

---

# The Prime Risks of Financing Small and Medium Enterprise (SMEs) Business-Projects in Developing Economies

**Joseph Asare**

Department of Education and Scientific Unit, KROK University of Economics and Law, Kiev, Ukraine

**Email address:**

asaredada@gmail.com

**To cite this article:**

Joseph Asare. The Prime Risks of Financing Small and Medium Enterprise (SMEs) Business-Projects in Developing Economies.

*International Journal of Finance and Banking Research*. Vol. 5, No. 2, 2019, pp. 17-28. doi: 10.11648/j.ijfbr.20190502.12

**Received:** March 28, 2019; **Accepted:** May 16, 2019; **Published:** June 12, 2019

---

**Abstract:** The importance of project finance in economic development cannot be underestimated. Currently, most developing economies are collaborating with private individual investors and organizations, as well as financial and non-financial institutions to attain the desired level of development through business-project implementation. However, typical of most business-projects implemented in developing economies is the numerous risks associated with its financing activities. The term risk can be viewed as the chance of failure in achieving objectives or goals. Most importantly, risk is part of investing but it can be measured and managed within an investment portfolio and taking on some risk is necessary for higher returns. Also, taking on greater short-term risks may be necessary to receive the long-term returns needed to achieve a lifestyle goals and objectives. However, taking on too much risk may prove to be a mistake. It is important to note that every business-project requires a substantial amount of capital outlay from individuals, sponsors, organizations financial and non-financial institutions and or government. This therefore calls for a holistic study to be conducted to identify the prime risks of financing business-projects. This will help to provide thoughtful information on those risks to investors, sponsor, fund providers (individuals / financial institutions) and entrepreneurs with special interest in business-project financing. This study focused on the identification of the prime risks investors face in financing SMEs business-projects in developing economies. In this regard, the prime risks of financing SMEs business-project is the independent variable and business-project activities is the dependent variable. To measure the prime risk of financing SMEs projects in developing economies, this study dwelt on behavioral economics theory to identify what the study term as Idea Risk. The study also reviewed finance and financial management theories to identify what the study term as Competency Risks and Return on Investment Risks. Through this study, Business Idea Risk, Competency Risk and Return on Investment Risk have been identified as the prime risks of financing business-projects. This study has also developed a graphical model to present these prime risks, prove the inter-connectivity among the risks and as well demonstrate how they can collectively have negative impacts on business-projects.

**Keywords:** Risk, Finance, Business-Project, Idea Risk, Competency Risk, Return on Investment Risk, Enterprises, Developing Economies

---

## 1. Introduction

Developing Economies are facing unprecedented risks in the current knowledge economy, as they strive to attain sustainable development through small and medium enterprises (SMEs) business-projects implementation. Those risks are believed have been caused by the current knowledge economy, currently defined: a knowledge economy is characterized with the generation and adoption of new knowledge created by scientific research, technological development, investments in intangible assets, adoption of

best practices, and openness to socio-economic, and cultural innovations [1]. This characteristic of Knowledge economy has caused major challenges to the financing of business-projects implemented by governments, international organizations, and individuals through small and medium enterprises in developing economies. All over the world SMEs are seen as the engine for growth of every economy. Despite the huge contributions of SMEs to economic growth such as jobs and market creation and income generation, there is not universally accepted definition of SMEs [2]. The differences in SME definition extend in three flanks:

definitions by international institutions, definitions by national laws and by industry definitions. Finding a universal standard poses a sharp and acute critic to institutionalists, economists, academics and industrialists [3]. Experiential studies has shown that small and medium enterprises are in most cases defined by adjectives such as size. However, some economists define SMEs by dividing them into classes according to some quantitative measurable indicators. But the fact is that the most common significant factor to distinguish between large and small businesses is the number of employees [4]. History has it that the Bolton Report, 1971 is one of the first efforts to provide a definition of SMEs [5]. The report suggests two approaches to define SMEs: quantitative approach and qualitative approach. Financing is seen as the major task confronting all business-projects implemented by SMEs in most developing economies [6, 7].

Most SMEs business-projects in developing economies face the challenge of insufficient funding, poor financial management, weak administration processes and procedures, lack of quality materials, lack of skilled personnel needed to run the projects and legal and political concerns. These challenges not only causes poor business project quality and less output or impact but it also impact negatively on achieving national, economic and global development. Developing economies implementing such business-projects need finance to meet the requirements in the current economic world. Also, any kind of business-project activity depends on finance. Hence, finance is the lifeblood of every business project. Whether the business-project's concerns are big or small, they need finance to fulfill all activities involved. Ensuring that adequate and timely risk identification is performed is the responsibility of the business project owner, as the owner is the first participant in the project. The sooner risks are identified, the sooner plans can be made to mitigate or manage them. Assigning the risk identification process to a contractor or an individual member of the project staff is rarely successful and may be considered a way to achieve the appearance of risk identification without actually doing it. It is important, however, that all project management personnel receive specific training in risk management methodology. This training should cover not only risk analysis techniques but also the managerial skills needed to interpret risk assessments [8]. Unfortunately, this is not the case in most developing economies. Most business-projects investors do not have the training or skills to be able to identify the risks of financing a particular business-project. It is important to note that the ability to identify and allocate risks is a key component of business project financing.

## 2. Problem Statement

One common characteristics of SMEs business-projects implemented in developing economies is the shortage of long term funds. Also local currency financing for small and large scale SMEs business-project is often small. Additionally, most business-projects finance in developing economies is

impeded by poor local economic development, insufficient monetary transfers, diminutive own source of revenue and lack of creditworthiness that makes it difficult for local governments to generate funds adequate enough to fully fund SMEs business-projects on their own. It is very crucial to consider the funding source and type when considering how to finance a business-projects in developing economies. Financing projects in developing economies tend to be expensive compare to developed economies. Therefore, developing strategies for sourcing funding (both public and private) to fund projects need to be an integral part of the financing strategy.

Also, project finance in developing economies is based on three sources: Debt, Equity and Grants [9]. Interestingly, most investors that fund projects in developing economies are very much interest in the term 'bankability', this conditions makes it very difficult for investors to raise adequate funds needed for the implementation of a success business-project [10]. Additionally, some studies have shown that governments all over the World are losing huge sums of money as a result of project failure. A recent study into over 200 projects showed that only one out of eight information and communications technology projects can be considered truly successful [11, 12]. According to Heeks, 2006 almost all World Bank funded Projects in Africa is either a total failure or partial failure [13]. This report is heart breaking. The question one may ask is: What are the prime financing risks that causes SMEs business-projects failure in developing economies? Some studies have sought to find answers to the causes of business-project failures by suggesting that the over dependence upon developed countries and agencies such as the United Nations and the World Bank by developing economies to achieve their development objectives are no longer sustainable, and contributes greatly to business-project failures in developing countries which lack resources [14-15].

It is worth noting that major business activities depend on finance, irrespective of whether it is big or small, finance is needed to fulfill such business activities [16]. Also, most business-project activities are directly related to making profit, creating jobs or promoting development and all these activities combined some form of factors of production. Additionally, studies have shown that the core of project financing is the analysis of project risks, namely: Construction risk, Operating risk, Market risk, Regulatory risk, Insurance risk and Currency [17]. However, available reports reveals a complete failure in project risks analysis. Some reports have shown that project finance default rate in 1980 – 2014 increased from 0.9% in 2013 to 1.3% in 2014. The report also, showed that 80% of such funding goes into one particular sector [18]. What is more worrying is that the practice of putting about 80% of global project finance investment in one particular sector, in the view of this study increases business-project financing risks.

Also, Isaac S. D. et al. (2015) indicated that delays in payments and release of funds as among the top ten caused of government projects failures in Ghana [19]. Additionally, Joseph C. et al. (2011) mentioned that most public

infrastructure projects do not have adequate commercial opportunities to be fully self-funded [20]. Further, Gatti (2008) indicated that business-project financing is characterized with over ten critical risks [21]. More so, recent studies have shown that businesses and governments all over the World are losing huge sums of money through projects as a result of project failure (Espiner, 2007, Asay, 2008, and Isaac S. D., 2015) [22-24]. Furthermore, Marzouk, M. M. et al. (2013), Sweis, G. (2008), and Abednego, M. P. et al (2006) have highlighted on most risks associated with business-projects financing [25-27]. These studies have prompted the need to conceptually look into the prime risk of financing SMEs business-projects in developing economies.

### 3. The Certainty of the Study

Each year billions of dollars of investments are made into projects around the world using project finance techniques [28]. Empirical research have shown that the practice of project financing is a new finance discipline that has developed rapidly over the last 20 years, with the core objective of project risks analysis. However, Miceli, T. J. (1997) believes that the problem of risk sharing is recognize when it comes to who should bear a loss when a risk occurs [29]. Also, Posner et al. indicated that one major problem that arise in risk sharing in contract law is that: which party would bear a loss if they could have foreseen that contingency? [30]. On the other hand, Kiyoshi K. et al. (2006) believes that the party who can assess and control the risk should bear it [31].

The issue of financing risk is increasingly becoming an important subject matter for business-project implementation in developing economies. This is due to the demands for improvement in quality, accountability and organizational effectiveness in business-project implementation. Authors such as Morris et al. (2012), Rosacker and Rosacker (2010), Crawford, L. et al. (2003), Baranskaya (2007), Ama Lawani, (2016) and Graham R. J. and R. L. Englund (2013) have written extensively on the practices of project management financing in developing economies [32-37]. However, these studies did not identify the three prime risks that investors must know with regards to financing SMEs business-projects in developing economies. This knowledge gaps is what this study sought to answer.

### 4. The Research Question

The importance of finance in business-projects implementation in economic development cannot be overemphasized. The actual contribution of finance in business-project success is considered to be more critical than the project other factors since it aid in shaping the entire project environment to achieve success. However, financing risk has been identified as a major problem confronting investors in business-projects. To be able to confront the above identified problem this study will attempt to find answers to the following questions: what are the prime risks investors face when financing SMEs business-project? And

what is the relationship between the prime risks and SMEs business-project financing / activities?

## 5. Aims and Objectives of the Study

The aim of this research is to identify the prime risks of financing SMEs business-project in developing economies. Also, the study would identify the factors that constitute the prime risks. The study would further make suggestions to facilitate an effective and quick identification and control of those prime risks factors. More so this study would develop a graphical models to show the relationship among the prime risks indicators and SMEs business-project financing / activities. And further, prove the effectiveness of using models to identify and control the risks.

## 6. Literature Review

### 6.1. Defining SMEs Business-Projects Financing Key Risks

Despite the huge contributions of SMEs to economic growth such as jobs and market creation and income generation, there is not universally accepted definition of SMEs. The differences in SME definition extend in three flanks: definitions by international institutions, definitions by national laws and by industry definitions. Finding a universal standard poses a sharp and acute critic to institutionalists, economists, academics and industrialists [38]. Practical research have shown that small and medium enterprises are very often defined by adjectives such as size. In some cases economic scholars tend to define SMEs by dividing them into classes according to some quantitative measurable indicators. However, the most common decisive factor to distinguish between large and small businesses is the number of employees [39]. The Bolton Report, 1971 is believed to be one of the first attempts to provide a definition of SMEs [40]. This report captures two approaches to define SMEs: quantitative approach and qualitative approach. On the other hand majority of international institutions, academics, statistical agencies and policymakers often apply the quantitative criteria in defining SMEs.

Also, the European Commission defines small enterprise as having 10 to 50 employees and medium enterprise as having 51 to 250 employees, with an annual €10 million and €50 million respectively [41]. But case is different in most developing economies. In Ghana for instance, the Registrar General's Department of Ghana define Small enterprises as those employing between 6 and 29 employees and with fixed assets of up to one hundred thousand dollars (\$100,000), whilst medium enterprises as those employing between 30 and 99 employees with fixed assets of up to one million dollars (\$1,000,000) [42].

Most SMEs operations entails activities which can best be describe as business-project. Sadly, in spite of the billions of dollars spent on economic development assistance each year by national governments and donor agencies, there is still very little known about the actual impacts of these interventions on

the SME sector. To achieve success in every business-project starts from the ‘idea conception stage’, (*idea risks*). The logic behind idea risks as introduced in this study can be linked to the ‘Noisy’ Selection Theory, which states that one key factor to consider when analyzing the success of a firm is its start-up and operating costs [43]. Saburo K. (2001) believe that finance is fundamental to SMEs growth, and describes it as a tool for SME development [44]. But the big question is: what is the guarantee that the invested fund will yield the most expected results? (*Thus, return on investment risks*).

Also, Najib H. (2002) revealed that the principal factors impeding firm growth are lack of access to qualified workers and managers; government policies such; domestic price volatility among others [45]. While, Pajarinen et al. (2015) stated that entrepreneurs with higher academic background are more innovative and will use modern techniques and models to do business. Schumpeter (1934) indicated that an entrepreneur needs to be innovative, creative, and should be able to take risk. Further, Barringer and Bluedorn (1999) described entrepreneurs as individuals who can explore the environment, discover the opportunities, and exploit them after proper evaluation [46-48]. These characteristics that constitute a successful SMEs ownership when analyzed carefully are linked “competency” (*Competency Risks*). The competency risk is more affirmed through a careful analysis of the Chaos theory [49].

## 6.2. Defining Risks in the Context of SMEs Business Projects Financing

The meaning of risk can vary. Generally, risk can be viewed as the chance of failure in achieving objectives or goals. Risk is part of investing but it can be measured and managed within an investment portfolio. Taking on some risk is necessary for higher returns. Also, taking on greater short-term risks may be necessary to receive the long-term returns needed to achieve a lifestyle goals and objectives. However, taking on too much risk may prove to be a mistake [50]. Financing of business-projects may take the form of either corporate project finance structures or an independent legal entity established for the purpose of undertaking the project [51]. However, every SMEs business project undertaken has a substantial degree of risk associated with it. The process of identifying, analyzing, and responding to risk is termed as project risk management. Risk is part of every project undertaken and the objective is always that to maximize the results of positive risk whilst minimizing the impact and consequences of negative events [52]. More importantly, Gatti S. (2008) identified over ten major risks associated to business projects as: the pre-completion phase risks, post-completion phase, and risks related to both phases. Investors must take note that business-projects are sensitive to risks and more complex risks have been brought about by the current knowledge economy.

## 6.3. The Finance Framework

The origin on the word ‘finance’ is thought to come from the Latin word “finis” which means end or finish. It is a term

whose implications affect individuals and businesses, organizations and states and it has to do with obtaining and using of money or money management [53]. Also, every business activity depends on finance, irrespective of whether it is big or small they need finance to fulfill all activities [54]. Additionally, most business-project activities are directly related to making profit, creating jobs or promoting development and all these activities combined some form of factors of production. Further, the term finance may be called as capital, investment, fund etc., but each term is having different meanings and unique characters. Therefore, finance may be defined as the art and science of managing money and includes financial service and financial instruments [55].

Additionally, Paish F. W., (1982), John J. H., (1989), and Howard and Upton (1953) have provided detail definition to finance by stating that: finance entails the position of money at the time it is wanted (*time bound*); flow of money through an organization, whether it will be a corporation, school, bank or government agency; that administrative area or set of administrative functions in an organization which relates with the arrangement of each and credit so that the organization may have the means to carry out the objectives as satisfactorily as possible [56-58]. This study also believes it very important to consider how to estimate the credit worthiness of SMEs as part of the prime risks assessment. Existing literatures shows that estimating SMEs credit worthiness can be done base on ‘hard’ quantitative data, and relationship lending [59-60]. However, specific challenges limit traditional banks’ lending to SMEs. These are largely related to the greater difficulties that lenders encounter in assessing and monitoring SMEs relative to large firms [61-62].

One major challenge this study sought to address is how to identify the prime risks investors face when financing SMEs business-project. Isaac S. D. et. al. (2015) indicated delays in payments and release of funds as among the top ten caused of government projects failures in Ghana. Also, other related literature have proved that not only developing economies have difficulties in acquiring suitable and sufficient funds for project. This challenge became clear in the work of Joseph C. et. al (2011) when they stated that most public infrastructure projects does not have adequate commercial opportunities to be fully self-funding and further called on governments to develop new models for funding projects. Joseph C. et al. also stated that for an effective results the new funding model should consist certain characteristics that will enable government to: leverage private sector investment in infrastructure assets; earn a potential return and recycle government capital; reduce the costs of financing new infrastructure and share in future recovery of financial markets; and address demand risk for economic infrastructure.

The key importance of using models to solve financing risks problems is that it serves as a sensitivity analysis which helps to determine the financial risk impacts of different funding levels and the subsequent need for special assessments. It is important to note that before developing any funding model there is the need to establish its purpose. Some

scholars have proposed the following as the purpose of establishing funding models: to determine the level of unfunded liability; make informed decisions about the allocation of resources; to have full knowledge of the risks of underfunding or overfunding; to avoid/mitigate against controllable risk; to assist in making decisions about appropriate reinvestment levels; and to find an level of equilibrium for the owners [63-64]. All the above stated facts clearly affirms the rationale for this study to attempt to develop a model to represent the prime risks investors face when financing SMEs business-projects.

## 7. The Drive of the Research

One of the best approaches to address a research problem is to conduct a systematic analysis into the problem to help gain in-depth understanding into it. This study conducts a systematic analysis to identify the prime risks investors face when financing SMEs business-project and to also develop a graphical model to show the relationship between the prime risks and business-project financing / activities.

## 8. The Research Methodology

This is a scientific study which uses a well-structured survey, and describes the state of affairs as it prevails at the time of study, and also uses already existing data and information and analyze them to make a critical evaluation [65]. Also, this study is believed to be a social study that employs empirical statements and methods [66]. The study further uses qualitative data and conducts critical analysis on already existing scientific work of other scholars who have

studied much into the topic under consideration. The study also uses survey research methodology, where questionnaires were administered to a selected sample from a specific population of financing risk experts, investors of business-projects and business-projects managers. A quantitative questionnaire was used to obtain data from specific respondents concerning themselves and their work (risk factors of financing SMEs business-projects). Also, some of the respondents were interviewed to allow for probing questions, this number of interviews conducted was less because of the advantages in using a questionnaire versus an interview methodology. The interview and questionnaires were administered through field visit. Phone calls and emails were used to set up interview appointments and for questionnaires management. Furthermore, all pertinent data gathered on each group of participants is presented unconnectedly to enable the study attain the highest level of significance. Also, analysis of relevant data was done using Statistical Package for the Social Sciences (SPSS) software, as well as tables and models for qualitative and quantitative analysis of the results.

## 9. Data Analysis

### 9.1. Demographic Profile of the Respondents

A simple random sampling was used to select 30 respondents, consisting of financing risk expert; 10, investors, and 10 business-project manager. The demographic characteristics of the research respondents is presented in appendix I, Table 1.

Table 1 Demographic characteristics of respondents.

Table 1. Demographic Profile of the Respondents.

Profile	Category	Number			Frequency
		Financing Risk Experts	Business Project Managers	Investor	
Gender	Male	10	10	10	100%
	Female	-	-	-	0.0%
	Total	10	10	10	100.0%
Ages	35-40yrs	6	5	0	36.7%
	41-46yrs	4	4	2	33.3%
	47 yrs+	0	1	8	30.0%
	Total	10	10	10	100.0%
	No Education	0	0	0	0.0%
Educational Level	Certificates Diploma	0	0	0	0.0%
	Degree	3	5	6	40.0%
	Master	7	5	4	60.0%
	PhD	0	0	0	0%
	Total	10	10	10	100.0%
Tenure of Work	5-10 yrs	6	7	8	70.0%
	11-15yrs	4	3	2	30.0%
	16-20yrs	0	0	0	0.0%
	20 yrs +	0	0	0	0.0%
	Total	10	10	10	100.0%

The above demographic Table 1 revealed that males were the majority, representing 100%, while there was no female representation. Also, the table showed the age distribution and positions of the respondents as follows: most of the respondents were between the age group of 35-40 years, this

represent 36.7%. Also, those within the age 41-46 years constituted 33.3% of the respondents. A further, 30.0% of the respondent were found to be 47 years and above.

Similarly, the educational level of the respondents revealed that all the respondents are literate. None of the respondents

hold certificates or diploma qualifications. However, 40% hold bachelor degree and 60% hold master's degree. These statistics indicates that all the respondents could read, write, and clearly understood the research topic and questions posed to them. Also, the table 1 above shows that all the respondents have enough knowledge in the research area. It also appeared that 70% of the respondents have over 5 years working experience in their respective fields. Further, 30% of the total respondents have 11-15 working experiences in the field. However, none of the respondents have over 16 years working experience. These guarantees respondents expertise and knowledge to provide quality data to support the research topic.

## 9.2. Measure

This study is focused on the identification of the prime risks investors face in financing SMEs business-projects in developing economies. In this regard, the prime risks of financing SMEs business project is the independent variable and business-project activities is the dependent variable. To measure the prime risk of financing SMEs projects in developing economies, this study dwelt on behavioral economics theory to identify what the study termed as Idea Risk. The study also reviewed finance and financial management theories to identify what the study term as Competency Risks and Return on Investment Risks. Respondents were task to group a tall list of risk factors that this study identified through data collection and literatures reviewed under three major risks: Idea risk, Competency risk and Return on Investment Risk. Using a 5-point Likert scale, where 1 represents strongly disagree; and 5 strongly agree, respondents were asked to indicate the extent to which they agree the identified risks factors falls under the three major risks. To measure the association between business project financing risk and the identified risk factors, a T-tests, ANOVA; and Regression analysis was performed.

This study identified that project evaluation in developing countries is much more complex than in developed countries. Most importantly, it is very critical to accurately identify risks and to measure the degree of mitigation. As a rule, each risk needs to be handled consistently [67]. The study also identified that one of the earliest model to estimate the risk of financing projects is the Country Risk Model: thus, political risk, economic risk, financial risk and country credit ratings [68].

*Political:* Economic expectations vs. reality, Economic planning failures, Political leadership, External conflict, Corruption in government, Military in politics, Organized religion in politics, Law and order tradition, Racial and nationality tensions, Political terrorism, Civil war, Political party development, and Quality of the Bureaucracy.

*Financial:* Loan Default or unfavorable loan restructuring, Delayed payment of suppliers' credits, Repudiation of contracts by governments, Losses from exchange controls, and Expropriation of private investments.

*Economic:* Inflation, debt service, liquidity ratios, foreign trade collection experience, current account balance, and

Foreign exchange rate market indicators. Based on the above indicating factors and others identified through literature review and survey, this study observed that the risk investors face in financing SMEs business project falls into three main categories: business idea risk, competency risk and return on investment risks.

It is important to state that the risks investors face in financing SMEs business projects originates from the SMEs entrepreneur who generate or develop the business-project idea. The logic behind the *Idea Risks* as introduced in this study can be linked to the Behavioral Economics and Noisy Selection Theory. The noisy selection theory states that one key factor to consider when analyzing the success of a firm is its start-up and operating costs [69]. To better gain more insight on the rationale behind most SMEs choices of business project and decision making. This study also draws on behavioral economics to gain deeper understanding of the effects psychological, cognitive, emotional, cultural and social factors have on the economic decisions of individuals or institutions and how those decisions vary from those implied by classical theory. This is very crucial when analyzing the risks investors face in financing SMEs business projects [70].

It must be noted that humans make 95% of their decisions using mental shortcuts or rules of thumb. Humans' frame their idea base on the collection of anecdotes and stereotypes that make up the mental filters individuals rely on to understand and respond to events. However, one must note that market inefficiencies exist and these include mispricing and non-rational decision making, thus *Idea Risk* [71]. Also, when individuals make decisions, their rationality is limited by the tractability of the decision problem, their cognitive limitations and the time available. Therefore, decision makers in this view act as satisfiers, seeking a satisfactory solution rather than an optimal one. Also, ideas that humans generate take shortcuts that may lead to suboptimal decision-making, also an *Idea Risk* [72-74]. Being smart and innovative is actually the most significant pillars of successful organization strategies. Also, a major issue of creative ideation is improving the quality of the ideas generated [75]. This is what makes idea risk vary crucial when considering business-project financing risks.

According to Najib H. (2002) the principal factors impeding firm growth are lack of access to qualified workers and managers; government policies such; domestic price volatility among others. These produces what this study term as *Competency Risk* (thus, lack of access to qualified workers and mangers) [76]. Also, Pajarinen et al. (2015) stated that entrepreneurs with higher academic background are more innovative and will use modern techniques and models to do business. Schumpeter (1934) indicated that an entrepreneur needs to be innovative, creative, and should be able to take risk. Further, Barringer and Bluedorn (1999) described entrepreneurs as individuals who can explore the environment, discover the opportunities, and exploit them after proper evaluation [77-79]. Also, competency is considered to be the combination of observable and measurable knowledge, skills, abilities and personal attributes that contribute to enhanced employee performance and ultimately result in organizational

success [80]. These characteristics that constitute a successful SMEs ownership when analyzed carefully are linked competency, thus *Competency Risks*.

The competency risk is more affirmed through a careful analysis of the Chaos theory [81]. From these points, the risks investors face in financing SMEs project must go beyond just looking at financial indicators but should also look at the competencies of the personality initiating the business idea or requesting for funding. Virlics A., (2013) shows that investment decisions are made after a complete analysis of the investment project. Virlics A. further stated that one of the basic factors that influence the decision is the risk factor of the investment. This risk exists because it is uncertain that the cost of the investment will be recovered and a profit will be gained, thus *Return on Investment Risk* [82]. Alexei B, (2015) believes that return on investment (ROI) is one of the most popular performance measurement and evaluation metrics. ROI analysis (when applied correctly) is a powerful tool in comparing solutions and making informed decisions on the acquisitions of information systems [83]. One major challenge associated with investment decision making is risks and uncertainty. Toma S. V. et al. (2012) also stated that to better understand the concept of risk, it is necessary to make a clear distinction between risk and uncertainty [84].

### 9.3. The Research Methodology

This study used a well-structured survey to describe the state of affairs as it prevails at the time of study, thus, the study uses already available facts and information, and analyze them to make a critical evaluation of the subject [85]. Also, questionnaire were given to a selected sample from a specific population of finance risk experts, investors and project managers. A survey methodology was designed to collect data from the identified population, or a sample from that population, and typically utilizes a questionnaire or an interview as the survey instrument [86]. Further, some of the

respondents were interviewed to allow for probing questions. The weighting method of Horvitz and Thompson, 1952 was used to analyze the numbers that was assigned to each prime risk indicators. This method was adapted to ensure the quality of this study's data. Also, using the Likert scale of 1 to 5, with 1 being the least and 5 highest, respondents were allowed to assign weights to the prime risks identified to indicate the extent to which they agree that those indicators constitute the prime risks of financing business-projects in developing economies. All the various weights were assigned to the indicators according to the individual respondent's level of agreement.

A simple regression analyses was done to measure teach data. The weight of  $W_j$  as used in this study was to ensure that the weights reflect a product of likelihood  $P_j$ , from intricate multistage selections and a response rate (Kalton, 1983).

$$r_j \text{ in } W_j = 1/P_j r_i$$

This shows that this research used mean statistics to normalize with the sum of weights as in

$$y_w = \sum w_i y_i / \sum w_i \text{ and in } \sum w_i y_i x / \sum w_i \text{ and } \sum w_i y_i^2 / \sum w_i$$

Furthermore, an inter-correlation matrix was constructed to find out how the various prime risk indicators are correlated. The reason behind this is to find out the possibility of collinearity in the regression model of data analysis. In testing the hypotheses, a t-test of significant difference level was performed on the mean of all the prime risk indicators. Further, an independent t-test, which assumes unequal variance, was performed at 95% confidence interval to determine whether the identified prime risk really constitute the three major risks investors face in financing SMEs business-projects. The table 2 as shown in appendix I illustrates the factors that constitutes the three prime risks investors face in financing SMEs business-projects.

Table 2. The Prim Risks of Financing Business Projects.

BUSINESS IDEA RISKS			
Originality / Uniqueness Risks	Acceptability / Adoptability Risk	Technology Risks	Operation / Set-up Risks
Self-generated	Universalism	Knowledge flow	Pre-requisites
Effectiveness	Integrated	Machinery	Redundancy
Cohesiveness	Modernity	Diffusion of idea	Idea chaos
Practicality	Flexibility	Global focus	Productiveness
Tactical	Likability	Operation mode	Competitiveness
Real (authentic)	Ambiguity	Differentiation	Sustainability
Safety net (backup)	Functionality	R and D	
Tacit	Capacity		

COMPETENCY RISKS			
Technical / Creativity Risks (TC)	Management Risks (M)	Comprehension Risks (C)	Social / Environment Risks (SE)
Innovativeness	Environment	Human Capital	Experience
Leadership	Unique skills	Expectancy	Demographic index
Competitive intelligence	Motivation	Results orientation	Civil integration
Strategic alliances	Commitment	Efficiency	Perceptions
Knowledge creation	Self-control	Consultation	Benefit / Value
Connectivity	Openness	Education level	Elasticity
Assertiveness	Deliverables	Crisis management	Availability of information
		Trustworthiness	Factors linkage

RETURN ON INVESTMENT RISKS			
Financial Risk (FR)	Economic Risk (ER)	Political and Legal Risks (PLR)	Culture and Tradition Risks (CTR)
	Inflation		
	Interest rate		
Project cost	Competition	Political stability	
Financing structure	Market share / size	Economic policies	Customs
Securing other financing	Market prices	Legal requirements	Beliefs
Liquidity ratio	Availability of suppliers	Corruption	Ethnocentrism
Financing cost	Minimum wage	Degree of freedom	Entrepreneurship background
Cash flow projection	Cost of material	Leadership	Ethics
Financial mgt. plan	Tax law	The project and politics	Life style
Credit history	Industry-specific economic growth	Security	Attitude towards work
Reliance on revenue source	Demand	Bureaucracy	
Operating self-sufficiency	Income level		
Funding participants	Spending pattern		

**9.3.1. The Mean Scores of the Prime Risks Indicators**

The table 3 below shows the difference between the mean scores of the prime risks indicators of business-projects financing.

*Table 3. Mean of Business-projects Prime Risks.*

Factor	Number	Mean	SD	T
Idea Risks	30	3.7	0.321	3.44
Competency Risks	30	4.0	0.416	3.54
Return on Investment Risks	30	4.3	0.556	2.88

P > 0.05, P > 0.01.

The able 3 above shows the differences between the mean scores of the prime risks indicators and business-project

financing. The T-values are significant at 0.01 levels for business idea risks, competency risks and ROI risks. These prime risks when dealt with effectively will guarantee funding and higher return on investment in business-projects. T-value of business idea risk, competency risk and ROI risk of financing business project are significant at 0.05 levels. The result of T-tests shows the identified three prime risks could have a substantial effect on SMEs business project financing when ignored.

**9.3.2. Prediction of the Prime Risks Indicators Impact on Business-Projects Financing**

Also, table 4 below predicts the identified prime risks indicators impact on return on investment in business projects.

*Table 4. Prediction of Risks Indicators Impact on Business-Projects financing.*

Model	Sum of Squares	Df	Mean squares	F	Sig
Regression	30.118	1	30.118	125.880	0.000
Residual	60.442	188	0.266		
Total	81.560	189			

*Table 5. Dependent variable: Risks of Financing Business-projects.*

	Un-standardized Coefficient		Standardized coefficients		T	Sig
	Beta	Std Error	Beta			
Financing Risks factors	0.710	0.048	0.662		18.279	0.000

The Table 4 above shows that the three identified prime risks constitutes the prime risks of financing SMEs business-projects, these risks also influences business financing decision and return on investment in business-projects. It also revealed a positive significant correlation between the total scores of the risks of financing business projects, with an impact on ROI at (P < 0.01). Also, table 4 shows a significant P-value = 0.000 (less than 0.05) for the prediction relation among the prime risks of financing business-projects and return on investment in business-projects. The table 4 in the nutshell proves the presence of a prediction relation among the three identified prime risks indicators and the dependent variable (business-project financing / activities).

Further, a prove of strong relationship among these prime risks indicators is shown in table 5 below with the aid of the intercept figures (0.842) and slope for financing risks

regression line (0.812). This suggests that to guarantee higher return on investment in business-project; the respective investor and project stakeholders can significantly predict 0.812 chances of being affected by any of the three identified prime risks or getting higher returns on investment. Further, a slope of 0.662 for identifying risks of financing a particular business project is produced when the test utilizes standardized independent and dependent variables. A further, measure of coefficient of the determinants was done to prove the potency of the forecast relation among the risks through ‘Beta’, business-projects scores on financing risks factors exhibited nearly high positive association (r = 0.662) with attracting adequate financing when the identified risks are dealt with effectively. The table 5 below shows the dependent variables of the prime risks of financing business-projects.

Also, a summary regression for the prime risks of



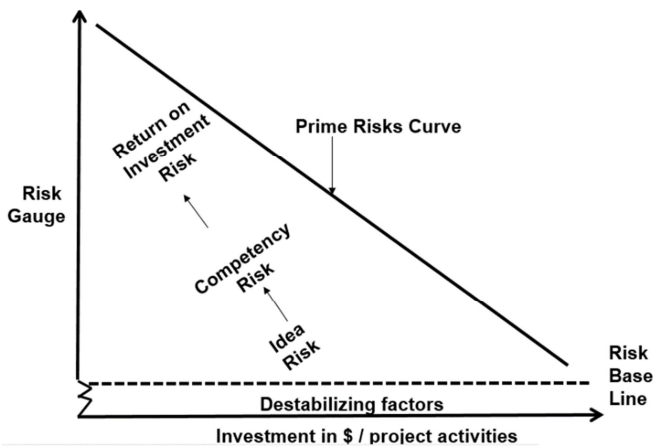
financing business-project shows the presence of a strong positive relationship among the prime risks of financing business-projects. This suggests that the prime risks of financing business-projects can be predicted base on the three identified risks. The table 6 below indicates an 'R<sup>2</sup>' value of 0.587; which means that about 60% of factors that constitute

the prime risks of financing business-projects can be identified by investors and other business-project financing stakeholders' depending on their ability to identify those risk factors and compare them with the prime risks impact rates stated in this study as discovered.

*Table 6. Summary regression of Business-project Financing Risks.*

R	R square	Adjusted R square	Std. error of the estimate
0.682	0.587	0.586	0.3270

The study further observed that there is a strong connection among the three identified prime risks indicators. The figure 1 below illustrates the relationship among the risks, their impact on business project activities.



*Figure 1. Business Project Financing Risk Curve.*

The above figure 1 shows that the relationship between the prime risks of financing business-project and the amount of funds provided / project activities undertaken during the business-project life cycle. The curve also confirms that if idea risk is not will manage it would impact on the entire business-project management and activities. That is, management will be confronted with a lot of challenges which will require higher competent team to handle. At some point, the idea risk can escalate beyond the control of ordinary managers. This will require specialized competent team to manage the business-project. It must be noted however at this point that having poor management team at this stage would lead to high Competency risk. Further, if competency risk is not dealt with swiftly it will have greater impact on the entire business-project. That is it will result in low or poor funding and consequently generate high return on investment risk. Return on investment risk would also produce what this study term as absolute risk, because idea risk and competency risk if not manage well would create an enabling environment for high return on investment risks.

Further, the study as can be seen from the above graph shows that business-projects characterized with higher financing risks attracts low funding and less project activities are undertaken. Also, as risk reduces investors are likely to provide more funds and more project activities would be

undertaken this point. As a result this study has proposed the following principles business project financing principles: 1. Idea risk impact is above zero – thus, there is no risk free business idea or investment activity. 2. There is a negative relationship between risk and financing / project activity. Thus, the higher the risk the less funds is invested in a business-project activities. 3. The higher the risk, the less likely more business-project activities would be undertaken. 4. Investors with high competency may have the ability to identity and full control over idea risks.

This study further revealed that investors with poor competency are more likely to generate high risk business ideas. However, investors with high competency would in most cases be able to positively influence return on investment (ROI). It is worth noting that ROI depends highly on creative ideas and high competent team in other to yield the desire / expected returns. Additionally, when considering whether to finance a business-projects or not, there is the need to analyze each the four factors that constitute idea risks, competency risk and return on investment risk. Investor must observe closely to understand the interconnection among risks so as to make the right financing decision.

## 10. Conclusions

Business-project financing risk is seen as one major challenge investor face in business-projects funding. As a result, this study has analyzed most literatures on the prime risk of financing business-projects. Also, this study has identified business idea risk, competency risk and return on investment risks as the prime risks that confront investors when financing business-projects. Further, this study has developed a graphical model that present, help to identify and as well control the risks of financing business-projects. Further, the following principles exist among the three identified prime risks: 1. Idea risk impact is above zero – thus, there is no risk free business idea or investment activity. 2. There is a negative relationship between risk and financing / project activity. Thus, the higher the risk the less funds is invested in a business-project activities. 3. The higher the risk, the less likely more business-project activities would be undertaken. 4. Investors with high competency may have the ability to identity and full control over idea risks. Finally, this study believes that the above developed graphical model is most effective to present and analyze the prime risks of financing business-projects.

## 11. Recommendations

This study recommends that investors, funds providers, entrepreneurs as well as financial risk analyst develop their skills to be able to identify all risk factors in business-projects that could aid the activation of the identified prime risk indicators by study. Also, this recommend that all actors involved in business-project financing must know their risks tolerance level, this will help them to assume the right amount of financing risk. Further, all parties to business-project financing must have the ability to effectively analyze the connections among the identified prime risk as shown in the developed financing risk graph of this study. This will help to know the appropriate risk control techniques to be applied on the identified prime risks associated with financing of business-projects. Also, this study recommends that a further study be conducted on the above topic and also the developed graphical model, this will help scholars to gain more insight on the above topic. Further, this study recommends the need for another study to be conducted on how to estimate the impacts of the above identified prime risks of financing business-projects in developing economies.

---

## References

- [1] J. Asare (2015). Multi-Metric Definition of Knowledge Economy. *Project Management and Development of the Collection of Scientific Papers Journal*, UDC 005.94: 005.22. Available at: [http://www.pmdp.org.ua/images/Journal/53/9%20text\\_Asare.pdf](http://www.pmdp.org.ua/images/Journal/53/9%20text_Asare.pdf).
- [2] J. Asare (2017). Approach to Assess and Select Small and Medium Enterprises (SMEs) for Incubation on the Base of Angel Model – a Case on Developing Economies and ENGINE Program. *British Journal of Economics, Management & Trade*. 17 (3): 1-28, 2017; Article no. BJEMT.31399 ISSN: 2278-098X.
- [3] Gentrit B. and S. P Justina (2015). Defining Small and Medium Enterprises: a critical review. *Academic Journal of Business, Administration, Law and Social Sciences*. Vol 1, No 1. IIPCC Publishing, Tirana-Albania. ISSN 2410-3918.
- [4] T. S. Hatten (2011). *Small Business Management: Entrepreneurship and Beyond*. 5th ed. Mason: South-Western Cengage Learning.
- [5] Carter, S and D. Jones-Evans (2006). *Enterprise and Small Business: Principles, Practice and Policy* (2nd ed.). Harlow: Prentice Hall.
- [6] European Commission. (2005). *The new SME definition: user guide and model declaration section*. Brussels: Office for Official Publications of the European Communities.
- [7] M. Sam (2004). A review of SME financing schemes in Ghana, Presented at the UNIDO Regional Workshop of Financing Small and Medium Scale Enterprises, Accra, Ghana.
- [8] National Research Council. (2005). *The Owner's Role in Project Risk Management*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/11183>.
- [9] X. C. Mandri-Perrott (2009). *Optimising project finance solutions in the water sector: suggestions for enhanced public private partnership* Groningen: s. n.
- [10] B. Bhattacharyay (2008). *Infrastructure and Regional Cooperation Concept Paper for ADB/ADBI Flagship Study*.
- [11] J. McManus, and T. Wood-Harper (2008). *A study in project failure*. Available at: <http://www.bcs.org/server.php?show=ConWebDoc.19584>
- [12] M. Asay (2008). The UK has wasted over \$4 billion on failed IT projects since 2000. Available at: [http://news.cnet.com/8301-13505\\_3-9840497-16.html](http://news.cnet.com/8301-13505_3-9840497-16.html)
- [13] R. Heeks (2002). *Failure, Success and Improvisation of Information System Projects in Developing Countries*. Development Informatics Working Paper Series, No. 11/2002. Manchester, UK: Institute for Development Policy and Management.
- [14] J. Cannon (1994). Why IT applications succeed or fail: The intersection of technical and organisational factors. *Industrial and commercial training*, 26 (1), 10-15.
- [15] Kam Jugdev and Ralf Müller (2005). A retrospective look at our evolving understanding of project success. *Project Management Journal*; 36, 4; ABI/INFORM Globa pg. 19.
- [16] M. Y. Khan and P. K. Jain (2005). *Basic Financial Management*. 2nd Edition Published by Tata McGraw-Hill Education Pvt. Ltd. SBN 10: 0070599432.
- [17] Caselli S. and S. Gatti (2005). *Structured Finance: Techniques, Products and Market*. Springer: Berlin.
- [18] Edgard Garrido and Thomson Reuters (2017). *Global Project Finance Review*. Managing House Coopers. “PwC” 2011. Australia.
- [19] S. Gatti (2008). *Project Finance in Theory and Practice – Designing, Structuring, and Financing Private and Public Projects*. Academic Press Advanced Finance Series.
- [20] T. Espiner (2007). Seven in 10 governments IT projects fail. Available at: [www.silicon.com/management/public-sector/2007/05/18/failed-seven-out-of-10-gov-it-projects-39167189/](http://www.silicon.com/management/public-sector/2007/05/18/failed-seven-out-of-10-gov-it-projects-39167189/)
- [21] M. Asay (2008). The UK has wasted over \$4 billion on failed IT projects since 2000. Available at: [http://news.cnet.com/8301-13505\\_3-9840497-16.html](http://news.cnet.com/8301-13505_3-9840497-16.html)
- [22] Isaac S. D., Cynthia A. and M. Yusra (2015). Causes of government project failure in developing countries – Focus on Ghana. *The BAM2015 Conference Proceedings*. Available at: <https://www.researchgate.net/publication/299537426>
- [23] Marzouk M. M. and T. I. El-Rasas (2013). Analyzing delay causes in Egyptian construction projects. *Journal of Advanced Research*, <http://dx.doi.org/10.1016/j.jare.2012.11.005>.
- [24] Sweis G., Hammad A. A. and A. AShboul (2008). Delays in construction projects: The case of Jordan. *International Journal of Project Management*, Vol. 26, No. 6.
- [25] M. P Abednego and S. O. Ogunlana (2006). Good project governance for proper risk allocation in public-private partnerships in Indonesia Original Research Article. *International Journal of Project Management*, Vol. 24.
- [26] E. R. Yescombe (2002). *Principles Project Finance*. Publisher: Academic Press. ISBN: 0127708510.

- [27] T. J. Miceli (1997). *Economics of the Law: Torts, Contracts, Property, Litigation*. Publisher: Oxford University Pres.
- [28] Posner R. and A. Rosenfield (1977). Impossibility and related doctrines in contract law: An economics analysis, *Journal of Legal Studies*, Vol. 6, pp. 83-118, 1977.
- [29] K. Kiyoshi, O. Toshihiko and O. Masamitsu (2006). *Risk-Sharing Rule in Project Contracts*. ISARC2006. Kyoto University. Japan.
- [30] National Australia Bank Limited et al. *Understanding investment concepts*. Version 5.3. Publisher: published by GWM Adviser Services Limited AFSL. Available at: [https://www.mlc.com.au/understandingseries/understanding\\_investment\\_concepts.pdf](https://www.mlc.com.au/understandingseries/understanding_investment_concepts.pdf)
- [31] European Commission (2013). *Results and Indicators. EuropeAid– DEVCO 06 – Quality and Results*. Available at: [https://ec.europa.eu/europeaid/sites/devco/files/19.%20results-and-indicators-10122013\\_en.pdf](https://ec.europa.eu/europeaid/sites/devco/files/19.%20results-and-indicators-10122013_en.pdf)
- [32] Morris P. W. G., Pinto, J. K., and J. Soderlund (2012). *The Oxford Handbook of Project Management*. Oxford University Press, Oxford, UK.
- [33] K. M. Rosacker and R. E. Rosacker (2010). Information technology project management within public sector organizations", *Journal of Enterprise Information Management*, Vol. 23 Issue: 5, pp.587-594, <https://doi.org/10.1108/17410391011083047>
- [34] L. Crawford, K. Costello, J. Pollack and L. Bentley (2003). *Managing Soft Change Projects in the Public Sector*. *International Journal of Project Management*. 21. 443-448. 10.1016/S0263-7863 (02) 00099-6.
- [35] Baranskaya A. (2007). *Project Management in Public Administration of Transitional Countries*. Moscow State University, School of Public Administration, Russia.
- [36] Ama Lawani (2016). *Project Management Practices in Government Organizations of Developing Countries: A Systematic Review*. *The International Journal of Business & Management*, ISSN 2321–8916, Vol4. Issue 9.
- [37] Graham R. J. and R. L. Englund (2013). *Creating an environment for successful projects*. Publisher: John Wiley & Sons.
- [38] Gentrit B. and S. P. Justina (2015). *Defining Small and Medium Enterprises: a critical review*. *Academic Journal of Business, Administration, Law and Social Sciences*. Vol 1, No 1. IIPCCCL Publishing, Tirana-Albania. ISSN 2410-3918.
- [39] Hatten T. S. (2011). *Small Business Management: Entrepreneurship and Beyond*. 5th ed. Mason: South-Western Cengage Learning.
- [40] Carter S and D. Jones-Evans (2006). *Enterprise and Small Business: Principles, Practice and Policy* (2nd ed.). Harlow: Prentice Hall.
- [41] European Commission. (2005). *The new SME definition: user guide and model declaration section*. Brussels: Office for Official Publications of the European Communities.
- [42] M. Sam (2004). *A review of SME financing schemes in Ghana*, Presented at the UNIDO Regional Workshop of Financing Small and Medium Scale Enterprises, Accra, Ghana.
- [43] Boyan Jovanovic (1982). *Selection and the Evolution of Industry*, *Econometrica*. vol. 50, Issue 3, Publisher: Econometric Society.
- [44] Saburo K. et al. (200). *Model for SME sector development*. "Proceedings of the 19th International Conference of the System Dynamics Society. Vol. 13.
- [45] Najib Harabi (2002). *Determinants of Firm Growth: An Empirical Analysis from Morocco*, Solothurn University of Applied Sciences, Northwestern Switzerland file:///C:/Users/Joseph/Downloads/Firmgrowth\_Morocco%20(1).pdf
- [46] M. Pajarinen, Petri R. and A. Hyytinen (2015). Does innovativeness reduce startup survival rates? *Journal of Business Venturing*. Volume 30, Issue 4, July 2015, Pages 564-581.
- [47] Schumpeter J. (1934). *The Theory of Economic Development*. Cambridge, MA: Harvard University Press.
- [48] Barringer R. B and A. C. Bluedorn (1999). *The Relationship Between Corporate Entrepreneurship and Strategic Management*. *Strategic Management Journal*. 20. 10.1002/(SICI) 1097-0266 (199905) 20: 5<421::AID-SMJ30>3.0. CO; 2-O.
- [49] Baumol W. and J. Benhabib (1989). 'Chaos: Significance, mechanism, and economic applications.
- [50] Burton G. M. (1981). *Risk and Return: A New Look*. NBER Working Paper No. 700 (Also Reprint No. r0291). National Bureau of Economic Research. 1050, Massachusetts.
- [51] Kothari C. R. (2009). *Research methodology-methods and techniques*, New Wiley Eastern Ltd., Delhi. 2009.
- [52] Robson C. (1993). *Real World Research: A Resource for Social Scientists and Practitioners-Researchers*, Blackwell, Oxford. 1993.
- [53] Ivan Thompson (2014). *Definition of Finance*. Available at: <http://www.managementguru.net/meaning-and-definition-of-finance/>
- [54] Khan M. Y. and P. K. Jain (2005). *Basic Financial Management*. 2nd Edition Published by Tata McGraw-Hill Education Pvt. Ltd. SBN 10: 0070599432.
- [55] Paramasivan C. and Subramanian T. (2009). *Financial Management*. Publisher: New Age International Publishing Limited. New Delhi, India.
- [56] Paish F. W. (1982) *Business Finance*. Publisher: Financial Times Prentice Hall; 6th edition (April 1, 1982) ISBN-10: 0273017683.
- [57] J. H. John (1989). *Financial Decision Making: Concepts, Problems, and Cases* (4th Edition) 4th Edition. ISBN 0133152502 (ISBN13: 9780133152500).
- [58] Howard M. and Upton B. B.(1953). *Introduction to Business Finance*. Publisher: McGraw-Hill, ISBN-10: 007030534X.
- [59] Berger A. N. and G. F. Udell (2002). *Small business credit availability and relationship lending: The importance of bank organizational structure*. *Economic Journal* 112, F32-F35.
- [60] Uchida H., Udell, G. F. and N. Yamori (2006). *SME financing and the choice of lending technology*. RIETI Discussion Paper Series 06-E-025, the Research Institute of Economy, Trade, and Industry.

- [61] OECD (2006). *The SME Financing Gap. Theory and Evidence*, Volume I, OECD, OECD Publishing.
- [62] OECD (2013). *Alternative Financing Instruments for SMEs and entrepreneurs: The case of Mezzanine Finance*, OECD, Paris, CFE/SME (2012) 9/FINAL.
- [63] Solomon E. (1963). *The Theory of Financial Management*. Columbia University Press.
- [64] European Commission (2017). *Resource Efficiency*. Available at: [http://ec.europa.eu/environment/resource\\_efficiency/index\\_en.htm](http://ec.europa.eu/environment/resource_efficiency/index_en.htm)
- [65] Kothari C. R. (2009). *Research methodology-methods and techniques*, New Wiley Eastern Ltd., Delhi. 2009.
- [66] Robson C. (1993). *Real World Research: A Resource for Social Scientists and Practitioners-Researchers*, Blackwell, Oxford. 1993.
- [67] Campbell R. H. (2002). *Project Appraisal and Risk Management (PARM)*. Duke University and National Bureau of Economic Research. Duke Center for International Development at the Sanford Institute. Presented: May 27-28, 2002.
- [68] Erb C. B., Harvey C. R. and T. E. Viskanta (1995). Expected returns and volatility in 135 countries, *Journal of Portfolio Management*.
- [69] Boyan Jovanovic (1982). Selection and the Evolution of Industry, *Econometric*. vol. 50, Issue 3, Publisher: Econometric Society.
- [70] C. W. Lin Tom (2012). A Behavioral Framework for Securities Risk. *34 Seattle University Law Review* 325 (2011). Available at SSRN: <https://ssrn.com/abstract=2040946>
- [71] H. Shefrin (2002). Behavioral decision making, forecasting, game theory, and role-play. *International Journal of Forecasting*. 18: 375–382.
- [72] G. Gigerenzer and R. Selten (2002). *Bounded Rationality: The Adaptive Toolbox*. MIT Press. ISBN 0-262-57164-1.
- [73] R. H. Thaler and C. R. Sunstein (2008). *Nudge: Improving Decisions about Health, Wealth, and Happiness*. Yale University Press. ISBN 978-0-14-311526-7. OCLC 791403664.
- [74] R. H. Thaler, C. R. Sunstein and Balz J. P (2010). *Choice Architecture*. Doi: 10.2139/ssrn.1583509. SSRN 1583509.
- [75] El Haiba, Maria & EL BASSITI, Lamyaa & Ajhoun, Rachida (2018). A Semantic Recommender Engine for Idea Generation Improvement. *Computer and Information Science*. 11. 112. 10.5539/cis.v11n3p112.
- [76] Najib Harabi (2002). Determinants of Firm Growth: An Empirical Analysis from Morocco, Solothurn University of Applied Sciences, Northwestern Switzerland file:///C:/Users/Joseph/Downloads/Firmgrowth\_Morocco%20(1).pdf
- [77] M. Pajarinen, Petri R and A. Hyytinen (2015). Does innovativeness reduce startup survival rates? *Journal of Business Venturing*. Volume 30, Issue 4, July 2015, Pages 564-581.
- [78] J. Schumpeter (1934), *The Theory of Economic Development*. Cambridge, MA: Harvard University Press.
- [79] Barringer R. B and A. C. Bluedorn (1999). The Relationship Between Corporate Entrepreneurship and Strategic Management. *Strategic Management Journal*. 20. 10.1002/(SICI)1097-0266(199905)20:5<421::AID-SMJ30>3.0.CO;2-O.
- [80] University of Nebraska–Lincoln (2019). The Definition of Competencies and Their Application at NU. *Business and Fiance, Human Resources*. Available at: <https://hr.unl.edu/compensation/nuvalues/corecompetencies.shtml/>.
- [81] W. Baumol and J. Benhabib (1989). Chaos: Significance, mechanism, and economic applications.
- [82] A. Virlics (2013). Investment Decision Making and Risk. *Procedia Economics and Finance*. 6. 169–177. 10.1016/S2212-5671(13)00129-9.
- [83] Botchkarev, Alexei. (2015). Estimating the Accuracy of the Return on Investment (ROI) Performance Evaluations. *Interdisciplinary Journal of Information, Knowledge, and Management*. 10. 217-233. 10.28945/233.
- [84] S. V. Toma, Chirita M. and D. Șarpe (2012). Risk and Uncertainty. *Procedia Economics and Finance*. 3. 9. DOI: 10.1016/S2212-5671(12)00260-2.
- [85] C. R. Kothari (2009). *Research methodology-methods and techniques*, New Wiley Eastern Ltd., Delhi.
- [86] R. L. Mark (1990). *Introduction to Behavioral Research Methods*, Edition 4th. Research Edition. Published July 7th 2003 by Allyn and Bacon, ISBN 0205396763 (ISBN13: 9780205396764).