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Value Creation and Organizational Sustainability of Manufacturing Firms in South South Nigeria

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***Abstract**: This study examined the relationship between value creation and organizational sustainability of manufacturing firms in South-South Nigeria. The cross sectional survey was adopted and a population of five hundred and thirty-one (531) managers and supervisors of 15 manufacturing firms in South-South Nigeria was covered. A sample size of 228 were drawn from the population and purposive sampling as employed. The data were collected using copies of questionnaire and the data were analysed using Structural Equation Modelling. The result of the analysis showed that value creation has a positive and significant relationship with the measures of organizational sustainability (economic sustainability, environmental sustainability and social sustainability). It was concluded that the level of value creation by the manufacturing firms do impact the economic, environmental and social responsibility of the organization. The study recommended that manufacturing firms should invest in research and development to identify untapped market opportunities and customer needs and then create value to bridge this needs as such will help enhance their sustainability.*

***Key Words:** Economic Sustainability, Environmental Sustainability, Social Sustainability, Value Creation*

1.0 Introduction

The sustainability concept has been studied in many fields such as engineering, environmental sciences and particularly in business and management (Linton, Klassen & Jayaraman, 2012). The triple bottom line concept, as it is also called, is immensely popular with emphasis on its three components, the social, environmental, and economic performance. The social factor is one of the central factors in manufacturing sector and plays a significant role which determines its impact on firms' operations (Markley & Davis, 2007). The societal forces are concerned with the firm sustainability performance, on the contrary the firms focus on the economic performance. Sustainability practices are used by organizations to prevent their actions from being harmful to the environment, society, and stakeholders, while at the same time remaining economically viable (Nagariya et al., 2021). In fact, these three aspects (environmental protection, social equity, and economic viability) should be borne in mind when designing and developing sustainability initiatives, which can be *internal* (when developed internally within the company's boundaries) or *external* (when developed with the company's partners) (Macchion et al., 2018).
Evidence shows that many organizations have gone beyond regulatory compliance by adopting different sustainability practices in response to heightened pressures to be more sustainable. In addition, environmental and social sustainability issues are becoming more important in managerial decisions (Fratocchi & Di Stefano, 2019) such as the back shoring from low-cost

countries of many manufacturing companies (Orzes & Sarkis, 2019). Until recently, the business model literature paid only limited attention to the social and environmental challenges facing the world today. Focus was on market sustainability rather than social sustainability and environmental sustainability. For instance, Stubbs and Cocklin (2008), argued that the understanding of business models that incorporate sustainability and how sustainable development is operationalized in firms is weak. Work on sustainability abide over the years. However, there are lack of sufficient work on the relationship between value creation and organisational sustainability of manufacturing firms in South South Nigeria.

Research Objectives

The objectives are;

i. Evaluate the relationship between value creation and environmental sustainability
ii. Examine the relationship between value creation and economic sustainability
iii. Evaluate the relationship between value creation and social sustainability

Research Hypotheses

The null hypotheses are stated below;

Ho1: There is no significant relationship between value creation and environmental sustainability
Ho2: There is no significant relationship between value creation and economic sustainability
Ho3: There is no significant relationship between value creation and social sustainability

2.0 Review of Related Literature

This study take its precept from stakeholders theory. The stakeholder theory was propounded by Freeman which focused more on business ethics (Freeman, 2007). The stakeholder theory explained that companies must take into account the demands of the remaining shareholders, stressing that they must not only focus their full attention on shareholders (Freeman, 2007). A growing network should be recognised as a vital part of the company, as business will never operate on its own. Therefore, sustainable manufacturing needs to practice a culture which incorporates environment, social and economic systems into its functional corporate practices (Hami, Yamin, Shafie, Muhamad & Ebrahim, 2018). Abiding by the principles of stakeholders theory will make the organization to get more innovative to maintain sustainability.

Value Creation

The value capture innovation defines how value offerings are converted into revenue streams and then captured as profits by firms. According to Chesbrough (2010), the value capture dimension is equally critical to a firm's success because a company that cannot profit. The total value created by a business model reflects the aggregated benefits created for the consumers and firm owners. Value creation and value capture in the provider–customer relationship is often more interactive and interdependent. Both value creation and value capture are required for innovation to be commercially successful (Chen et al., 2021).

Organizational Sustainability

Alhaddi (2015) defined sustainability as the ability of the system to maintain productivity in the face of some major disturbances, such that are caused by soil erosion, indebtedness and unanticipated danger. Sustainability involves devising a social and economic system which ensured that these goals are sustained. Hyclick and Hockerts (2002) defined corporate sustainability as ‘meeting the needs of a firm’s direct and indirect stakeholders (shareholders, employees, clients, pressure group and communities), without compromising its ability to meet the needs of future stakeholders as well

Environmental Sustainability

Sustainability has three components of economics, environmental and social equity. Environmental component seemed to have received the greatest attention from the literature on sustainability. This may be related to the fact that environment is worst affected by human economic activity whilst it is where the present and future generations live. It has become increasingly evident that environment plays a role in the wider agenda for sustainable development and social inclusion. Matters pertaining to environmental aspect are reported as the protection and conservation of biodiversity and the environment, through reduction of waste, prevention of pollution such as greenhouse gas emissions, and efficient usage of natural recourses (Alkhaddar et al., 2012).

Economic Sustainability

Profits, returns on investments (ROI) and other economic values generated by organisations are the main concerns to the economic bottom line. Economic sustainability is achieving economic growth while protecting and safeguarding the environment and individuals that live in the environment (Xia et al, 2018). It refers to consumption of resources in an effective way in order to produce long term positive effects though minimising adverse impacts of resource exploitation. Economic sustainability is more than just positive returns on investment but also ensuring that the activities of organisations do not result in any form of environmental or social degradation (Tsai et al, 2009). Economically sustainable companies guarantee at any time cash flow sufficient to ensure liquidity while producing a persistent above average return to their shareholders’ (Dyllick & Hockerts, 2002).

Social Sustainability

The social aspect of sustainability has been reported to be the least sought-after dimension, and is often sidelined in literature (Heravi et al., 2015). It refers to people aspect of the TBL and aims to assess the impact of organisations on its stakeholders, based on the organisations’ action to community relations, staff training, women’s right, wages and working conditions (Elkington, 1998). Social sustainability is development or growth that is compatible with harmonious evolution of civil society, fostering an environment conducive to the compatible cohabitation of culturally and socially diverse groups’ whilst at the same time encouraging social integration, with improvements in the quality of life for all segment of the population (Polese and Stren, 2000).

Empirical Review

Faloye et al. (2021) sought to determine the key drivers of BMI in Nigeria's small businesses.
Survey research design was employed, and items of instrument developed by previous researchers were adapted. The respondents of this study were Micro and small businesses owners/representatives in the study area, and data from 142 of them were subjected to Principal Component Analysis. The study employed an Orthogonal method of rotation using the Varimax approach. This study finding revealed that customer satisfaction and retention, market

opportunities, regular assessment of operations, employee's capabilities, increment in revenue generation, and efficient channel functions are the key discriminating factors driving BMI in micro and small business enterprises (MSEs) in Nigeria. Thus, the study concludes that employing these attributes may influence performance-related outcomes in Nigeria MSE Pehrsson (2019) contributes to the international strategy and entrepreneurship literature by extending our understanding of the actionable components of the EO/MO of firms' foreign units, that is, social sustainability and responsiveness. The study examines relationships between the actionable components and the performance of industrial firms' wholly owned subsidiaries and cooperative arrangements in foreign markets. The results indicate that social sustainability and responsiveness are directly and positively associated with the performance of the foreign unit. Higher institutional barriers make social sustainability less effective, while full ownership strengthens the positive relationship with responsiveness.

Latifia et al. (2021) drew on the data from a cross-industry sample of 563 European SMEs, we apply structural equation modelling to examine how a firm's performance is affected by innovating its business model. A conceptual model is developed to examine how organisational capabilities and implementation of a profit- or growth-oriented strategy, as materialised in BMI, affect a firm's overall performance. The results indicate that, while the direct link between BMI and firm performance is not significant, this path is fully mediated through efficiency growth, organisational capabilities and revenue growth. Furthermore, there are significant direct effects from efficiency growth, organisational capabilities and revenue growth on firm performance. These findings confirm the validity of the model and contribute to existing literature on BMI efforts in SMEs and provide guidelines to help company owners/managers implement informed decisions about the implementation of BMI based on their firm' s strategies.

Methodology

The cross-sectional research design was adopted and population covered five hundred and thirty-one (531) managers and supervisors of 15 manufacturing firms in South-South Nigeria. Yamane (1968) formula was used to arrive at a sample size of 228 while purposive sampling as employed. The data were collected using copies of questionnaire and value creation was measured with 5 statement items (Our company continually innovates to improve our products/services). Organizational sustainability as measured using economic, environmental and social sustainability. Economic sustainability was measured using 5 items (We maintain a stable and profitable financial position) 5 items were used for environmental sustainability (Our company is committed to reducing its environmental impact) and 5 items were used for social sustainability (Our company supports community development and philanthropic efforts). The data were analysed using Structural Equation Modelling (SEM).

Results

Using the SEM, the hypothesis 1-3 result is given below;

Ho_1: There is no significant relationship between value creation and environmental sustainability

Ho_2: There is no significant relationship between value creation and economic sustainability

Ho_3: There is no significant relationship between value creation and social sustainability

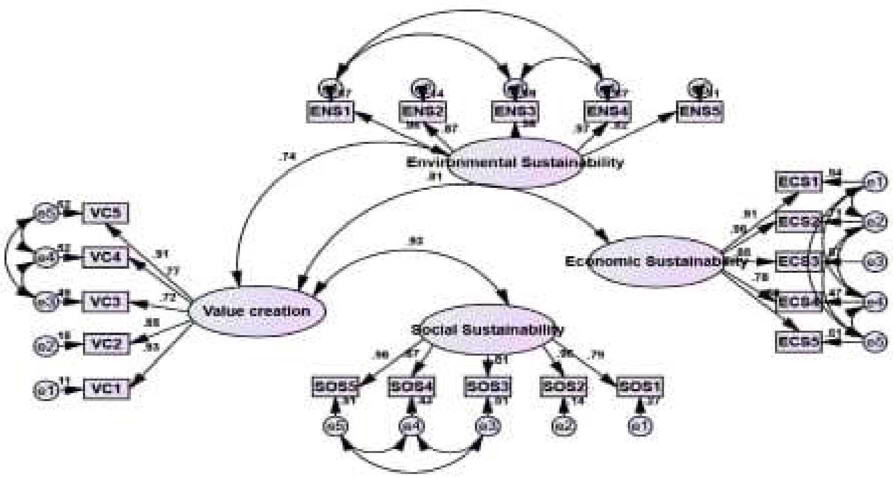

Figure 1 Structural Model of Hypotheses 1, 2 and 3

Value creation and Organizational sustainability

Presented in table 1 below is the result for the tests for the hypotheses of the study.

The first hypothesis (H_{01}), states that there is no significant relationship between value creation and environmental sustainability. However, the figure indicates that value creation has a positive and significant relationship with environmental sustainability of manufacturing firms in South-South Nigeria. (β=0.922, r=5.358, p<0.005). The second hypothesis (H_{02}), states that there is no significant relationship between value creation and economic sustainability. However, figure 1 also suggests that value creation has a moderate and significant relationship with economic sustainability of manufacturing firms in South-South of Nigeria (β=0.625, r=14.035, p<0.005). The third hypothesis (H_{03}), states that there is no significant relationship between value creation and social sustainability. From the outcome in figure 1, it showed that value creation has a moderate and significant relationship with social sustainability of manufacturing firms in South-South of Nigeria (β=-0.721, r=0.933, p<0.005).

Discussion of Findings

Value Creation and Economic Sustainability

The study found a positive relationship between value creation (a component of BMI) and economic sustainability. This aligns with research by Faloye et al. (2021) who found that factors like "increment in revenue generation" and "efficient channel functions" contribute to business model innovation in Nigerian SMEs. These factors directly link to economic sustainability by increasing revenue and optimizing resource utilization. Value creation focuses on offering customers something unique and valuable, either through superior functionality, improved user experience, or cost-effectiveness. As demonstrated in studies by Teece et al. (2016) and Chesbrough (2010), businesses that successfully create value can attract new customers, expand their market share, and ultimately generate higher revenue. This directly translates to economic sustainability by strengthening the financial foundation of the firm. Value creation often involves optimizing internal processes, streamlining operations, and reducing waste. This aligns with the findings of Latifia et al. (2021) who identified "efficiency growth" as a key mediator between business model innovation and firm performance. By optimizing resource utilization and minimizing costs through innovative approaches, businesses can improve their profit margins, contributing to long-term economic sustainability. Also, successful value creation often involves continuous innovation in products, services, or business models. This, as evidenced by research from Dymitrowski and Mielcarek (2021), helps businesses gain a competitive advantage in their respective markets. This advantage allows firms to command higher prices, attract premium customers, and defend their market position, all contributing to economic sustainability.

Value Creation and Environmental Sustainability

The study found a positive association between value creation and environmental sustainability. Studies like Rehman et al. (2022) highlight the positive influence of environmental sustainability orientation on environmental performance. Businesses focusing on value creation often explore sustainable practices (e.g., resource efficiency, waste reduction) to optimize cost and improve brand image, contributing to environmental sustainability. Value creation often involves optimizing production processes and minimizing waste. This directly aligns with principles of environmental sustainability by reducing resource depletion and waste generation. Studies like Beamon et al. (2008) highlight the positive impact of lean manufacturing practices (often associated with value creation) on environmental performance through reduced waste and energy consumption.

Businesses focusing on value creation may explore approaches like product life extension, remanufacturing, and closed-loop systems, all central to the circular economy as described by Geissdoerfer et al. (2017). These strategies aim to keep resources in use for longer periods and minimize environmental impact compared to traditional linear models. When value creation involves developing innovative products or services, companies may prioritize solutions that minimize environmental impact. This aligns with the concept of eco-innovation as defined by Schaltegger and Figge (2002), emphasizing innovation that creates economic value while reducing environmental burdens.

Value Creation and Social Sustainability

The study revealed a positive relationship between value creation and social sustainability. Creating value often involves considering social aspects like fair wages, employee well-being, and community engagement. This aligns with the findings of Adebayo et al. (2018) who emphasized the positive impact of service differentiation (creating value for customers) on corporate image, contributing to social sustainability. Businesses focusing on value creation may prioritize fair wages, safe working conditions, and opportunities for employee growth and development. This aligns with the principles of corporate social responsibility (CSR) as defined by the World Commission on Environment and Development (1987). By ensuring ethical treatment of employees, businesses contribute to social sustainability and create a positive work environment.

Value creation strategies might involve community engagement initiatives such as local sourcing, supporting social enterprises, or contributing to local infrastructure development. This aligns with the concept of stakeholder capitalism proposed by Freeman (2010), emphasizing that businesses have a responsibility not only to shareholders but also to a broader set of stakeholders, including the community. Also, businesses can create value through inclusive business models that provide access to essential goods and services for underserved communities or create employment opportunities for marginalized groups. This aligns with the concept of base of the pyramid (BoP) strategies as described by Prahalad and Hart (2002), encouraging businesses to address the needs of low-income populations while achieving economic gains.

Conclusion and Recommendations

The evidence presents value creation as a strong predictor of environmental sustainability of manufacturing firms in South-South of Nigeria. Statistically, it shows that when value creation goes up by it help boost environmental sustainability to a large extent. Again, value creation also help improve the level of economic sustainability of manufacturing firms is enhanced by their level of value creation offered to the market. Creating value by the manufacturing firms also influences the organizations social responsibility. Conclusively, the level of value creation by the manufacturing firms do impact the economic, environmental and social responsibility of the organization. The study recommended that;

i. The manufacturing firms should invest in research and development to identify untapped market opportunities and customer needs and then create value to bridge this needs as such will help enhance their sustainability.
ii. Implement environmentally friendly production processes and technologies. This can be achieved by establishing partnerships with environmental organizations to stay informed about sustainable practices. Also, they can conduct regular environmental impact assessments to identify areas for improvement and innovation.
iii. Conduct market research to understand customer preferences and needs. This can be achieved by tailoring products and services to align with market demands. They can also implement effective pricing strategies that provide value to customers while ensuring the economic sustainability of the firm.

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