipline influences business performance; “The adoption of more prudent investing criteria or a leaner cost structure including integrated financial and cash flow forecasting generally allows companies to strengthen their balance sheet, improve financial stability and can lead to greater profitability. As a result, a company gains the control and flexibility it needs to achieve a competitive edge”. Studies by Wright (2015) also revealed that when there’s financial indiscipline in a business, the business may get stuck in one payday loan or bill after another, month after month until the business finds itself in a vicious debt cycle.

Small businesses contribute greatly to the economic development of a country, Orobia et al. (2013). In Uganda for example, small businesses contribute 70% to Gross Domestic Product (GDP) and provide employment to over 2.5 million people which accounts for 90% of total non-farming private sector workers (UIA, 2011). Despite their significance, studies by Kazooba (2006)
however reveal that most of Uganda’s new businesses never celebrate their first anniversary; over 50% of the newly established businesses fight an uphill battle from the start but fail in five years and that less than 4% of small businesses grow to medium or large firms. Previous studies associate such poor business performances to lack of innovation, Mura et al. (2013) and financial indiscipline, Deloitte (2015). No study has been done on the two factors in Arua municipality, the commercial capital of West Nile yet several businesses close in the municipality (UBOS, 2014). But owing to the similar-nature of products of several businesses, GEM Uganda (2014) and the frequent advertisement of business assets for sale for non-repayment of loans including one in the municipality among others, Armstrong Court Bailiffs & Auctioneers (2014), there is need to investigate how business innovation and financial discipline influence the performance of small businesses in Arua municipality.

1.2 The statement of problem

Despite the fact that Arua municipality is fast growing in terms of economic activities given the opportunity to trade across borders of S. Sudan and DR Congo, there is evidence of poor business performance in the municipality (UBOS, 2014, Arua municipal Licensing report, 2015).

Considering the fact that a business in Arua municipality filed for closure (Kabega, Bogezi & Bukunya, 2015), suggests that businesses in the municipality experience financial losses, decline in sales and market share.

It’s not clear what is causing business failures in Arua municipality. Nonetheless, previous studies conducted elsewhere associate such business failures to among others; lack of innovation, Abdiaziz & others (2013) and financial indiscipline, Delliote (2015). Besides, the alike nature of products of many businesses, GEM Uganda (2014) and the frequent advertisements of business assets or that of their owners for sale by private treaty or by public auction for loan default on
newspapers including the sale of a property for business owner in Arua municipality, Armstrong Auctioneers and Court bailiffs (2014) among others, someway suggests that enterprise development in Arua municipality may possibly be hampered by lack of innovation (the repetitive nature of products) and financial indiscipline (the lavish and reckless lifestyles of its managers), thereby giving basis for this study.

1.3 Purpose of the study

This study sought to investigate the extent to which innovation and financial discipline explain the variations in performance of small businesses in Arua municipality.

1.4 Research objectives

The research was guided by the following objectives;

    1) To establish the relationship between innovation and performance of small businesses in Arua municipality.

    2) To establish the relationship between financial discipline and performance of small businesses in Arua municipality.

    3) To establish the extent to which innovation & financial discipline explain variations in performance of small businesses in Arua municipality.

1.5 Research questions

In order to address the research objectives, the following questions guided;

    1) What is the relationship between innovation and performance of small businesses in Arua municipality?

    2) What is the relationship between financial discipline and performance of small businesses in Arua municipality?
3) What is the extent to which innovation & financial discipline explain variations in performance of small businesses in Arua municipality?

1.6 Justifications for the study

First, from an academic perspective, the study’s insights will contribute to the future development of this line of research, particularly in Arua municipality.

Second, this study has generated information on impacts of innovation and financial discipline on entrepreneurial activities in Arua municipality which should flow into policy domain for informed interventions.

Finally, for practice; this study has provided recommendations to managers and practitioners alike on innovation and financial discipline that they can use in their day to day operations, decision making processes, etc.

1.7 Scope of the study

1) **Geographical and time scope:** The study covered small businesses in Arua municipality; a municipality in the West Nile region of Uganda. The choice of Arua municipality was based on the fact that since it’s the commercial capital of West Nile, the data so generated can be representative of the entire region.

2) **Subject scope:** The study focused on innovation, financial discipline and how the two influence performance of small businesses in Arua municipality.

3) **Theoretical scope:** The study also covered theories of innovation and financial discipline.
1.8 The conceptual frame work

Source: Literature review.

The model depicts that innovations in businesses in form of; new products, new markets, new production methods, new sources of supply, etc. are associated with improvement in business performance in forms of increased profits, sales, market share, etc. In the same way, maintaining financial discipline through; integrity, judgment, accountability, etc. in businesses provides opportunities for the businesses to hit their cash targets, reduce costs (i.e. increase profits), ensure availability of funds to maintain business operations thereby increasing shareholder returns and funds growth. Or a combination of innovation and financial discipline improve business performance.
CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This section presents theories, review of literature on; innovation, financial discipline, business performance and how innovation & financial discipline relate to business performance.

2.1 The Kline & Rosenberg, 1986 Chain Linked theory of innovation

Kline and Rosenberg describe innovation as a system associating a “potential market” expected by entrepreneurs, a set of specialized activities occurring in firms (design, test, production, distribution, etc.) or in public institutions (research), to an accessible stock of knowledge. Some of the activities are specialized (research, design, produce, etc.), while “knowledge” provides an “integrative element” called a pool. This repository interacts with all other components of an innovation system. The interrelations between them are “flow paths of information and cooperation” and they can be linear or iterative (“loops”). Some of them are continuous, while others are event-based or conditional. They depend on specific events (market signal inducing innovators’ expectations and projects) or premises (if innovators need more knowledge then they pick up data from the stock of knowledge). Some flows are shortcuts, i.e. “direct link to and from research form problems in invention and design”. In the theory, innovation is both a push-pull process and a top-down and bottom-up process.

The theory is still relevant in this study and applicable today. Innovation starts when there is demand “market-pull”. The engineer needs knowledge to create that fantasy product “technology push”. The process goes through design, test, production, distribution, etc. The theory further states that innovation is realized only when there is a market for the final product. That means, technology applied (technology push) depends on buy-ability (market push) of the product and vice versa, hence the symbiosis aspect.
2.2 The concept of innovation

At the firm level, intense competition under the global economic framework requires that the private (business) sector reconsider their competitive position vis-à-vis their rivals, amongst others, through innovation. Therefore, innovation has taken a centre stage because it has become the world’s major area of competitive advantage to many companies in the same industry.

The term innovation comes from the Latin word “innovare”, meaning, “to make something new” (Abdiaiziz & Ali, 2013).

According to GEM (2015), innovation is the provision of a product or service that is new to some, if not all, consumers in a given market in which few, or no other businesses offer the same product.

Gunday et al. (2011) defined innovation as the process of equipping in new, improved capabilities or increased utility.

Juan et al. (2011) define innovation as a process through which a new product, technique or useful service is obtained from the generation of new ideas and their development which in time provides new solutions to problems and comes useful for people, companies or society.

Similarly, Dibrell, Davis and Craig (2008) accentuated that innovations vary in complexity and can range from minor changes to existing products, processes, or services to breakthrough products, and to processes or services that introduce first-time features or exceptional performance.

Similarly, Kubalako (2015) defines innovation as pioneering or venturing into areas that have not been explored before such as; new products, new methods of production, new sources of supply, exploitation of new markets, and new ways to organize business.

For Mohanbir S. et al. (2006) innovation is the creative change of one or more of the four dimensions of the business system; offering, process, distribution and customer.
Though different scholars have put forward different definitions about innovation, they all remain unison that it is about the inception of new thing and idea into the market. Innovation should however not be confused with invention. Invention means a novel idea including its development and prototyping, concrete conceptualization within the pre-marketing phase. To qualify as innovation, an invention must be successfully applied and established within the marketplace.

This study therefore, defines innovation as the provision of product or service is new to some, if not all, consumers in a given market in which few, or no, other businesses offer the same product as adopted from GEM (2015). In this definition, innovation is not only related to products and processes, but it also relates to marketing and organization. Innovation from this perspective is fundamentally about new value creation for customers.

2.3 The theory of financial discipline

At the Brussels Summit of the European Council in October 2002, based on a commission’s proposal, the CAP Reform, 2003 introduced the “financial discipline” model aimed at keeping CAP spending within budgetary ceilings laid down. According to the model, once forecasts are done for expenditures on direct payments in a given budget year, the forecasted figures become a ceiling in the given year. Under financial discipline model, expenditures on direct payments in that given budget year should not exceed budgetary ceilings laid down, less a security margin of EUR 300 million.

The model is still relevant in this study and applicable today; true like in the model, no money is always enough. Therefore, budget expenditure forecasts including security margins need to always be developed. Budgetary ceilings need to be laid down. Organizations will only stay liquid and attain the desired profitability only if there’s no budgetary overrun.
2.4 The concept of financial discipline

Although the definitions of financial discipline have contributed significantly to broadening our comprehension of the variable, there is nonetheless disagreement between theorists and scholars that remain to be fully substantiated.

Financial discipline is a mechanism applied to keep organization’s expenses beneath strict budgetary ceilings or where there’s no budget overrun in any budgetary period, Boulanger (2013). Sanya & Juuko (2015) in their contribution define financial discipline as having; responsible credit procurements, cost saving options, financial plan and accountability in a business.

For Babar et al. (2010), it’s a financial management aspect which involves setting priorities and determining how much to pay to the lenders and how often, planning with clear, realistic economic objectives and to deal with the real facts, taking corrective actions when needed, examining new opportunities with strict financial measures, looking at near-term earnings and long-term performance and not undertaking projects that were not included in set financial plans. They further argued that business financial discipline is about businesses and showing commitment to maintaining steady performance and considering strategic acquisitions that can further strengthen and diversify the business.

For UK Accounting Standards Board (2007), financial indiscipline is about upholding psychological contract of stewardship related to trust on half of the managers. They further argued that it’s managing business finances with ethics.

On the part of Wright (2015), financial discipline is being able to say no when you need to and to be able to save money instead of spending it. It involves keeping your expenses right within your means, resisting extra and unnecessary costs even if they may still be within your budget
and having more than enough savings to be touched only on an emergence. According to him, financial discipline is signified in the form of; responsible borrowing, cost saving and having financial plan and accountability in a business. According to Deloitte (2015), financial discipline is a mechanism of embracing a more prudent investing criteria or a leaner cost structure.

This study defines financial discipline as a mechanism of embracing a more prudent investing criteria or a leaner cost structure as adopted from Deloitte (2015).

2.5 The concept of Business Performance

A wide variety of definitions of business performance have been proposed in various literature with frequent reference to how efficiently and effectively a business utilizes its resources in generating economic outcomes.

According to Mohd & Syasuriana (2013), it’s the measure used to evaluate a firm’s ability. This implies that performance is like a mirror to a firm; the level of goal accomplishment defines a firm’s performance.

Atkinson (2012) defines firm performance as the achievement of results ensuring the delivery of desirable outcomes such as profits, revenues, market share, etc. for the firm’s stakeholders.

Performance is the outcome achieved in meeting internal and external goals of a firm (Lin et al., 2008).

Dobbs & Hamilton (2006); Wolff & Pett (2006) state that business performance as a multidimensional construct has several names including: growth, survival, success and competitiveness.
Business performance is a multidimensional concept whose indicators can be departmental, such as pertaining to production, finance or marketing (Sohn et al., 2007), or consequential such as pertaining to performance and profit (Wolff and Pett, 2006).

According to Terziovski, 2010), business performance is the dependent variable that is defined by the results of business processes, practices and activities.

Abdiaziz & Ali (2013) measured the level and degree of financial performance using sales growth, profitability and market share.

According to Kazzoba (2006), business performance is measured according to the return on capital employed, gross profit margin, sales margin, portfolio performance, timely loan repayment.

Depending on organizational goals, different methods are adopted by different firms to measure their performance. The business performance indicator can be measured in financial and non-financial terms (Waal, 2010; Bakar & Ahmad, 2010). Most firms, however, prefer to adopt financial indicators to measure their performance (Mohd & Syasuriana, 2013). Return on assets (ROA) (Zahra, 2008), average annual occupancy rate, net profit after tax and return on investment (ROI) (Tavitiyaman et al., 2012) are the commonly used financial or accounting indicators by firms. Some other common measures are profitability, productivity, growth, stakeholder satisfaction, market share and competitive position (Waal, 2010).

Financial elements are not the only indicator for measuring firm performance. Supporting this opinion, Rubio & Aragon (2009) divided business performance into four dimensions that is internal process, open system, rational goal and human relations, where each dimension is measured by any changes in its own variables.
This study adopts Atkinson (2012)’s definition of business performance as the achievement of results ensuring the delivery of desirable outcomes such as profits, revenues, market share, etc. for the firm’s stakeholders.

2.6 Relationship between innovation and business performance

Investigation into the relationship between innovation and performance was first undertaken by a German scholar, Schumpeter in 1934 before other scholars did.

Kubalako (2015) like Schumpeter also established that there was positive relationship between innovation and business performance. They’ve collectively argued that new innovative products when first introduced to the market allow firms to enjoy relatively high profits due to limited direct competition. Over time, these high profits erode due to imitation and competition, but firms that continue introducing innovative new products are able to achieve high profitability for a sustained period.

Murat et al. (2013) studied the relationships between innovation and firm performance using top level managers of 113 firms operating in the automotive supplier industry; the most innovative industries in Turkey, as of the year 2011. Analysis of the results demonstrated that technological innovation (product and process innovation) has significant and positive impact on firm performance (revenues and profits).

According to Abdiaziz & Ali (2013), innovation influences business performance on a number of levels; innovation leads to a firm’s survival and growth in that the more the business brings to the market new products, the more the business gets major part of the customers, market share and realizes stockholders interest.
In the longitudinal study of Artz et al. (2010), the impact of product innovation on firm performance in different industries of the U.S. and Canada were explored. Their study found out that product innovation had a significant positive impact on firm performance.

Therrien et al. (2011) investigated whether innovation has an impact on firm performance in selected Canadian service industries. The results indicated that, in order to derive more sales from innovation, firms need to enter the market early or to introduce new products with high levels of novelty.

Gunday et al. (2011) explored the effects of product, process, organization and marketing innovation on different aspects of firm performance, including achievements in production, marketing and finance, through an empirical study covering 184 Turkish manufacturing firms in different industries. Their study revealed that product, organization and marketing innovation has a positive effect on the firm’s profitability performance in manufacturing industries.

Terziovski (2010) studied the relationship between innovation and firm performance in 600 Australian firms and found out that the performance of small businesses is likely to improve as they increase the degree to which they mirror large manufacturing firms with respect to formal strategy and to which they recognize that innovative culture and strategy are aligned throughout the innovation process.

Like many other scholars, Varis & Littunen (2010) argued that the ultimate reason for firms to engage in innovative activities is to improve firm performance and success.
2.7 Relationship between financial discipline and business performance

Pandey (2010) established that there exists a positive relationship between financial discipline and business performance; financial discipline maintains regularity of finances to meet the variable cash requirements and future contingencies of the business.

According to Deloitte (2015), a business be it debt or equity, funding remains difficult to access yet companies require cash to remain competitive, maintain financial flexibility and pursue potential growth opportunities. While market trends change and customer preferences shift, one thing is immutable: cash remains king. A focus on financial discipline including integrated financial management allows companies to strengthen their balance sheet, improve financial stability and can lead to greater profitability. As a result, businesses gain control and flexibility they need to achieve a competitive edge.

Salina & Siti (2013) studied financial discipline of credit card users (shoppers) in Malaysia who prefer paying full amount their outstanding balances, pay according to ability, or pay the minimum required amount and its impact on the performance business. Their findings reveal that shoppers who didn’t pay full their outstanding balances constrained the firm’s ability to have financial flexibility to pursue potential growth opportunities. They proposed more stringent policies relating to consumer indebtedness with particular focus on the income level if the businesses are to remain in the market.

The UK Accounting Standards Board (2007) also studied the relationship between financial discipline and business performance. According to their study, stewardship is deemed necessary development of a modern company and a fundamental building block of corporate governance and influences whether to hold or sell their investment in the enterprise or whether to reappoint or replace the management.
Sanya & Juuko (2015) too established that there exists a positive relationship financial discipline and business performance; businesses cannot accumulate wealth if there is no financial discipline. They also noted that if business managers do not have the will-power to delay gratification, no amount money can meet their business needs. They further noted that if a business is small or a medium size, the managers and proprietors should not create a billionaire business expenditure pattern. Additionally, financial indiscipline makes businesses fail to maintain customers who supported them from the start, affecting their sustainability; as a result fail to establish themselves brand names for this reason and hence lose their continuous desire to succeed.

Babar et al. (2010) established that financial discipline is related to business performance in that understanding customers’ needs and staying financially disciplined through planning with clear, realistic economic objectives, taking corrective actions when needed, examining new opportunities with strict financial measures, eliminating reckless expenditure and not undertaking projects that were not included in set financial plans enables businesses to cultivate investments that can deliver the required economic benefits of profits, ROA, etc. for investors.

PWC (2015) also surveyed Canadian firms and established that financial indiscipline such as the impulse buying, reckless lavish lifestyles etc. dries business’s cash reserves, limits a business’s ability to take advantage of market opportunities thereby putting the business’s future in jeopardy.
2.7 Conclusion

A good performance is what every business entity envisions. But some businesses in Arua municipality have not lived to realize that vision as many have collapsed, UBOS (2014); Arua municipal licensing report (2015). And in addition, a business in the municipality has filed for winding up, Kabega, Bogezi and Bukenya advocates (2015). But given the copy-and-apply syndrome/imitation (or lack of innovation) in businesses, GEM (2014) and the lavish and reckless lifestyle (or lack of financial discipline) of the business owners, Armstrong Court Bailiffs & Auctioneers (2014), the lack of innovation and financial indiscipline could be the barriers to enterprise growth in Arua municipality.
CHAPTER THREE: METHODOLOGY

3.1 Research design

The study used cross-sectional research design. The design provided a clear understanding of the relationship between innovation, financial discipline and business performance. It also enabled data to be collected at a point in time.

3.2 Study population

The study was based on the 299 TIN registered small businesses in Arua municipality by June 28, 2015 (URA domestic tax records, 2015).

3.3 Sample size and sampling procedure

According to Krejcie & Morgan (1970) table for sample size determination, when the population is 299, a sample size of 169 is used.

A simple random sampling method was used to select the sample size and purposive sampling was used to select the respondents. The selection of the businesses to be included in the sample was arrived at by raffle where the businesses were assigned random numbers, put in a box, shaken and picked randomly without replacement.

One respondent per business (the owner) was selected purposively. The selection of the respondents was based on the belief that owing to the business owner’s position, they were better knowledge-equipped to respond on the subject matter than other employees in the businesses.

All the business names or codes picked by the researcher formed the sample for the study.

The unit of analysis were the businesses and the unit of inquiry were the owners (since most of the small businesses were managed solely by the owners) or the managers.
3.4 Data source and collection method

Primary data that was collected from the owners of the small businesses. The data was collected by use of questionnaires which were distributed to the respondents and then collected after. For those respondents who did not understand English language, interpretations were done to help the respondents give accurate information.

3.5 Study variables and their measurement

The study variables included; innovation, financial discipline and business performance.

Innovation was measured using changes to existing; products, processes, markets and sources of supply based on Dibrell, Davis and Craig (2008)’s research.

Financial discipline was measured using integrity, judgment and accountability in the businesses based on Deloitte (2015).

Business performance was measured using two categories; financial performance and non-financial performance. Financial performance was measured using percentage change in sales, profitability and market share, based on Walker & Brown (2004)’s research. While non-financial performance was measured using; level of customer or employee satisfaction, product or service quality, and the number of new products introduced based on Kaplan Financial Ltd (2012).

The above variables were measured using a well-designed questionnaire built on a 5 point Likert scale ranging from 1 to 5 as follows; “strongly disagree” (1) to “strongly agree” (5).

3.6 Validity and reliability

The questionnaire was pretested for validity. The items in the questionnaire were discussed with experts to check for internal accuracy and relevancy for the study and based on the discussions; a
consensus was reached on the items that were included in the final instrument to ensure that the instruments had content validity.

Cronbach’s Alpha coefficient was used to test for reliability. Questionnaires were given to individuals to give their opinion regarding the relevancy of the questions using a 5-point Likert scale and the results are indicated in the table below.

**Table 1: Reliability of the instrument**

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation</td>
<td>0.705</td>
<td>18</td>
</tr>
<tr>
<td>Financial discipline</td>
<td>0.870</td>
<td>13</td>
</tr>
<tr>
<td>Business performance</td>
<td>0.833</td>
<td>15</td>
</tr>
</tbody>
</table>

*Source: Output from Data Analysis*

According to Grayson (2004) and Nunnally (1978), a cut-off alpha coefficient of 0.7 is sufficient to prove that the instrument is reliable. Therefore, the reliability coefficients of the research instruments are higher than 0.7, implying that the instrument was reliable.

### 3.7 Ethical considerations

In an attempt to produce a quality and reliable study, the researcher first sought permission from Arua municipal and division council authorities to allow him undertake his study and collected the data himself instead of research assistants who fill questionnaires themselves instead of leaving the respondents fill them.

### 3.8 Data analysis

The data collected was captured and analyzed using SPSS version 20. Both descriptive statistics such as frequency, mean, and standard deviation, and inferential statistics such as Cronbach’s Alpha,
and Pearson correlation were used to analyze the data. Regression analysis was also used to determine the prediction of a potential model.

3.9 Parametric assumptions’ test

3.9.1 Data Cleaning

The data screening was performed in order to clean the data and assess whether the assumptions of parametric data were met. Following procedures prescribed by Field (2005), this study tested the assumption of normality of the distribution of the data, homogeneity of variance, linearity of the data and multicollinearity.

3.9.2 Outliers

Outliers are values that are out of the range compared to the measurement scale (Field, 2006). An outlier check was conducted using minimum and maximum frequency counts, means and scatter plots. Based on this analysis, few identified outliers were due to data entry error and they were reference to the questionnaire. The rest of the results indicated that there were no values that were out of range.

3.9.3 Normality test

Normality can be assessed to some extent by obtaining skewness (symmetrical) and kurtosis (peakedness) values of each measured variable. According to Field (2009), skewness and kurtosis indicate the deviation from normality whereas Tabachnick and Fidell (2001) suggest using a histogram to evaluate the shape of data distribution. Therefore, the bell-shaped histogram (figure
1) confirms that data are normally distributed in the current study.

Source: Primary data

3.9.4 Linearity test

Linearity refers to the presence of a straight line relationship between two variables. As the regression analysis is only suitable for testing linear relationship between the independent variables and dependent variables, this assumption must be met before performing this analysis. Linear data is obtained when the scores are seen to be in the form of fairly straight line, not a curve.

A normal probability plot (normal Q-Q plot) was used in this study to plot the residual against the predicted scores. Field (2000) noted that if the assumption of linearity between the independent variable and dependent variable is met, the plot of the residual against predicted scores will also be linear. Therefore, the normal plot results revealed a fairly straight line showing that the data was linear as in figure 2 below:
Source: Primary data

3.9.5 Homogeneity test

Homogeneity test was conducted to assess the suitability of data for parametric tests. This assumption means that the variance of one variable should be stable at all levels of the other variable (Field, 2009). Graphically, a scatter plot was drawn plotting the residual against the dependent variable. The results of the scatter plot (figure 3) shows that the points are dispersed around zero and there is no other clear trend in the distribution. This is an indication that homogeneity and linearity assumption were met. If the graph funnels out or if there is a curve in the graph, it indicates the probability of heteroscedasticity in the data which can violate the condition of multivariate analysis (Field, 2006), hence it is not the case for this study. Given the fact that the tests for parametric assumption were met, parametric tests were found suitable for the study.
3.9.6 Multicollinearity

Multicollinearity exists if there is high correlation between independent variable when regressed against each other. According to Tabachnick and Field (2001) these correlations must not perfectly exceed .70 in the same way, Cooper and Sehindler (2003) indicated that correlation of .8 or higher are problematic while Field (2006) described very high correlation to be correlation above .90 the correlation coefficient were found to be less than .90 implying limited threat of multicollinearity in the data. The collinearity diagnostic in regression were further used to check for the threat of multicollinearity. Therefore, two values were analyzed under this test: Tolerance value and Variance Inflation Factor (VIP). Tolerance value is an indicator of how much of the variability of the specified independent variable is not explained by the other independent variable in the model. It is calculated by the formula 1-R2 for each variable (Pallant, 2005). If this value is very small (less than .10), it indicates that the multiple correlation with other other variables variables is high,
suggesting the possibility of multicollinearity. VIF values above 10, indicate multicollinearity (Pallant, 2005). Data analysis of this study showed tolerance values ranging from 1.467 and above which were supported by VIF values below 10. Thus, there was non-multicollinearity among the study variables and the assumption was met.

3.9.7 Reliability test
Reliability refers to the degree to which the instrument produces consistent findings over time which is determined by internal consistency of items that are used to measure variables—internal reliability (Saunders et al, 2007; Sekaran 2008). In other words, an instrument is reliable in case it produces the same results whenever it is repeated. Reliability test indicates the extent to which it is without bias or error free, and hence ensures consistent measurement across time and across the various items in the instrument. Therefore, internal consistency refers to the degree to which the items that make up the scale are all measuring the same underlying attribute (field 2009). In the current study, Cronbach’s alpha was employed to determine the internal consistency of the 6-likert scales used to measure items of the study variables. In value with field (2006), a certain number of items that were found to affect the reliability of the scales were deleted and the reliability increased to acceptable levels.

In addition the multi-collinearity test was carried out by running regression model in which the variance inflation factor (VIF) and tolerance values were generated. The results indicate that the multi-collinearity problem between the predictor variables did not exist since all the VIF values were above the cut off value, as per the rule of 1 which advocates for investigation if the values are less than 1. Since the actual VIF values (1.264) are all above 1, it is a sign that predictor variables are not highly related and each accounts for the variance in business performance (Chong
Ho Yu, 2008). Therefore, basing on these results above, the validity of the regression tests in this study is not problematic.

The following regression equations define the models in table 9

Model 1: $BP = b_0 + b_1NB + b_2AS + \epsilon$
Model 2: $BP = b_0 + b_1NB + b_2AS + b_3IV + \epsilon$
Model 3: $BP = b_0 + b_1NB + b_2AS + b_3IV + b_4FD + \epsilon$

Where:

$BP$ = Business Performance  

$b_0$ - is a constant 

$b_1$NB – is the unstandardized B coefficient of Nature of the business 

$b_2$AS - is the unstandardized B coefficient of Average dairy sales  

$b_3$IV – is the unstandardized B coefficient of Innovation  

$b_4$FD – is the unstandardized B coefficient of Financial Discipline  

$\epsilon$ is the error term

Final model: $BP = 3.57 + 0.039NB + 0.152AS + 0.11IV + 0.382FD + \epsilon$
CHAPTER FOUR: PRESENTATION, ANALYSIS AND INTERPRETATION OF THE FINDINGS

4.0 Introduction

This chapter contains the presentation, analysis and interpretations of the study findings. The purpose of the study was to investigate the relationship between Innovation, Financial discipline and Business performance in Arua municipality. Therefore, the presentation of the findings were guided by the following research objectives:

(i) To establish the relationship between Innovation and Business performance.

(ii) To establish the relationship between Financial discipline and the Business performance.

(iii) To examine the extent to which Innovation and Financial discipline explain variations in Business performance.

4.1 Response rate

The researcher issued 169 questionnaires to respondents in 169 small businesses in Arua Municipality. A total of 145 questionnaires were duly filled and returned representing a response rate of about 85.8%, which is suitable to draw valid and reliable conclusions. This is consistent with Amin’s (2005) assertions, which stated that, a response rate of 70% and above is representative of the population, and thus, can be relied on to draw valid conclusions.

4.2 Demographic characteristics

This section presents the characteristics of the respondents such as gender, age, academic qualification, as well as the characteristics of the business such as nature of business, average daily sales and duration of the business. The aim was to understand various categories of respondents that participated in this study.
4.3 Characteristics of respondents

The characteristics of respondents regarding gender, age and academic qualification of the respondent in the business are presented below:

4.3.1 Gender of the respondents

The results in the table below show the distribution of respondents by gender.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>95</td>
<td>65.5</td>
<td>65.5</td>
</tr>
<tr>
<td>Valid Female</td>
<td>50</td>
<td>34.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>145</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Output from data analysis*

Table 2 above indicates that 65.5% of the respondents who participated in the study were males and 34.5% of the respondents were females. This shows that small businesses in Arua municipality are run mostly by males compared to females.
4.3.2 Age of the respondents

The result in the table below shows the distribution of respondents by age.

Table 3: The age of respondents

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 25 years</td>
<td>8</td>
<td>5.5</td>
<td>5.5</td>
</tr>
<tr>
<td>26 - 34 years</td>
<td>55</td>
<td>37.9</td>
<td>43.4</td>
</tr>
<tr>
<td>35 - 43 years</td>
<td>54</td>
<td>37.2</td>
<td>80.7</td>
</tr>
<tr>
<td>44 - 52 years</td>
<td>19</td>
<td>13.1</td>
<td>93.8</td>
</tr>
<tr>
<td>53 years and above</td>
<td>9</td>
<td>6.2</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>145</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Output from data analysis*

The table 3 shows that 37.9% of the respondents lies in the age group between 26-34 years, 37.2% of the respondents lie in the age group 35-43 years and 13.1% fall in the range 44-52 years and 5.5% are aged between 18-25 years, while 6.2% represents 53 years and above. This implies that majority of the entrepreneurs are the youth.
4.3.3 Academic qualification of the respondents

The results in the table below show the distribution of respondents by level of education.

Table 4: Level of education of the respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLE</td>
<td>47</td>
<td>32.4</td>
<td>32.4</td>
</tr>
<tr>
<td>O level</td>
<td>59</td>
<td>40.7</td>
<td>73.1</td>
</tr>
<tr>
<td>Tertiary</td>
<td>20</td>
<td>13.8</td>
<td>86.9</td>
</tr>
<tr>
<td>Degree</td>
<td>13</td>
<td>9.0</td>
<td>95.9</td>
</tr>
<tr>
<td>Others</td>
<td>6</td>
<td>4.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td><strong>145</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Output from data analysis*

The table 4 above indicates that 40.7% of the respondents had O level, 32.4% had completed up to primary leaving examination (PLE), 13.8% had gone through tertiary institutions, degree holders were 9.0% and 2.9% had other qualification. Majority of the respondents were O level and P.7 leavers. Therefore on the basis of the above results, the small businesses in Arua municipality are run by people who had no qualifications.

4.4 Characteristics of the businesses

The characteristics of business regarding the nature of the business, average daily sales and duration of the business are presented below:
4.4.1 Nature of the businesses

The results in the table below show the nature of the business.

Table 5: Nature of businesses

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%age</th>
<th>Cumulative %age</th>
</tr>
</thead>
<tbody>
<tr>
<td>General merchandise</td>
<td>44</td>
<td>30.3</td>
<td>30.3</td>
</tr>
<tr>
<td>Hotel and Restaurant</td>
<td>20</td>
<td>13.8</td>
<td>44.1</td>
</tr>
<tr>
<td>Salon</td>
<td>22</td>
<td>15.2</td>
<td>59.3</td>
</tr>
<tr>
<td>Transportation Business</td>
<td>19</td>
<td>13.1</td>
<td>72.4</td>
</tr>
<tr>
<td>Other</td>
<td>40</td>
<td>27.6</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>145</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Output from data analysis*

Table 5 reveals that 30.3% of the businesses were dealing in general merchandise, 27.6% dealt in other businesses, about 15.2% were salon, 13.8% were Hotel and Restaurant, while 13.1% were transport businesses.

4.4.1 Average daily sales

The results in the table below show the daily average sales.

Table 6: The Average daily sales

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000 to 20,000</td>
<td>10</td>
<td>6.9</td>
<td>6.9</td>
</tr>
<tr>
<td>20,000 to 30,000</td>
<td>8</td>
<td>5.5</td>
<td>12.4</td>
</tr>
<tr>
<td>30,000 to 40,000</td>
<td>19</td>
<td>13.1</td>
<td>25.5</td>
</tr>
<tr>
<td>40,000 and more</td>
<td>108</td>
<td>74.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>145</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td></td>
</tr>
</tbody>
</table>

**Source: Output from Data analysis**

The table 6 depicts that majority of the businesses had average daily sales of 40,000/- and more representing about 74.5%, 13.1% of the businesses had daily sales of between 30,000/- to 40,000/-, 6.9% had daily sales of 10,000/- to 20,000/- while 5.5% had daily sales of 20,000/- to 30,000/-.

**4.4.2 Duration of the business**

The results in the table below show the duration of the business.

**Table 7: Number of years the business has been running**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than year</td>
<td>5</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>1-3 years</td>
<td>31</td>
<td>21.4</td>
<td>24.8</td>
</tr>
<tr>
<td>Valid</td>
<td>53</td>
<td>36.6</td>
<td>61.4</td>
</tr>
<tr>
<td>6 and above years</td>
<td>56</td>
<td>38.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td><strong>145</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Output from data analysis**

Table 7 above indicates that 38.6% of the business had run for a period 6 years and above, 36.6% had run for a period between 3-5 years, 21.4% had run for a period between 1-3 years while 3.4% of the businesses had run for duration of less than 1 year. This implies that majority of the businesses had been in existence for at least year.

**4.5 Zero Order Correlation**

Pearson’s Correlation analysis was conducted to measure the strength of linear associations between the study variables and is denoted by $r$. The Pearson correlation coefficient, $r$, can take a range of values from +1 to -1. A value of 0 indicates that there is no association between the two
variables. A value greater than 0 indicates a positive association; that is, as the value of one variable increases, so does the value of the other variable. A value less than 0 indicates a negative association; that is, as the value of one variable increases, the value of the other variable decreases. The study variables were measured on a continuous scale, and thus Pearson correlation was found to be the most appropriate to test the relationships between the variables. The results are presented in Table 8 below:

**Table 8: Correlation Results**

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product/service innovation(1)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process/administrative innovation(2)</td>
<td>.438**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Market &amp; Innovation culture(3)</td>
<td>.383**</td>
<td>.440**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation(4)</td>
<td>.751**</td>
<td>.731**</td>
<td>.847**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrity(5)</td>
<td>.295**</td>
<td>.215**</td>
<td>.059</td>
<td>.218**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Judgment(6)</td>
<td>.103</td>
<td>.070</td>
<td>.036</td>
<td>.083</td>
<td>.323**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accountability(7)</td>
<td>.417**</td>
<td>.360**</td>
<td>.462**</td>
<td>.537**</td>
<td>.282**</td>
<td>.222**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Discipline(8)</td>
<td>.412**</td>
<td>.331**</td>
<td>.304**</td>
<td>.438**</td>
<td>.744**</td>
<td>.610**</td>
<td>.779**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance(9)</td>
<td>.276**</td>
<td>.337**</td>
<td>.098</td>
<td>.270**</td>
<td>.352**</td>
<td>.221**</td>
<td>.251**</td>
<td>.384**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Financial Performance(10)</td>
<td>.342**</td>
<td>.337**</td>
<td>.096</td>
<td>.295**</td>
<td>.478**</td>
<td>.142</td>
<td>.302**</td>
<td>.447**</td>
<td>.672**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Performance(11)</td>
<td>.333**</td>
<td>.368**</td>
<td>.106</td>
<td>.307**</td>
<td>.445**</td>
<td>.203</td>
<td>.299**</td>
<td>.449**</td>
<td>.935**</td>
<td>.890**</td>
<td></td>
</tr>
</tbody>
</table>

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

4.5.1 Objective 1 was to establish the relationship between innovation and performance of small businesses in Arua municipality.

The results in table 8, show that there is a positive significant relationship between innovation and performance of small businesses in Arua municipality (r=.307, p<.01). This implies that for each unit increase in innovation, there is up to 0.307 increases in business performance. In addition, all dimensions of business performance have a positive and significant relationship with innovation; furthermore the dimensions of innovation have a positive significant relationship with business performance New Market & Innovation culture as represented in table 8 above.
4.5.2 Objective 2 was to establish the relationship between financial discipline and performance of small businesses in Arua municipality.

The results in table 8, show that there is a positive significant relationship between financial discipline and business performance of small businesses in Arua municipality (r= .449, p<.01). This implies that for each unit increase in financial discipline, there is up to 0.449 increases in business performance. In addition, all dimensions of business performance have a positive and significant relationship with financial performance; furthermore the dimensions of financial performance have a positive significant relationship with business performance.

4.6 Hierarchical regression analysis

4.6.1 Objective 3 was to establish the extent to which innovation & financial discipline explain variations in performance of small businesses in Arua municipality.

This was analyzed using a hierarchical regression. A hierarchical regression analysis was conducted to establish the contribution of each independent variable in explaining business performance of small businesses in Arua municipality. Considering the conceptualization of this study, a hierarchical regression analysis was found to be necessary. The results are presented in table 9.

Table 9: Hierarchical regression

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>Model 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Constant</td>
<td>3.570</td>
<td>.265</td>
<td>2.400</td>
<td>.456</td>
<td>2.021</td>
<td>.435</td>
</tr>
<tr>
<td>Nature of the Business</td>
<td>- .025</td>
<td>.033</td>
<td>- .004</td>
<td>.009</td>
<td>.015</td>
<td>.031</td>
</tr>
<tr>
<td>Average Daily Sales</td>
<td>.157</td>
<td>.060</td>
<td>.220*</td>
<td>.120</td>
<td>.168*</td>
<td>.108</td>
</tr>
<tr>
<td>Innovation</td>
<td>.350</td>
<td>.113</td>
<td>.260**</td>
<td>.147</td>
<td>.114</td>
<td>.110</td>
</tr>
<tr>
<td>Financial Discipline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>.248</td>
<td>.348</td>
<td>.487</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>.061</td>
<td>.121</td>
<td>.237</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AdjR2</td>
<td>.048</td>
<td>.121</td>
<td>.215</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2-Change</td>
<td>.061</td>
<td>.060</td>
<td>.116</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Change</td>
<td>4.634</td>
<td>9.644</td>
<td>21.26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Business Performance
B. Unstandardized coefficient
β: Standardized coefficient

* Correlation is significant at the 0.05 2-tailed
** Correlation is significant at the 0.01 2-tailed
*** Correlation is significant at the .001 2-tailed

Results of Model 1 in Table 9 indicate that the control variable (Nature of the Business and Average Dairy sales) contribute a statistically significant explanatory power of 6.1% in explaining Business performance.

Model 2 shows that an addition of innovation to the equation, accounts for an extra 6% of the variance explained by the model ($R^2 = .121; F_{df}= 9.644; p<.05$). The findings further confirm a positive and significant relationship between innovation and business performance of small businesses in Arua municipality ($\beta = .260; p<.05$). The addition of financial discipline in Model 3, reveals an extra 11.6% of variability in business performance at ($R^2 = .237; F_{df}=21.260, p<.05$). The model results also show that there is a positive and significant relationship between financial discipline and business performance of small businesses in Arua Municipality ($\beta = .382; p<05$).

The predictive power of the variables in the regression model explain an overall 21.5% (AdjR Square = .215) variation in performance of small businesses in Arua Municipality, implying that the remaining 78.5% is explained by factors not considered in this study. In addition out of 21.5%, the constant variables contribute 6.1%, innovation (6%), and business discipline (11.6%).
CHAPTER FIVE:

FINDINGS, CONCLUSION, RECOMMENDATIONS, LIMITATIONS OF THE STUDY AND AREAS FOR FURTHER STUDY

5.1 Introduction
This chapter provides the findings, conclusion, recommendations presented in chapter four in line with research objectives and the literature review, limitations of the study, areas for further study.

5.2 Discussion of findings
The discussion of the findings is in line with the research objectives in chapter one and are as below;

5.2.1 Innovation and business performance
According to the study, there was significant positive relationship between innovation and business performance. This implies that innovation is associated with business performance. This is so because businesses that enter new markets, introduce new products with high levels of novelty derived more sales, profits, etc. This view was reflected by respondents that said they constantly introduced latest products in the market, reported higher revenues, profits, etc. In the same way, respondents that strongly agreed and agreed on the question of “if they always delivered customer orders timely” reported higher revenues, profits, etc. and vice versa. This study’s finding replicates earlier studies by; Murat et al. (2013), Therrien et al. (2011), Gunday et al. (2011), Terzirovski (2010), etc.

Murat et al. (2013) studied the relationships between innovation and firm performance in Turkey where they used top level managers of 113 most innovative industries in the year 2011 as unit of
inquiry. Analysis of results demonstrated that technological innovation (product and process innovation) has significant and positive impact on firm performance (revenues and profits).

Therrien et al. (2011) investigated whether innovation has an impact on firm performance in selected Canadian service industries. The results indicate that, in order to derive more sales from innovation, firms need to enter new markets and introduce new products with high levels of novelty.

Gunday et al. (2011) explored the effects of product, process, organization and marketing innovation on different aspects of firm performance, including achievements in production, marketing and finance, through an empirical study covering 184 Turkish manufacturing firms in different industries. Their study revealed that product, organization and marketing innovation has a positive effect on the firm’s profitability performance in manufacturing industries.

Terziovski (2010) studied the relationship between innovation and firm performance in 600 Australian firms and found out that the performance of small businesses improves if they increase the degree to which they mirror large manufacturing firms in innovative culture and if they align strategy throughout the innovation process.

Like many other scholars, Varis & Littunen (2010) equally argued that the ultimate reason firms engage in innovative activities is to improve their performance and success.

5.2.2 Financial discipline and business performance

The study also found significant positive relationship between financial discipline and business performance. This implies that if small business managers & owners demonstrated financial discipline, it would upshot high levels of business performance. This is so because financial indiscipline cases like; impulse buying, reckless & lavish lifestyles etc. dry up business’s cash
reserves, limiting the business’s ability to take advantage of market opportunities thereby denying the required economic benefits of profits, revenues, etc. for investors. This was a clear manifestation by respondents who strongly disagreed and disagreed on being probed on “if the money they get from the business was limited to their monthly/yearly or periodic benefits e.g. salary”, reported lower levels of profits, revenues, etc. Similarly, respondents who strongly disagreed and disagreed on the question “if expenditures e.g. on assets, utilities, etc. were business related only” had lower profit, revenue, etc. responses and vice versa. This finding upholds findings in earlier studies by; Pandey (2010), Babar et al. (2010), Pwc (2015), etc.

Pandey (2010) noted that there exists a positive relationship between financial discipline and business performance in that financial discipline maintains regularity of finances to meet the variable cash requirements and future contingencies of the business.

Babar et al. (2010) established that financial discipline explains business performance in that staying financially disciplined through planning with clear, realistic economic objectives, taking corrective actions when needed, examining new opportunities with strict financial measures, eliminating reckless expenditure and not undertaking projects that were not included in set financial plans enables businesses to cultivate investments that can deliver the required economic benefits of profits, ROA, etc. for investors.

Pwc (2015) also surveyed Canadian firms and established that financial indiscipline such as the impulse buying, reckless lavish lifestyles etc. dries business’s cash reserves, limits a business’s ability to take advantage of market opportunities thereby putting the business’s future in jeopardy.
5.2.3 The extent to which innovation and financial discipline predict variations in business performance

Like Turyahebwa et al. (2013), who found out that financial management practices accounted for 33.8% of the variance in performance when they studied financial management practices and performance of SMEs in western Uganda, this study found out that innovation and financial discipline jointly only explain 21.5% of the variance in business performance. The bulk (78.5%) of business performance in Arua municipality is accounted for by other variables that this study did not establish.

5.3 Conclusion

The study was carried out to find the relationship between innovation, financial discipline and business performance. The findings show business performance is dependent on the levels of innovation and financial discipline to the extent of 21.5%. Other unidentified factors account for major part (78.5%) of performance of small businesses in Arua municipality which were not part of this study. Also noticeable in this study is the fact that with standardized Beta coefficient and level of significance of ($\beta = .307, p < .01; \beta = .449, p < .01$) for financial discipline and innovation respectively, financial discipline is a better predictor of business performance than innovation. The study has provided a model for innovation, financial discipline and business performance. This model can then be used to provide a trajectory for improving performance of small businesses in Uganda and for future research. Policy makers and small business owners alike may use these findings as a way of improving business performance of small businesses in Uganda since the small businesses are great contributors to the Ugandan economy.
5.4 Recommendations

Based on the findings above, the researcher recommends that:

a) Businesses need to always have something unique with their products if they are to gain competitive edge in the market.

b) There’s need for government and NGO programmes to train small business owners on financial discipline and its effects as it predicted business performance more than innovation.

Business managers need to always have expenditure-forecasts and stay held to it unless for the same purpose. Individuals and managers need not underestimate the state of mind at the time of planning and budgeting …or be driven to buy all nice-things that come their way, for impulse buying will impact their cash flows the next second. Ensure the importance of cash flow is communicated throughout the business and a cash-consciousness is promoted among all staff influencing the application of cash resources. Implement effective systems for collecting and processing cash flow information – monitor the working capital cycle regularly to identify potential cash flow issues.

c) Accept competition and change in business.

d) It’s vital to manage businesses ethically.

5.5 Limitations of the study

The questionnaire probed only innovation, financial discipline and business performance leaving respondents with no room to express their views on other factors other than innovation and financial discipline that affect business performance.
Possible concealment of critical data due to apprehension may have affected the findings. However, identity documents from Makerere University Business School for introduction were presented to reduce the skepticism.

It is important to note that many of the respondents delayed and others failed to complete the questionnaires; this could have affected the response rate, the analysis and the meaning in this final write-up.

5.6 Areas for further study

The researcher recommends that further study be carried:

To establish the factors other than innovation and financial discipline which according to this study accounted for the major part (78.5%) of performance of small businesses in Arua municipality.

A study of training needs identification for the entrepreneurs and make recommendations for relevant authorities and partners to make future policy interventions.

To establish how “the drive or motive to starting businesses” affects business performance as it appears though business success is related to the investors vision for the business.
References


Amin, E. (2005), Social Science Research: Conception, Methodology and Analysis, BP 755 Yaounde I, Cameroon.


Chong Ho Yu. (2008), Multi collinearity, variance inflation and orthogonalization in regression.


Dharmadasa (2009). Organizational learning, innovation and performance in family-controlled manufacturing small and medium-sized enterprises (Small businesses) in Australia, ePublications@bond, Faculty of Business, Technology and Sustainable Development.


Appendix: Questionnaire

MAKERERE UNIVERSITY
GRATUATE RESEARCH CENTRE
MBA, ACCOUNTING AND FINANCE

Dear respondent,

The questions that follow are intended to facilitate a study of Innovation, Financial discipline and Business performance of some selected Small businesses in Arua municipality. Please take a few minutes of your precious time to answer them. Your responses will be used for academic purposes only & will be treated with utmost confidentiality.

SECTION A: DESCRIPTIVE DATA (Please tick where appropriate).

**Gender:**

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
</table>

**Age:** 18-25 | 3-34 | 44-5 | 53+ |

**Level of highest education:** PLE | Tertiary degree | (specify)

**Nature of business:** General merchandise | & restaurant

| Salon | Transportation business | Other | (specify) |

**Specify your average daily sales in Uganda Shillings**

| 10,000 to 20,000 | 20,000 to 30,000 | 30,000 to 40,000 | 40,000 and more |

**How long has your business existed?** 0-1 | 3-5 | |

SECTION B: NON DESCRIPTIVE DATA (Please circle where appropriate).
Please estimate to what extent the following statements related to Innovation & Financial discipline apply to your business. Circle one choice for each of the following statements; (1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree).

### A. INNOVATION

<table>
<thead>
<tr>
<th>Statement</th>
<th>Options available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A.I Product/service innovations</strong></td>
<td></td>
</tr>
<tr>
<td>1. Is your business unique from other vendors’line of business?</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. What is your business doing attractive &amp; different from other businesses?</td>
<td></td>
</tr>
<tr>
<td>a. My business offers a variety of products to choose from</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>b. My business constantly introduces latest products in the market</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>c. My business constantly sells quality products &amp; services</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>d. My business helps to replace unfit products for clients</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>e. My business offers free after sale services unlike other businesses</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>f. My business is available all times</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td><strong>A.II Process/administrative innovations</strong></td>
<td></td>
</tr>
<tr>
<td>h. My business location attracts my business customers</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>i. My business always takes customer suggestions seriously</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>j. My business always delivers timely unlike other businesses</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>k. My business addresses customer complaints more urgently</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>l. My business’s product affordability is my business’s weapon</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>m. My business maintains good hygiene different from other businesses</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>n. My business advertises its products continuously</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>o. My business has good customer care all time unlike other businesses</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td><strong>A.III New markets &amp; Innovative culture</strong></td>
<td></td>
</tr>
<tr>
<td>g. My business serves unique sect of customers in the market</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>p. My business promotes new idea trial/experimentation first</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>q. My business reaches out to serve new customers &amp; markets first</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

### B. FINANCIAL DISCIPLINE

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Options available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B.I Integrity (incidences of embezzlement)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>My business money is always safe &amp; secure in hands of my staff</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2</td>
<td>I’ve total trust in my employees in handling business funds</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3</td>
<td>My business has never lost any cent thru employees</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4</td>
<td>No employee has faced disciplinary for funds mistrust &amp; dishonesty</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td><strong>B.II Judgement (habit of lavishness &amp; extravagancy)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I’m only limited to my monthly/ yearly or periodic benefits e.g. salary</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2</td>
<td>My business expenses e.g. on assets, utilities, etc. are business related only</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
### C. BUSINESS PERFORMANCE

Please evaluate your business performance over the last periods by circling one choice for each of the following statements; (1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree).

#### C.I Financial performance.

<table>
<thead>
<tr>
<th>Sn</th>
<th>Statement</th>
<th>Options available</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Over the last periods, the business’s ..........</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>product demand increased</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2</td>
<td>customer numbers increased</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3</td>
<td>customer buying frequencies increased</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4</td>
<td>sales revenue increased</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5</td>
<td>cost of operation reduced</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6</td>
<td>profits increased</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7</td>
<td>cash-in-hand (liquidity) increased</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

#### C. II Non-financial performance.

<table>
<thead>
<tr>
<th>Sn</th>
<th>Statement</th>
<th>Options available</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The productivity of my employees is higher than in similar businesses</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2</td>
<td>Employees’ trust into the business leadership is high</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3</td>
<td>Trust among employees is strong</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4</td>
<td>Employees feel very committed to the business</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5</td>
<td>Employees are very satisfied with situations within the business</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6</td>
<td>The number of customer complaints reduced drastically</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7</td>
<td>My business retained existing clients &amp; managed to attract new ones</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8</td>
<td>My business reputation has greatly improved in the eyes of customers &amp; creditors</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9</td>
<td>My business product/service quality improved</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

Thank you for your time and response.