INTERNATIONAL JOURNAL OF RESEARCH AND INNOVATION IN SOCIAL SCIENCE (IJRISS)
ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume IX Issue IIIS July 2025 | Special Issue on Education

Financial Literacy Vis-À-Vis Performance of Micro-Enterprises in the City of Dipolog

Rosemarie J. Sagario

College of Business Administration, Jose Rizal Memorial State Unviersity, Dapitan, Zamboanga Peninsula, Philippines

DOI: https://dx.doi.org/10.47772/IJRISS.2025.903SEDU0428

Received: 17 July 2025; Accepted: 23 July 2025; Published: 25 August 2025

ABSTRACT

The objective of this study is twofold: to determine the relationship in the level of financial literacy of managers and owners of micro-enterprises in Dipolog City when data are grouped in terms of age, sex, educational attainment and; to determine the relationship between financial literacy and business performance. This study used a descriptive method in analyzing the data with the aid of a questionnaire to a purposively 100 Philippine Government Electronic Procurement Services (PhilGeps) previously and currently registered micro-enterprises.

The study revealed that women-owned and managed micro-enterprises accounted for a frequency of 52 followed by the male which accounted for a frequency of 48. The majority or 61 of the respondents have ages ranging from 21 to 42 years old and the majority of the respondents are run by college graduates with a frequency of 72. Likewise, the study revealed that there is no significant relationship on the financial literacy of managers and owners of micro-enterprises when data are grouped in terms of sex, age and educational level using the Spearman Rank Correlation statistical tool. This is because the respondents carry the same duties and responsibilities with partial application in terms of budgeting, debt management, risk management, and saving. The respondents have also fully applied record-keeping but moderate in terms of financing. On the other hand, there is a significant relationship between financial literacy and the average annual total capitalization and the average annual total net profits as a metric of business performance.

Keywords: Financial Literacy, Business Performance, Micro-enterprises

INTRODUCTION

Every manager or owner in each enterprise is the major contributor when it comes to the process of decision-making involving the distribution and use of resources. To act effectively, it is assumed that every manager or owner has to be financially literate with the ability to analyzed and managed financial conditions towards financial stability.

Financial literacy is described as the "Ability to make informed judgments and to take effective actions regarding the current and future use and management of money" by the United States Financial Literacy and Education Commission. Since it aids in comprehending and assessing the data required to make daily decisions that have financial implications for the management of the companies' day-to-day operations, financial literacy is seen as a crucial component of the success of small businesses (Fernandes, 2015).

A person who lacks financial literacy is more likely to struggle with debt, be more involved with expensive credit, and be less likely to make long-term plans (Lusardi et. al., 2010), the owner is highly exposed to risk of outcomes of wrong financial decision making (Senevirathne & Wadk, 2016), has caused business failures (Niwaha, Schmidt and Tumuramye, 2016), and shutdown of businesses (Niederauer, 2010).

As reported by the Philippine Statistics Authority (PSA) 2017 list of establishments, micro- enterprises make up 89.5 of all registered businesses in the Philippines and it contributed to almost 30.3 percent of the working population (DTI, 2017). In Dipolog City Zamboanga Del Norte, it has a total of three thousand six hundred eighty-two (3,682) MSMEs of which majority or three thousand six-hundred twenty (3,620) are micro-enterprises (DTI, 2017). Although micro-enterprises were a woofing contribution of the economy, the entrepreneurs of micro-enterprises are still beset with the trouble of financial management (Sucuachi, 2013). Brown, Saunders & Beresford (2006), believes in the fundamentals of ethical business conduct and financial literacy. An important predictor of the growth and performance of firms in a challenging financial environment is the entrepreneurs' strong financial system (Sucuachi 2013).

The purpose of this study, as envisioned by the researcher, is to ascertain whether there is a significant correlation between the financial literacy of managers or owners of micro-enterprises in Dipolog City when data are grouped according to sex, age, and educational attainment. Additionally, this study will look into if there is a connection between managers' or owners' financial literacy and the success of micro-enterprises in the City of Dipolog.

Objectives

The study aimed to determine the financial literacy of managers or owners of micro-enterprises in the City of Dipolog, the calendar year 2017.

Specifically, it answered the following questions:

1. What is the demographic profile of the respondents in terms of:
   1.1 sex;
   1.2 age; and
   1.3 educational level?
2. How do the respondents apply the metrics of financial literacy in micro-enterprise business in terms of:
   2.1 budgeting;
   2.2 financing;
   2.3 debt management;
   2.4 record-keeping;
   2.5 risk management; and
   2.6 saving?
3. What is the business performance of the micro-enterprise business for the last five years (2013-2017) in terms of:
   3.1 average annual total capitalization;
   3.2 average annual total assets;
   3.3 average annual total net profits;
   3.4 average annual total sales;
   3.5 average annual total expenses;
   3.6 average annual total number of employees; and
   3.7 the annual number of business expansion or branches?
4. Is there a significant relationship in the level of financial literacy of managers or owners’ micro-enterprises in the City of Dipolog when data are grouped in terms of sex, age, and educational level?
5. Is there a significant relationship between the financial literacy of managers or owners and the micro-enterprises' business performance?

THEORETICAL/CONCEPTUAL FRAMEWORK

This study is anchored on the following theories, to wit: 1. Self-Efficacy Theory by Albert Bandura (1997), 2. Transaction Cost Theory by Williamson (1979) and 3. Cause and Effect Theory by David Hume (1748).

1. **Self-Efficacy Theory.** Self-efficacy is the belief in one’s ability to muster and implement the necessary personal resources, skills, and competencies to attain a certain level of achievement on a

given task (Bandura, 1997). Self-efficacy for a specific task has been showed to be a robust predictor of an individual's performance in that task and helps to explain why people of equal ability can perform differently. An individual with high self-efficacy will exert effort on task for a greater length of time, persist through setbacks, set and accept higher goals and develop better plans and strategies for the task. In the context of financial literacy, this theory is related to how managers or owners of micro-enterprises manage their ability in terms of financial management skills that might lead to a positive or negative impact on the business performance.

2. **Transaction Cost Theory.** (Williamson 1979, 1986) posits that the optimum organizational structure is one that achieves economic efficiency by minimizing the costs of exchange. The theory suggests that each type of transaction produces coordination costs of monitoring, controlling, and managing transactions. According to Polski et al. (2001), transaction theory postulates that organizations suffer costs as they purchase, set up, and use resources. Financial literacy is necessary for someone to manage transactions properly. In the future, a lack of financial literacy will result in higher transaction costs, which will have a detrimental impact on performance. Their financial literacy will make it possible for managers or owners of micro-enterprises to pinpoint transactions that will improve operational efficiency.
3. **Causation Theory.** This theory explains the relation that holds between two temporally simultaneous or successive events when the first event (the cause) brings about the other (the effect).

Scholars and politicians in rich and developing nations have realized over the past 20 years how vital financial literacy is to the establishment and continued existence of small businesses (Wise, 2013). The precise impact of financial literacy on performance has been the subject of scholarly investigation (Chamwada, 2015). Budgeting, saving, record keeping, and financing skill is a contributing factor to the business operation and these are measurements of financial literacy (Sucuahi, 2013). Constantly creating and maintaining a budget for the business secures a smooth sailing of business endeavors. According to Braunsten and Welch (2002), saving contributes to financial security, wealth increase (Gokhale 2000), and a higher standard of living. Record keeping is a source of crucial information necessary for making significant decisions and is in charge of reducing risk. (Gray, Sebstad, Cohen and Stack, 2009). The ability to borrow funds from external sources with little expense and repayment responsibility is known as financing skill (Sucuahi, 2013), whereas risk management is the process of assuring firm security or risk prevention. Iopev and Kwanum (2012) point out that risk management is particularly vital to the survival of small businesses while debt management is the capacity to manage debt to regain control of finances. The business performance of a micro-enterprise is the result of financial literacy application.

Self-efficacy in terms of financial management skills is affected by the environment of their homes and from environments such as friends, schools, churches, and media. The financial literacy behavior of managers or owners of micro-businesses is influenced by their level of self-efficacy in financial management. It enables individuals to manage transactions effectively of any financial transaction taking place that reduced transaction costs leading to positive business performance. On the other hand, low self-efficacy in terms of financial management skills also affects the financial literacy behavior that enables an individual to manage transactions negatively and has poorly managed financial transactions leading to an increase in transaction cost influencing negatively the performance of the business. The majority of academics concur that business owners consistently make decisions about the acquisition, distribution, and use of resources, regardless of their age. Such actions nearly always have financial repercussions. Entrepreneurs need to be financially knowledgeable in order to be successful (Oseifuah, 2010).

Measuring Financial Literacy

According to the first-ever S&P Global FinLit Survey, a detailed and comprehensive analysis of worldwide financial literacy by the World Bank, Gallup, and George Washington University, the world's population has only a financial literacy percentage of about one third. Financially literate people have the competency to decide about investments, savings, borrowing and more (Asaad, 2015). As far back as 2015, Nkrumah stated that financial literacy has been recognized all around as a basic apparatus for development with issues identifying with budgeting, savings, investment and the administration of risks that are significant for the individuals, households, and businesses in their developmental procedure. Financial literacy of an individual can be assessed using topics such as budgeting, financing, debt management, record keeping, risk management, and saving.

Budgeting

An organization's activities are expected to contribute in terms of expected cash flow, or revenues and outlays, over a specified period of time, and budgeting is the process of developing a spending plan (Heinle, Ross & Saouma, 2014). Even when the budget may not be totally accurate, budgeting has helped to enhance corporate management, optimize profits, and minimize losses (Ibrahim, 2017). The key to accomplishing financial objectives and becoming financially literate is to establish a budget. Creating and adhering to a budget will increase one’s awareness of spending patterns and help minimize excessive or unnecessary spending (Styles, 2018). Microbusiness managers employed budgeting to monitor performance, which is a component of long-term viability (Sucuahi, 2013). Ibrahim (2017) claims that budgeting is yet another factor that improves the efficiency of business operations. Consequently, one of the reasons why small firms fail is a lack of budgeting (Warue and Wanjira, 2013) and the absence of financial literacy in terms of budgeting among SMEs greatly affects their performance (Maziriri, Mapuranga & Madinga, 2018). But in the study of Sucuachi (2013), budgeting has been utilized by micro-business managers to track performance, but they were unable to do it frequently.

Financing

Financing is the capacity to obtain finances at a minimum cost. Sucuachi (2013) stressed in his study that a measure of financial literacy is financing skill. Moreover, it is the capacity to raise money from outside sources at a little cost and with little payback obligation. According to the author Assibey (2010), most entrepreneurs of micro-enterprises are illiterate when obtaining the finances of their business. So, the author Fatoki (2014) believes that financially literate SME owners make better financial decisions than their financially knowledgeable peers with fewer management errors. The ability to make informed financial judgement and choices increase one’s ability to obtain and use financial services, which benefits SMEs (Okello et. al., 2016). So, financial literacy of owners of SMEs is a very important factor in explaining; 1. utilization of financial services by SMEs (Andoh & Nunoo, 2011); 2. how people control their capacity to comprehend financial services and items and; 3. to have understanding of a multitude of financial services and products, which are ever-evolving (Tontowi et. al, 2017). On the contrary, SMEs may find it challenging to understand the financial products offered by financial institutions due to low financial literacy. (Andoh & Nunoo, 2011). Therefore, by educating them risk-reduction strategies like avoiding excessive debt, financial literacy aids in SMEs' owners' preparation for challenging economic times (Sieke et. al., 2013).

Debt Management

Debt management is the capacity to manage debt to regain control of finances. Paying bills is not only important that one pays his or her bill at some point, but rather that one pays them on time and in full (Styles, 2018). In the study of Ibrahim (2017), he discovered that micro-business owners who were students were unsure about calculating the firm's total debt position and obtaining financing at the lowest possible cost. His study calls for the need to promote financial literacy and practice that reflects debt management and in his study debt management is also one of the metrics of financial behavior that directly contributes to the profitability of the MSE’s. MasterCard (2011) observes that financial literacy helps SME’s owners to evaluate financial products, thus, make informed decisions that facilitate proper debt management among SMEs owners. Individuals with more learning can proficiently scan for lower borrowing rates (Maziriri, Mapuranga & Madinga, 2018). Research has shown that the majority of microentrepreneurs are financially illiterate when it comes to raising capital for their business (Assibey, 2010). According to Ibrahim (2017), improving debt management abilities is essential for MSE managers to perform better.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume IX Issue IIIS July 2025 | Special Issue on Education

Record keeping

Record keeping is the skill of creating and maintaining records or accounts for expanding and sustaining the business. It is a process for compiling, organizing, storing, and analyzing a company's financial data to make it easier to run the business on a daily basis and to produce reports, tax returns, and statements, Ibrahim (2017). It is in charge of lowering risk and is a source of critical information required for making important decisions (Gray, Sebstad, Cohen and Stack, 2009). Record keeping is a barometer of financial literacy because business owners cannot rely on their mental recall to summarize all transactions of the day (Sucuahi, 2013). Keeping accurate accounting records is crucial for decision- making that influences how well small businesses perform has been stated in the study of Adejare & Adekunle (2014). But in the study of Tan (2017), entrepreneurs of micro-enterprises do not use formal record books such as journals and ledger, instead, they used notebooks and pieces of paper in recording business transactions. Owners of small businesses maintain records, but not in a formal way (Rutherford, Mcmullen and Oswald, 2011). As supported by the study of Oco (2014), the author revealed that women entrepreneurs of micro-enterprises have a moderately low level of financial skills in record-keeping practices using cash book, expense record, a sales record, profit and loss statement and accounts payable/receivables. Mitchelmore and Rowley (2013) found that financial competencies have an impact on firm performance and growth. So, financial statements are produced more frequently as financial knowledge rises (Wise, 2013).

Risk Management

Risk management is the practice of identifying potential risks in advance, analyzing and taking precautionary steps to reduce risk. It is also very important for business survival, Memarista (2016). A way to decrease the risk is by transferring the risk to insurance (Navqi, 2011). Financial literacy can assist consumers (and organizations) in preparing for difficult financial times by advocating risk- reduction strategies like purchasing insurance, Fatoki (2014). SMEs owners as a matter of necessity should take an insurance policy for their business as this may not only help to protect them against uncontrollable risk but will help to bring them back to their position whenever they suffer loss, remaining profitable and continue to operate in perpetuity at the same time contributing to the economic growth of the Nation, Iopev and Kwanum (2012). Financial literacy also helps people (both individuals and business owners) recognize and manage risk, as well as make smarter financial decisions. Iopev and Kwanum (2012) point out that risk management is particularly vital to survival for small businesses. Another way of managing risk is the separation of personal and business bank accounts. A separate bank account makes things a whole lot easier. Separate bank accounts make it easier to prove which purchases are for the owners and which purchases are for the business, thus auditors look closely at small businesses with large business expenses (smallbusiness.chron.com). Fatoki (2014) found that most entrepreneurs of micro-enterprises in Gauteng province in South Africa have bank accounts but most do not have business accounts. Moreover, the lack of a business account may impact negatively the availability of bank loans as banks will not have an accurate assessment of their business. Risk management is a very important metric of financial literacy. Some of the entrepreneurs with low levels of financial literacy hire third parties to take care of the financial aspects of their companies, which increase their costs (Fatoki, 2014). But, people with high literacy levels understand fairly the financial aspects of their business. Thus, financial literacy enables them to have confidence that their business will continue to have financial successes and generate profits in the future (Samkin et al., 2014).

Saving

Saving is thought to be a crucial element of financial security, literacy, and lessening of dependency on credit (Atkinson & Messy, 2012). It is money or physical assets allocated for future use, it is a very essential factor responsible for meeting any unforeseen events ensued by individuals, households or firms, it is meant for meeting unexpected contingencies and could also serve as a form of investment (Opoku, 2015). Saving is also a component for economic security, accumulation of wealth and improved living standards (Sucuahi, 2013). Making the business more profitable involves looking at ways to increase sales revenue as well as decreasing costs to see where an owner or manager can save money. According to Fatoki (2014), financial literacy can benefit firms by encouraging risk-reduction tactics like saving money and diversifying their holdings. Long-term life quality is improved by higher saving rates and better daily decision-making when there is a high level of financial literacy (Navickas, Gudaitis, & Krajnakova 2014).

Financial literacy and the Business Performance of Micro Enterprise

According to Abdullah & Rosli (2015), performance is the key interest of each business owner. Performance can have two strategic outcomes: either the firm succeeds or fails (Eniola & Entebang, 2015a). In the literature, these results are often debated. Some authors claim that a company's success during a specific time frame is widely utilized as a barometer of its health. In the study of Najiha et. al., (2014) on the determinants of firm performance indicators include the sales, profit, an increase in the number of employees, increase in the value of assets and business networking. On the other hand, firm (business) success in the management field can be viewed as indicators of strong or poor management (Jennings & Beaver, 1997; Sefiani & Brown, 2013). According to Adomako and Danso's (2014) study, academics are working harder to undertake studies on financial decision-making and financial literacy. A key finding from the majority of these earlier studies is that financial outcomes and financial literacy are strongly positively correlated. This identifies performance as one of the major problems facing micro businesses.

Sucuachi (2013) asserts that low financial competence could be detrimental to the business future considering the micro and small businesses have a substantial impact on the economics of most countries. According to Bosma and Harding (2006), a lack of financial literacy contributes to the failure of many SMEs and deters entrepreneurship. Majority of academics, regardless of their age, business owners continually engaged in resource allocation and usage decision-making (Eniola & Entebang, 2015). Individuals should empower with the basics of financial literacy so that they will make a wise decision based on their budget (Harnish, 2010). Financial literacy makes entrepreneurs confident in the process of making savings decisions, which allows them to do better financial management (Sakwa, 2017). Individuals are most likely to 'budget effectively, invest wisely, and manage their debt level in a sustainable manner' (Widdowson & Hailwood, 2007 p. 38) because financially literate people are better at controlling their spending, saving money, and creating budgets. (Moore, 2003; Perry and Morris, 2005). As a result, financially literate business owners manage resources effectively and make better use of financial data, increasing the profitability of their business (Bernan et al, 2008).

There are metrics needed to measure financial literacy. This study uses budgeting, financing, debt management, record keeping, risk management, and saving. A manager's and owner's financial literacy will contribute directly to the business enterprises' performance. There will be discussion about the definition of performance and how it relates to micro-enterprises. In this study, the measures of business performance are the annual total capitalization, annual total assets, annual total net profits, annual total sales, annual total expenses, the annual number of employees and the annual number of branches. Changes in the metrics will entail the performance of the micro-enterprise.

Total Capitalization is the total long-term debt and all types of equity of a company that constitutes its capital structure (financial-dictionary.com). When an increase occurs in a company’s (micro-enterprise) capital, the overall result is an increase to the company’s stockholders (owners) equity balance and the increase in equity may increase from raising the company’s (micro-enterprise) revenues and decreasing operating expenses (Helstrom, Keela). Total assets refer to the total amount of assets owned by one person or entity (accountingtools.com). It’s a crucial metric for determining the business net worth. Net profits measure profitability by showing how much of the sales revenue remains after subtracting all the expenses (smallbusiness.chron.com). Sales are the business's total revenue from sales of its products and the concept of sales and sales volume interconnect because total sales equal sales volume. Sales were chosen as a metric since it can tell a lot of things about the enterprise and sales results show whether people are interested in buying the products or service, and still in the competition (scoro.com). Expenses are the cost of operations that company incurs to generate revenue and one of the main goals of management is to maximize profits by boosting revenues while keeping expenses in check and slashing costs will help to make even more money from sales (investopedia.com).

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume IX Issue IIIS July 2025 | Special Issue on Education

Financial literacy is the ability to grow, monitor, and effectively use financial resources to take other effective actions to enhance the well-being and economic security of oneself, one's family, and one's business. It exposes business owners to superior decision-making abilities that result in borrowing, taking risks, diversifying their businesses, and investing (Cherugong, 2015). In his study, the author evaluates the impact of financial literacy on Kenya's small and micro business performance. According to the report, financial literacy has a beneficial impact on how well SMEs succeed. He claimed that financially educated business owners who comprehend the fundamental financial ideas, such as risk management, debt management, record keeping, and budgetary skills are responsible for the success of SMEs. In order to enhance the operation of businesses, financial literacy can help decision-makers make decisions that support timely bill payment and prudent debt management (Adomako and Danso, 2014). Figure 1 shows the variables of this study. To find out if there is a significant relationship on the demographic characteristics and financial literacy, information such as age, sex, and educational level was obtained. To find out if financial literacy has a significant relationship to business performance, the application of the respondents on the metrics of financial literacy such as budgeting, financing, debt management, record keeping, risk management, saving was obtained through the use of the researcher's self-made questionnaire and analyzed using a statistical tool.

Conceptual Framework

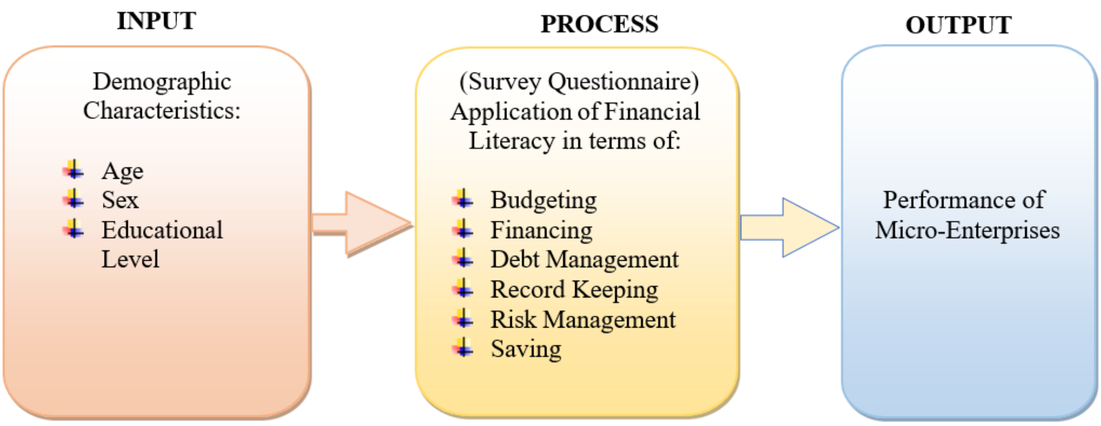

Figure 1. Schematic Diagram of the Conceptual Framework

METHODOLOGY

The study used a descriptive method with the aid of a questionnaire. The instrument has thirty (30) questions that determine how the respondents applied the determinants of financial literacy such as budgeting, financing, debt management, record keeping, risk management, and saving of the target population using a scale of 1 to 4 (4 – fully applied and 1- not applied). The instrument also deals with business performance and it includes six (6) questions. The respondents indicated their answer by a letter from A to H with a corresponding range of up to three million pesos (P3,000,000.00) to know the performance of the business for the past five (5) years such as annual total capitalization, annual total assets, annual total net profits, annual total sales, and annual total expenses. Moreover, the respondents indicated the number of employees and numbers of business expansion or branches for the years 2013- 2017.

Primarily, the study was conducted in the Province of Zamboanga del Norte, Dipolog City. The respondents of the study were the managers or owners of micro-enterprises doing business in the city of Dipolog. This area is made up of micro-enterprises such as services, wholesalers, retailers, and producers. The study targeted the Philippine Government Electronic Procurement System (PhilGEPS) current and previously registered businesses in Dipolog City from the year 2013 to 2017. The researcher adopted a purposive sampling technique since the respondents were currently and previously registered in PhilGEPS. The researcher limited the number of samples to 100.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume IX Issue IIIS July 2025 | Special Issue on Education

The researcher has made a request letter intended to the Head or Mayor of the city of Dipolog to ask for approval to conduct a survey in Dipolog City's micro-enterprises. The letter was referred by the mayor's office to the head of the permits and licensing division for the approval of the request letter. The head of the permits and license division approved and granted the research for at least 60% to 70% of business establishments in Dipolog City to be surveyed. The respondent's list was generated by the office of Jose Rizal Memorial State University-Main Campus. It provided the list of Philippine Electronic Government Procurement System (PhilGEPS) with current and previous registered businesses in Dipolog City since it is a government-owned and controlled institution that conducts public bidding.

Respondent's application on the determinants of financial literacy in micro-enterprise business was interpreted using the following:

Statistical Range	Item Mean Rating	Overall Descriptive Rating
3.26 - 4.00	Fully Applied (FA)	Very High Financial Literacy (VHFL)
2.51 - 3.25	Partially Applied (PA)	High Financial Literacy (HFL)
1.76 - 2.50	Moderately Applied (MA)	Low Financial Literacy (LFL)
1.00 - 1.75	Not Applied (NA)	Very Low Financial Literacy (VLFL)

The data collected was encoded and analyzed using Spearman Rank Correlation Statistical Tool. Statistical tests at 0.05 level of significance.

RESULTS AND DISCUSSION

Table 1. Sex Profile of the Respondents

Sex	Frequency	Percentage (%)
Male	48	48
Female	52	52
Total	**100**	**100**

Table 1 above shows the sex profile of the respondents. The table revealed that there is only a slight difference in the number of males and females when it comes to managing micro-enterprises. Women-owned and managed micro-enterprises increased which accounted for a frequency of 52 followed by their male counterparts which accounted for a frequency of 48 of the total response rates. Thus, Filipino women are no longer regarded as second to the males, and gone are the days when Filipino women are expected to stay at home, bear children, and perform household chores (Aguino, 1999). With the Filipino women enjoying the same equal opportunities to education as their male counterparts, the Filipino women are able to pursue rewarding careers and can render their own contribution to the society (Aguino, 1999).

Table 2. Age Profile of the Respondent

Age (Years)	Frequency	Percentage (%)
21 to 42 years old	61	61
43 to 65 years old	35	35
Over 65 years old	4	4
Total	**100**	**100**

Table 2 shows the age range of the respondents. It is evident that 61% or the majority of the respondents are aged from 21 to 42 years old. As supported by the study of Reynolds et al (2000), individuals of middle age between 25-44 years old were the most active business persons. This has almost the same age range as the present study. On the other hand, the lowest age range is over 65 years old that was managed by senior citizens. This implies that they are still slightly active in the business venture than young individuals whose ages were less than 21 years old. Prior research suggests that older people are more competent to launch and manage a business than younger people (Singh and DeNoble, 2003).

Table 3. Educational Level

Education Level	Frequency	Percentage (%)
Elementary Graduate	1	1
High School Level	2	2
College Level	22	22
College Graduate	72	72
Post Graduate Level	1	1
Post Graduate	1	1
Total	**100**	**100**

Figure 3 presents the educational level of the respondents. The study revealed that the majority of the respondents were college graduates with a frequency of 72. It is noticeable that most of the micro-entrepreneurs are college graduates. On the contrary, 1 respondent has finished elementary level, master's degree level, master's graduate, and doctorate graduate. It is emphasized that education plays a significant role in would-be professionals and entrepreneurs (Chittithaworn et. al, 2011), (Coleman, 2004) and (Watson et. al, 1998).

Table 4. Extent of Applying the Metrics of Financial Literacy in Terms of Budgeting

Indicators	4	3	2	1	Weighted Mean	Item Mean Rating	ODR
1. The operational cost of the business for the preparation of the budget is consistently assessed.	39	52	8	1	3.29	FA	VHFL
1. Operational budgets for the business are consistently assessed in advance (e.g. weekly, monthly, yearly).	37	48	10	5	3.17	PA	HFL
2. Reviewed and followed the business budgeting consistently (e.g. weekly, monthly, yearly, etc.) for expenses.	38	48	12	2	3.22	PA	HFL
3. Compared income over expenditure (e.g. weekly, monthly, yearly, etc.) to control budget consistently.	36	36	25	3	3.05	PA	HFL
4. Has reduced business expenses to avoid going over the specified budget.	36	37	23	4	3.05	PA	HFL
Sub Weighted Mean					**3.16**	**PA**	**HFL**

The table revealed that most of the respondents have fully applied the consistent assessment of the operational cost of the business for the preparation of the budget (3.29). Partially applied for the consistent review and consistently following the business budget for expenses (3.22), the consistent preparation of the operational budget in advance (3.17), the reduction of business expenses to avoid going over the specified

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume IX Issue IIIS July 2025 | Special Issue on Education

budget (3.05) and the consistent comparison of income over expenditure to control the budget (3.05). Moreover, the table also revealed that the respondents have partially applied the extent of applying the metrics of financial literacy in terms of budgeting (3.16) with an overall descriptive rating of "high financial literacy". This implies that most of the respondents have partially applied the process of preparing, reviewing, controlling, and following an operational budget to avoid overspending. Therefore, creating and adhering to a budget will increase one's awareness of spending patterns that helped minimized excessive or unnecessary spending (Styles, 2018).

Table 5. Extent of Applying the Metrics of Financial Literacy in Terms of Financing

Indicators	4	3	2	1	Weighted Mean	Item Mean Rating	ODR
1. Has obtained a loan for my business from financial institutions at a minimum cost.	16	15	35	34	2.13	MA	LFL
2. Has obtained a loan on the following financial services whose interest rates are favorable to my business:					1.46	NA	VLFL
Lending Institutions	7	8	11	74	1.48	NA	VLFL
Rural Banks	14	20	9	57	1.91	MA	LFL
Cooperative Banks	2	3	6	89	1.18	NA	VLFL
Credit Cards	3	9	10	78	1.37	NA	VLFL
Commercial Banks	8	13	12	67	1.62	NA	VLFL
NGO's	5	2	2	91	1.21	NA	VLFL
3. Borrowing or taking a loan considers at least 40% be borrowed from other financial institutions and 60% comes from my own contributions to finance my business.	8	10	30	52	1.74	NA	VLFL
4. Whenever I have a loan balance, it is necessary to pay the loan balance on time to avoid penalties and surcharges incurred in the business.	37	11	30	22	2.63	PA	HFL
5. Business expenses were reduced to gain income for the payment of loans.	18	17	38	27	2.26	MA	HFL
Sub Weighted Mean					**2.04**	**MA**	**LFL**

Table 5 presents the extent of applying the metrics of financial literacy in terms of financing. It shows that most of the respondents have partially applied the practice of paying loan balances on time to avoid penalties and surcharges (2.63). Moderately applied the practice of reducing business expenses to gain income for the payment of loans (2.26) and the capacity to obtain loans from financial institutions at a minimum cost (2.13). Some of the respondents did not apply the practice of obtaining a loan in financial services whose interest rates are favorable to their business (1.46) and the practice of considering at least 40% be borrowed from financial institutions and 60% come from their own contributions to finance their business (1.74). Generally, the table revealed that the respondents have moderately applied the extent of applying the metrics of financial literacy in terms of financing (2.04) with an overall descriptive rating of "low financial literacy". This implies that most of the respondents have low financial literacy in terms of financing because of some constraints. One of the constraints prevented the respondents to be financially literate is for them to pledge a high amount of collateral assets than the amount to be borrowed. The Charan and Kishinchand (2016) study, which found that MSMEs' main problems with underutilizing formal sources like banks were the inadequacy of collateral assets and the perception that borrowing costs are too high, which supported the findings of this study. However, financial literacy helps people make prudent financial decisions and choices, which improves SMEs' access to and use of financial services, according to Okello et al. (2016). Therefore, firms whose owners are financially literate are more likely to utilize financial services – and take microcredit, thereby increasing their chances of being sustainable (Andoh and Nunoo, 2011).

Table 6. Extent of Applying the Metrics of Financial Literacy in Terms of Debt Management

Indicators	4	3	2	1	Weighted Mean	Item Mean Rating	ODR
1. The total debt position of the business is determined accurately.	53	31	5	11	3.26	FA	VHFL
2. Has paid the bills on time (e.g., utilities, rent, taxes, payable, suppliers) each month.	80	16	2	2	3.74	FA	VHFL
3. Could determine how long (e.g. day, month, year) the creditors cannot pay on time.	35	51	7	7	3.14	PA	HFL
4. Did a follow-up on late payments from customers to pay for my loan obligations.	34	39	19	8	2.99	PA	HFL
5. Has negotiated better interest rates with lenders to avoid high payments.	26	26	31	17	2.61	PA	HFL
Sub Weighted Mean					**3.15**	**PA**	**HFL**

Table 6 presents the extent of applying the metrics of financial literacy in terms of debt management. The table revealed that the respondents have fully applied the practice of paying bills on time each month (3.74) and the accurate determination of the total debt position of the business (3.26). Partially applied the capacity to determine how long the creditors who cannot pay on time (3.14), had done follow-up on late payments from customers (2.99), and negotiated better interest rates with lenders to avoid high payments (2.61). Generally, the respondents had partially applied the extent of applying the metrics of financial literacy in terms of debt management (3.15) with an overall descriptive rating of “high financial literacy”. This implies that most of the respondents have the capacity to manage debt to regain control of finances. Acquiring debt management skills is very important for MSE managers for greater performance (Ibrahim, 2017).

Table 7. Extent of Applying the Metrics of Financial Literacy in Terms of Record Keeping

Indicators	4	3	2	1	Weighted Mean	Item Mean Rating	ODR
1. Records and proper supporting documents on the transactions that occur daily (e.g. cash book, expenses book, creditors book, sales and supplier invoices, official receipts, purchase order) had been kept.	69	26	4	1	3.63	FA	VHFL
2. Business transactions in the the journal had recorded.	48	37	9	6	3.27	FA	VHFL
3. Business transactions in the ledger were recorded.	43	37	12	8	3.15	PA	HFL
4. Financial statements of the business had prepared (balance sheet, income statement, cash flow and etc.)	33	29	27	11	2.84	PA	HFL
5. Accounting records of the business for tax purposes have been kept.	81	13	4	2	3.73	FA	VHFL
Sub Weighted Mean					**3.32**	**FA**	**VHFL**

Table 7 presents the extent of applying the metrics of financial literacy in terms of record keeping. The table revealed that most of the respondents have fully applied the keeping of accounting records of the business for tax purposes (3.73), have kept records and proper supporting documents on the transactions that occur daily (3.63), and have recorded business transactions in the journal (3.27). Some of the respondents have partially applied the record of business transactions in the ledger (3.15) and the preparation of financial statements (2.84). Generally, the respondents have fully applied the extent of applying the metrics of financial literacy in terms of record-keeping (3.32) with an overall descriptive rating of "very high financial literacy". Record-keeping is a source of crucial information necessary for making essential decisions and is in charge of reducing risk (Gray, Sebstad, Cohen, and Stack, 2019). This implies that most of the respondents have kept accounting records for decision making and for minimizing risk. According to Milchemore and Rowley (2013), financial competencies have an impact on firm performance and growth. More frequent production of financial statements increased financial literacy (Wise, 2013).

Table 8. Extent of Applying the Metrics of Financial Literacy in Terms of Risk Management

Indicators	4	3	2	1	Weighted Mean	Item Mean Rating	ODR
1. Has used the insurance to reduce the risk of the business in case of calamities.	37	18	13	32	2.6	PA	HFL
2. Separated business bank accounts from personal bank accounts.	51	14	5	30	2.86	PA	HFL
3. Employed services of a financial adviser to reduce risks in managing the business.	16	20	12	52	2	MA	LFL
4. An independent certified public accountant annually audits the business transactions.	46	35	4	15	3.12	PA	HFL
5. Has to make a careful selection of employees.	76	21	3	0	3.73	FA	VHFL
Sub Weighted Mean					**2.86**	**PA**	**HFL**

Table 8 presents the extent of applying the metrics of financial literacy in terms of risk management. The table revealed that most of the respondents have fully applied the careful selection of employees (3.73). Partially applied the practice of auditing business transactions through independent certified public accountants (3.12), the separation of business bank accounts from personal bank accounts (2.86), and the use of insurance in case of calamities (2.60). Moderately applied the practice of employing the services of a financial adviser to reduce risk in managing the business (2.00). Generally, the respondents had partially applied the metrics of financial literacy in terms of savings (2.86) with an overall descriptive rating of "high financial literacy". This implies that most of the respondents ensured security in business or risk prevention. A way to decrease risk is by transferring to insurance (Navqi, 2011) and financial literacy can help people get ready for hard times financially by encouraging risk-reduction tactics like buying insurance (Fatoki, 2014).

Table 9. Extent of Applying the Metrics of Financial Literacy in Terms of Savings

Indicators	4	3	2	1	Weighted Mean	Item Mean Rating	ODR
1. In order to save, at least I have extra income.	69	25	5	1	3.62	FA	VHFL
2. Has set aside funds from the extra income for future expenses.	53	41	5	1	3.46	PA	HFL
3. Has set aside funds from the extra income for unexpected expenses of the business.	36	44	16	4	3.12	PA	HFL
4. Considered investing other sources of the fund rather than savings into other business opportunities.	34	30	13	23	2.75	PA	HFL
5. Has remained frugal in terms of business expenses in order to save.	41	43	13	3	3.22	PA	HFL
Sub Weighted Mean					**3.23**	**PA**	**HFL**

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume IX Issue IIIS July 2025 | Special Issue on Education

Table 9 presents the extent of applying the metrics of financial literacy in terms of savings. The table shows that most of the respondents have fully applied the practice of having extra income to save (3.62). Partially applied the setting aside of funds from extra income for future expenses (3.46), the ability to remain frugal in terms of business expenses to save (3.22), the setting aside of funds from extra income for unexpected expenses of the business (3.12) and the consideration of investing other sources of fund rather than savings into other business opportunities (2.75). Generally, the respondents had partially applied the extent of applying the metrics of financial literacy in terms of saving (3.23) with an overall descriptive rating of "high financial literacy". This implies that most of the respondents ensured the security of business by accumulating wealth. Therefore, financial literacy benefits firms by encouraging risk-reduction techniques like saving money and diversifying assets (Fatoki, 2014).

Table 10. Summary of Extent in Applying the Metrics of Financial Literacy

Summary in the Level of Financial Literacy of Micro Entrepreneurs	Mean	Item Mean Rating	ODR
Budgeting	3.16	PA	HFL
Financing	2.04	NA	VLFL
Debt Management	3.15	PA	HFL
Record Keeping	3.32	FA	VHFL
Risk Management	2.86	PA	HFL
Saving	3.23	PA	HFL
Overall Weighted Mean	**2.96**	**PA**	**HFL**

Legend: Statistical Range	**Item Mean Rating**	**Overall Descriptive Rating**
3.26 – 4.00	Fully Applied (FA)	Very High Financial Literacy (VHFL)
2.51 – 3.25	Partially Applied (PA)	High Financial Literacy (HFL)
1.76 – 2.50	Moderately Applied (MA)	Low Financial Literacy (LFL)
1.00 – 1.75	Not Applied (NA)	Very Low Financial Literacy (VLFL)

Table 10 presents the summary on the extent of applying the metrics of financial literacy in terms of budgeting, financing, debt management, record keeping, risk management, and saving. The table revealed that the majority of the respondents had partially applied the metrics of financial literacy with a mean of 2.96 and an overall descriptive rating of "high financial literacy". This is an indication that respondents have high financial literacy in managing their business as evidenced by the level of financial literacy in the different areas such as budgeting, debt management, record keeping, risk management, and saving. A closer look at the table revealed that all the items in the areas have partially applied by the respondents except for "financing" which have been moderately applied and have an overall descriptive rating of "low financial literacy". This implies that most of the respondents have low financial literacy in terms of the ability to obtained capital from outside sources with minimal cost and payoff obligation because of some constraints. One of the constraints which prevented the respondents to be financially literate is for them to pledge a high amount of collateral assets than the amount to be borrowed. The study's findings support Charan and Kishinchand's (2016) conclusion that MSMEs' primary problems with under-utilizing formal sources like banks were the lack of adequate collateral assets and the perception that borrowing costs were too expensive (Andoh and Nunoo, 2011). Okello et al. Al, (2016) revealed that financial literacy promotes access to and use of financial services by SMEs by empowering people to make sensible financial decisions and choices. Therefore, the positive sign of financial literacy variable supports the fact that firms whose owners are financially literate are more likely to utilize financial services – take micro-credit, thereby increasing their chances of being sustainable (Andoh and Nunoo, 2011).

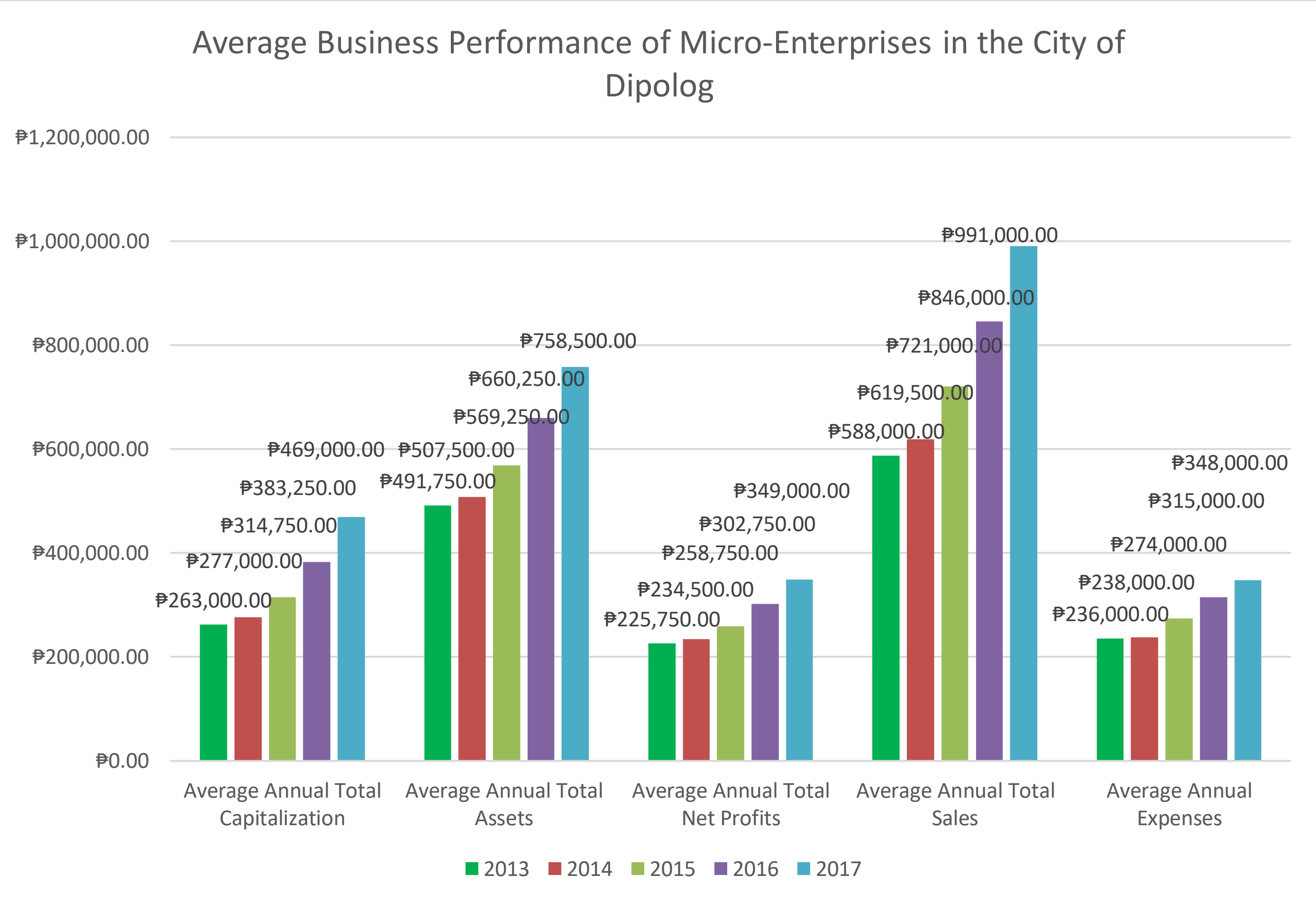

Figure 2. Business Performance of the Micro-Enterprise for the Last Five Years

The figure revealed that the respondent's average annual total capitalization has slightly increased from the year 2013 with an average annual total capitalization of P 263,000.00 to the year 2017 with an average annual total capitalization equivalent to an amount of P469,000.00. When an increase occurs in a micro-enterprises overall results are an increase in the owner's equity balance, an increase in revenues and a decrease in operating expenses (Helstrom, Keela (n.d). Therefore, financially literate individuals do better at controlling spending (Moore,2003; Perry ad Morris,2005).

Most of the respondent's average annual total assets have improved from the year 2013 with an equivalent average amount of P491, 750.00 and ended in the year 2017 with an equivalent average amount of P758,500.00. Total asset is indeed crucial for determining the business net worth. Hence, if the assets of an enterprise have increased from one period to the next, business equity increased by the same amount (news.morningstar.com.). Financial literate entrepreneurs manage resources wisely thereby improving the profitability of their enterprises (Bernan et al, 2008). The table implies that the respondents manage their resources wisely such as money.

In terms of average annual total net profits, it slightly increased from the year 2013 with an average amount of P 225,750.00 and ended in the year 2017 with an average amount of P 349,000.00. Net profits measure profitability by showing how much of the sales revenue remains after subtracting all the expenses (smallbusiness.chron.com). This implies that the respondents have managed carefully their resources which improves the business profitability. According to (Bernan et. al, 2008), financial literate entrepreneurs manage resources wisely thereby improving the profitability of their enterprises.

Most of the respondents' average annual total sales have slightly also increased from the year 2013 with an average amount of P 588,000.00 and ended in the year 2017 with an average amount of P 991,000.00. Sales can tell a lot of things about the enterprise like it shows that people are interested in buying the products or

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume IX Issue IIIS July 2025 | Special Issue on Education

services and is still in the competition (scoro.com). The result of the study implies that the respondents are still competitive in the market with interested customers buying their products and availing their services.

The figure also revealed that most of the respondents' average annual total expenses have slightly increased. This implies that though the respondent's expenses have slightly increased, still they were able to minimize expenses because there is a slight increase from the year 2013 with an equivalent average amount of P236,000.00 to the year 2017 with an equivalent average amount of P348,000. One main goal of the management is to maximize profits by boosting revenues while keeping expenses in check, slashing costs to help make more money from sales (investopedia.com). Therefore, financial literacy can help expose entrepreneurs to better decision-making skills (Cherugong, 2015).

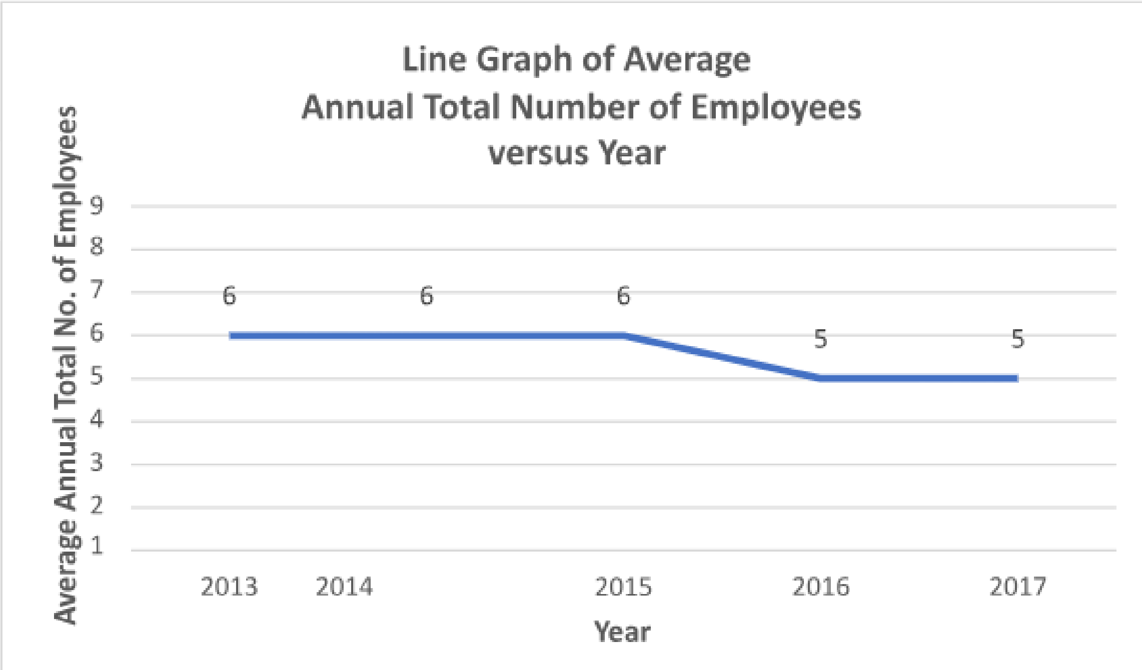

Figure 3. Business Performance of the Micro-Enterprise for the Last Five Years in Terms of Average Annual Total Number of Employees

Figure 3 presents the performance of the respondent's micro-enterprises for the years (2013-2017) in terms of the average annual total number of employees. For the five years from the year 2013 to 2015, most of the respondent's micro-enterprises have employed an average of 6 employees and have reduced to an average of 5 employees from the year 2016 to 2017. Though there is a slight decrease in employment for the year 2016 to 2017, it is undeniable that micro-enterprises contribute significantly to both the reduction of unemployment and the generation of income for both owners and employees (Hassan and Ahmad, 2016).

Table 11. Business Performance of the Micro-Enterprise for the Last Five Years in Terms of Annual Number of Business Expansion/Branches

Annual Number of Branches	2013 f	2014 f	2015 f	2016 f	2017 f	Mean
1	6	7	8	8	10	8
2	2	2	2	3	3	2

Table 11 presents the performance of the respondent's micro-enterprises for the years (2013-2017) in terms of the annual number of branches. The table revealed that for the five years, most of the respondent's micro-enterprises have expanded to 1 branch while some of the respondent's micro- enterprises have expanded to 2 branches.

INTERNATIONAL JOURNAL OF RESEARCH AND INNOVATION IN SOCIAL SCIENCE (IJRISS)
ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume IX Issue IIIS July 2025 | Special Issue on Education

Table 12. Relationship in the Financial Literacy of Managers or Owners of Micro Enterprise in Dipolog City when data are grouped in terms of sex, age, and educational level.

Financial Literacy vs Demographic Characteristics	Correlation Coefficient	P-value at α = 0.05	Decision	Remarks
Sex	-0.086	0.392	Accept H_1	Not Significant
Age	-0.148	0.142	Accept H_1	Not Significant
Educational Level	0.123	0.224	Accept H_1	Not Significant

Table 12 presents the relationship between the respondent's profile and financial literacy. The study revealed that there is no significant relationship between sex, age, educational level, and his or her financial literacy. The findings of the study did not support the study of Farrell, Fry & Risse (2016) in which they found out that sex was found to have influenced financial literacy by exhibiting higher levels of financial literacy on males than their female counterparts. However, the result of the study has supported the findings of Sucuachi (2013) in which gender cannot predict the financial literacy level of the micro-entrepreneurs. The authors Fonseca, Mullen, Zamarro, Zissimopoulos (2012) argued that once men and women have same levels of education and are responsible for carrying equal loads of responsibility, the gender gap is abolished. In terms of age, the study did not support the findings of Van Clercq and Venter (2009), that age was one aspect that had an impact on financial literacy, with young people having a lower degree of literacy, middle-aged people having the highest level, and older people having a somewhat lower level of literacy. (Rooij et al., 2007). Lastly, the educational level has no significant relationship with the financial literacy of the managers or owners of micro-enterprises because most of the respondents carry similar educational levels and responsibilities (Fonseca, Mullen, Zamarro, Zissimopoulos, 2012). Therefore, the level of financial literacy in terms of age, sex and educational level cannot be differentiated.

Table 13. Relationship between the Financial literacy of Managers or Owners and the Micro- Enterprise Business Performance.

Financial Literacy vs Business Performance in terms of:	Correlation Coefficient	P-value at α =0.05	Decision	Remarks
Average Annual Total Capitalization	0.360	0.000	Reject H_2	Significant
Average Annual Total Net Profits	0.369	0.000	Reject H_2	Significant

Table 13 presents the relationship between financial literacy and business performance in terms of average annual total capitalization and average annual net profits. The study revealed that there is a significant relationship between financial literacy and the average annual total capitalization and the average annual net profits. Therefore, the result of the study supported the findings of Bernan et al, 2008 which states that financially literate business owners make prudent resource management decisions and make better use of financial data, increasing the profitability of their businesses. It also supported the study of Bosma and Harding (2006) in which the researchers stated that the failure of many SMEs is attributed to a lack of financial literacy, which also discourages entrepreneurship.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume IX Issue IIIS July 2025 | Special Issue on Education

CONCLUSION

The demographic characteristics such as sex, age, and educational level cannot predict the individual's level of financial literacy when running a business venture like micro-enterprises. No matter the sex is, the age and the educational level of the managers or owners of micro-enterprises, there is no significant difference in the level of financial literacy.

The study was able to determine the strengths of the owners or managers of micro-enterprises in sustaining their businesses. Most of the owners or managers of micro-enterprises have partially applied budgeting, debt management, risk management, saving and has fully applied the metrics of record- keeping, but not in the context of financing where they display moderate application. This implies that the respondents have low financial literacy in terms of the ability to obtain capital from outside sources with minimal cost and payoff obligation. One of the constraints which prevented the respondents to be financially literate is for them to pledge a high amount of collateral assets than the amount to be borrowed. This has prevented the respondents from considering financial products and services from financial institutions. This study has supported the researchers Charan and Kishinchand, 2016 in which they found that Msme's main challenges faced in underutilization of formal sources like banks were the inadequacy of collateral assets and the perceived cost of borrowing is too high (Andoh and Nunoo, 2011). But firms whose owners who are financially literate are more likely to utilize financial services – take microcredit, thereby increasing their chances of being sustainable (Andoh and Nunoo, 2011).

Micro enterprises were mostly managed by college graduates with a frequency of 72. Since most of these businesses were run by a college graduate, micro-enterprises have helped in the reduction of the unemployment rate and were able to expand 1 to 2 branches for the last five years. This was able to help in the creation of jobs that eventually improved the employment rate of Filipino individuals.

Since there is a significant relationship between financial literacy and the average annual total capitalization and the average annual net profits. The level of financial literacy of owners or managers of micro-enterprise is statistically significant to the performance of the business.

RECOMMENDATIONS

1. Managers or owners of micro-enterprises should at least consider other avenues for a source of capitalization from Government Agencies duly licensed by the Bangko Sentral ng Pilipinas like the program "Pondo sa Pagbabago at Pag-asenso" for capital infusion and asset acquisition that can help in improving its business performance.
2. Microfinance institutions can attach to the Department of Trade and Industry to avail of the "Pondo sa Pagbabago at Pag-asenso (P3)" program. This will encourage the managers or owners of micro-enterprises to take microcredit for them to expand and grow its financial literacy in terms of financing.
3. Academic institutions in the conduct of extension programs should include the topics on financial literacy focusing on the metrics such as budgeting, financing, debt management, record keeping, risk management and saving to help educate the managers or owners of micro-enterprises on the importance of financial literacy on the business performance.
4. Department of Trade and Industry should consider strengthening their promotional ads to promote the program of the Philippine Government entitled "Pondo sa Pagbabago at Pag-asenso (P3)" that was designed to cut down interest rate at which micro-finance is made available to micro-enterprises. The purpose of program funds is to provide an affordable micro-financing for the country's micro, small and medium enterprises.
5. Academic institutions should conduct seminars or training workshops that seek to promote financial literacy in terms of budgeting, financing, debt management, record keeping, risk management and saving to the students who might become managers or owners of their enterprises towards business sustainability and improvement.

LITERATURES CITED

1. Adekunle, O., & Adejare, A. (2014). The analysis of the impact of accounting records keeping on the performance of the small-scale enterprises. *International Journal of Academic Research in Business and Social Sciences*, *4*(1), Article 506. https://doi.org/10.6007/IJARBSS/v4-i1/506
2. Adkins, W. (2019, March 8). Formula for a net profit margin. *Small Business - Chron.com*. http://smallbusiness.chron.com/formula-netprofit-margin-14177.html
3. Agarwalla, S., Barua, S., Jacob, J., & Varma, J. (2013). *Financial literacy among working young in urban India*. SSRN. https://doi.org/10.2139/ssrn.2338723
4. Ando, F. K., & Nunoo, J. (2011). *Sustaining small and medium enterprises through financial service utilization: Does financial literacy matter?* http://ageconsearch.umn.edu/bitstream/123418/2/Sustaining%20SME%20article.pdf%20Jacob%20Nunoo1.pdf
5. Asaad, C. T. (2015). Financial literacy and financial behavior: Assessing knowledge and confidence. *Journal of Financial Services Marketing*, *24*(2). https://www.questia.com/library/journal/1P3-3704625621/financial-literacy-and-financial-behavior-assessing
6. Assibey, E. O. (2011). *Choosing not to borrow: An evaluation of perception and sociocultural factors underlying voluntary self-exclusion*. https://www.researchgate.net/publication/227439928
7. Atkinson, A., & Messy, F. A. (2012). Measuring financial literacy: Results of the OECD / International Network on Financial Education (INFE) pilot study. *OECD Working Papers on Finance, Insurance and Private Pensions, No. 15*. OECD Publishing. https://doi.org/10.1787/5k9csfs90fr4-en
8. Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman.
9. Basu, S. (2005). White paper: Financial literacy and the life cycle. *White House Conference on Aging*. http://216.87.66.5/member/govt_relation/new/loader.cfm?url/commomspot/security/getfile.cfm&PageID=33231.pdf
10. Beaver, G., & Jennings, P. L. (1997). The performance and competitive advantage of small firms: A management perspective. https://www.researchgate.net/publication/237132506
11. Billy Turney and George 0 Robb. (1971). Research in Education. North Texas: University of Illinois,Inc., The Dryden Press. Retrieved from: https://shodhganga.inflibnet.ac.in/bitstream/10603/564/9/09_chapter3.pdf
12. Bongomin, G. O. C., Ntayi, J. M., Munene, J. C., & Malinga, C. A. (2017). The relationship between access to finance and growth of SMEs in developing economies: Financial literacy as a moderator. *Review of International Business and Strategy*, *27*(4), 520–538. https://doi.org/10.1108/RIBS-04-2017-0037
13. Borodich, S., Deplazes, S., Kardash, N., & Kovzik, A. (2010, January). Comparative analysis of the levels of financial literacy among students in the U.S., Belarus, and Japan. https://www.researchgate.net/publication/281298131
14. Bosma, N., & Harding, R. (2006). *Global Entrepreneurship Monitor: GEM 2006 summary results*. https://entreprenorskapsforum.se/wp-content/uploads/2010/02/GEM-Global-Report_2006.pdf
15. Braunstein, S., & Welch, W. (2002). Financial literacy: An overview of practice, research, and policy. *Federal Reserve Bulletin*, *88*, 445–457. http://www.federalreserve.gov/pubs/bulletin/2002/1102lead.pdf
16. Brown, Berman, R., Saunders, M., & Beresford, R. (2006). You owe it to yourself: The financially literate manager. *Accounting Forum*, *30*(3), 179–191. https://doi.org/10.1016/j.accfor.2006.03.001
17. Chamwada, V. K. (2015). *The effect of financial literacy on financial performance of small and micro enterprises in Kibera slums, Nairobi County* [Master's thesis, University of Nairobi]. http://erepository.uonbi.ac.ke/bitstream/handle/11295/93247/Chamwada_The%20effect%20of%20financial%20literacy%20on%20financial%20performance%20of%20small%20and%20micro%20enterprise%20in%20Kibera%20slums.pdf
18. Charan, S., & Poornima, W. K. (2016). *Finance for micro, small and medium-sized enterprises in India: Sources and challenges*. Asian Development Bank. https://www.adb.org/publications/finance-micro-small-and-medium-sized-enterprises-india-sources-and-challenges

19. Chen, H., Volpe, R., (1998). An Analysis of Personal Financial Literacy Among College Students. Retrieved from: https://doi.org/10.1016/S1057- 0810(99)80006-7
20. Chen, H., Volpe, R., (2002). Gender Differences in Personal Financial Literacy Among College Students. Retrieved from: https://www.academia.edu/1330207/Gender_Differences_in_Financial_Literacy_among_College_Students
21. Cherugong, P., (2015). The effect of financial literacy on performance of small and medium enterprises in Trans Nzoia County. Unpublished doctoral dissertation, University of Nairobi, Nairobi, KE.
22. Chittithaworn, C., Aminul, M., Keawchana, I.T., and Dayang, H.M.Y. (2011). Factors Affecting Business Success of Small and Medium Enterprises (SMEs) in Thailand. Asian Social Science. 7(5): 180-190.
23. Clercq, B., Venter, J.M.P., (2009). Factors influencing a prospective chartered accountant's level of financial literacy: an exploratory study. Retrieved from: https://doi.org/10.1108/10222529200900011
24. Deplazes, S., Kardash, N., (2010). Comparative Analysis of the levels of financial literacy among students in the U.S., Belarus and Japan. Retrieved from: https://www.researchgate.net/publication/281298131
25. DTI (2016). 2016 MSME STATISTICS. Retrieved from: https://www.dti.gov.ph/businesses/msmes/msme-resources/msme-statistics
26. Duignan, B., (2009). Causation. Retrieved from: https:// www.britannica.com/topic/causation
27. Eniola, A., Entebang, H., (2015a). Financial Literacy and SME Performance. Retrieved from: www.academia.edu/33503373/Financial_literacy_and_SME_firm_performance
28. Eniola, A., Entebang, H., (2015). SME Firm Performance-Financial Innovation and Challenges. Retrieved from https://www.researchgate.net/publication/282557038_SME_Firm_Performance-Financial_Innovation_and_Challenges
29. Eresia-Eke, Chuks & Raath, C. (2013). SMME Owners' Financial Literacy and Business Growth. Mediterranean Journal of Social Sciences. 4.10.5901/mjss. 2013.v4n13p397.
30. Farrell, L., R.L., T., Risse, FL., (2016). The significance of financial self-efficacy in explaining women's personal finance behavior. Retrieved from: www.sciencedirect.com/science/article/pii/S016748701500094X?via%3Dihub
31. Fatoki, O., (2014). The Causes of the Failure of New Small and Medium Enterprises in South Africa. Retrieved from: www.researchgate.net/publication/272707965
32. Fernandes, T.I., (2015). "Financial Literacy Levels of Small Businesses Owners and its Correlation with Firms' Operating Performance". Retrieved from: https://www.repositorio-aberto.up.pt Financial Dictionary. https://financial-dictionary.thefreedictionary.com/total+capitalization
33. Gokhale, J. (2000). 'Are We Saving Enough?' Economic Commentary, Cleveland: Federal Reserve Bank of Cleveland. Retrieved from: http://clevelandfed.org/Research/commentary/2000/0700.pdf
34. Goldsmith, R.E., Goldsmith, E.C., (2006). The effects of investment education on gender differences in financial knowledge. Journal of Personal Finance, 5(2), 55-69
35. Ghasarma1, R., Leonita P., Mohamad A., Muizzuddin, T., (2017). Financial Literacy; Strategies and Concepts in Understanding the Financial Planning with Self-Efficacy Theory and Goal-Setting Theory of Motivation Approach. Retrieved from: https: www.econjournals.com
36. Gray, B. Sebstad, J., Cohen, M., & Stack, K. (2009). 'Can Financial Education Change Behavior: Lessons from Bolivia and Sri Lanka.' Retrieved from: http://www.microfinanceopportunities.org/docs/Can%20Financial%20Education20%20Change%20Behavior_brief.pdf
37. Grohman, A., Menkhoff L., Kouwenberg, R., (2015). Childhood Roots of Financial Literacy. Retrieved from: https://www.researchgate.net/publication/283230661_Childhood_Roots_of_ Financial_Literacy
38. Gupta, K., Kaur, J. (2014). A Study of Financial Literacy Among Micro-Entrepreneurs in District Kangra. Retrieved from https://archive.org/stream/7.ManageAStudyOfFinancialLiteracyAmongMicroKamaGupta1_201403/7.+ManageA+Study+of+Financial+Literacy+among+MicroKama+Gupta+_1 djvu.txt

39. Harnish, Thomas L., (2010). “Boosting Financial Literacy in America: A Role for State Colleges and Universities” Perspectives, American Association of State Colleges and Universities, Fall 2010.
40. Heinle, M., Nicholas, R., Saouma, R., (2014). A Theory of Participative Budgeting. Retrieved from: https://doi.org/10/2308/accr-50686 Helstrom, Keela. (n.d). "Two Possible Reasons for an Increase in Stockholder's Equity." Small Business - Chron.com, http://smallbusiness.chron.com/twopossible-reasons-increase-stockholders-equity 58014.html.
41. Hogarth, J.M., (2002). Financial literacy and family and consumer sciences. Journal of Family & Consumer Sciences, 94 (1), 15-28.
42. Ibrahim, A.H., (2017). The Impact of Financial Literacy on The Profitability of Micro and Small Enterprises Owned by University Students in Kenya: A Case Study of United States International University- Africa. Retrieved from: http://erepo.usiu.ac.ke/bitstream/handle/11732/3279/AHMED%2520HAUW A%2520IBRAHIM%2520MBA%25202017.pdf
43. Iopev, L., & Kwanum, I.M., (2012). An Assessment of Risk Management of Small and Medium Scale Enterprises in Nigeria. Retrieved from: https://pdfs.semanticscholar.org/dd95/ce2a39fe01737c0ce15852dac847c34 02046.pdf
44. Jasra, J.M., Khan, M.A., Hunjra, A.L., Rehman, R.A.U., Azam, R.-I. (2011). Determinants of Business Success of Small and Medium Enterprises, International Journal of Business and Social Science, Vol. 2 No. 20; November 2011, 274 - 281
45. Kalekye, P. N., Memba, F., (2015). The Role of Financial Literacy on the Profitability Of Women-Ownedned Enterprises in Kitui Town, Kitui County, Kenya. Retrieved from: https://www.semanticscholar.org/paper/The-Role-of-Financial-Literacy-on-the-Profitability-KalekyeMemba/49d0f80eedd0d26421f0539872ab86aad27015a8
46. Karlson, K., (2016). 12 Business Metrics That Every Company Should Know. Retrieved from: https://www.scoro.com/blog/12-business-metrics/
47. Kendra Cherry (2019). Self-Efficacy: Why Believing in Yourself Matters. Retrieved from: www.verywellmind.com
48. Koonce, J., Mimura, Y., Mauldin, T., Rupured, M., (2008). Financial Information: Is it Related to Savings and Investing Knowledge and Financial Behavior of Teenagers? Retrieved from: www.researchgate.net/publication/254966447
49. Lachance, M., Choquette-Bernier, N., (2004). College Students consumer competence: a qualitative exploration. International Consumer Studies, 28,433-442. Retrieved from: https://doi.org/10.1111/j.1470-6431.2004.00390.x Liberto, D., Expense. Available from: https://www.investopedia.com/terms/e/expense.asp
50. Lusardi, A., Mitchell, O., (2007a). Baby Boomer retirement security: The roles of planning, financial literacy, and housing wealth. Journal of Monetary Economics, 54, 205-224.
51. Lusardi, A., Mitchell, O., Curto, V., (2010). Financial Literacy among the Young: Evidence and Implications for Consumer Policy. Retrieved from: https://doi.org/10.1111j.1745- 6606.2010.01173.x
52. Martin, A., Oliva, J.C., (2001). Applications of social learning and cognitive learning development theories. Journal of Family and Consumer Sciences, 93(2),26-29.
53. Maziriri, E., Mapuranga, M., Madinga, N.W., (2013). Self-services banking and financial literacy as prognosticators of business performance among rural small and medium-sized enterprises in Zimbabwe. Retrieved from: https://www.researchgate.net/publication/328490931_Selfservice_banking_and_financial_literacy_as_prognosticators_of_business_performance_among_rural_small_and_mediumsized_ent erprises_in_Zimbabwe
54. Mbarire, T.T, Ali, A.I (2014). Determinants of financial literacy levels among employees of Kenya Ports Authority in Kenya. Research Journal of Finance and Accounting, 5 (16), 44-52
55. McGrath, M., (2015). A Global Financial Literacy Test Finds That Just 57% of Adults in U.S. Are Financially Literate. Retrieved from: www.forbes.com/sites/maggiemcgrath/2015/11/18/in-a- global-test-of-financial-literacy-the-us/#1e44802d58f0
56. Mitchelmore, S., Rowley, J., (2013). "Entrepreneurial competencies of women entrepreneurs pursuing

business growth", Journal of Small Business and Enterprise Development, Vol. 20 Issue: 1, pp.125-142, https://doi.org/10.1108/14626001311298448 Moe, S.B., Do I Need a Business Bank Account? Retrieved from: https://smallbusiness.chron.com/need-business-bank-account- 1950.html

57. Mwithiga, E., (2016). Financial Literacy and Enterprise Performance Among Owner-Managed Ict Smes In Nairobi County. Retrieved from: http://erepo.usiu.ac.ke/bitstream/handle/11732/2725/ErnestMM625675.pdf?sequence=1&isAllowed=y
58. Navickas, M. K., Krajnakova, E., Gudaitis, T., (2014). Influence of Financial Literacy on Management of Personal Finances in a Young Household. Retrieved from: https://www.researchgate.net/publication/290051483
59. Nene Browhilder Ngek (2016). Performance Implications of Financial Capital Availability on the Fianncial Literacy - Performance Nexus in South Africa. Retrieved from: http://dx.doi.org/10.21511/imfi.13(2-2).2016.10
60. Nkumah, E. O., (2015). Assessing the Level of Financial Literacy among Teachers "A Case Study of Sekyere East District of Ashanti Region of Ghana". Retrieved from: http://ir.knust.edu.gh/bistream/123456789/8611/1/OWUSO%2520NKRUMAH .pdfS
61. Oco, M. C., (2014). Financial Literacy Assessment in Record Keeping among Women Micro-entrepreneurs: Basis for Literacy Enhancement Program. Retrieved from: https://nanopdf.com/download/proceedings-of-7th-asia-pacific-business-research-conference-5b171635c2fe8_pdf
62. Opoku, A., (2015). Financial Literacy Among Senior High School Students Evidence from Ghana. http://ir.knust.edu.gh/bitstream/123456789/8511/1/ARMSTRONG%20OPOKU.pdf
63. Rutherford, M.W., McMullen, P., & Oswald, S., (2001). Examining the issue of size and the small business: A self-organizing map approach. The Journal of Business and Economic Studies, 7 (2), 64-81.
64. Sabana, B. M. (2014). Entrepreneur financial literacy, financial access, transaction cost and performance of micro enterprises in Nairobi City County, Kenya. Retrieved from: https://globaljournals.org/GJMBR_Volume18/6-Entrepreneur-Financial-Literacy-Financial.pdf
65. Samkin, G., Pitu, E., Low, M., (2014). Identifying the Financial Literacy Skills Necessary to Run a Small New Zealand Business. Retrieved from: https://files.eric.ed.gov/fulltext/EJ1167361.pdf
66. Schmidt, O., Niwaha, M., Tumuramye, P., (February 2016). Financial literacy and development-experimental insights from rural micro-and small entrepreneurs (MSEs) in Western Uganda. Retrieved from: www.researchgate.net/publication/295075297
67. Senevirathne, A., WADK, J., (August 2016). Financial Literacy and Success of Micro Business: Evidence from Small Enterprises in Sri Lanka. Retrieved from: www.researchgate.net/publication/320547330
68. Servon, L., Kaesner., R., (2008). Consumer Financial Literacy and the Impact of Online Banking on the Financial Behavior of Lower-Income bank Customers. Retrieved from: https://doi.org/10.1111/j.1745-6606.2008.00108.x
69. Siekei, J., Wagoki, J., Kalio. A., (2013). An Assessment of the role of financial literacy on Performance of Small and Micro Enterprises: Case of Equity Group Foundation Training Program on MSES in Njoro district Kenya. Retrieved from: www.academia.edu/4682934
70. Sucuahi, W., (2013). Determinants of Financial Literacy of Micro Entrepreneurs in Davao City. Retrieved from: https://www.researchgate.net/publication/280727446 Total Assets. https://www.accountingtools.com/articles/2017/5/15/total-assets
71. Van, Rooij, M., Lusardi, A., & Alessie, R., (2011). Financial literacy and stock market preparation. Journal of Financial Economics, 101 (2),449-472. Visa Inc.; NYSE Euronext CEO Duncan Niederauer Keynotes Global Financial Literacy Summit. (2010, May). 'Economics Week. 183.' Retrieved from: http://search.proquest.com/docview/193953930?accountid=50192
72. Ward, Scott (1974). "Consumer Socialization". Journal of Consumer Research. Retrieved from: https://doi:10.1086/208584
73. Warue, B., Wanjira, V. (2013). Assessing budgeting process in small and medium enterprises in Nairobi's central business district: a case of hospitality industry. International Journal of Information

Technology and Business Management, 17 (1),1-11.

74. Widdowson, D., Hailwood, K., (2007). Financial literacy and its role in promoting a sound financial system. Retrieved from: https://www.researchgate.net/publication/5203417_Financial_literacy_and_its_role_in_promoting_a_sound_financial_system
75. Wise, S., (2013). The Impact of Financial Literacy on New Venture Survival. Retrieved from:https://nscpolteksby.ac.id/ebook/files/Ebook/Journal%20International/Business%20Administration/International%20Journal%20of%20Business%20and%20Management%20Vol.%208%20 No.%2023%20(2013)/30891-107996-1-PB.pdf