

## Underpinning Hawley's Risk Theory of Profit on Risk Intelligence and Sustainability Relations of SMEs in Nigeria

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**ABSTRACT:** Sustainable development is one of the topical issues posing a global challenge to the business world. To remain successful in today's competitive business environment, Small and Medium-Scale Enterprises (SMEs) must find a way to exist by adapting to dynamic sustainability challenges. The study aimed to examine Hawley's Risk Theory of Profit's underpinning role in explaining the connection between Risk Intelligence (RI) and SMEs' sustainability (SUS). It was understood that risk could pose both opportunities and threats to business, and therefore, proactive detection is paramount to address the risk capable of ridiculing sustainability. Therefore, we proposed integrating the moderating role of financial performance in the relationship between Nigerian SMEs' risk intelligence and sustainability. The study found Hawley's theory relevant to risk and sustainability tradeoff. Previous studies proxied risk intelligence by knowledge management, financial literacy, and risk-taking propensity, which paved the way for developing a framework for attaining sustainable SMEs in Nigeria. We concluded that SME's sustainability could be ensured by effectively managing inherent risks and should be incorporated into Enterprise Risk Management (ERM) systems..

**Keywords:** Sustainability, Risk Intelligence, Financial Performance, Enterprise Risk Management.



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### INTRODUCTION

Because of the global financial crisis in the last few years, risk assessment and management arguments have attracted business entities' attention ([Roggi & Ottonelli, 2013](#)). With global economic shocks increasing ([Ndou et al., 2017](#)), governments and organisations are deeply disturbed about economic sustainability. It was argued that sustainability concerns result from human and natural upheavals due to fear of job losses and financial risks for different programs and projects carried out by governments and private entities ([Akhtar et al., 2015](#)). Sustainability is relevant to all ([M. P. Singh et al., 2021](#)). The term implies a situation where companies maintain their business activities, retain their original ownership, and remain financially solvent ([Josefy et al., 2017](#); [Shah et al., 2019](#)). Risk and sustainability are mutually related, and only a few SMEs can

guarantee their sustainability in a world of high business risks. The majority die at the fastest rate, and a high percentage disappear after a few years ([Khalifat & Gmira, 2017](#)).

Every business decision or act of enterprise is linked to risk. Like their larger counterparts, SMEs also face different types of risks. Thus, sustainability became a critical business objective for leading companies as it supports their ability to grow and prosper over the long run ([Lam & Gannon, 2014](#)). However, scholars argue that traditional risk management (TRM) (which most SMEs rely on) does not offer the opportunity for entrepreneurs to have a comprehensive view of risk in the whole enterprise ([Moeller, 2011](#)). This defect has led to new Enterprise Risk Management (ERM) as an all-inclusive risk management mechanism. Most SMEs do not proactively detect and act appropriately on risk-related matters that could hamper long-term sustainability. Poor sustainable performance in SMEs is attributed to a low level of awareness, lack of expertise, poor skills and inefficient financial and human resources to build the required sustainability transformation within the organisations ([Hassan et al., 2018](#); [S. Singh et al., 2016](#)). Hence, the adoption of risk intelligence could provide a guide in that direction. Risk intelligence is the ability to estimate probabilities accurately. Accuracy here does not infer the presence of objective probabilities, and instead, it presumes a subjective interpretation of probability ([Evans, 2015](#)). In their risk and compliance initiatives, many organisations (including SMEs) do not leverage proactive data monitoring and risk analytics. Traditional methods and siloed risk assessments ([Hassall et al., 2015](#)); consequently, the enterprises' control and monitoring efforts. Therefore, the need to adopt a risk intelligence approach in SMEs' decision-making, risk and compliance processes is now necessary.

- Literature Review

1. Sustainability

A single and generally accepted definition of sustainability is still debatable among scholars ([de Pádua Pieroni et al., 2018](#)), attracting over 70 distinct definitions ([Yusoff et al., 2018](#)). Citation of sustainability related to development was first mentioned in the report published in 1972 about the limit of growth ([Gunilla, 2014](#); [Wanner, 2015](#)). It was later captured in the 1987 Brundtland Report and printed in the 1989 World Commission on Environment and Development (WCED). The term refers to achieving current development without compromising future needs ([Barkemeyer et al., 2014](#); [Yusoff et al., 2018](#)). The concept is recognised as a requirement to achieve economic objectives without damaging the environment ([Dhahri & Omri, 2018](#)). However, problems arise in implementing the sustainability concept ([Vlasov et al., 2019](#)). Sustainable firm prioritises and adopt environmental and socially responsible principles in their managerial plans and integrate them into their industrial plans ([Gross-Golacka et al., 2020](#)). Researchers in the field suggested at the primary level that sustainable development demands ecologically sustainable polity, sound economic systems, active organisations and individuals ([Caputo et al., 2018](#)). Governments, consumers and businesses, in particular, play crucial roles in achieving sustainable development ([Eyhorn et al., 2019](#)). Therefore, to be a sustainable enterprise, SMEs must be transformed to minimise their undesirable ecological and social effects ([Ayanda & Laraba, 2011](#)).

One crucial test for SMEs is being sustainable, developing sustainability, and remaining sustainable ([Gunilla, 2014](#)); otherwise, failure will likely result ([Adobor, 2020](#)). Defining a suitable

management system for ensuring sustainable development is crucial for SMEs from the perspective of enterprise development and pressure from stakeholders ([Chang & Cheng, 2019](#)). Most enterprises are increasingly concerned about their sustainability plans and have recognised sustainability's possible benefits ([Shields & Shelleman, 2015](#)). Several SMEs failed on the sustainability journey, with different explanations rationalising their failure ([Rahman et al., 2016](#); [Yusoff et al., 2018](#)). Scholars have established a link between SMEs' sustainability and financial performance ([Alshehhi et al., 2018](#)). Sustainable development demands SMEs to quest for device management systems and tools that enable incorporating economic, social and environmental development objectives into their plans ([Gross-Golacka et al., 2020](#)). However, there is no consensus on best-for-performance measures in business research ([Salleh et al., 2015](#)).

Similarly, the lack of adequate financial data on SMEs makes measuring their sustainability challenging ([Anwar, 2018](#)). Most SME owners are often hesitant to provide financial information necessary for performance assessment. Hence, SMEs' financial reports and data are challenging to come by. There are no reliable data available; researchers were recommended base their investigations on self-reported data ([Kulathunga et al., 2020](#); [Schwab et al., 2019](#)).

## 2. Risk Intelligence

While "risk intelligence" has become more prevalent in recent years, its meaning is still contentious. Risk intelligence denotes "the ability of an individual or an organisation to measure risks effectively. It includes; classifying, characterising and calculating threats; perceiving relationships; learning quickly; storing, retrieving and acting on relevant information; effectively communicating; and adapting to new circumstances ([Evans, 2015](#)). People with high intelligence could be the most successful entrepreneurs because they calculate risk more efficiently and make the best decisions in their financial, investment and economic activities ([Burhan et al., 2017](#)). At the organisation level, intelligence allows for collecting information or events that help identify uncertainties and proactively make more informed business and security decisions ([Schrader & Ghosh, 2018](#)). The intelligent risk evaluation approach's decisions can enable entrepreneurs to produce effectively and act upon such intelligence to achieve the desired results.

A risk intelligent SME could be risk-conscious and take proactive preventive measures against risk ([Kara et al., 2020](#)). They can find easy access to risk management and lessen their losses, even at the edge of a collapse. In a market environment, risk intelligence relates to competition in an economy. The size of such entities shall eventually help in boosting their significant advantages. Unfortunately, the main drawback for SMEs in this highly fragmented environment is their inability to use the vast amounts of information and data sets available through their internal enterprise resource planning (ERP) systems, especially the internet ([Ponis & Christou, 2013](#)).

## METHOD

### 3.1 Theories Used in Previous Studies

The literature on sustainable business's significance has been well-documented recently ([Bidmon & Knab, 2018](#)). Firms' theories are mainly conceptualisations and business models explaining or predicting business entities' structures and behaviours. Scholars in multidisciplinary fields have used different indicators from many perspectives to measure sustainability ([De Vos et al., 2020](#)). Others established a link between risk and sustainability, especially in SMEs ([Chege & Wang, 2020](#)). However, not all these indicators are suitable for manufacturing SMEs ([Chang & Cheng, 2019](#)). However, we listed some of the theories and frameworks and their reflection on sustainability in table 1.

Table 1: Theories used in Previous Studies

Author(s)/Year	Theory	Sustainability Measure
Tuan Hassan, Yaacob & Abdullatif (2014)	Resource-Based View	Business Performance
Yusi & Idris (2016)	Resource-Based View	Business Performance
Sachitra & Siong-Choy (2017)	Resource-Based View	Competitive Advantage
Akhtar et al. (2015)	Resource-Based View	Triple Bottom Line
Winit and Kantabutra (2017)	Stakeholders theory	Brand Loyalty
Brien and Hamburg (2014)	Stakeholder Theory	Sustainable Development
Leyden (2016)	Stakeholder Theory	Innovation
Martin et al. (2015)	New Institutional Theory	Triple Bottom Line
Wei-Loon & Abdul Majid (2013)	Sustainable Entrepreneurship	Triple Bottom Line
Ketprapakorn & Kantabutra (2019)	Sustainable Leadership Theory	Triple Bottom Line
Chang & Cheng (2019)	Rough Set Theory	Triple Bottom Line
Muñoz-Pascual, Curado, & Galende, (2019)	Fuzzy Set Theory	Triple Bottom Line
Adeyele & Omorokunwa (2016)	Reliability Theory	--
Olaniran, Namusonge, & Muturi (2016)	Entrepreneurship Theory	Business Performance
Aming'a & Moronge (2018)	Prospect theory	Business Performance
Chepngetich (2016)	Dual-Process Theory	Business Performance
Offiong et al (2019)	Risk Theory of Profit	Business Performance
Saleh (2018)	Risk Theory of Profit	Business Performance
Pham et al (2018)	Risk Theory of Profit	Business Performance

Source: Compiled by the author, 2020.

## RESULTS AND DISCUSSION

### 1. Hawley's Risk Theory of Profit and Hypotheses Development

Hawley's theory is attributed to the famous American economist Frederick Hawley (1893) and was coined "Risk Theory of Profit". The approach assumed that the entrepreneur would expect sufficient reward on top of what he called "actuarial value", i.e., a premium attributable to risk, for assuming business risk ([Meyers & Van Hoyweghen, 2018](#)). Hawley thought that risk is irritating; it leads to worry, nervousness, and dis-utilities among several businesspeople. Therefore, profit should be maintained over and above the actuarial risk. In line with man's usual propensity to assume more risky ventures ([Winit & Kantabutra, 2017](#)), Adam Smith argues that profit may not necessarily increase on par with risk to offset it entirely. In a nutshell, in markets

characterised by risks, profits (and failures) are usually higher ([Bitar et al., 2018](#)), because the markets attract many investors, and that is why competition forces profit to fall below what is adequate to offset the risk ([Roggi & Ottonelli, 2013](#)).

Hawley's risk theory profit used to explain the relationship between financial risk and SMEs performance in Nigeria ([Offiong et al., 2019](#)). They established that profit is directly related to risk, and therefore, the higher the risk exposure, the more likely it is for a high distributable return for the risk. Hawley opined that profit is society's price to assume the business risk. Moreover, since risk-taking is an inevitable component of dynamic production ([Cherednik, 2019](#)) ([Cherednik, 2019](#)), those who took the business risk ([Pieper et al., 2018](#)) had a right to a separate reward in the form of profit ([Chakraborty & Swinney, 2021](#)). Profit, a measure of financial performance ([Salehi et al., 2018](#)), is the societal pay for assuming business risk ([Desmond & Wilmers, 2019](#)).

To optimise performance and develop sustainable SMEs in Nigeria, small business owners must identify the economic and environmental aspects of the society that threaten their sustainability and refine the complexities of external and internal risks. SMEs can gain sustainability through risk intelligence to optimise performance, create value and minimise costs associated with risks management and crisis, thereby ensuring sustainability. An SME must understand its internal and external environment, its business strategies in determining its risks, and develop a comprehensive framework to identify risks and prioritise them. The overall process requires knowledge and literacy on risk and other financial related concepts. As such, the present study proposed a framework that will explore the moderating effect of financial performance on the relationship between risk intelligence proxied by knowledge management (Caldwell, 2008), financial literacy ([Gorbachev & Luengo-Prado, 2019](#)), risk appetite and risk-taking attitude (Hillson & Murray-Webster, 2011) and sustainability in SMEs.

Within ERM, studies have investigated the link between risk intelligence factors and SME success. These factors include knowledge management ([López-Torres et al., 2019](#); [Shrafat, 2018](#)). Similarly, financial literacy ([Ishtiaq et al., 2020](#); [Kulathunga et al., 2020](#)). at the same time, risk-taking propensity included ([Rodríguez-Gutiérrez et al., 2020](#); [Salleh et al., 2015](#)).

We, therefore, proposed the following hypotheses:

H1: Knowledge Management (KM) has a significant positive effect on SMEs' sustainability (SUS).

H2: Financial Literacy (FL) has a significant positive effect on SMEs' sustainability (SUS).

H3: Risk-Taking Propensity (RT) has a significant positive effect on SMEs' sustainability (SUS).

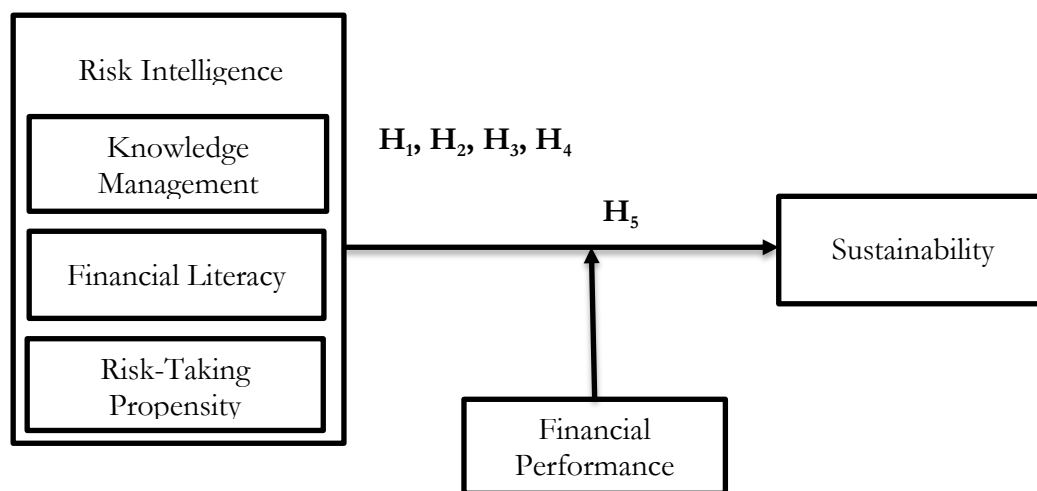
- The Moderating Role of Financial Performance on Risk Intelligence-Sustainability Relation

The moderation effect statement in this study is based on the proposition that financial performance will ease SMEs' efforts towards risk management and sustainable entrepreneurial efforts. For example, Albashir et al.'s (2018) content review, which included 132 papers from top-tier journals, posited a link between corporate sustainability and financial performance. Masocha (2019) also stressed a positive relationship between social sustainability and financial

performance and the performance of customer satisfaction, and the performance of the company's employee satisfaction. Similarly, Yusuf and Dansu (2013) established that SMEs' standard risk management techniques have improved sustainability.

H4: Financial performance moderates the relationship between risk intelligence and sustainability of SMEs.

Consequently, we proposed the following framework:



**Figure 1: Proposed Research Model**

## CONCLUSION

Scholars have used different theories to address sustainability issues, especially related to SMEs. However, the choice of variables and pathways depends on the peculiarity of the studies. We examined the connection between risk intelligence and SME sustainability with a keen interest in financial performance's moderating role. The paper employs the risk theory of profit by Hawley to underpin the study. As used by [Offiong et al. \(2019\)](#), the theory helps explain the effect of financial risk on SMEs' performance in Nigeria. The study established that SMEs' effective risk detection would pave the way for proactive risk preventive measures by choosing suitable mitigation tools, thereby retaining profit and ensuring sustainability.

Although the theory is essential in explaining how risk relates to SMEs' sustainability, it was criticised by even the author himself. The theory was criticised because of the proposal that the entrepreneur's primary role is taking a risk. However, it was also criticised on the assumption that profit is the reward for taking risks. Furthermore, it was objected to on the ground that markets reward all risk-taking. In the real sense, some more risk-taking activities deliver no reward. Therefore, the amount of profit is in no way related to the scope of the risk undertaken (Damodaran, 2018; Saleh, 2018). Hawley himself further stressed that risk-taking is not compensated by insurance. The insurer's reward is the difference between the premium and the risk losses suffered. Knight (1921) advanced the theory to recognise the discrepancies between risk and uncertainty. Therefore, profit rewards uncertainty (on the unknown future) (John, 2018).

As Knight argued, profit represents the risk premium for the entrepreneur, and therefore he refined the theory to understand the discrepancies between risk and uncertainty. However, the study concludes that SME's sustainability could be ensured by effectively managing integral risks and, therefore, should be incorporated into enterprise risk management (ERM) systems.

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