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The Managing Editor
Department of Economics
Federal University Gusau, Zamfara State.
gjedsfugus@gmail.com
+2348134539669

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NEXUS BETWEEN ENTERPRISE RISK MANAGEMENT PRACTICES AND BUSINESS PERFORMANCE METRICS: EVIDENCE FROM SELECTED PHARMACEUTICAL COMPANIES IN LAGOS STATE, NIGERIA

Rahmon Olawale SAKA
Department of Business Administration, faculty of Management Sciences, Lagos State University, Lagos, Nigeria, rahmon.saka@lasu.edu.ng

Sunday Stephen AJEMUNIGBOHUN
Department of Insurance, Faculty of Management Sciences, Lagos State University, Ojo, Lagos, Nigeria, sunday.ajemunigbohun@lasu.edu.ng

Oloyede Raheem LAWAL
Department of Business Administration, faculty of Management Sciences, Lagos State University, Lagos, Nigeria, oloyede.lawal@lasu.edu.ng

ABSTRACT

Enterprise risk management practices are key instrument for enhancing the business performance metrics of any business entity, especially pharmaceutical firms. This study examined the nexus between enterprise risk management techniques and business performance metrics (financial perspectives, customers' perspectives, internal business process, and learning and growth perspectives) among selected pharmaceutical companies in Lagos State. The study adopted a cross-sectional survey design cum double sampling techniques comprising purposive and convenience. The study further employed a structured questionnaire to gather data from a sample size of one hundred and sixty-four (164) participants. For descriptive statistic, simple regression technique was adopted in the data analysis. The study revealed the positively low relationship between enterprise risk management practices and business performance metrics of selected pharmaceutical companies in Lagos State, Nigeria. The study recommended that pharmaceutical companies should develop ERM framework that would provide a systematic method for detecting, evaluating, controlling, and overseeing risks. Furthermore, it is crucial to foster a culture of risk consciousness inside these organisations, wherein senior executives exhibit their dedication to risk management as an integral aspect of the business ethos. These officials should promote cooperation and transparent communication with different departments and external stakeholders, such as regulators, customers, and suppliers, to aggressively tackle risks.

Keywords: Enterprise risk management, financial perspectives, customers' perspective, learning and growth perspectives, pharmaceutical companies

1.0 Introduction

Pharmaceutical landscape is in a regular variability growing and emerging markets in the world. In bid to be in leading market and gaining competitive advantage, these companies need to be more specialised and flexible. Therefore, the importance of project management especially the risk management in new product development cannot be ignored to bring a successful product to the market. However, Pharmaceutical sector of every economy plays dominant role in the general health of citizens living in the country; with Nigeria as no exception. This industry is a major contributor to every economy of the world in terms of job creation, gender equality, and gross domestic products (Muratoglu, 2017; Nathalie, 2019; Ostwald et al., 2020). Results of multiple studies (such as Anton & Nucu, 2020; Enyinda, 2018; Gautam, 2016; Li, 2022) have shown that the industries declining productivity challenges, the change in commercial models, and the growth of emerging markets are the major risk management challenges confronting he pharmaceutical companies. To deal with these challenges, it is necessary to adopt risk management tools to manage the development strides to be able to achieve a more sustainable front. The critical tool deployable at understanding the entirety of the firm is the enterprise risk management concept. Enterprise risk management (ERM) is a leading concept, supporting organisations to identify, evaluate, and manage the totality of its risks.

The principle of ERM supports a holistic approach where strategic, financial, hazard, operational and other organisational risks are combined and addressed simultaneously. Furthermore, it helps to identify potential events capable of affecting the enterprise and manage them to ensure that they fall within the organisation's risk appetites. However, the concept of ERM has gained an increasingly great attention among corporate managers. Prior to the emergence of ERM as a holistic approach to manage the risk, business firms were used to managing their risk factors on "case by case" basis which said to be a traditional and less effective approach. Despite the fact that ERM has been widely discussed as a holistic and modern technique to managing risks little evidence is visible as to whether ERM supports creating firm value (Alawattegawa, 2017; Faisal, & Hasan, 2020; Yang et al., 2018). ERM is evolved to tackle the perceived inadequacies of the Traditional Risk Management (TRM). Before the advent of ERM, risk management is practiced in an

isolated manner such that risks are not handled centrally in an organisation. Most considerably is the fact that not all kinds of risks are addressed within the framework of TRM. Studies (such as Mensah, & Gottwald, 2016; Obalola et al., 2014; Renzi & Vagnani, 2020) had opined that ERM is a chronological discipline and integrated method directed at handling organisational risks in a bid to create and maximise value for stakeholders.

ERM Framework by the Committee of Sponsoring Organisations of the Treadway Commission (COSO, 2004 as cited in Ibiwoye et al., 2020) is adopted by this study. Ibiwoye et al. (2020) had engaged this framework to operationalise ERM effectiveness. The framework comprises of eight interrelated functions through which organisations can effectively manage their risks to bolster business performance. These include Internal Environment, Objective Setting, Event Identification, Risk Assessment, Risk Response, Control Activities, Information & Communication, and Monitoring. These ERM practices seen not to have been well reported in many studies relating to pharmaceutical companies in Nigeria. Therefore, this study is embarked upon to examine he relationship between enterprise risk management and business performance with empirical evidence from pharmaceutical companies in Lagos State, Nigeria.

The main objective of this study is to examine the relationship between enterprise risk management practices and business performance among selected pharmaceutical companies in Lagos State. The specific objectives therefore are to evaluate the effect of enterprise risk management practices on financial perspectives of selected pharmaceutical companies in Lagos State; ascertain the influence of enterprise risk management practices on customer perspective of selected pharmaceutical companies in Lagos State; find out the nexus between enterprise risk management practices and internal business process of selected pharmaceutical companies in Lagos State; and determine the extent to which enterprise risk management practices affect learning and growth perspective of selected pharmaceutical companies in Lagos State.

2.0 Literature Review

2.1. Conceptual Review

2.1.1. Enterprise Risk Management

Enterprise risk management (ERM) is a crucial approach to daily business activities and organisational practices in the current era as it boosts business entity to handle

their internal system. ERM is defined as a process, carried out, by an organisation's group of directors, managerial cadres, and other staff, applied in strategy setting and throughout the organisation, designed to identity potential event that may affect the entity, and manage risks to be within its risk appetite, to provide sensible assurance concerning the attainment of the organisation's objective (Society of Corporate Compliance and Ethics & HealthCare Compliance Association (SCCE & HCCA, 2020).

ERM benefits an organisation in a number of ways. It benefits by reducing the capital cos, volatility earnings, and share prices of an organisation, by achieving competitive advantage, enhancing decision making capacities, and building investors trust (Candy, 2021). However, successful implementation of ERM can help organisations in ensuring high level firm performance (Soltanizadeh et al., 2016); increasing accountability (Ibrahim & Esa, 2017); and can help increase shareholders' value and reduce monetary distress costs, and foreign financing (Rasid et al., 2017). ERM is expected to reduce direct and indirect costs of monetary distress, earnings of volatility, and negative shocks in financial markets as well as improve the decision-making process to choose the best investment opportunities (Brusterbaur, 2016). ERM practices assist an organisation to reduce all sorts of costs related with firm's operational and non-operational activities (Khan et al., 2016). Effective ERM practices assist o respond to unanticipated threats, to make sure flexibility and t0 take the benefits of chances which, invariably, promote organisations to achieve competitive advantage (Armeann et al., 2017).

2.1.2. Business Performance: Conceptual clarifications

Business performance is the measure of how efficiently an organisation carries out its strategy in order to accomplish its goals. It includes multiple aspects such as financial prosperity, operational effectiveness, customer contentment, and personnel efficiency (Farida & Setiawan, 2022). Based on various studies (Abdullahi et al., 2021; Ahmad & Jamil, 2020; Artha & Satriadha, 2023), business performance can be divided into two main components: financial performance and non-financial performance. It is crucial to effectively manage and integrate both types of performance in order to foster the growth of start-up ventures. Financial performance pertains to the evaluation of a company's success in monetary terms and its financial activities. On the other hand, non-financial

performance encompasses aspects of a company's performance that cannot be quantified in monetary terms, such as its brand reputation, customer satisfaction, organisational performance, and innovation activities.

2.2. Theoretical Review

2.2.1. Enterprise Risk Theory (ERT)

Enterprise Risk Theory (ERT) offers a fundamental framework for understanding the intricate interaction of hazards inside an organisation. The concept suggests that risks are interrelated and have the potential to either magnify or lessen one another. The ERT also highlights the significance of perceiving risk as a chance rather than as a danger (Kanu, 2021; Nowak, 2019). Nuhic-Meskovic and Meskovic (2023) state that essential principles of ERT encompass a comprehensive viewpoint (risks are evaluated throughout the entire organisation, rather than in isolation); interconnectivity (risks are interconnected and can impact one another); risk tolerance (organisations have a predetermined level of acceptance for risk); and risk culture (the organization's attitude towards risk is ingrained in its culture). Enterprise Risk Management (ERM) is the tangible implementation of ERT. Risk management is a methodical approach to detecting, evaluating, and controlling risks in order to accomplish organisational goals. ERM is founded on the fundamental principles of ERT, which involves converting theoretical ideas into practical tactics (Hristov et al., 2022). Essential enterprise risk management (ERM) practices based on enterprise risk taxonomy (ERT) encompass risk identification (identifying all possible risks, both internal and external); risk assessment (evaluating the probability and consequences of each risk); risk prioritisation (determining the importance of risks based on their potential consequences); risk response (developing strategies to reduce, transfer, accept, or avoid risks). Risk monitoring and reporting include the ongoing tracking and communication of risk information.

ERT offers a conceptual foundation for ERM, guaranteeing that risk management is thorough and strategic. Organisations can enhance the effectiveness of their risk mitigation initiatives by comprehending the interdependence of hazards. In addition, ERT assists organisations in aligning risk management with their overarching business objectives. The strong foundation of Enterprise Risk Management (ERT) offers several advantages. Firstly, it enables improved decision-making by providing a comprehensive understanding of all potential risks, allowing organisations to

make more informed choices. Secondly, ERT enhances risk awareness by promoting a culture of risk consciousness within the organisation. Thirdly, it increases resilience by ensuring that organisations are well-prepared to handle unforeseen challenges. Lastly, effective risk management through ERT can optimise performance, leading to improved financial outcomes (Pincot, 2023). Despite the aforementioned advantages, the implementation of ERT and ERM can be intricate and necessitates a strong commitment from the organisation. The challenges encompass data accessibility, quantifying risks, and fostering cultural transformation. Nevertheless, the potential advantages are substantial. In conclusion, Enterprise Risk Theory offers a strong framework for comprehending and handling hazards within organisations. By integrating Enterprise Risk Management (ERM) practices with Enterprise Resilience and Transformation (ERT), organisations may provide a robust and enduring foundation for their future. This study focusses on the relationship between enterprise risk management and business performance.

2.3. Empirical Review

Kakiya et al. (2019) evaluated the effects of enterprise risk management practices on organisational performance, with intellectual capital as a moderating factor in Kenya. This study is hinged on resource-based theory. The study adopted explanatory design cum survey approach. With the adoption of a structured questionnaire, 218 corporations were consulted. The study employed both descriptive and inferential statistics comprising simple frequency percentage and multiple regression technique. Findings from this study revealed ERM governance practices to have significant effect on organisational performance. Furthermore, intellectual capital showed a moderating effect on the nexus between ERM practices and firm's performance. The study recommended strategic competitiveness as the necessary support for handling risks and also, ensuring adequate resource to attaining high level of risk management.

Ojubanire and Dawodu (2021) examined the nexus between risk management practices and financial performance, with empirical investigation from MSME in Ogun State, Nigeria. The study adopted well-structured questionnaire to elicit information from two hundred and seventy-three (273) participants. The data gathered were analysed using both descriptive and inferential statistics. Findings from selected staff members of MSME revealed that ERM practices implementation provided

setting, risk identification, risk assessment, and control activities in firm's financial performance. The study further showed no relationship between the scale of enterprise and risk management practices adopted. The study further revealed that both risk identification and control activities were the only ERM practices that responded positively to financial performance. The study concluded that enterprise risk management practices have significant effect on financial performance among micro, small, and medium enterprise (MSMEs) in Osun State, Nigeria.

Aldoseri (2022) investigated the nexus between enterprise risk management and firm's value, with empirical case from Saudi emerging market. The data gathering exercise for this study was done among forty-one (41) companies from 2017 to 2022 in sectors consisted of capital goods, materials, and energy companies listed on the Saudi Stock Exchange. The statistical outcome from the study revealed a positive effect of ERM on the Saudi's companies' value. More so, the size of audit companies enhanced the nexus between ERM application and organisation's value while return on assets proved some statistical relevance, firm's size and leverage showcased insignificant effects on firm's value. The study suggested that Saudi companies should adopt ERM practices the more to be able to achieve more of their firm's value.

Bharadwaz and Goswami (2023) assessed the enterprise risk management practices among selected companies in India. This study aimed at using ERM as a tool to identify, assess, and handle risks within an organisation. This study did an in-depth evaluation of ERM practices across firm's performance for over 15 years; that is, 2007 -2022. The statistical tool adopted was content analysis for four (4) companies during this said period. The study revealed that firm performance like return on asset (ROA) has a significant but negative nexus with ERM.

Saranza et al. (2024) examined enterprise risk management (ERM) observance and performance variables among local business conducted through purposive sampling. The study adopted statistical instruments such as standard deviation, mean, analysis of variable, and Pearson correlation. ERM observance exhibited a strong commitment to compliance, operational, financial, strategic, and reputational practices; while performance factors such as customer satisfactions, market share, and financial. In conclusion, promoting teamwork, incentivising ERME adherence, sharing ERME knowledge, and

motivating persistent learning, focusing to establishing a robust ERM approaches for proactive risk control and strategic decision making.

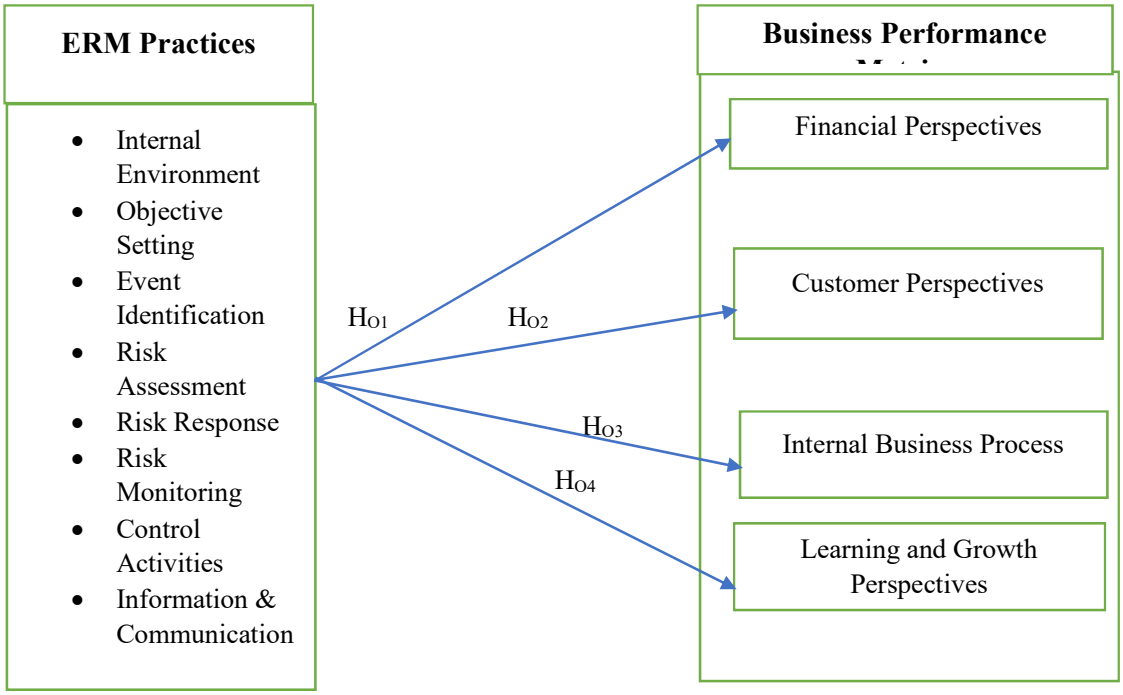


Fig 1: Conceptual framework explains the nexus between ERM practices and business performance metrics among pharmaceutical companies in Lagos State

3. Research Methods

In attainment of the objectives of this study, a cross-sectional survey design was employed. The purpose of its adoption was because it provided for the gathering of data from a number of subjects or events from identical timespan, and at a single point in time. This design came into force because it helps free the study from biases in a bid to produce the least margin of error with increased reliability in the accuracy of data gathered. The population of the study are total number of pharmaceutical companies' staff in Lagos state. This was discovered to be around 89 registered pharmaceutical companies in Lagos State. The registered pharmaceutical companies represented the sampling frame, while the members of was indeterministic. The study employed a double sampling technique comprised of purposive and convenience. For the purposive sampling technique, the respondents were selected on the basis of

their expertise and judgments in the research instrument. For convenience sampling, pharmaceutical companies' members of staff consisted of hired pharmacists were engaged in their readiness and availability. Two hundred (200) copies of the questionnaire were distributed among the registered pharmacists in some areas in Lagos specifically, Mushin, Alimosho, Ogba, Agege, and Yaba Local government council areas. Out of the total copies of the questionnaire distributed, one hundred and sixty-two (162) copies were retrieved while one hundred and sixty-four (164) copies were used for the data analysis after further scrutiny representing a response rate of seventy-two percent (72%).

The research instrument adopted in this study was structured questionnaire and will be drawn based on the research objectives related to the research focus. The questionnaire was structured such that the answer obtained from the respondents provided solutions to the studied problems. The questionnaire was self-developed with respect to the notable concepts and variables studied. The choice of the survey technique was due to fitness to the adopted research design, its economic nature, and simplicity in distribution (Sallies et al., 2021). The validity and reliability were ensured by ascertaining that face, construct and content validities were examined and certified appropriate for the study. For enterprise risk management and business performance, content, construct, and criterion-related validity were observed. Content validity of the questionnaire was also observed from my supervisor and experts in enterprise risk management. For construct validity, specific form of knowledge, skills and ability was derived as supported by literature review. For criterion-related validity, some members of pharmaceutical firms outside the selected participants were consulted for the exactness and confirmation of the research's instrument and outcome. The reliability of the research instrument was above the 0.70 Cronbach alpha results. The descriptive and inferential statistics were adopted for data analysis. For the descriptive analysis, simple frequency percentage supported with tabular representation was adopted, while the inferential statistic employed were Friedman's rank test and simple regression technique.

4 Data Analysis, Results and Discussion of Findings

4.1. Descriptive Analysis of Background Information of Participants

Table 1: Participants' Bio-Data Information

Variable	Response Label	Frequency	Percentages (%)
Gender	Male	85	51.8
	Female	79	48.2
Age	30 but less than 40	87	53.0
	40 but less than 50	57	29.9
	50 but less than 60	20	12.2
	60 & above	08	5.9
Marital Status	Single	93	56.7
	Married	68	41.5
	Divorced	03	1.8
Educational Qualification	BSc/HND	85	51.8
	Master's Degree	61	37.2
	Others	18	11.0
Annual Income	Less than 1 million	56	34.1
	1 million but less than 5 million	91	55.5
	5 million but less than 10 million	17	10.4
	10 million but less than 15 million	00	00

Source: *field survey (2024)*

The data presented in Table 1 provides insights into various demographic variables. These statistics offer a glimpse into the composition of the surveyed population, allowing for valuable observations and implications. The gender distribution reveals a slight skew towards males, constituting 51.8 percent of the sample compared to 48.2 percent of females. This gender disparity might influence perspectives on various aspects, potentially affecting responses and attitudes towards the survey's subject matter. Regarding age demographics, the data illustrates a progressive decline in participation with increasing age. Respondents aged 30-40 comprise the majority, indicating a relatively mature sample group. This age distribution might signify certain generational tendencies or perspectives, impacting decision-making processes, consumption patterns, or receptivity to certain societal changes as regards retirement planning. Marital status portrays a predominance of single individuals within the surveyed population (56.7 percent), while married and divorced individuals are considerably fewer. This statistic may signify potential differences in responsibilities, priorities, or financial behaviours among single respondents compared to their married or divorced counterparts, affecting decision-making towards demand for life insurance. Educational qualifications showcase a notable distribution, with the majority (51.8 percent) holding a BSc/HND. This high percentage suggests a well-educated sample population, potentially indicating a higher level of expertise or financial literacy skills among respondents. Moreover, the data indicating a substantial proportion of respondents earning between 1 million and 5 million annually (55.5 percent) intersects with considerations of enterprise risk management and business performance.

4.3. Test of hypotheses

H_{o1}: Enterprise risk management practices have no effect on financial perspectives of selected pharmaceutical companies in Lagos State.

Table 2: Simple Regression Results for Enterprise Risk Management vs Financial Perspectives

Table 2. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.350[a]	.123	.117	1.289	.123	22.674	1	161	.000

a. Predictors: (Constant), Enterprise Risk Management
b. Dependent Variable: Financial Perspective

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	37.696	1	37.696	22.674	.000[b]
	Residual	269.329	161	1.663		
	Total	307.024	162			

a. Dependent Variable: Financial Perspective
c. Predictors: (Constant), Enterprise Risk Management

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	8.033	.966		8.313	.000	6.125	9.942
	Enterprise Risk Management	.139	.029	.350	4.762	.000	.082	.197

a. Dependent Variable: Financial Perspective

Source: *Researchers' Computation, 2024*

From the Table 2 results of the regression analysis presented above, it is clear that there is positive relationship between enterprise risk management and financial perspectives. The model also shows the variations experienced by the dependent variable that could be explained by the independent variable (R square) which shows that enterprise risk management is responsible for about 12.3 percent of variance in financial perspectives. This means that 87.7 percent of the financial perspectives enjoyed among selected pharmaceutical companies in Lagos State comes from other factors other than the predictor used in this model (*enterprise risk management*). The generalisation of the results (Adjusted R square) indicates that true 11.7 percent of the variation in financial perspectives is explained by enterprise risk management (*internal environment, objective setting, event identification, risk assessment, risk response, control activities, information, communication, and reporting, risk monitoring).* This result is almost close to reality as the difference between R Square and Adjusted R Square is not high. The standard error fit, which is a measure of the precision of the model, shows how wrong the statistical outcomes could be at 1.2 percent if one uses this model to make real life predictions. The above result is statistically significant as seen in the ANOVA table (*p-value = 0.000*) as it is greater than the 0.05 confidence interval used in this study. A value greater than 1 show that F-ratio yield an efficient model

but 22.674 F-ratio indicates that this model is not very efficient

H_{o2}: Enterprise risk management practices have no influence on customer perspectives of selected pharmaceutical companies in Lagos State.

Table 3: Simple Regression Results for Enterprise Risk Management vs Customer Perspectives

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.417[a]	.174	.169	.752	.174	33.869	1	161	.000

d. Predictors: (Constant), Enterprise Risk Management
e. Dependent Variable: Customers' Perspectives

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.148	1	19.148	33.869	.000[b]
	Residual	91.023	161	.565		
	Total	110.172	162			

a. Dependent Variable: Customers' Perspectives

f. Predictors: (Constant), Enterprise Risk Management

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	5.111	.564		9.067	.000	3.998	6.225
	Enterprise Risk Management	.099	.017	.417	5.820	.000	.066	.133

a. Dependent Variable: Customers' Perspectives

Source: *Researchers' Computation, 2024*

From the Table 3 results of the regression analysis presented above, it is clear that there is positive relationship between enterprise risk management and customers' perspectives. The model also shows the variations experienced by the dependent variable that could be explained by the independent variable (R square) which shows that enterprise risk management is responsible for about 17.4 percent of variance in customers' perspectives. This means that 82.6 percent of the customers' perspectives enjoyed among selected pharmaceutical companies in Lagos State comes from other factors other than the predictor used in this model (*enterprise risk management*). The generalisation of the results (Adjusted R square) indicates that true 16.9 percent of the variation in customers' perspectives is explained by enterprise risk management (*internal environment, objective setting, event identification, risk assessment, risk response, control activities, information, communication, and reporting, risk monitoring).* This result is almost close to reality as the difference between R Square and Adjusted R Square is not high. The

standard error fit, which is a measure of the precision of the model, shows how wrong the statistical outcomes could be at 0.7 percent if one uses this model to make real life predictions. The above result is statistically significant as seen in the ANOVA table (*p-value = 0.000*) as it is greater than the 0.05 confidence interval used in this study. A value greater than 1 show that F-ratio yield an efficient model but 33.869 F-ratio indicates that this model is not very efficient

H_{o3}: Enterprise risk management practices have no relationship with internal business process of selected pharmaceutical companies in Lagos State.

Table 4: Simple Regression Results for Enterprise Risk Management vs Internal Business Process

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.440[a]	.194	.189	.738	.194	38.939	1	161	.000

g. Predictors: (Constant), Enterprise Risk Management
h. Dependent Variable: Internal Business Process

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	21.208	1	21.208	38.939	.000[b]
	Residual	88.231	161	.545		
	Total	109.439	162			

a. Dependent Variable: Internal Business Process

i. Predictors: (Constant), Enterprise Risk Management

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.970	.553		8.985	.000	3.878	6.062
	Enterprise Risk Management	.105	.017	.440	6.240	.000	.071	.138

a. Dependent Variable: Internal Business Process

Source: *Researchers' Computation, 2024*

From the Table 4 results of the regression analysis presented above, it is clear that there is positive relationship between enterprise risk management and internal business process. The model also shows the variations experienced by the dependent variable that could be explained by the independent variable (R square) which shows that enterprise risk management is responsible for about 19.4 percent of variance in internal business process. This means that 80.6 percent of the internal business process enjoyed among selected pharmaceutical companies in Lagos State comes from other factors other than the predictor used in this model (*enterprise risk management*). The generalisation of the results (Adjusted R square) indicates that true 18.9 percent of the variation in internal business process is explained by enterprise risk management (*internal environment, objective setting, event identification, risk*

assessment, risk response, control activities, information, communication, and reporting, risk monitoring). This result is almost close to reality as the difference between R Square and Adjusted R Square is not high. The standard error fit, which is a measure of the precision of the model, shows how wrong the statistical outcomes could be at 0.7 percent if one uses this model to make real life predictions. The above result is statistically significant as pharmaceutical companies in Lagos State. seen in the ANOVA table (*p-value = 0.000*) as it is greater than the 0.05 confidence interval used in this study. A value greater than 1 show that F-ratio yield an efficient model but 38.939 F-ratio indicates that this model is not very efficient

H_{o4}: Enterprise risk management practices do not affect learning and growth perspectives of selected

Table 5: Simple Regression Results for Enterprise Risk Management vs Learning and Growth Perspectives

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.457[a]	.209	.204	1.018	.209	42.705	1	161	.000

j. Predictors: (Constant), Enterprise Risk Management
k. Dependent Variable: Learning and Growth Perspectives

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	44.273	1	44.273	42.702	.000[b]
	Residual	167.947	161	1.037		
	Total	212.220	162			

a. Dependent Variable: Learning and Growth Perspectives
l. Predictors: (Constant), Enterprise Risk Management

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	7.711	.763		10.105	.000	6.204	9.218
	Enterprise Risk Management	.151	.023	.447	6.535	.000	.105	.197

a. Dependent Variable: Learning and Growth Perspective

Source: *Researchers' Computation, 2024*

From the Table 5 results of the regression analysis presented above, it is clear that there is positive relationship between enterprise risk management and learning and growth perspectives. The model also shows the variations experienced by the dependent variable that could be explained by the independent variable (R square) which shows that enterprise risk management is responsible for about 20.9 percent of variance in learning and growth perspectives. This means that 79.1 percent of the learning and growth perspectives enjoyed among selected pharmaceutical

companies in Lagos State comes from other factors other than the predictor used in this model (*enterprise risk management*). The generalisation of the results (Adjusted R square) indicates that true 0.9 percent of the variation in learning and growth perspective is explained by enterprise risk management (*internal environment, objective setting, event identification, risk assessment, risk response, control activities, information, communication, and reporting, risk monitoring).* This result is almost close to reality as the difference between R Square and Adjusted R Square is not high. The standard error fit, which is a measure of the precision of the model, shows how wrong the statistical outcomes could be at 1 percent if one uses this model to make real life predictions. The above result is statistically significant as seen in the ANOVA table (*p-value = 0.000*) as it is greater than the 0.05 confidence interval used in this study. A value greater than 1 show that F-ratio yield an efficient model but 42.705 F-ratio indicates that this model is not very efficient.

4.4 Discussion of Findings

This study confirms the nexus between enterprise risk management practices and business performance among pharmaceutical companies in Lagos, Nigeria.

The result from hypothesis one revealed that enterprise risk management practices have positively low relationship with financial perspectives among pharmaceutical companies in Lagos State, Nigeria, thereby invalidating the null hypothesis and validating the alternate hypothesis at (p = 0.000). This result is maintained by earlier studies (such as Amaliah et al., 2022; Erin et al., 2017; Ojubanire & Dawodu, 2024) that the positive and statistically significant nexus elucidated the link that subsist between the various ERM practices and financial perspectives of pharmaceutical companies in Lagos State, Nigeria.

The result from hypothesis two revealed that enterprise risk management practices have positively low relationship with customers' perspectives among pharmaceutical companies in Lagos State, Nigeria, thereby invalidating the null hypothesis and validating the alternate hypothesis at (p = 0.000). This result is maintained by earlier studies (such as Anugerah et al., 2023; Ntare et al., 2022; Soliman et al., 2018) that the positive and statistically significant nexus elucidated the link that subsist between the various ERM practices and customers perspectives of pharmaceutical companies in Lagos State, Nigeria.

The result from hypothesis three revealed that enterprise risk management practices have positively low relationship with internal business process among pharmaceutical companies in Lagos State,

Nigeria, thereby invalidating the null hypothesis and validating the alternate hypothesis at (p = 0.000). This result is maintained by Quon et al. (2012) that the ERM practices can heighten the internal business process only when the inherent elements are considerable for adoption.

The result from hypothesis four revealed that enterprise risk management practices have positively low relationship with learning and growth perspective among pharmaceutical companies in Lagos State, Nigeria, thereby invalidating the null hypothesis and validating the alternate hypothesis at (p = 0.000). This result is maintained by earlier studies (such as Kakiya et al., 2019; Njoku et al., 22) that the ERM practices can enhance learning and growth perspectives of pharmaceutical companies in Lagos State, Nigeria.

5.0 Conclusion and Recommendations

Findings from the study have exhibited the significant effects of enterprise risk management practices on business performance metrics among selected pharmaceutical companies in Lagos State, Nigeria. Findings being drawn revealed the opinions of the selected participants where enterprise risk management practices have significant effects on each business performance metrics in terms of financial perspectives, customer perspectives, internal business process, and learning and growth perspectives. This study further revealed the positive nexus that the predicator (i.e., enterprise risk management practices) created with the response variable (. i.e., financial perspectives, customer perspectives, internal business process, and learning and growth perspectives).

On recommendations, pharmaceutical businesses should create an enterprise risk management (ERM) framework based. However, this framework would provide a systematic method for detecting, evaluating, controlling, and overseeing risks. To do this, it is necessary to have thorough policies, procedures, and risk appetites that are specifically designed for the pharmaceutical sector. Furthermore, it is crucial to foster a culture of risk consciousness inside these organisations, wherein senior executives exhibit their dedication to risk management as an integral aspect of the business ethos. These officials should promote cooperation and transparent communication with different departments and external stakeholders, such as regulators, customers, and suppliers, to aggressively tackle risks. finally, pharmaceutical businesses should define specific metrics that accurately measure the correlation between enterprise

risk management (ERM) and business performance, including financial performance, compliance rates, and operational efficiency.

5.1 Contribution to Knowledge and Future Directions

This work makes a valuable contribution to the existing literature by addressing gaps in knowledge and theory. It provides conceptual explanations, a strong theoretical background, and incorporates expert information. Future research should focus on exploring the causal linkages between enterprise risk management and different company performance criteria. This would involve analysing the viewpoints of diverse industries, which may offer valuable insights.

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