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Adeyele, Joshua Solomon and Osemene, Olubunmi Florence (2018) "Small and Medium Enterprises' Risk Exposures and Mitigation Approaches in Nigeria," *The Journal of Entrepreneurial Finance*: Vol. 20: Iss. 1, pp. Introduction Thorough understandings of businesses undertaken by SMEs' owners enable them to have a clear picture of risks affecting their businesses and to act in proactive manner in order to mitigate or avoid the impending risks. On the other hand, poor understanding of businesses could prevent the owners from taking rational decision to mitigate the inherent risks attaching to their businesses. While it has been acknowledged that big organisations are financially strong enough to attract experts to deal effectively with risks in their businesses, the financial standing of SMEs due to their small size prevent them to put in place sound risk management approach (International Labour Organisation (ILO), 2013). Inadequate funding has been identified as one of the major limitation of small and medium enterprises (SMEs) in any part of the world by many studies. However, risk mitigation is taking prominence in every area of business beyond issues of financing long-term and short term investments constraints (Plourd, 2009). Feridun (2006) cited in Kagwathi, Kamau, Njau and Kamau (2014) reveals that traditional risk mitigation of SMEs focuses on physical causes like fires, accidents and death. The operators of SMEs make decisions on day-to-day activities about their businesses which are function of individual perceptions and experiences. The approach used to reduce risk may either increase the level of business risk exposure instead of reducing it depending on the understanding of the

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SMALL AND MEDIUM ENTERPRISES' RISK EXPOSURES AND MITIGATION APPROACHES IN NIGERIA

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Abstract:
Risks militating against small and medium enterprises (SMEs) have been on the increase due to how risks mitigations are conducted by the owners/operators. Although thorough understanding of businesses undertaken by the owners of SMEs enables them to have a clear picture of risks affecting their businesses so as to act in proactive manner in order to mitigate or avoid the impending risks. To assess the risk exposures of SMEs, a random sampling technique was used to select 209 SMEs within Lagos and Benin City. Both descriptive and inferential statistics such as Phi and Gamma were used to analyse the data collected. The study revealed that the relationship between SMEs' operators understanding of business with risk mitigation, and record backup system are significantly low. However, the understanding is moderately strong with availability of risk management team to mitigate risk after the event (ATE) by the operators of SMEs. The study concluded that SMEs' risk exposures are significant with the operators' understanding of the business which in turn affects how record backup system is maintained and how credit collection strategies are used. Consequently, the study recommended among other things that SMEs' operators need to have thorough understanding of their businesses and they can even hire experts to train them on record backup of vital information of their businesses.

Keywords: SMEs, risk perception, risk exposures, risk mitigation

JEL Codes: D81, L26

I. INTRODUCTION

Thorough understanding of businesses undertaken by the owners of SMEs enables them to have a clear picture of risks affecting their businesses so as to act in proactive manner in order to mitigate or avoid the impending risks. On the other hand, poor understanding of businesses could prevent the owners from taking rational decision to mitigate the inherent risks attaching to their businesses. This assertion is supported by Carroll et al (2014) which affirm that many organizations in attempt to survive take time to understand their markets carefully by evaluating their competitions, and applying best practice to create advantages over competitors. These efforts allow them to identify emerging risks and to develop appropriate strategic responses in a timely manner. While it has been acknowledged that big organisations are financially strong enough to attract experts to deal effectively with risks in their businesses, the financial standing of SMEs due to their small size prevent them to put in place sound risk management approach (International Labour Organisation [ILO], 2013).

Inadequate funding has been identified as one of the major limitation of small and medium enterprises (SMEs) in any part of the world by many studies. However, risk mitigation is taking prominence in every area of business beyond issues of financing long-term and short term investments constraints. Feridun (2006) cited in Kagwathi, Kamau, Njau and Kamau (2014) reveals that traditional risk mitigation of SMEs focuses on physical causes like fires, accidents and death. The operators of SMEs make decisions on day-to-day activities about their businesses based on individual perceptions and experiences. The approach used to reduce risk may either increase the level of business risk exposure instead of reducing it depending on the understanding of the business by decision maker. Although risk management by the owners of SMEs also depends on their mood which influence the availability of information used to make business decision.

Optimistic individuals are more likely to underestimate the negative consequence of risks affecting their businesses. On the other hand, the pessimistic SMEs' owners are more likely to act in the opposite direction, and all of these influence the level of risk exposures and mitigation approaches used in running their businesses. Deloitte LLP (2015) noted that there has never been more definite attempt on how organisations identify and manage risk. Virdi (2005) has uncovered the lack of risk management procedures among the SMEs as well as larger organisations which implies that risk management has not been embraced by many companies even though close to fifty to sixty percent of SMEs' owners reported that they have risk management procedure put in place to reduce business failure. Ntlhane (1995) reveals that SMEs owners and managers are not properly equipped to use risk mitigation tools but rather tend to avoid risks instead of employing risk mitigation approaches. Due to the vital roles played by SMEs in the economy, there is need to assist their owners identify various risk exposures in order to put in place sound risk management that reduce their vulnerability to early shutdown.

Consequently, the main aim of this study is to examine the effect of risk exposures and mitigation approaches on SMEs' continuity in Nigeria. Hence, the specific objective of the study is to:

i. examine the relationship between SMEs' operators understanding of business and risk exposures;
ii. find out how SMEs' operators business understanding relate to record backup;
iii. examine the relationship between SMEs' operators risk exposures and method of risk mitigation; and
iv. investigate whether availability of crisis management team to control of risk after the event relates to SMEs' operators business understanding.

Research Hypotheses

The corresponding hypotheses of the specific objectives include:
H_{01}: SMEs' operators understanding of business does not have any significant relationship with risk exposures.
H_{02}: SMEs operators' business understanding does not significantly relate to business records backup.
H_{03}: There is no significant relationship between SMEs' operators risk exposures and method of risk mitigation.
H_{04}: Availability of crisis management team to take control of risk after the event does not relate to SMEs' operators business understanding.

Justification of the study

The focus of many studies on risk mitigation of SMEs in Nigeria has always been on problems affecting SMEs' survival such as wrong choice of business, lack of market analysis, technical changes, management incompetence, poor financial control, deficient entrepreneurial capacity and poor business orientation (Akinola, 2014; James, 2006; Lawal, 1993; Obikoya, 1995; Omoniyi, 1994; Nwoye, 1994). Three of the few studies that deal with risk exposures and mitigation approaches in Nigeria focused on National Union of Road Transports Workers (NURTW) Ado-Ekiti (Adeyele, 2014a), civil servants in Akure Metropolis (Adeyele, 2014b) and property and pecuniary risk exposure (Adeyele, Osemene & Olubodun, 2017). Akinola (2014) has observed that increasing numbers of entrepreneurs who enter into the business fail than succeed due to internal and external factors. Since SMEs are essentially the crucial segment of Nigeria's economy due to high rate of job creation proportion, there is need to undertake new studies on how the SMEs' job creation can be sustained through sound risk mitigation to minimize risks that lead to financial drain of their businesses. Hence, this study is timely and it will assist the owners of SMEs to reduce their exposure to risks that threaten their scope of business operation in Nigeria.

II. LITERATURE REVIEW

Conceptual clarification of terminologies

Small and medium enterprises - Small and medium enterprises have different terminologies depending on the country or organisation in question. In European Union and international organisations such as the United Nations, the World Trade Organisations and the World Bank, the abbreviation SMEs is used frequently for small and medium enterprises; while in the United States, the term 'Small and Medium Business (SMB)' is predominantly used. SMEs or SMBs are precisely defined using employees, total revenue and total asset variables. SMEs' definition according to International Finance Corporation ([IFC], 2012) are registered businesses with less than or up to 299 employees with minimum assets or annual sales less than ₦19,700,000 and maximum total assets or annual sales not exceeding ₦2,955, 000,000. The criteria for defining the sector according to IFC (2012) are shown in Table 2.1.

Table 2.1: SMEs Criteria

Indicator	Micro Enterprise	Small Enterprise	Medium Enterprise
Employees	Between 1 and 9	Between 10 and 49	Between 50 and 499
Total Assets	< ₦ 19,700,000 ($100,000)	₦ 19,700,000 < ₦591,000,000 ($100,000 but less than $3milions)	₦591,000,000 < ₦ 2,955 ,000,000($3million but less than $15million
Total Annual Sales	< ₦ 19,700,000 ($100,000)	₦ 19,700,000 < ₦591,000,000 ($100,000 but less than $3milions)	₦591,000,000 < ₦ 2,955 ,000,000($3million but less than $15million

Source: Adapted from International Finance Corporation, 2012.

Risk mitigation and management **-** Risk management is a rapidly evolving discipline attracting researchers from many fields of studies and this has led to different use of vocabularies in disciplines applying the term (Atkin & Bates, 2007; Isimoya, 2000; Raghavan, 2005). Risk management as a core function for all types of businesses exists to secure opportunities based on risk taking (Acharyya & Mutenga, 2013). Raghavan (2005) defines risk mitigation as a proactive measure put in place by risk managers for securing the future of the organisation. Improvement in decision making is probably the most fundamental way ERM creates value and it also as well enhances the company's image raising its reputation for strategic adeptness and ability to respond successfully to new opportunities (Milliman Risk Institute Survey

[MRIS], 2014). Mango (2007) cited in Niralia (2017) noted that strategic risk has no certain definition in the context of risk management due to the inability to well define and understand it.

However, Head (2009) defines risk management as process of planning, directing and controlling resources to achieve the goals of organisation. According to Urciuoli and Crenca (1989), risk management involves steps taken to protect organisation assets from destruction through different instruments. Raghavan (2005) defines risk management as activities directed towards loss reduction in order to enhance business' profitability. This may involve strategy to outsource risky activities to professional risk carriers like insurance companies to mitigate the negative impact by accepting part or all the cost of particular risk to third party. The main function of insurance is to act as mechanism through which doubt about future financial uncertainties or activities is accepted from the public for certainty (payment of premiums) (Boland, Collins, Dickson & Ransom, 2004). Atkins and Bates (2007) define risk mitigation as process of reducing the severity of loss after the risk event (ATE) has taken place, while they define steps taken to prevent risk before the event (BTE) as risk management. In this study, the two terms are used interchangeably to avoid confusion. As enterprises change, new risk emerges and this can distort organisation activities if there is no regular and sustained review of business activities (Peck, Hill, Eaglestone & McAulife, 2000). The insured is not necessarily limited to persons but include organisations. Insurance companies are interested in risk improvement not only for the purpose of profit making but to reduce economic losses (Boland et al, 2004).

Consequently, terms such as loss, chance of loss, peril hazard, and risk are often used in everyday conversation for risk mitigation/risk management, but these words take on a particular meaning when used to describe insurance. Insurable risk emanates from unexpected reduction in economic value (Dorfman, 2008). The main objective of risk management activities is to reduce the possibility of organisation running to difficulties that drain its financial resources of organisation (Dorfman, 2008). There are other terms useful for this study which is predominantly used in risk management. They include the following:

Risk and uncertainty - The word risk is uncertainty about future outcome that could land one in a worse position than where the person was immediately before the risk (Atkins & Bates, 2007). This can be linked to the word chance which also mean uncertainty about future outcome in which the occurrence is usually favourable (no loss involved). Chapman and Cooper (1983) define risk as the possibility of economic or financial losses or gain due to attached hazard to course of action in pursuing business goals. Also, Verbano and Venturini (2013) define risk as the possibility of suffering economic and financial losses or physical material damage, as a result of an inherent uncertainty associated with the action taken. On the other hand, uncertainty is a concept that implies imperfection of information possessed by individuals that leads to expression of doubt about the future, and this does not matter whether the affected persons recognize this. Thus, uncertainty also means doubt about the future as a result of imperfect information (Atkins & Bates, 2007). It must be noted that uncertainty exists irrespective of whether it has been recognized by those involved directly. The adoption of risk management techniques to organisation activities can reduce uncertainty in business, thereby reducing the chance of business failure for the organisation (Urciuoli & Crenca, 1989).

Peril and Hazard - The term peril is different in meaning to hazard but the two terms are often used interchangeably by many people. Peril is the prime cause of risk that gives rise to the loss and often it is beyond the control of anyone who may be involved (Isimoya, 2000). Factor which influence the severity of the outcome if the peril operate is termed hazard and can be physical or moral. Physical hazard is the physical configuration of the risk, such as the nature of construction of a building, security protection at a shop or factory, or the proximity of houses to a river bank (Atkins & Bates, 2007). Moral hazard deals with the attitude of the insured person. A broader definition of hazard as defined by ILO (2013) is anything (including work materials, equipment, dangerous substance, workplace layout, poor working organisation, method or practices, attitude) that can possibly inflict injuries on health or safety of a person, or damage to property, equipment or environment. From this definition, the moral hazard can be deduced to include practices, poor working conditions and attitudes of the insured. DICO (2011) defines risk management as a systematic approach to setting the best course of action to manage uncertainty by identifying, analyzing, assessing, responding to, monitoring and communicating risk issues/events that may have an impact on an organization successfully achieving their business objectives (DICO, 2011).

Risk assessment **-** For risks to be managed effectively, they must first and foremost be assessed. The potential SMEs' owners need to determine the level of their business exposure to risk. Atkins and Bates (2007) define risk assessment as 'the overall process of risk analysis and risk evaluation.' Individual small business owners need to be aware of their risk tolerance and establish the firm in a manner consistent with that tolerance (Bamford & Bruton, 2006). This means SMEs' owners must be aware of risk level they are able to cope with. Risk assessment enables effective adoption of risk management methodology (Verbano & Venturini, 2013). The process enhances the creation of business value and maximization of profits through costs minimization (Urciuoli & Crenca, 1989). Risks and risk response activities should be monitored by the responsible manager to ensure that significant risks remain within acceptable risk levels, that emerging risks and gaps are identified and that risk response and control activities are adequate and appropriate ([DICO], 2011).

Theoretical Framework

The way most owners of SMEs perceive risks affecting their business most time turn out to be different from the actual risks. Two major theories used for this study were adopted from Atkins and Bates (2007). They are:

(i) *Human Risk Perception* - Risk is a concept developed to guide people on how to deal with vulnerability. Individuals' risk perceptions thus vary considerably depending on the understanding and the prevailing circumstance which do not depend on environment but based on beliefs about the possibility of peril operating and how people might be affected by its occurrence (Slovic, 2000; Peck et al, 2000). Atkin and Bakes (2007) revealed that people and corporations respond to risk in different ways, and everyone is on a continuum, as shown in figure 2.1 below.

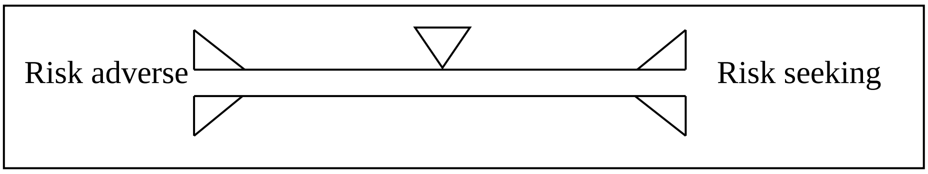

Figure 2.1 Continuum Scale

From the left hand side are individuals who do not like risk but will rather take a safer means to reduce their exposure to risk by taking insurance. Individuals who love risk can be found in the right hand side of the scale and are most unlikely to insure. In between the two extremes of the scale bulk of people (Atkins & Bates, 2007). Nevertheless, Peck et al (2000) emphasized the need to understand this subconscious process because it directly impacts on human perception of risk.

(ii) *Actual and Perceived Risk* - This theory according to Atkins and Bates (2007) state that humans do not always act rationally when faced with risk which may make one to either overstate or understate the actual level of risk (which can be observed by objective risk). Peck et al (2000) revealed that if human perception of a risk differs greatly from the actual risk, the choices that we make based on these perceptions may have disastrous consequences when carried into practice.

Atkins and Bates (2007) accounted for the differences between real and perceived risk leading to further three types of theories as explained below:

Familiarity theory - People's perception of risk can be as a result of their awareness with the dangerous situation (risky) which may be as a result of personal experience or familiarity through media exposure which makes the event to be recalled easily. The effect can work both ways. Familiarity with and exposure to risk can increase one's understanding of the risk better and can lead to such individual understating its impact. On the other hand, individuals who have come to be aware of a certain risk raised by media intervention are more likely to overstate the real level of risk.

Exposure to and control theory - There is possibility to understate the extent of risk if individuals feel they have influence over the situation while they may overstate those events if they feel they have little or no control over the event (Atkin & Bates, 2007). Exposure to risk and control an individual has over an event in workplace can significantly affect his/her risk perception (Krallis & Csonto, n.d.). For example, low frequency of one exposure to large loss may cause a kind of reaction that make one look unsafe than when high frequency of small loss are experienced (Slovic, 2000). Hillson (2004) noted that risk perception can be linked to behaviour as individual differences affect decision making.

Personal or societal effect theory - Sjöberg (1999) noted that personal risk is being perceived to be very lower than those affecting the entire society and as a result individual risk is estimated to be lower than the average risk. However, Atkins and Bates (2007) provide a somewhat different view which states that an individual tend to overestimate personal risk above that of the society which an obvious reaction expected from individual, but it is also good to note the general behaviour of SMEs' operators with general beliefs that increasing threat of flood, building collapse and fire affecting the society cannot happen to their businesses and that is why some of them have been shut down by these risk events.

With the above in mind, Peck et al (2000) cautioned that the risk identifier (risk manager) must be open minded to all risks, no matter how remote they may be, if the process is to be successful. The two theories form the basis of insurance underwriting if the SMEs' owners are to take formal risk mitigation. They are imputed into the underwriter's risk assessment.

III. METHODOLOGY

The population for this study comprised all the registered SMEs within the selected areas which have been in operation for up to at least 5 years. Random sampling technique was used to select 209 SMEs in the areas of study: Lagos (94 SMEs) and Benin City (115 SMEs). Data were initially collected in 2016 and validated in 2018 by adopting similar method of investigation used by Adeyele and Omorokunwa (2016). In order to ensure that only SMEs are selected, establishments with less than 10 employees and whose estimated annual turnover/total assets are also less than ₦19,700,000 ($100,000) were not included in the analysis, as these fall to micro enterprises (see Table 2.1). Also, those establishments whose owners indicated that their annual sales/assets exceed $15million limit were classified as large scale enterprises and excluded from the study. Only establishments whose owners satisfied that the annual sales/asset are above ₦19,700,000 ($100,000) but not exceeding ₦2,955,000,000 ($15million) were used for this study. The use of dollar currency as a measure of index was necessitated by the unstable naira currency which was officially fixed at ₦197/per $1 as at the time of data collection in 2016. Three weeks were given to the respondents to enable them complete and return the distributed copies of questionnaire to researchers. *Cramer's V*, Gamma and descriptive statistics were used for the analysis of data collected.

IV. RESULTS

Descriptive presentation of data

Table 1 shows the description for business classification in terms of size of employees, annual turnover and total annual assets upon which the analysis depends. The table shows that there are more small enterprises (61.7%) than medium (38.3%) in terms of employees' enrolment. With respect to annual sales/total asset formation, there are more small enterprises (63.6%) than medium (36.4%) for annual sales as well as there are small enterprises (55%) than medium (45%).

Table 1: Demographic Information about the respondents and SMEs

		Frequency	Percent	Valid Percent	Cumulative Percent
Estimated number of employees	10-49	129	61.7	61.7	61.7
	50-249	80	38.3	38.3	100
	Total	209	100	100	
Annual turnover	100,000 but less than $3milions	133	63.6	63.6	63.6
	$3million but less than $15million	76	36.4	36.4	100
	Total	209	100	100	
Annual asset	100,000 but less than $3milions	115	55	55	55
	$3million but less than $15million	94	45	45	100
	Total	209	100	100	

Source: Authors' Computation, 2018.

Based on this information in Table 1, the SMEs determination was based on total asset formation which implies that there are more small enterprises than medium.

Table 2 SMEs nature of business, major source of business financing and effectiveness of financing

	SMEs Description and assessment	Frequency	Percent	Valid Percent	Cumulative Percent
SMEs business description	Manufacturing	48	23.0	23.0	23.0
	Supplier of building materials	19	9.1	9.1	32.1
	Purchasing/Distribution	67	32.1	32.1	64.1
	Contractor/Service	73	34.9	34.9	99.0
	Others	2	1.0	1.0	100.0
	Total	209	100.0	100.0	
Major source of Business Financing	Cooperative	53	25.4	25.4	25.4
	Banks	81	38.8	38.8	64.1
	Family/Friends	46	22	22	86.1
	Dividends retained	29	13.9	13.9	100
	Total	209	100	100	
Effectiveness of business financing source	Very efficient	73	34.9	34.9	34.9
	Efficient	108	51.7	51.7	86.6
	Indifferent	22	10.5	10.5	97.1
	Inefficient	3	1.4	1.4	98.6
	Very inefficient	3	1.4	1.4	100
	Total	209	100	100	

Source: Authors' Computation, 2018.

In Table 2, the nature of SMEs businesses as reported by respondents can be grouped into four categories namely manufacturing, supplier of building materials, purchasing/distribution, and service. As can be seen in the table, about 67% of the SMEs businesses engage in purchasing/distribution of goods (32.1%) and servicing (34.9%) while 23% of them engage in manufacturing of goods. With respect to sources of financing business, about 64.1% of the SMEs owners depend on banks (38.8%) or corporative societies (25.4%) to finance their business activities. Others (35.9%) depend on family/friends (22%) and dividends from business activities. When asked about the effectiveness of the financing method, 86.6% claimed the medium is either very efficient (34.9%) or efficient (51.7%). Only insignificant owners (2.8%) confessed that it is inefficient/very inefficient (1.4%) while 10.5% are indifferent about the effectiveness of financing approach employed.

Test of Hypotheses Procedures

In this subsection, the objectives of the study were achieved by using inferential statistics such as Cramer's V and Gamma to test the formulated hypotheses.

*Objective 1/Hypothesis 1***:** to determine the relationship between SMEs' operators understanding of business and risk exposures; and the corresponding pothesis is: H_{01}: SMEs' operators understanding of business do not have any significant relationship with risk exposures.

Table 4 Business risk exposures based on business understanding Crosstab

Business risk exposures	Business understanding rating				Total
	Excellent	Very good	Good	Fair	
Theft	18(26.50%)	18(21.70%)	20(43.50%)	4(36.40%)	60(28.80%)
Fire disaster	14(20.60%)	19(22.90%)	5(10.90%)	2(18.20%)	40(19.20%)
Failure of major customer to pay their debt	21(30.90%)	32(38.60%)	17(37.00%)	3(27.30%)	73(35.10%)
Death/Insolvency of major customers	7(10.30%)	12(14.50%)	2(4.30%)	0(0.00%)	21(10.10%)
Others	8(11.80%)	2(2.40%)	2(4.30%)	2(18.20%)	14(6.70%)
	68(100.00%)	83(100.00%)	46(100.00%)	11(100.00%)	208(100.00%)

Source: Authors' Computation, 2018. $Cramer's\,V = 0.179, p < 0.05$

Table 4 showed the risk exposures of SMEs' operators in respect of before the Event (BTE) based on understanding of the business. SMEs risk exposures depend on the owners'/operators' understanding of the entire business. Individual self-rating of business understanding to determine how records are kept (Table 4), failure of major customers to pay their debt and death/insolvency of major customers are shown in Table 4. Specifically, Table 4 shows major business risk exposures that affect SMEs' profitability and continuity. At least 72.6% (151/208) of the respondents reported they either possessed excellence (32.7%, 68/208) or very good (39.9%, 83/208) understanding of the business. Only 5.3% (11/208) reported that they have fair understanding. From the information contained in Table 4, about 63.9% of the respondents reported that their business are exposed to theft risk (28.8%), while 29.4% reported they are exposed to fire disaster (19.2%) and death/insolvency of major customers (10.1%). The extent of the SMEs' operators understanding of business and risk exposures is significantly low (Cramer's V = 0.179, p < 0.05). On the basis of this, the null hypothesis is rejected and concludes that there is significant relationship between SMEs' operators understanding of business and risk exposures. Figure 1 reveals patterns of risk financing based on decision maker's understanding.

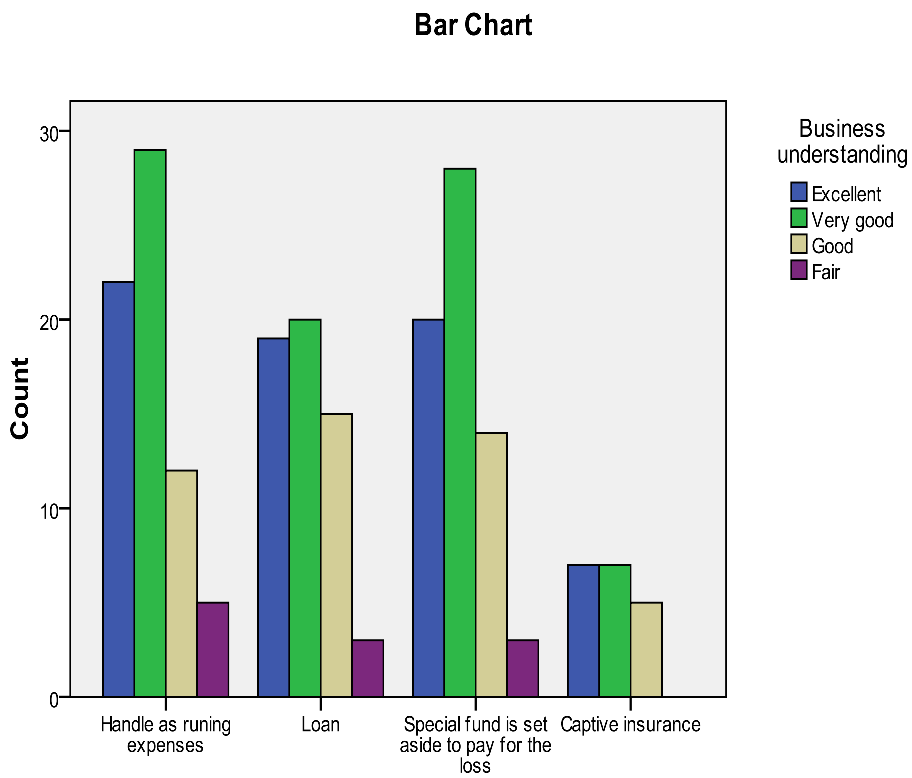

Figure 1: Risk financing based on SMEs' operators understanding of the business

*Objective 2/Hypothesis 2***:** to examine how SMEs' operators business understanding relate to record backup. The related hypothesis is, H_{02}: SMEs operators' business understanding does not significantly relate to business records backup.

Table 5: Business understanding and record backup system of customers owing the SMEs

Record backup of customers owing the company		Business understanding rating				Total
		Excellent	Very good	Good	Fair	
	Most times	37(54.40%)	44(53.00%)	12(26.10%)	3(27.30%)	96(46.20%)
	Sometimes	16(23.50%)	20(24.10%)	19(41.30%)	4(36.40%)	59(28.40%)
	Rarely	15(22.10%)	19(22.90%)	15(32.60%)	4(36.40%)	53(25.50%)
Total		68(100.00 %)	83(100.00%)	46(100.00%)	11(100.00 %)	208(100.00%)

Source: Authors' Computation, 2018. *Gamma* = 0.243, $p < 0.05$

Table 5 revealed that increase in the SMEs' understanding correspondingly increased with how records are kept. At least 46.2% of the respondents reported they have backup records for their business undertaking while 28.4%

of them reported they sometimes do not have regard for record keeping. It is rather unfortunate that some operators (25.5%) gamble with their business by not having a backup system for the business (Table 5). The table as well as Figure 2 also show the extent of SMEs' operators understanding with record backup system. As the business understanding reduces, the need for backup of operational activities also reduces and vice-versa (Gamma = 0.243, $p < 0.05$). Hence, we conclude based on this finding that SMEs operators' business understanding has relationship with how backup for business records is maintained.

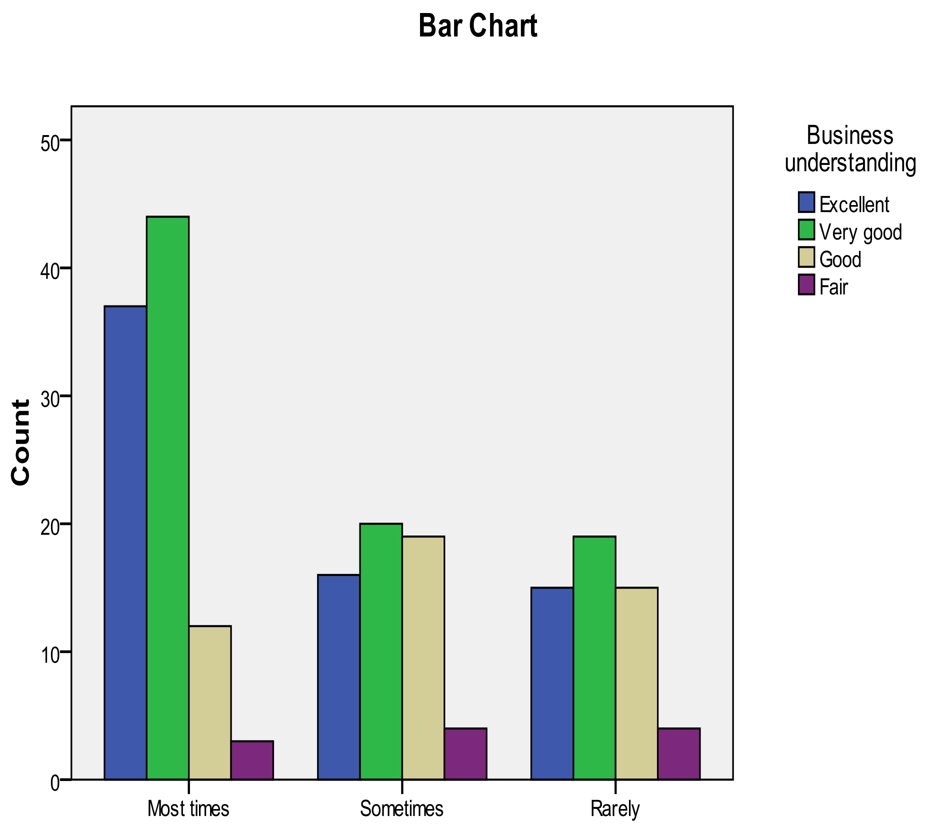

Figure 2:Record backup of debtors to SMEs based on operators' understanding of the business

Objective 3/Hypothesis 3: to examine the relationship between SMEs' operators risk exposures and method of risk mitigation. The corresponding hypothesis is (H_{03}): There is no significant relationship between SMEs' operators' business understanding and business' debt recovery rate.

Table 6: Risk mitigation and treatment seeking

	Risk mitigation approaches				Total
Risk exposures	Handle as running expenses	Loan	Special fund is set aside to pay for the loss	Captive insurance	
Theft	23(33.80%)	18(31.60%)	14(21.90%)	5(26.30%)	60(28.80%)
Fire disaster	14(20.60%)	12(21.10%)	11(17.20%)	3(15.80%)	40(19.20%)
Failure of major customer to pay their debt	23(33.80%)	21(36.80%)	20(31.20%)	9(47.40%)	73(35.10%)
Death/Insolvency of major customers	5(7.40%)	5(8.80%)	10(15.60%)	1(5.30%)	21(10.10%)
Others	3(4.40%)	1(1.80%)	9(14.10%)	1(5.30%)	14(6.70%)
Total	68(100.00%)	57(100.00%)	64(100.00%)	19(100.00%)	208(100.00%)

Source: Authors' Computation, 2018. Cramer's V = 0.151, $p < 0.05$

Table 6 and Figure Figure 3 showed that for every exposure of SMEs to risk, the operators are more likely to treat it as loss/part of business running expenses. For instance, theft, fire disaster and failure of major customers are financed as running expenses (32.7%, 68/208) while 30.8% of risk mitigation for the same risk exposure is handled by creating special funds for any loss (60/208). Other techniques to handle these exposures are loan (27.4%, 57/208) and captive insurance (9.1%, 19/208). The extent of relationship between risk exposures and risk mitigation/financing is also shown in Figure 3 and Table 6 which is low but significant. This means that SMEs' risk exposures relate to how these risk are being mitigated upon.

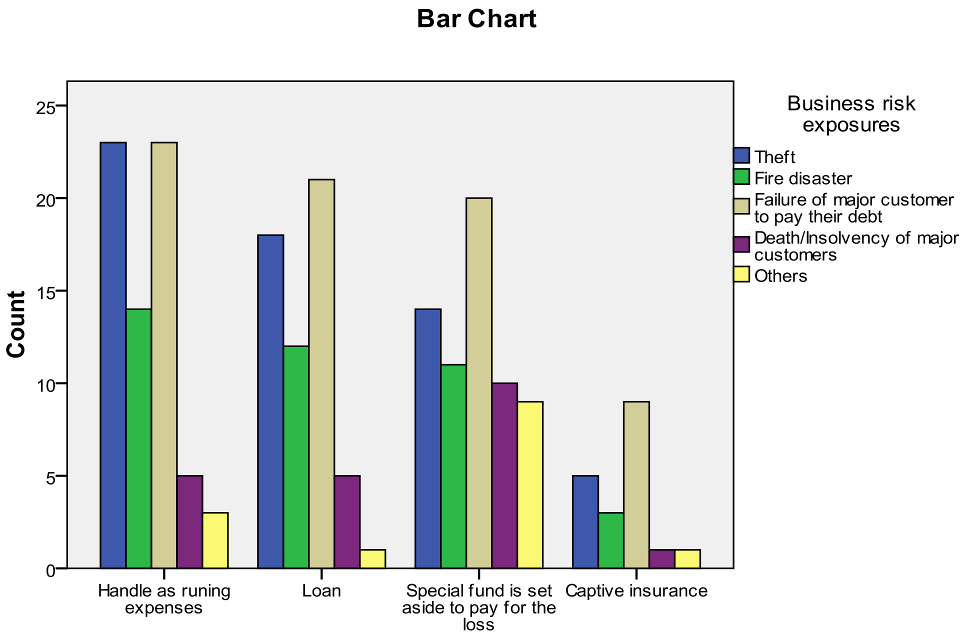

Figure 3: Business risk exposures and mitigation techniques by SMEs' operators

Objective 4/Hypothesis 4: to investigate whether availability of crisis management team to control of risk after the event relates to SMEs' operators business understanding. The corresponding hypothesis is H_{04}: Availability of crisis management team to take control of risk after the event does not relate to SMEs' operators business understanding.

Table 7: Availability of crisis management team to take control immediately after risk events and Business understanding

Availability of crisis management team to take control immediately after risk events	Business understanding rating				Total
	Excellent	Very good	Good	Fair	
Most times	28(41.20%)	23(27.70%)	6(13.30%)	0(0.00%)	57(27.50%)
Sometimes	27(39.70%)	34(41.00%)	15(33.30%)	5(45.50 %)	81(39.10%)
Rarely	13(19.10%)	26(31.30%)	24(53.30%)	6(54.50 %)	69(33.30%)
	68(100.00 %)	83(100.00 %)	45(100.00%)	11(100.0 0%)	207(100.00%)

Source: Authors' Computation, 2018. $Gamma = 0.415$, $p < 0.05$

The relationship between SMEs' owners understanding of business and frequency of availability of crisis management team to take charge of organisation after the event (ATE) has occurred to prevent it from deteriorating is shown in Table 7. The table reveals that only 27.5% of SMEs always put in place crisis management team to mitigate further spread of risk after it has happened. While the remaining SMEs (72.5%) reported they sometimes (39.1%) or rarely (33.3%) have crisis management team in place to mitigate the further spread of risk. The table also revealed that there is a moderately strong relationship between understanding of the business and frequency of mitigation approach employed by the owners of SMEs (Gamma = 0.415, $p < 0.05$). That is, as SMEs' understanding of the business increases, they are more likely to put in place sound risk management approach to reduce it from further spreading.

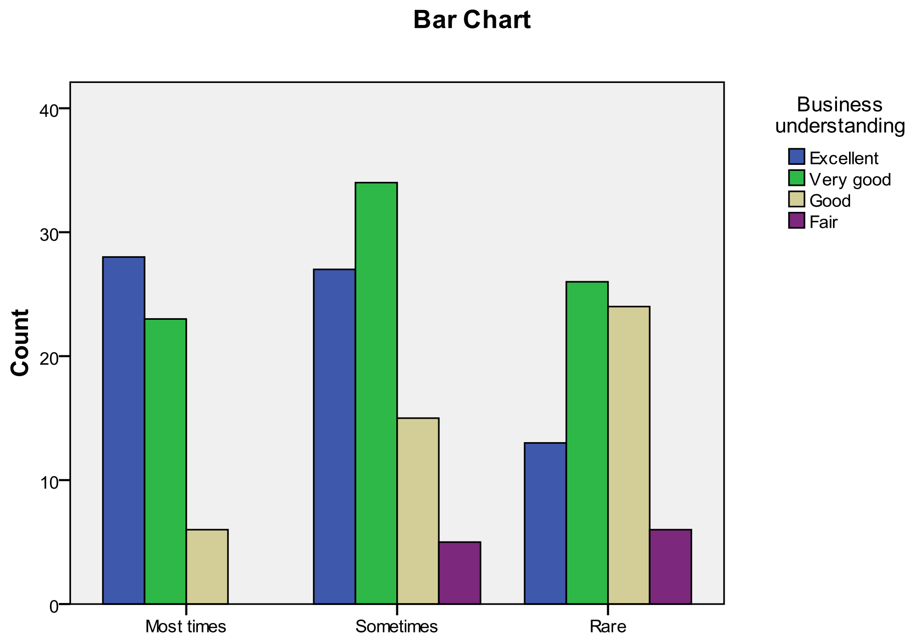

Figure 4: Availability of crisis management team to take control immediately after risk events

Discussion of the findings

Relationship between SMEs Risk Exposures and Business Understanding - Table 4-Table 6 showed the SMEs' operators business understanding and various risk exposures such as record backup system of credit granted to major customers and the frequency of these credits turning to bad debts. Despite many SMEs' operators reported they have very good (39.9%)/excellent (32.7%) knowledge of business activities they run, the understanding is significantly low in relations to business risk exposures, records backup system of vital information to the business, and how credit facility granted to major customers turned to bad debts. These results conformed to actual and perceived risk theory by Atkins and Bates (2007) which states that individuals are more likely to understate or overstate the actual level of risk due to familiarity and control perceived they have over risk. The "it wouldn't happen to me syndrome" generally explains why some SMEs failed to survive in the first five years of business operation. On the basis of these results, it can be said that SMEs operators' knowledge of business is significantly low in term of their exposure to risks.

Link between SMEs' Risk Exposures and Risk mitigation - Table 6 shows how SMEs' risk exposures and business shutdown in the first five years of incorporation were financed. As indicated in the table, SMEs' risk exposure linkage with how they were being mitigated upon which is significantly low. This implies that the way SMEs' risk exposures were being financed is not appropriate in the sense that where owner/operators of SMEs should have used insurance to finance the business, they rather relied on loan (27.4%) to finance their businesses. It can be deduced from this result that about 72.6% of SMEs' owners who used other means did so probably because of lack of access to bank loan. Hence, the result also confirms the finding by Rogerson (2001) and Skinner (2005) that high percentages of SMEs do not have access to bank loan. In order to establish the validity of report by Berger and Udell (2001), Reynolds and Lancaaster (2005) and Bank of England (2001) that high percentages of SMEs failed in the first five years of operation, SMEs' financing method were tested and found not to have better risk mitigation techniques in place. This finding does not totally aligned with Berger and Udell (2001) as well as Reynolds and Lancaaster (2005). This result might have been influenced by environmental differences.

V. CONCLUSION

Risk mitigation approaches employed by the owners of SMEs in Nigeria determine the level of reduction in exposures to risks that drain financial resources of the business. The current study examined the approaches employed using the owners understanding of the business undertaken as basis of sound risk management. The study reveals that operators' understanding of SMEs businesses and risk mitigation is significantly low. Because of this low understanding, the operators do not see any need to backup operational activities. The study reveals that there is relationship between SMEs' operators' business understanding and volume of sales written off as bad debt. However, one of the finding reveals that as the owners of SMEs become knowledgeable about the SMEs businesses, they are more likely to put in place sound risk management approach to reduce it from further spreading. Despite this, it can be concluded that majority of the operators of SMEs in the study areas do not have proper understanding of the business they under take which in turn exposed them to many risks.

For the purpose of assisting the SMEs to function effectively and to contribute to economic development, we recommend that SMEs' operators need to have thorough understanding of their businesses and they can even hire experts for training and retraining of their workers. Also, the SMEs' operators should be encouraged to pay attention to record backup of vital information concerning their business. They also need to ensure that records of credit sales to major customers are properly kept in order to allow for effective business underwriting if they need to transfer the insurable risks of their business to insurance companies.

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