

SYSTEMS THINKING AND ADAPTABILITY OF DEPOSIT MONEY BANKS IN SOUTH-SOUTH, NIGERIA

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ABSTRACT

This study examined the relationship between systems thinking and adaptability of quoted deposit money banks in South-South, Nigeria. The study adopted the cross-sectional research survey design. Primary data was generated through structured questionnaire. The population of this study is the 14 Deposit Money Banks in Nigeria that are quoted on the Nigerian Stock Exchange. In this study the researcher adopted a census sampling technique to study all the 14 Deposit Money Banks in Nigeria because the population was small. However, the total respondents that made up the elements of this study were 42 Regional/Zonal Managers of the 14 quoted Deposit Money Banks in South-South, Nigeria. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman's Rank Order Correlation Coefficient. The tests were carried out at a 0.05 significance level. Findings revealed that there is a significant relationship between systems thinking and adaptability of deposit money banks in South-South, Nigeria. Therefore, this study concludes that systems thinking plays a critical role in enhancing the adaptability of these banks, enabling them to effectively respond to changing market conditions, customer demands, and regulatory requirements. Hence, the study recommends that the management of deposit money banks in Nigeria should encourage the adoption of systems thinking principles within the quoted deposit money banks in South-South, Nigeria.

Keyword: Systems thinking, adaptability, agility, proactiveness, flexibility

INTRODUCTION

Generally, the business environment has been characterized by high level of dynamism, and this has been intensified as a result of the recent outbreak of COVID-19, globalization, and new wave of technologies, which has affected many firms, irrespective of the industry. Thus, it becomes imperative for these firms to be resilient,

if they must survive the attendant dynamics. For organisations to be resilient, it is important for firms to be able to adapt to the changing business environment. Akhigbe and Onuoha (2019) argued that the survival of a firm is not about its fitness, but its ability to be resilient in adapting to unforeseen circumstances. The capacity of an organization to muddle through the effect of internal and external environmental influences is critical to its survival (Osita-Ejikeme & Amah, 2021). Thus, it is important for firms to retain the elements that support renewal and reconstruction of the system in the event of disturbances (Walker *et al.*, 2004).

Strategic thinking and organizational adaptability are essential components of successful businesses. Strategic thinking enables organizations to identify and capitalize on opportunities and plan for the future. It involves considering the competition, customer needs, and the organization's strengths and weaknesses, and then making decisions that will enable the organization to achieve its goals. Organizational adaptability is the ability of an organization to respond to changing conditions in the business environment. It involves recognizing changes in customer needs, technological advances, competitive pressures, and other external factors, and then adapting operations and strategies to stay competitive. Both strategic thinking and organizational adaptability are important for business success, as successful organizations are able to identify and capitalize on opportunities, anticipate and plan for changes, and continually adapt to their environment (Tannis, 2019; Marques, 2018).

In today's dynamic business environment, strategic thinking and organisational adaptability are essential for the success of any organisation. Strategic thinking involves the ability to identify, analyse and use resources effectively to create a long-term business plan that can be implemented in order to achieve the organisation's goals (Wang and Wang, 2017). In addition, organisational adaptability requires organisations to react to changing trends and conditions in the market, while also making use of available resources to gain a competitive advantage (Furnham & Taris, 2016). By combining strategic thinking and organisational adaptability, organisations can ensure that they can respond quickly to the ever-changing business environment and remain competitive in the market.

Several empirical studies have been carried out by scholars over the years in an attempt to examine ways to enhance organisational adaptability. For instance, Jaja and Gabriel (2014) examined the relationship between employees' altruism and organisational adaptation in Nigeria and revealed that altruism is significantly and positively associated to organisational adaptation. Also, Edward-Odoi and Jaja (2016) carried out a study on workplace safety practices and organisational adaptation in the Nigerian petroleum industry and their results show that workplace safety practices (WSP) have a positive and significant relationship with organisational adaptability. Similarly, Adim, Tamunomiebi and Akintokunbo (2018) examined innovation strategy and organization adaptability of hotels in Port Harcourt and findings concludes that innovation strategy bears a positive and significant influence on organizational adaptability. More so, Oduori (2016) explored how strategic adaptability is changing company operations and influencing innovation in the travel industry in Kenya and found that with respect to strategic adaptability and managerial factors, managerial factors were positively correlated to both internal and external structuring. The purpose of this paper therefore was to examine the relationship between systems thinking and adaptability of deposit money banks in South-South, Nigeria. The specific objectives of the study included:

- i. Examine the relationship between systems thinking and agility of deposit money banks in South-South, Nigeria.
- ii. Examine the relationship between systems thinking and proactiveness of deposit money banks in South-South, Nigeria.
- iii. Examine the relationship between systems thinking and flexibility of deposit money banks in South-South, Nigeria.

Conceptual Framework

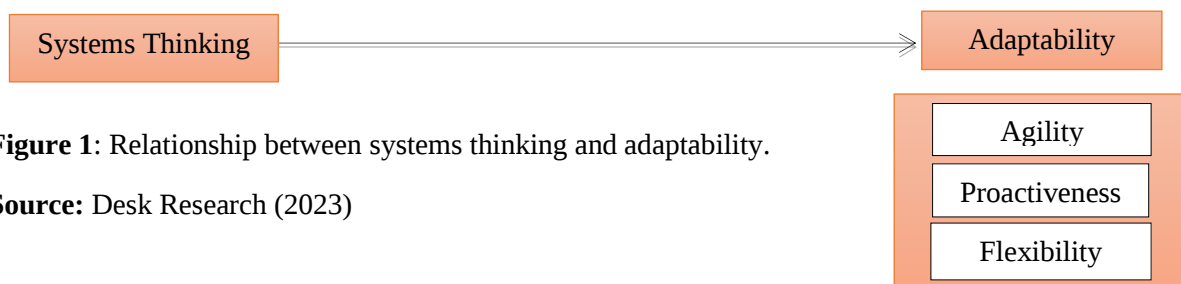


Figure 1: Relationship between systems thinking and adaptability.

Source: Desk Research (2023)

LITERATURE REVIEW

Theoretical Foundation

Dynamic Capabilities Theory

According to Pavlou and El Sawy, (2011), the dynamic capabilities view originates from Schumpeter's innovation-based competition where competitive advantage is based on the creative destruction of existing resources and novel recombination into new operational capabilities. Schumpeter's contribution to theoretical development of dynamic capability was the recognition of the need to reconfigure resources in order to effectively respond to environmental dynamism. The concept of dynamic capabilities (DCs) is also the extension of resource-based view (RBV) for its ability to respond to rapidly technological change (Teece, 2007). Dynamic capabilities have lent value to the RBV arguments as they transform what is essentially a static view into one that can encompass competitive advantage in a dynamic context (Barney, 2001a, b). The concept of DCs exists because of dynamics interactions between firms' capability building and environment, and the needs to sustain competitive advantage through capability building. Teece, Pisano and Shuen (1997) developed the notion of dynamic capabilities as the capacity of the firms to renew competencies so as to achieve congruence with the changing business environment by adapting, integrating, and reconfiguring internal and external organizational skills, resources, and functional competencies.

The dynamic capabilities theory suggests that in order to compete successfully in their markets, firms need two types of capabilities: 'Ordinary' capabilities allow organizations to operate their chosen lines of business efficiently and effectively, while 'dynamic capabilities' help them to upgrade their ordinary capabilities, or to create new ones (Winter, 2003). The six DCs functions is to renew, recombine, redeploy, replicate, retrench, and retiring the resources/capabilities (Helfat & Peteraf, 2003). In other words, DCs is not just to create resources, it also can be used to eliminate resources when situation arise. Even if the strategic capabilities are built from resources; simply possessing resources does not guarantee capabilities building as the resources and capabilities systems of the firm are dynamic in nature and their relationships are always changing (Grobler, 2007). Empirical researches suggest that the use of DCs is better under

rapidly changing environment (Wu, 2010). The firm who possesses DCs is capable of meeting the change that is necessary to build competitive advantage. Dynamic Capability is the key for sustained success under rapid change (Nelson & Winter, 2002).

Conceptual Review

Systems Thinking

Lin, Eichelberger and Leong (2020) systems thinking is defined as a way of thinking about, and a language for describing and understanding, the forces and interrelationships that shape the behaviour of systems. This approach has several benefits, including the ability to identify and solve problems more effectively (Talley & Hull, 2023). Furthermore, as Lalani, Gray and Mitra-Ganguli (2023) points out, systems thinking can be applied in real-life scenarios, such as managing natural resources and improving healthcare systems.

Liedtka (2005) contends that a strategic thinker should have a comprehensive mental model of the organisation's value chain, allowing her/him to understand all interdependencies within it. This model should integrate knowledge gained of the internal and external environment of the organisation to provide an understanding of "how the world works". An all-inclusive command of the internal organisational ecosystem, supplemented by the external environment, viewed from a personal perspective, allows the strategic thinker to identify vertical and horizontal linkages within the ecosystem from multiple viewpoints. This view includes the relationships between corporate, business and functional level strategies, the interconnections between departments and functions and those between communities of suppliers and buyers (Liedtka, 2005).

Systems thinking is a holistic approach to problem-solving that seeks to understand how complex systems operate and how they can be improved. According to da Costa Junior, Diehl and Snelders (2019) systems thinking involves an understanding of the interrelationships between different parts of a system and the ways in which these parts interact to produce overall system behavior. This type of thinking is characterized by a focus on the whole system rather than just its individual components. Jackson (2020) notes that

systems thinking is particularly useful in situations where there are multiple interdependent variables that affect system behaviour. By understanding these interrelationships, systems thinkers are able to identify leverage points where small changes can have a large impact on the system as a whole. Systems thinking is also characterized by an iterative approach to problem-solving, where solutions are tested and refined over time in response to feedback from the system. Overall, systems thinking provides a powerful framework for understanding complex systems and developing effective solutions to challenging problems.

Concept of Adaptability

Adaptability is an aspect of resilience that reflects, learning, flexibility to experiment and adopt novel solutions, and the development of generalized responses to broad classes of challenges (Walter, et al., (2006). According to Bowden (1946) researching the past world war, adaptive capability is the ability or inclination of individuals or group to maintain an experimental attitude towards new situations as they occur and to act in terms of changing circumstances. Adaptability is addressed in this context through two approaches; socio environmental and organizational (Mc Manus, et al; 2008).

The organization is confronted by changes in the business environment that requires constant adaptation (Wobodo & Oparanma, 2019 cited in Wobodo *et al.*, 2020). Organizations as open systems exist in an environment that is complex and uncertain. To survive and make profit, organizations need to adapt continuously to the different levels of environmental uncertainty (Amah & Baridam, 2012). Organizational adaptability is the ability of an organization to recognise the need to change and seize the opportunities in a dynamic environment (Schulze & Pinkow, 2020). To seize opportunities, the organization need to be able to sense the existence of opportunities which will leverage it from survival threats. This will require adaptation to a changing environment and shift in market conditions, by altering behavior, structures; and systems in order to survive (Birkinshaw, Zimmermann & Raisch, 2016).

Measures of Adaptability

Agility

A standard definition of agility is that it is “... the ability to create and respond to change. It is a way of dealing with, and ultimately succeeding in, an uncertain and turbulent environment” (Agile Alliance, 2020). Gren and Lenberg (2019) have proposed a shorter and more straightforward definition of agility as “responsiveness to change”. From these definitions, it becomes clear that the concept of agility is mostly concerned with organizational responsiveness and adaptability in what many commentators describe as increasingly turbulent and dynamic competitive environments (Millar, Groth & Mahon, 2018). Strategic agility has to do with the capacity to respond swiftly to changing situations as demonstrated by business organizations. The ability of an organization to have the foresight to see the trend and forecast the future in order to respond appropriately defines the strategic agility of such an organization.

Strategic Agility (SA) is the ability of a firm to respond swiftly to changing environmental conditions. The flexibility in the operational responses of firms to discontinuities and volatility in the business environment defines the SA of a firm. Firms that are embedded with SA capability can successfully predict and adapt to new opportunities and threats. In line with this, Mavengere (2013) posits that SA has to do with an organization’s sensitivity to or being armed with the foresight to understand and predict novel happenings in the environment where the organization operates.

Proactiveness

According to Onyema and Hamilton (2020) proactiveness is a firm’s ability to think ahead, foresee, initiate a change or take a first mover leap rather than being reactionary or defensive in its strategic posture. Proactiveness refers to an on-going perspective where a firm actively seeks to anticipate and take advantage of opportunities to develop and introduce new products and implement changes to existing firm’s strategies and tactics.

Pro-activeness is related to initiative and first-mover advantages and to taking initiative by anticipating and pursuing new opportunities (Lumpkin & Dess, 1996). The oxford dictionary defines pro-activeness as acting in anticipation of future problems, needs, or changes. Lumpkin & Dess (1996) argued that pro-activeness may be crucial to an Entrepreneurial Orientation because it suggests a forward-looking perspective that is accompanied by innovative and entrepreneurial activity. Pro-activeness relates to market opportunity in entrepreneurship by seizing initiative and acting opportunistically in order to shape the environment, that is, to affect trends and, perhaps, even to create demand. The characteristics of a Proactive enterprise involve aggressiveness and unconventional tactics towards rival enterprises in the same market segment, such enterprises shape their environments by actively seeking and exploiting opportunities. Proactive firms introduce new products, technologies, administrative techniques to shape their environment and not react to it (Callaghan, 2009).

Flexibility

According to Holweg (2005), flexibility is the capacity to adjust to internal and/or external factors. According to Escrig-Tena *et al.* (2011), flexibility refers to a firm's capacity to respond quickly to challenges, rethink its activities and strategy, and more effectively satisfy environmental demands. Flexibility is not a goal in itself, but a means to an end (Bernardes & Hanna, 2009). Flexibility refers to the innate ability to alter one's current course in capability to accommodate and successfully adapt to changes in the environment. Strategic flexibility refers to a firm's capability to recognize environmental dynamics and quickly tap into sources in order to initiate new operations in response to these dynamics (Dehghan-Dehnavi & Nadafi, 2010). Strategic flexibility refers to a business's ability to respond to uncertainties using the information and skills it possesses, while also pursuing its objectives through continual development (Eryesil, Esmen & Beduk, 2015). It is a firm's capacity to adjust to the many demands imposed by dynamic competitive settings. The degree to which a business is willing to change its strategy in response to

opportunities, threats, and changes in the external environment is referred to as strategic flexibility (Zahra et al., 2008).

Strategic flexibility enables firms to detect and respond to key changes in their environment (Grewal & Tansuhaj, 2001), eliminates organisational inertia, and stimulates creativity and innovation (Zhou & Wu, 2010). Thus, strategic flexibility may have an effect on the performance of a business. However, published research reveals conflicting findings about this phenomenon. Numerous studies support the assumption that strategic flexibility enhances business performance (Grewal & Tansuhaj, 2001), but others have identified specific downsides of strategic flexibility, including greater expenses, increased stress, and a potential lack of strategic focus (Das & Elango, 1995).

Empirical Review

Systems Thinking and Adaptability

Okoro and Makinde (2021) examined strategic thinking and patient waiting time in teaching hospitals in Ogun state, Nigeria. A survey research design was adopted. The population was 339 medical doctors of the two teaching hospitals in Ogun State, Nigeria, that is, Babcock University Teaching Hospital Ilishan-Remo and Olabisi Onabanjo University Teaching Hospital. Total enumeration method was adopted and a multiple regression analysis was used to test the hypothesis. The result showed that only intent focus had positive and significant effect ($\beta = 0.205$, $t = 2.231$, $p < 0.05$) on patient waiting time in the teaching hospitals in Ogun State; while systems perspective had negative but significant effect ($\beta = -0.400$, $t = -3.401$, $p < 0.05$), intelligent opportunism ($\beta = 0.139$, $t = 0.933$, $p > 0.05$) and thinking in time ($\beta = 0.058$, $t = 0.374$, $p > 0.05$) had positive and insignificant effect on patient waiting time in teaching hospitals in Ogun State, Nigeria. The study concluded that strategic thinking has effect on patient waiting time. Therefore, hospital management should improve on their systems perspective and their intent focus to reduce long patient waiting time in the teaching hospitals in Ogun State, Nigeria.

From the foregoing discourse, the study hypothesized thus:

H₀₁: There is no significant relationship between systems thinking and agility of quoted deposit money banks in South-south, Nigeria.

H₀₂: There is no significant relationship between systems thinking and proactiveness of quoted deposit money banks in South-south, Nigeria.

H₀₃: There is no significant relationship between systems thinking and flexibility of quoted deposit money banks in South-south, Nigeria

METHODOLOGY

The study adopted the cross-sectional research survey design. Primary data was generated through structured questionnaire. The population of this study is the 14 Deposit Money Banks in Nigeria that are quoted on the Nigerian Stock Exchange. In this study the researcher adopted a census sampling technique to study all the 14 Deposit Money Banks in Nigeria because the population was small. However, the total respondents who made up the elements of this study were 42 Regional/Zonal Managers of the 14 quoted Deposit Money Banks in South-South, Nigeria. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman's Rank Order Correlation Statistics.

DATA ANALYSIS AND RESULTS

Table 1: Correlation Matrix for Systems Thinking and Organizational Adaptability Measures

			Systems Thinking	Agility	Proactiveness	Flexibility
Spearman's rho	Systems Thinking	Correlation Coefficient	1.000	.690**	.971**	.520**
		Sig. (2-tailed)	.	.000	.000	.000
		N	37	37	37	37
	Agility	Correlation Coefficient	.690**	1.000	.652**	.719**
		Sig. (2-tailed)	.000	.	.000	.000
		N	37	37	37	37
	Proactiveness	Correlation Coefficient	.971**	.652**	1.000	.875**
		Sig. (2-tailed)	.000	.000	.	.000
		N	37	37	37	37
	Flexibility	Correlation Coefficient	.520**	.719**	.875**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	37	37	37	37

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output version 23.0

RQ1: What is the relationship between systems thinking and adaptability of quoted deposit money banks in South-South, Nigeria?

The correlation coefficient (rho) result in table 1 was used to answer research question 1. Table 1 shows a Spearman Rank Order Correlation Coefficient (rho) of 0.690 on the relationship between systems thinking and agility. This value implies that a very strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in agility was as a result of the adoption of systems thinking. Therefore, there is a very strong positive correlation between systems thinking and agility of quoted deposit money banks in South-South, Nigeria.

Similarly, Table 1 shows a Spearman Rank Order Correlation Coefficient (rho) of 0.971 on the relationship between systems thinking and proactiveness. This value implies that a very strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in proactiveness was as a result of the adoption of systems thinking. Therefore, there is a

very strong positive correlation between systems thinking and proactiveness of quoted deposit money banks in South-South, Nigeria.

Furthermore, Table 1 shows a Spearman Rank Order Correlation Coefficient (ρ) of 0.520 on the relationship between systems thinking and flexibility. This value implies that a moderate relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in flexibility was as a result of the adoption of systems thinking. Therefore, there is a moderate positive correlation between systems thinking and flexibility of quoted deposit money banks in South-South, Nigeria. Therefore, to enable us accept or reject hypotheses 1, 2, and 3 as well as generalize our findings to the study population the p-value was used as shown below:

H₀₁: There is no significant relationship between systems thinking and agility of quoted deposit money banks in South-South, Nigeria.

Similarly displayed in the Table 1 is the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained from table 1, the sig-calculated is less than significant level ($p = 0.000 < 0.05$). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between systems thinking and agility of quoted deposit money banks in South-South, Nigeria.

H₀₂: There is no significant relationship between systems thinking and proactiveness of quoted deposit money banks in South-South, Nigeria.

Also displayed in the Table 1 is the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained from Table 1, the sig-calculated is less than significant level ($p = 0.000 < 0.05$). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between systems thinking and proactiveness of quoted deposit money banks in South-South, Nigeria.

H₀₃:There is no significant relationship between systems thinking and flexibility of quoted deposit money banks in South-South, Nigeria.

Also displayed in the Table 1 is the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained from Table 1, the sig-calculated is less than significant level ($p = 0.000 < 0.05$). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between systems thinking and flexibility of quoted deposit money banks in South-South, Nigeria.

DISCUSSION OF FINDINGS

The findings showed that there is a significant positive relationship between systems thinking and adaptability of quoted deposit money banks in South-South, Nigeria. Similarly, the current finding empirically validated the results of Hani (2014) who examined the role of strategic thinking in achieving organizations core competencies: a field study on the banking Sector in Jordan and found that strategic thinking dimensions (System Perspective, Intelligent Opportunism, and Intent Focus, Thinking in Time, Hypothesis Drive, and Thinking Skills) have significant influence in core competence achievement. These influences, however, were not all at the same level. Based on the findings of this study, there are several recommendations for top and line managers at the Jordanian banks, and limitations and directions were suggested for future research are also presented.

The concept of systems thinking has gained significant attention in various industries, including the banking sector, due to its potential to enhance organizational effectiveness and performance. Systems thinking refers to a holistic approach that focuses on understanding the interconnectedness and interdependencies of various components within a complex system (Akhtar et al. 2018). In the banking industry, this approach can be applied to analyze and improve the efficiency of processes, identify and manage risks, and enhance customer satisfaction. By considering the banking system as a whole, rather than focusing on individual components or departments, banks can identify potential bottlenecks, streamline operations, and make

informed decisions that have a positive impact on the overall performance of the institution. Furthermore, systems thinking enables banks to recognize the dynamic and ever-changing nature of the industry, helping them adapt to market fluctuations, regulatory changes, and technological advancements. This approach encourages a shift from a siloed and fragmented mindset to a more holistic and integrated perspective, fostering collaboration and synergy among different stakeholders within the banking ecosystem (Akhtar et al. 2018). Overall, the application of systems thinking in the banking industry has the potential to drive innovation, improve operational efficiency, and ultimately enhance customer experience and satisfaction. (Akhtar et al., 2018).

CONCLUSION AND RECOMMENDATIONS

The study concludes that systems thinking positively enhances adaptability of deposit money banks in the South-South region of Nigeria have significant implications for both academia and the banking industry. The results highlight the crucial role of systems thinking in fostering adaptability and resilience within these banks, enabling them to navigate complex and interconnected challenges.

The study recommends that the management of deposit money banks in Nigeria should encourage the adoption of systems thinking principles within the quoted deposit money banks in South-South, Nigeria. Systems thinking emphasises understanding the interdependencies and interconnectedness of various components within an organization. By adopting this approach, banks can better identify and respond to changes in the external environment.

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