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Property and Pecuniary Risk Exposures: An Investigation into SMEs' Shutdown and Mitigation Methods in Nigeria

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 No business is immune against property damage such as fire outbreak and building collapse in all countries of the world. The chance of any of these perils occurring is even higher in developing countries, particularly in Nigeria due to use of substandard materials by many building contractors who will not see the need to take material warranty insurance that enables the establishment of quality assurance in those structures. For such buildings used for SMEs' businesses, whenever any of these perils operate, the operators need to reinstate their businesses if there is already set aside funds for that purpose or the perils are insured by insurance companies (Boland, Collins, Dickson, Ransom & Steele, 2004). If neither of these is in place, and there is no other reliable means for reinstatement, the affected SMEs will experience business shutdown. The implication of this to individuals and the society at large is clear. Workers will be laid off and economic wellbeing in the society where the businesses operate will be negatively affected. However, if these events were insured, the insurance companies will only be responsible for the reinstatement costs and employees will still be laid off, and profit to be earned during reinstatement will be lost (Wildman, Garvey, 2008, Wright & McNamara, 2000). This loss of profit and the cost of keeping employees while reinstatement takes place can be avoided through interruption insurance which ensures that the losses during the reinstatement periods are recovered in addition to reinstatement cost (Boland et al, 2004). The basic purpose of business interruption, according to Ransom (2003), is to reimburse those parts of 'gross profit' which are lost as a result of the inability of the business to operate after a fire or other insured event occurred. Previously, insurers were reluctant to offer business interruption insurances due to the concerns that during the periods of trading difficulties, there would be a temptation on the part of the insured to delay repairs and make claim from any business interruption insurance (Wildman et al., 2000). Another factor was that the ideas on how to arrange the cover and quantify the claim had not been fully developed. This was because accountancy at that time was still at its infancy, and many businesses were owned and operated by private individuals that made it difficult to separate the owner's private money and income from those businesses (Wildman et al, 2000). Thus, whenever SMEs' businesses experienced shutdown occasioned by fire or other insurable events, the employees of such SMEs are laid off until premises are rebuilt and re-equipped. The continued shutdown of business activities of the SMEs has adverse effect on economic development. Many of the past studies carried out on SMEs have been limited to physical risk mitigation methods (Adeyele & Maiturare, 2012; Berger & Udell, 2001, Laforet & Tann, 2006; Reynolds & Lancaster, 2006, Verbano & Venturini 2013). Akinola (2014) as well as Reynolds and Lancaster (2006) examined how SMEs can be-.

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Cover Page Footnote

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Property and Pecuniary Risk Exposures: An Investigation into SMEs' Shutdown and Mitigation Methods in Nigeria

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ABSTRACT

Business Interruption (BI) insurance is not popular among the operators/owners of Small and Medium Enterprises (SMEs) in Nigeria. This study is an attempt to investigate causes of SMEs' failure and to assist the owners on how to use BI to protect both the physical assets as well as future profits of their businesses. Hence, 389 SMEs were purposively selected from four major cities in Niger Delta Region (NDR) in Nigeria for this purpose. The statistical tools used for analysis were Phi and Cramer's V. The extent of SMEs losses through means of sourcing for materials and strategy employed to transfer such risk to third party were considered in this study. The findings revealed that: SMEs' losses were strongly related to means of conveying raw materials to business locations; and responsibility assumed by SMEs' owners to distribute goods to customers without the use of insured vehicles/vans. The study recommended among other things that SMEs' owners can reduce some business risk exposures by making sure that their goods are carried on insured vehicles/vans, and that they can devise means to make the SMEs' suppliers responsible for safe delivery of all materials purchased from them.

Keywords: Business interruption, risk exposures, property and pecuniary insurance
JEL Codes: D81, L26

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I. Introduction

No business is immune against property damage such as fire outbreak and building collapse in all countries of the world. The chance of any of these perils occurring is even higher in developing countries, particularly in Nigeria due to use of substandard materials by many building contractors who will not see the need to take material warranty insurance that enables the establishment of quality assurance in those structures. For such buildings used by Small and Medium Enterprises (SMEs), whenever any of these perils occur, the operators/owners need to reinstate their businesses if there is already some set aside funds for that purpose or the perils are insured by insurance companies (Boland, Collins, Dickson, Ransom & Steele, 2004). If neither of these is in place, and there is no other reliable means for reinstatement, the affected SMEs will experience business shutdown. The implication of this to individuals and the society at large is clear. Workers will be laid off and economic wellbeing of the society where the businesses operate will be negatively affected. However, if these events were insured, the insurance companies will only be responsible for the reinstatement costs and employees will still be laid off, and profit to be earned during reinstatement will be lost (Wildman, Garvey, 2008, Wright & McNamara, 2000). This loss of profit and the cost of keeping employees while reinstatement takes place can be avoided through interruption insurance which ensures that the losses during the reinstatement periods are recovered in addition to reinstatement cost (Boland *et al*., 2004). The basic purpose of business interruption, according to Ransom (2003), is to reimburse those parts of 'gross profit' which are lost as a result of the inability of the business to operate after a fire or other insured event occurred.

Previously, insurers were reluctant to offer business interruption insurances due to the concerns that during the periods of trading difficulties, there would be a temptation on the part of the insured to delay repairs and make claim from any business interruption insurance (Wildman *et al*., 2000). Another factor was that the ideas on how to arrange the cover and quantify the claim had not been fully developed. This was because accountancy at that time was still at its infancy, and many businesses were owned and operated by private individuals that made it difficult to separate the owner's private money and income from those businesses (Wildman *et al*, 2000). Thus, whenever SMEs' businesses experienced shutdown occasioned by fire or other insurable events, the employees of such SMEs are laid off until premises are rebuilt and re-equipped. The continued shutdown of business activities of the SMEs has adverse effect on economic growth.

Many of the past studies carried out on SMEs have been limited to physical risk mitigation methods (Adeyele & Maiturare, 2012; Berger & Udell, 2001, Laforet & Tann, 2006; Reynolds & Lancaster, 2006, Verbano & Venturini 2013). Akinola (2014) as well as Reynolds and Lancaster (2006) examined how SMEs can be

protected through physical risk control in order to prevent the occurrence of business losses but do not extend to how business' property and pecuniary can be protected. In order to reduce economy waste, this study examines the extent to which business interruption policy can be used to protect earning capacity of the business. The specific objectives are to: (i) examine how means of conveying raw materials from their sources to SMEs' business locations relate to loss exposures, and (ii) determine the relationship between the levels of responsibility assumed by SMEs' owners exposed their business to various risks. The outcome of the study will serve as impetus to development and viability of business interruption underwriting for the selected SMEs in the Niger Delta Region (NDR) and in Nigeria at large. The services of actuaries alongside accountants are frequently sought by insurance companies to ascertain the extent of liabilities. The outcome of this study will assist the parties' concerned – insurance companies and the SMEs' owners - to undertake effective business underwritings. It will also be of interest to entrepreneurs, business owners, government and the policy makers in Nigeria.

II. Literature Review

A. Theoretical Framework

Risk mitigation- Risk mitigation is defined as measures (such as risk avoidance, prevention, or retention) put in place to protect the business' properties against losses. Over a period of time (which may be years instead of months), a formalized risk management allows smooth running of SMEs' businesses through appropriate risks assessment for improved business performance (Peck, Hill, Eaglestone, & McAulife, 2000). This usually begins with identification and assessment of various risk exposures in the light of their significance to organisation. Only a formalized risk and control system can lead to survival and sustained success of business enterprises (Waring & Glendon, 1998). For proper assessment of risk impact on business activities to take place, consideration of the prevailing risk control and measures that reduce the probability of risk occurring and its severity must be identified (Adeyele & Maiturare, 2012; Bamford & Bruton, 2006). On the other hand, risk mitigation is a one-off measure whereby the organisation has defined persons responsible for reducing the severity of loss whenever risk takes place (Huber & Imfeld, 2015). This suggests that risk control measures may differ in timing and nature. For the timing, measures can be applied to operate; before the event (BTE) - to reduce the probability of its occurrence, e.g. protective clothing, security guarding, good housekeeping; during the event (DTE) - to reduce the severity, e.g. extinguishers, sprinklers, boilers, standby power supply to key equipment or computers; and after the event (ATE) - to reduce the severity and further consequential impacts, e.g. contingency plans and computer disaster recovery centres (Atkins & Bates, 2007). Nature in contrast to timing, measures

may either be 'hard' or 'soft.' The hard (physical) measures are employed to alter the risk by physical means, e.g. locks and bolts, fire escapes, safety goggles while the soft (organizational) measures are intended to ensure that people act in the appropriate way to reduce the risk, e.g. safety committees, 'permits to work', security patrols, no smoking rules (Atkins & Bates, 2007; Parsons, 2004). If all of these measures are put in place to protect SMEs businesses by their owners, insurance can be motivated to underwrite property and pecuniary risk exposures for such businesses.

Development of Property and Pecuniary Insurances - Property insurance started in the UK in about 1700 when the first insurance companies were founded (Wildman *et al*., 2000). Companies started by issuing houses for fire in major cities with reasonable water supplies. After a period of time, companies gradually expanded their portfolios to insure houses outside the main cities and also shops and manufacturing premises, provided there was a nearby water supply (Wildman *et al.*, 2000). Because some insurance companies failed, it became apparent that caution was essential when new risks were proposed for insurance and when demands were made for perils other than fire to be insured (Wildman *et al*., 2000). In other words, insurers quickly realised that they need to see for themselves how premises were used. They developed their own ideas on what was safe and acceptable for insurance. This process led to the development of property and pecuniary insurance for all forms of businesses. Pecuniary insurances cover various types of financial loss and can be contrasted with property (or material damage) insurances which cover some form of tangible property, such as building or physical damage by fire to the insured's property.

For business interruption insurance to protect any business, there must be in place material damage warranty policies which usually contain a number of warranties and conditions precedent to liability of the insurers for any loss. Warranty is basically a promise made by the insured, relating to facts or performance concerning the risk or that a state of facts existed or do not exist regarding the past or present as the case may be (Atkins & Bates, 2007). The necessity which would otherwise arise for the insurers of the business interruption loss to place similar warranties and conditions on their policies, thus making these lengthy, is avoided by the use of this provision (Isimoya, 2000). It also relieves them of the need to ascertain whether all such stipulations have been complied with. Furthermore, the possibility of a fire being deliberately caused by other dishonest circumstances must not be overlooked. The insurers who are responsible for providing an indemnity for the material damage are in better position to investigate any suspicious cases and so the insurers of the business interruption loss leaves that aspect to the material warranty insurers. If the claim under the fire insurance is not

paid because it is fraudulent or because of a breach of warranty or for any other reason, there cannot be valid claim under the BI insurance.

However, circumstances sometimes arise whereby liability is not admitted by the material damage insurers but nevertheless an ex gratia payment is made by BI insurers to the insured. In such cases the exact working of the material damage provision in the business interruption insurance according to Wildman *et al.,* (2000), may be of considerable importance; and it states thus:

> *provided that the time of the happening of the loss, destruction or damage, there shall be in force an insurance covering the interest of the insured in the property at the premises against such loss, destruction or damage and that payment shall have been made or liability admitted thereof.*

When property is destroyed or damaged by, say, fire, the insured is indemnified under their property insurance cover (for example, their fire and special perils policy). If they have adequate insurance, this will enable them to restore the buildings and contents to their pre-fire condition. If, however, the property was used by the insured for business purposes, they have also lost their productive capacity or future earnings power. Their normal business activities, whether as a manufacturer or a trader, may cease or reduce, depending on the extent and form of the damage. They have suffered a loss as a result of the fire which cannot be assessed or quantified until some uncertain future date, when they regain their earning power as a result of the reinstatement of their property or by some other means (Isimoya, 2000). It is an intangible future loss which is referred to as 'time loss', consequential loss' or 'loss of profit' and which is the main subject of business interruption insurance (Atkin & Bates, 2007).

Material Damage warranty and Business Interruption- In the face of uncertainty, SMEs' owners need to identify various risks such as fire, theft loss of profit that may affect their businesses through appropriate risk mitigation (Garvey, 2001). The individual business enterprise stands to be affected as a result of damage caused by fire or a kindred peril, its cash flow interrupted and part of its future earnings lost (Cloughton, 1991). Insurance is therefore necessary to afford protection against the loss of future earnings: and in the event of a claim a method of measuring that loss of future earnings must be applied. Cloughton (1991) revealed that the loss of turnover and material damage *proviso* are as follows:

(a) Principle of loss of turnover

In the UK, the basis of most of the business interruption insurance transaction is determined on the premise that reduction in turnover after a fire incident is a reliable guide to, and a suitable index for measuring the proportionate effect of the fire upon the earnings of a business. The actual loss can be ascertained by applying to this

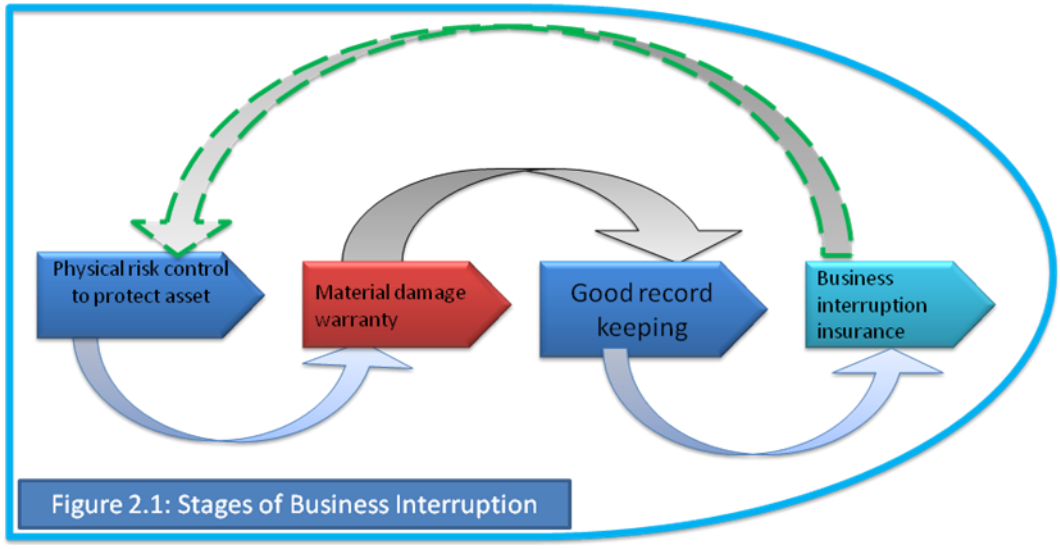
reduction the ratio which standing charges and net profit together normally bear to turnover.

(b) Material Damage Proviso – general principle:

The primary object of this proviso is to ensure that the insured will be kept in financial position to make good any damage to their own property – building or contents (Boland et al, 2000). Otherwise the reinstatement of a business might be delayed or be impossible and in that event part of the business interruption loss would not be proximately caused by the damage but by the insured's lack of financial means to reinstate the business. The material damage proviso does not stipulate that the material damage cover is sufficient to restore the destroyed or damaged property, nor that the money is used for restoration if the claim is not settled on a reinstatement basis. Nevertheless, the requirement that the insured must minimize the business interruption loss should ensure that material damage claims monies are properly used.

B. *Conceptual Framework of the Study*

Following the above reviewed literatures, the conceptual framework for this study is designed around risk management process and business interruption insurance. Figure 2.1 and Figure 2.2 displayed the schematic requirements for business interruption to take place.



Source: Authors' Framework, 2016.

Figure 2.1 shows the basic requirement for business interruption insurance detailed below:

- ✓ the first requirement is physical risk control to protect the organisation assets and property must be put in place;
- ✓ the second stage is availability of material damage warranty to protect the insured event;
- ✓ the third stage is putting in place a good record keeping in respect of company's transactions in order to ascertain the monthly profit to be underwritten; and
- ✓ when the first three conditions are met, then the loss of future profit during reinstatement of damaged property can be insured.

Insurance on property (asset) only covers the direct material loss following its damage or destruction by an insured peril. Such insurance does not cover any indirect or consequential loss that may result. In other words, property insurance covers the direct material or physical loss following damage or destruction, whereas business interruption insurance covers the actual or potential loss of earnings and additional expenses incurred as a result of that material loss (Ransom, 2003).

Business interruption policy has two dimensions: the maximum amount that needs to be insured and the maximum time period that the interruption will affect the business. Both are specified in the policy. The indemnity period (time period) is chosen by the insured and is defined by Ransom (2003) as: "*the period beginning with the occurrence and ending not later than the maximum indemnity period thereafter, during which time the business is affected by the interruption occasioned by the damage."*

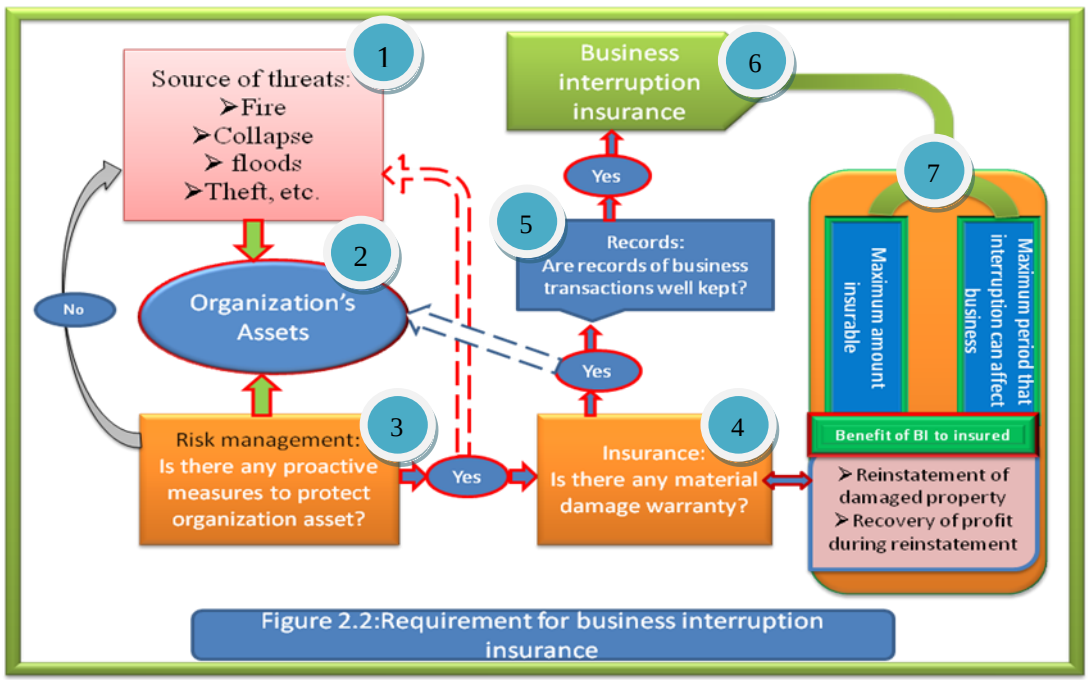
The maximum indemnity period for which compensation is payable is often twelve months, but may be much longer depending upon the type of business, specialist machinery, types of customers and so on. Before BI comes into operation, there must be in place a policy which covers the physical damage leading to loss of earnings. This requirement (see Fig. 2.1 and 2.2) is known as the material damage warranty which is incited into material damage proviso which states that:

> *The proviso appears in business interruption policies as a prerequisite to any claim being paid for business interruption following damage to property of the insured, at the premises insured and used in the business, unless that property is used against material damage by the event which caused the interruption in business and the material damage insurer has either admitted liability to pay the claim for the damage.*

The above proviso suggests that the peril in the business interruption policy must, without exception, have a coinciding period within the material damage cover if a claim is to become payable. Boland *et al*., (2000) gave the following two main reasons for the inclusion of the warranty:

i. the insurer knows that there are funds for completing the rebuilding and this may limit the length of the interruption period; and

ii. the insurer will obtain the benefit of any warranties that may apply to the material damage cover (there are no equivalent warranties in a business interruption policy).



Source: Authors' Framework, 2016.

Label (1) in Figure 2.2 represents sources of threats to organizations' assets. Label (2) contains the buildings used for business activities: machinery in case of manufacturing companies, inventories and other office equipments. If organisation does not have good risk management in place, any of the listed perils can occur thereby leading to early business closure. On the other hand, a good risk management only reduces the frequency of the perils which can operate at unexpected time. Where the property is not insured, then the business owner needs to source for loans to reinstate the damaged property, and if the business is unable to raise funds, then its survival hangs on the balance. The availability of insurance policy will enable the damaged property to be reinstated only. The business owner will still loose the profit and some of the major customers to competitors during a

period of interruption, that is, the time taken to put the building or property in order. The presence of BI enables the business owner to overcome these identified problems.

III. Materials and Methods

The studied population comprised all the registered SMEs in Niger Delta Region. This study relied on primary data such as questionnaire to elicit appropriate information from the owners/operators of SMEs. A purposive sampling technique was used to select 389 SMEs' owners in the four major cities in NDR through research assistants. Copies of questionnaire sent out were validated by Loss Adjusters and insurance practitioners. The distributions of SMEs in the NDR are as follow: Benin City, 130; Asaba, 89; Warri, 90; and Rivers, 80. The selected businesses operated by the SMEs' owners according to industry classification are showed in Table 1 below. Phi and Cramer's V were the statistical tools used to determine the extent of SMEs' risk exposures and mitigation method employed.

Table 1: Selected SMEs' by industry classification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Manufacturing	86	22.1	22.1	22.1
	Processing	45	11.6	11.6	33.7
	Service	224	57.6	57.6	91.3
	Building/Construction	27	6.9	6.9	98.2
	Others	7	1.8	1.8	100
	Total	389	100	100	

Source: Field Survey, 2016.

IV. Results

Table 2a below shows SMEs' risk exposures in respect of the point of responsibility assumed for goods supplied to customers. At the point where SMEs' customers are made to be responsible immediately goods are sold to them (hereafter, point 1) revealed that SMEs' risk exposure in terms of theft (30.4%) and failure of major customers to pay for credit sales (32.9%) is 63.3%, while fire disaster (20.3%) and death/insolvency of major customers (13.9%) constitute other two risks at point 1 (34.2%). The risk exposure of theft (31%) and fire disasters (31%) due to SMEs' acceptance of responsibility only to the point where goods sold are loaded to customers' vehicles (hereafter, point 2) constitute 62% of SMEs' risk exposure. The SMEs' risk due to assumed responsibility to deliver goods purchased from them to

customers' warehouse (point 3) constitutes about 69.4% in the following distribution: failure of major customers to pay debt, 36.1%; theft, and 33.3%.

Table 2a: SMEs' point of responsibility in respect of goods supplied to customers, business risk exposures and Insurance arrangement to mitigate risk exposure

SMEs' point of responsibility in respect of goods supplied to customers			Insurance arrangement to mitigate risk exposure		
			Yes	No	Total
At point of sale (Point 1) (40.9%,158/386)	Business risk exposures	Theft	12(33.3%)	36(29.5%)	48(30.4%)
		Fire disaster	9(25.0%)	23(18.9%)	32(20.3%)
		Failure of major customer to pay their debt	8(22.2%)	44(36.1%)	52(32.9%)
		Death/Insolvency of major customers	6(16.7%)	16(13.1%)	22(13.9%)
		Others	1(2.8%)	3(2.5%)	4(2.5%)
	Total		**36(100.0%)**	**122(100.0%)**	**158(100.0%)**
At point where goods are loaded from SMEs' warehouse (Point 2) (21.8%, 84/386)	Business risk exposures	Theft	7(41.2%)	19(28.4%)	26(31.0%)
		Fire disaster	6(35.3%)	20(29.9%)	26(31.0%)
		Failure of major customer to pay their debt	3(17.6%)	16(23.9%)	19(22.6%)
		Death/Insolvency of major customers	1(5.9%)	7(10.4%)	8(9.5%)
		Others	0(0%)	5(7.5%)	5(6.0%)
	Total		**17(100.0%)**	**67(100.0%)**	**84(100.0%)**
At point where the goods loaded from SMEs' warehouse are delivered to customer's location (Point 1) (37.3%, 144/386)	Business risk exposures	Theft	25(49.0%)	23(24.7%)	48(33.3%)
		Fire disaster	1(2.0%)	17(18.3%)	18(12.5%)
		Failure of major customer to pay their debt	24(47.1%)	28(30.1%)	52(36.1%)
		Death/Insolvency of major customers	1(2.0%)	11(11.8%)	12(8.3%)
		Others	0(0%)	14(15.1%)	14(9.7%)
	Total		**51(100.0%)**	**93(100.0%)**	**144(100.0%)**
(100%, 386)					

Source: Field survey, 2016. *Three respondents omitted

As can be seen in Table 2a, the bulk of these SMEs' risk exposures (73.1%, 282/386) do not have insurance mitigation approach. Figures 1 and 2 revealed the patterns of insurance risk mitigation approach employed by the SMEs which is lower than those who do not have insurance for every exposure. However, Figure 3 shows that more insurance mitigation approaches were used by SMEs to cover exposure to theft at point 3.

Furthermore, the table revealed that SMEs' risk in respect of the sub risk exposures discussed above for responsibility assumed is more at point 1 (40.9%, 158/386), followed by point 3 (37.3%, 144/386). The extent of relationship between SMEs' risk exposures and the operators' responsibility for goods sold to customers is contained in Table 2b. For instance, the SMEs' risk exposure at point 1 is moderately high but not significant (Cramer's V = 0.527, $p > 0.05$). Also, there is high but not significant relationship between point 2 and the operators' risk exposure (Cramer's V = 0.578, $p > 0.05$). However, point 3 is significantly strong with SMEs' risk exposure (Cramer's V = 0.832, $p < 0.05$).

Table 3a: SMEs' major sources of raw material, means of conveying goods purchased to business location and Loss/damage to purchased goods

Means of conveying goods purchased to business location			Loss/damage to purchased goods		
			Yes	No	Total
Owned van / Vehicle (55.8%, 217/389)	SMEs' major sources of raw material	Within the business location	14(12.1%)	15(14.9%)	29(13.4%)
		Within the state	53(45.7%)	30(29.7%)	83(38.2%)
		Within the country	49(42.2%)	56(55.4%)	105(48.4%)
	Total		116(100.0%)	101(100.0%)	217(100.0%)
Hired van / Vehicle (31.4%, 122/389)	SMEs' major sources of raw material	Within the business location	21(33.9%)	10(16.7%)	31(25.4%)
		Within the state	22(35.5%)	21(35.0%)	43(35.2%)
		Within the country	19(30.6%)	29(48.3%)	48(39.3%)
	Total		62(100.0%)	60(100.0%)	122(100.0%)
Relation/Friend's van/vehicle (12.9%,50/389)	SMEs' major sources of raw material	Within the business location	5(20.0%)	6(24.0%)	11(22.0%)
		Within the state	10(40.0%)	6(24.0%)	16(32.0%)
		Within the country	10(40.0%)	13(52.0%)	23(46.0%)
(100%, 389)	Total		25(100.0%)	25(100.0%)	50(100.0%)

Source: Field Survey, 2016.

Table 3a shows the SMEs' owners/operators major sources of raw materials used for their businesses and the risk posed due to means of conveying them to business location. As can be seen in the table, for materials conveyed through own van/vehicle (55.8%, 217), for materials conveyed through own van / vehicle (55.8%, 217), 86.6% of them was sourced within the state (38.2%) and in the country (48.4%). In respect of materials conveyed through hired van/vehicle (31.4%, 122/389), 39.3% was sourced outside the state of SMEs' operation. When relations'/friends' vehicles/vans were used to convey raw materials (12.9%), exactly 78% of the SMEs' materials were sourced from within the state (32%) and outside the state (46%) respectively.

In general, SMEs' operators/owners are more likely to use owned/personal vehicles to convey raw materials to business locations (55.8%) than hired vehicles (31.4%). Only 12.9% used borrowed vehicles from friends/relations to convey their materials to business locations. In all cases, various means of conveying materials to SMEs' locations exposed the operators to various degree of risk or loss (see Figures 4, 5 and 6). As showed in Figure 4, losses to goods purchased are more common within the state than those bought outside the state when personal vehicles were used. Also, more losses were experienced within the city/town of business locations and within the state when hired vehicles were used. More losses were experienced within the SMEs locations than outside the state when using hired vehicles (Figure 5). Similarly, more losses were recorded for goods transported within the state than outside the state of SMEs location when friend's/family's vehicles were used (Figure 6). Table 3b reveals the relationship between risk exposures and various means of conveying the goods to business locations. It also reveals that there is a moderately high relationship between risk exposure and owners'/operators' vehicles (Cramer's $V = 0.564$, $p > 0.05$); hired vehicles (Cramer's $V = 0.621$, $p > 0.05$); and Friend's/family's vehicles (Cramer's $V = 0.572$, $p < 0.05$).

V. Discussion of the findings, conclusion and recommendations

This study was carried out basically to assist SMEs' owners on how to reduce risks militating against their businesses. An investigation into risk management approach adopted by them has not been so helpful. In particular, one of the findings of the study revealed that SMEs' losses were strongly associated with means of conveying raw materials to business locations such as using business' vans/vehicles (Phi & Cramer's $V = 0.564$, $p < 0.05$) and hired vans/vehicles (Phi & Cramer's $V = 0.621$, $p < 0.05$). The responsibility assumed by the SMEs' owners and lack of deliberate plan by them to protect the future earnings of their businesses were found as other evidences against SMEs' shutdown. In this case, they relied on self-insurance, that is, no formal arrangement in place to transfer the insurable risks to insurance

undertakings. The few of them that took insurance policy stopped at assets and contents protection – material warranty insurance. This also partly explains why many of the SMEs examined in this study have incurred huge losses caused by fire, theft and property damage in the last five years. It was also noted that the mitigation method (self insurance) employed by SMEs' operators exposed their businesses to more threats rather than reducing them. However, SMEs' owners can reduce part of their exposures to risks by making sure that their goods are carried on insured vehicles/vans. They can also make the SMEs' suppliers to be responsible for safe delivery of all materials purchased from them. Otherwise, the continued ignorance of SMEs' owners on how insurance companies can assist them to grow their businesses through business interruption insurance will always lead to early shutdown of SMEs' businesses whenever insurable perils operate and no other formal means to recoup the losses. Thus, it becomes imperative therefore for them to consider business interruption insurance as a vital tool to recoup loss of future profits whenever there is business failure through fire incident or any of the insured perils.

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APENDIX

Table 2b: Symmetric Measures for SMEs' point of responsibility in respect of goods supplied to customers, business risk exposures and Insurance arrangement to mitigate risk exposure

SMEs' point of responsibility in respect of goods supplied to customers							Monte Carlo Sig.		
								95% Confidence Interval	
			Value	Asymp. Std. Error[b]	Approx. T[c]	Approx. Sig.	Sig.	Lower Bound	Upper Bound
At point of sale	Nominal by Nominal	Phi	.527			.639	.627[a]	.579	.675
		Cramer's V	.527			.639	.627[a]	.579	.675
	Ordinal by Ordinal	Gamma	.471	.144	.496	.620	.622[a]	.574	.670
	N of Valid Cases		158						
At point where goods are loaded from suppliers' warehousing	Nominal by Nominal	Phi	.578			.618	.640[a]	.592	.688
		Cramer's V	.578			.618	.640[a]	.592	.688
	Ordinal by Ordinal	Gamma	.512	.186	1.615	.106	.129[a]	.095	.162
	N of Valid Cases		84						
At point where the goods loaded from SMEs' warehouse are delivered to customer's Location	Nominal by Nominal	Phi	.833			.000	.000[a]	.000	.008
		Cramer's V	.833			.000	.000[a]	.000	.008
	Ordinal by Ordinal	Gamma	.794	.115	3.248	.001	.005[a]	.000	.012
	N of Valid Cases		144						

Source: Authors' Computation, 2016.

Figure 1: SMEs' point of responsibility in respect of goods sold to customers=At point of sale (Point 1)

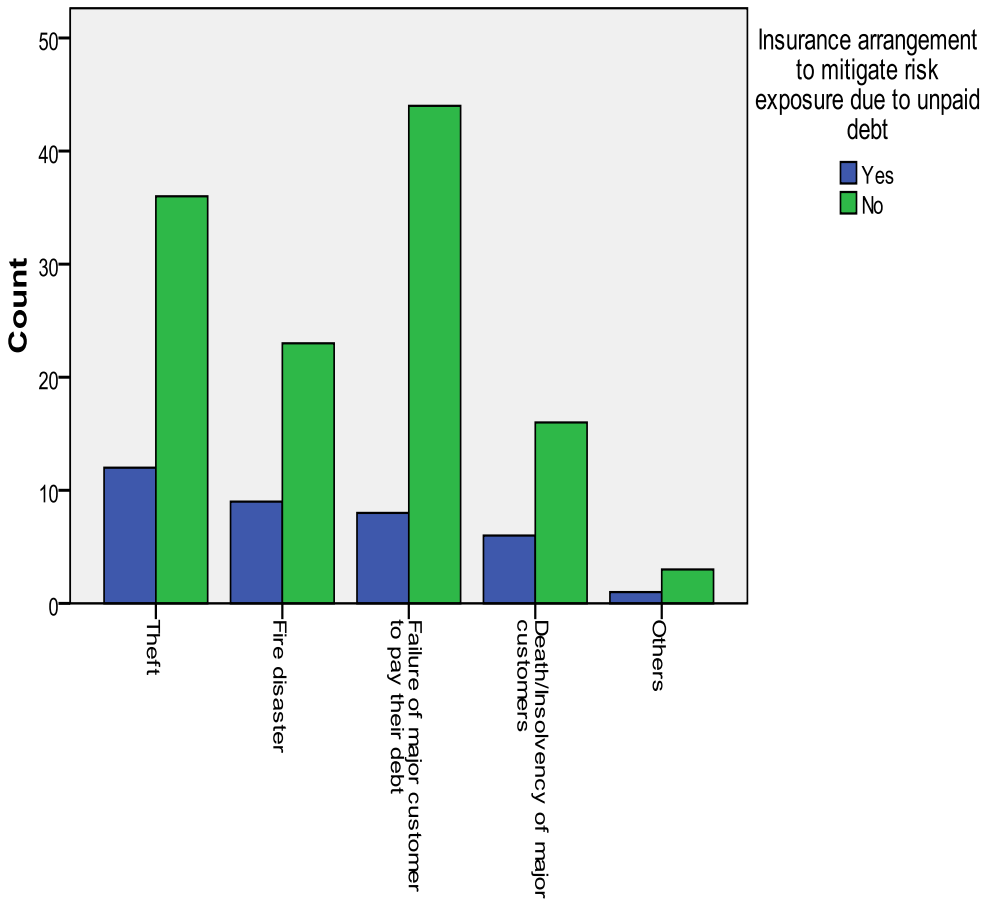

Table 3b: Symmetric Measures for SMEs' major sources of raw material, means of conveying goods purchased to business location and Loss/damage to purchased goods

Means of conveying goods purchased to business location			Value	Asymp. Std. Error[b]	Approx. T[c]	Approx. Sig.	Monte Carlo Sig. Sig.	Monte Carlo Sig. 95% Confidence Interval Lower Bound	Monte Carlo Sig. 95% Confidence Interval Upper Bound
Owned van / Vehicle	Nominal by Nominal	Phi	0.564			0.053	.049[a]	0.027	0.07
		Cramer's V	0.564			0.053	.049[a]	0.027	0.07
	Ordinal by Ordinal	Gamma	0.563	0.117	1.39	0.164	.167[a]	0.13	0.204
	N of Valid Cases		217						
Hired van / Vehicle	Nominal by Nominal	Phi	0.621			0.05	.046[a]	0.025	0.067
		Cramer's V	0.621			0.05	.046[a]	0.025	0.067
	Ordinal by Ordinal	Gamma	0.852	0.134	2.497	0.013	.015[a]	0.003	0.028
	N of Valid Cases		122						
Relation/ Friend's van/vehicle	Nominal by Nominal	Phi	0.572			0.477	.496[a]	0.446	0.546
		Cramer's V	0.572			0.477	.496[a]	0.446	0.546
	Ordinal by Ordinal	Gamma	0.511	0.234	0.473	0.636	.666[a]	0.619	0.713
	N of Valid Cases		50						

Source: Authors' Computation, 2016.

Figure 2: SMEs' point of responsibility in respect of goods sold to customers=At point where goods sold are loaded from SMEs' warehouse (Point 2)

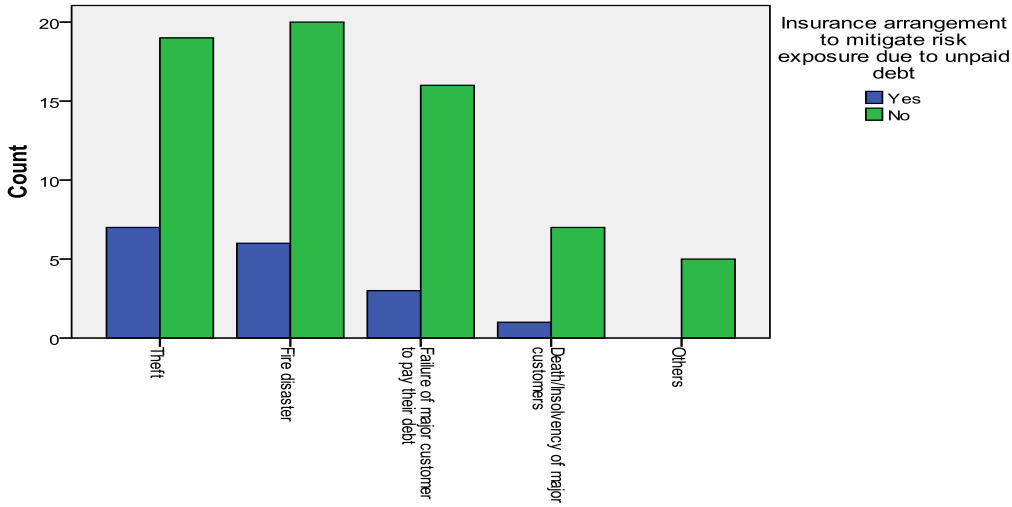

Figure 3: SMEs' point of responsibility in respect of goods sold to customers=At point where the goods loaded from SMEs' warehouse are delivered to customer's location (Point 3)

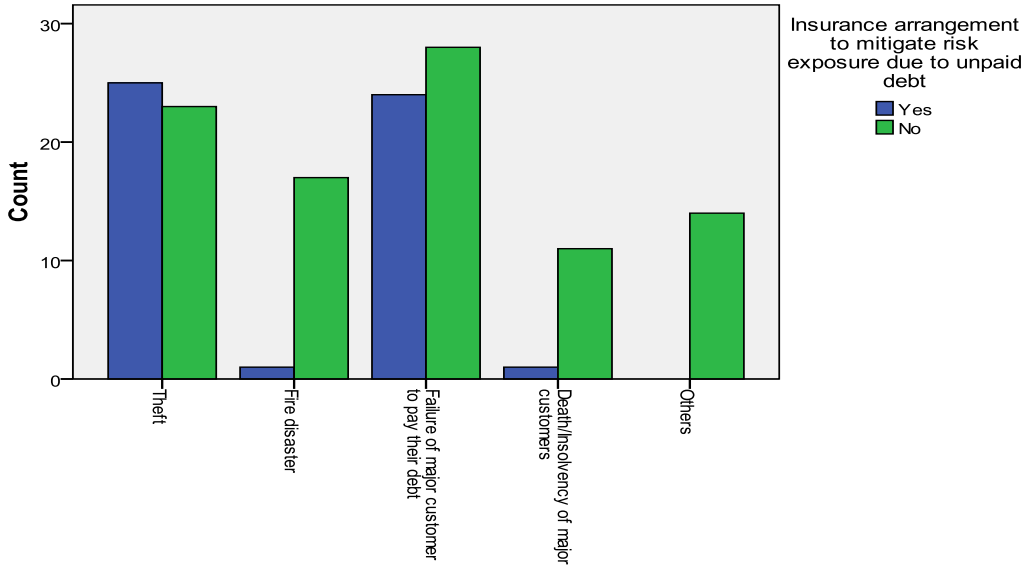

Figure 4: SMEs' means of conveying goods purchased to business location=Own van / Vehicle

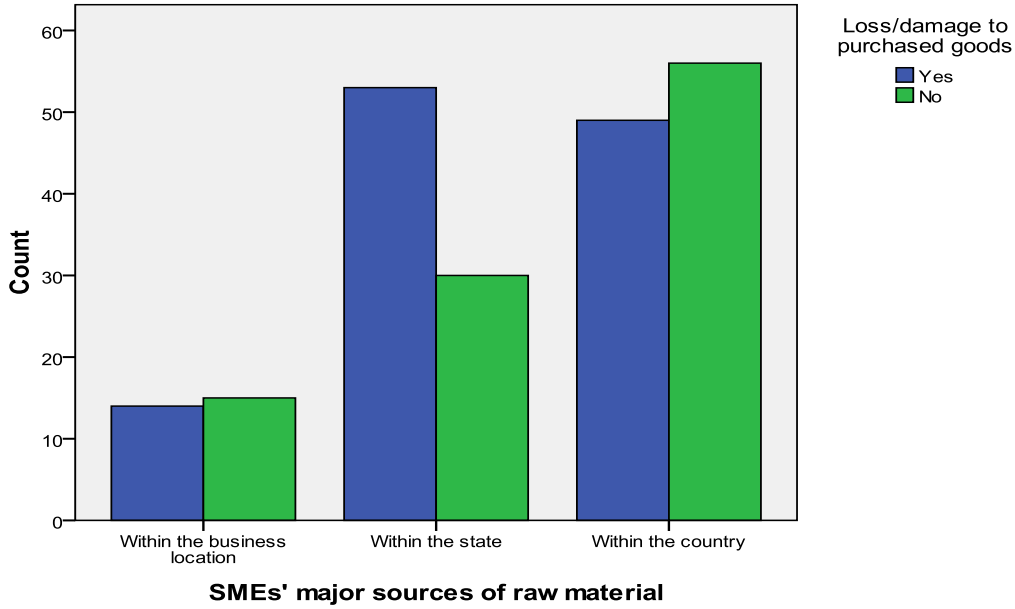

Figure 5: SMEs' means of conveying goods purchased to business location=Hire van / Vehicle

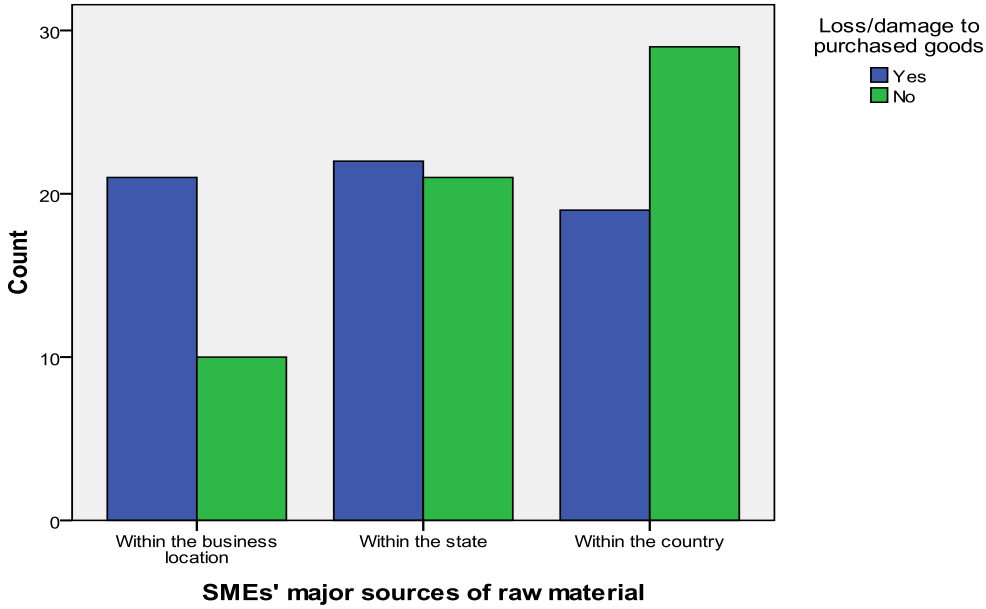

Figure 6: SMEs' means of conveying goods purchased to business location=Relation/Friend's van/vehicle