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# ORGANIZATIONAL RESILIENCE AND QUALITY SERVICE DELIVERY OF HOSPITALS IN RIVERS STATE

Linus Adama, Akwaeze Emeka Alex, Chinedu Michael, Ngozi Ukamaka Ejiofor, Bonaventure A. Odo and Efefiong Francis

University of Nigeria, Nsukka
Alex Ekwueme Federal University, Ndufu-Alike, Nigeria

**Abstract**
The study examined the relationship between organizational resilience and quality service delivery of Hospitals in Rivers State. The study was underlined by the resource-based view theory and dynamic capability theory. Positivist approach to research was adopted which warranted the use of structured questionnaire. cross-sectional research design was used which allows for collecting of data at an instant and analysing it. The target population for the study comprised of all hospitals in Rivers State, including public and privately owned ones. The study adopted purposive sampling technique, thereby concentrating on 20 hospitals (5 public and 15 private) located in Port Harcourt in order to obtain data from their medical professionals, management and patients which summed up to 200 respondents. The data was analysed using Partial Least Squares-Structural Equation Modeling (PLS-SEM) after the validity and reliability was ascertained through measurement model. Both analyses were carried out through SmartPLS4. The finding of the study revealed that agility significantly relates with empathy and reliability whereas robustness does not significantly relate with either empathy or reliability. From the findings, the study recommends that while robustness is important for maintaining organizational stability, it does not necessarily contribute directly to the quality of interactions or dependability in service delivery, thereby management should not focus on robustness alone in trying to boost service delivery.

**Keywords:** Organizational resilience, quality service

## Introduction

Hospitals in Rivers State, Nigeria, are critical components of the region's healthcare system, making major contributions to both public health and local economies. The state, which has a population of over 7 million people, is highly dependent on thriving healthcare system in order to ensure the health of the population thereby supporting other humans activities. Beyond the importance of healthcare provision, these hospitals are also necessary for delivering other economic benefits such as job opportunities and contribute to the state's socioeconomic growth (Ipinnimo et al., 2022). Despite its importance, the state's hospitals is confronted with a number of issues that have impacted service quality, including overcrowding, insufficient budget, infrastructure shortfalls, and medical staff shortage (Ogunleye & Ojo, 2021). In addition, there are structural inefficiencies and increased demand for services. As a result, hospitals in

Rivers State are under enormous pressure to be resilient in order to sustain and improve service delivery in the face of persistent problems, especially during times of crisis. Service quality delivery is a key notion in healthcare management, referring to how well a hospital satisfies its patients' requirements and expectations (Donabedian, 2023). It includes various variables, such as the efficacy, efficiency, and dependability of care, the professionalism of healthcare workers, and the quality of the healthcare environment (Donabedian 2023). High-quality service delivery is critical for improving patient outcomes, increasing patient happiness, and maintaining the overall viability of healthcare facilities (Fitzpatrick & Hopkins, 2020). In the setting of Rivers State hospitals, offering high-quality services is critical to overcoming resource limits while building patient trust and loyalty. As the demand for healthcare services grows, hospitals must constantly analyse and enhance their service delivery systems to stay successful and relevant. Looking at the health industry, two major metrics of service quality delivery spring to mind: reliability and empathy. A hospital's reliability is defined as its capacity to consistently supply correct and dependable services, ensuring that patients receive the treatment they anticipate in a timely and effective way (Donabedian, 2023). Empathy, on the other hand, refers to a healthcare provider's capacity to understand and manage their patients' emotional and psychological needs, which is crucial for improving the patient experience and outcome. Both of these elements are critical to ensuring that hospitals achieve patient expectations and build confidence in their services.

According to Mohammed and Kinyua (2023), in order to provide excellent service, organisations must be capable and prepared to adapt to both internal and external problems. The notion of resilience is one key strategy that has emerged to help organisations adapt to their capacity to function optimally (Latif et al., 2018). In healthcare organisations, resilience is defined as the ability to adapt to, absorb, and recover from interruptions or poor situations while continuing to provide critical services (Bhamra et al., 2021). Resilience is an important attribute of hospitals, particularly in situations characterised by uncertainty, budgetary restrictions, and external shocks such as disease outbreaks or natural catastrophes. The resilience of Rivers State hospitals has been challenged by occurrences like as the COVID-19 pandemic, which disrupted routine healthcare operations and stretched resources (Iloh et al., 2020). Resilient hospitals may overcome such obstacles, preserve continuity of treatment, and even improve their services by implementing adaptive measures that anticipate future disruptions (Ponomarov & Holcomb, 2019). Given the state's increasingly complex healthcare demands, recognising and improving hospital resilience is vital to ensure that they can continue to serve the population successfully. Resilience is very significant since it includes not only the ability to absorb shocks, but also the ability to adapt and change in response to changing demands (Holling 2021). One of the most important linkages in healthcare resilience is the link between organisational resilience and service quality delivery. Resilient hospitals can continue to deliver high-quality care even during times of disturbance (Duchek, 2020). Resilience enables hospitals to sustain critical services, retain talented personnel, and guarantee that patient care is continued during times of crisis. This relationship between resilience and service quality is especially essential in areas like Rivers State, where hospitals experience considerable operating challenges. Agility and robustness are critical resilience elements that enable organizations to successfully manage difficulties (Kantur, 2015). Agility is the capacity to adapt swiftly to changes, whereas robustness is the ability of the organisation to fulfil changing demands (Kaufman et al., 2022). These two factors are crucial for building resilience, which has a direct influence on maintaining good service delivery standards.

Hospitals in Rivers State face the difficulty of consistently providing high-quality care. While hospitals in the region endeavour to provide basic healthcare services, they are sometimes hampered by limited finances, poor infrastructure, insufficient human capital (Okolie & Ofoegbu, 2019), and health crises that place undue strain on the facilities. These issues

are compounded by emergencies like the COVID-19 pandemic, which interrupted global healthcare delivery networks and put great strain on local hospitals. As a result, hospitals must find methods to continue delivering important services while adjusting to these problems, highlighting the importance of resilience. The problem described above, which highlights a lack of quality service delivery in hospitals in Rivers State, revolves around a knowledge gap, an empirical gap, and a contextual gap because, even though few studies have been conducted on the construct in other climes and organisations, the challenge persists in the context under study. Also, few investigations on the construct have used Partial Least Squares-Structural Equation Modelling (PLS-SEM). As a result, the purpose of this study is to fill identified gaps by investigating the association between resilience and quality service delivery in Rivers state hospitals.

## Research Hypotheses

**Ho1:** There is no significant relationship between agility and reliability.

**Ho2:** There is no significant relationship between agility and empathy.

**Ho3:** There is no significant relationship between robustness and reliability.

**Ho4:** There is no significant relationship between robustness and empathy.

## Literature Review

### Resilience

Organisational resilience is a dynamic notion that describes an organization's capacity to foresee, respond to, and recover from disturbances while maintaining essential services. It has developed from a reactive process centred on recovery to a more proactive capability that includes strategic planning, continuous improvement, and the ability to adapt to changing conditions (Lengnick-Hall et al., 2011). Resilience is especially crucial for organisations that confront persistent uncertainty or are subject to frequent external shocks, such as economic downturns, technology developments, or natural disasters. Resilience allows organisations to continue operating in the face of substantial obstacles, guaranteeing long-term sustainability and competitiveness (Vogus & Sutcliffe, 2007). Over time, the idea of organisational resilience has evolved to include numerous elements, such as the ability to learn from misfortune, adapt to new situations, and innovate under duress. Resilient organisations display a continuous process of adapting their operations and strategy to new circumstances. This entails gaining a thorough understanding of internal and external elements that may disrupt operations, as well as developing mechanisms to minimise risks before they rise (Duchek, 2020). Organisational resilience is no longer viewed just as a crisis reaction, but rather as a continuous cycle of preparation, adaptation, and evolution that allows organisations to survive in the face of uncertainty (Bhamra et al., 2011). According to Mackenzie et al. (2019), organisations that are resilient must be adaptable and inventive. This improves their ability to swiftly review their objectives and adjust their strategy as needed, creating an agile culture that allows them to remain competitive. Furthermore, resilience emphasises learning from previous events and incorporating this information into future decision-making processes, which improves an organization's ability to deal with future disturbances (Teece et al., 2016). In this sense, resilience becomes an important competitive advantage, allowing organisations to stay relevant and efficient even in highly competitive or turbulent situations. Within the larger context of organisational resilience, agility and robustness are seen as essential qualities (Vogus & Sutcliffe, 2007). Agility enables an organisation to adapt quickly to external changes or unexpected obstacles, whereas robustness refers to the organization's ability to withstand adversity. Both agility and robustness help resilient organisations retain operational continuity and increase performance in the face of external demands. These characteristics of organisational resilience work together to guarantee that organisations are not just capable of surviving crises, but also of evolving and innovating in response to changing

conditions. These dimensions will be thoroughly explained below.

**Dimensions of Resilience**

**Agility**

In today's fast-paced and uncertain business climate, organisations are continually confronted with difficulties that need quick reactions and adaptability. The idea of agility has emerged as a critical asset for organisations wanting to stay competitive and responsive to changes in both their internal and external environments. Agility refers to an organization's capacity to adjust quickly to changes in market demand, technology breakthroughs, and other external pressures while being operationally efficient and successful. It is more than just reacting swiftly; it is also about having the flexibility, foresight, and preparation to adapt organisational processes, strategies, and structures to new problems and possibilities. Agility has become an increasingly important criterion for survival and success as organisations operate in unpredictable and constantly changing contexts. Agility is frequently defined as an organization's capacity to make timely choices, execute changes quickly, and shift strategy without significantly disrupting operations (Teece, 2007). This ability to respond quickly is critical in today's marketplaces, when organisations must constantly innovate and adapt to changing client demands and technology improvements. Decision-making procedures in agile organisations are decentralised, allowing for swift responses and real-time problem solving by managers and teams. Furthermore, agile organisations value flexibility in their systems and operations, allowing them to pivot quickly when necessary. They can better capitalise on opportunities, reduce risks, and modify their objectives to meet changing environmental demands (Kaufman et al., 2022). The application of agility necessitates a culture transformation inside an organisation that prioritises cooperation, openness to change, and the capacity to move quickly. An agile organisation promotes continuous learning and fosters a culture of experimentation and innovation. This agile culture helps organisations to identify possibilities for change more quickly and stay ahead of the competition. One of the key components of agility is the capacity to quickly absorb new information and make decisions based on that knowledge. This includes excellent internal communication channels as well as a strong feedback system that delivers real-time information into operations, consumer preferences, and market situations (Denning, 2018).

Agility is also an important factor in managing uncertainty and risk. In an increasingly unpredictable environment, organisations must anticipate and plan for unexpected interruptions such as supply chain concerns, regulatory policy changes, or economic fluctuations. Agile organisations are prepared to deal with such disruptions by being adaptable and responsive rather than strictly conforming to a predetermined plan. In this way, agility is related to resilience since both need the capacity to deal with change and uncertainty. While resilience frequently refers to the ability to recover from setbacks, agility emphasises the ability to act proactively and respond swiftly to changing conditions (Voss et al., 2022). As a result, an organisation that is both robust and agile can better negotiate uncertainty and prosper in changing settings.

**Robustness**

In the context of organisational resilience, robustness is a critical factor that allows an organisation to continue operating successfully in the face of external shocks or internal failure. While agility and adaptability emphasise an organization's ability to respond and adjust to change, robustness emphasises its ability to withstand stress and retain stability in the face of disturbances. It is about ensuring that the organization's essential systems, processes, and structures are resilient enough to endure adversities, safeguarding against failures and assuring operational continuity. Robustness is more than just surviving during crises; it is about building resilience by developing systems that can absorb impacts without jeopardising the organization's capacity to fulfil its core activities. A strong organisation has built-in processes that enable it to endure stresses, recover rapidly from disturbances, and reduce

the chance of operational failure. This comprises the creation of long-lasting infrastructures, procedures, and human resources that can withstand stress and function well even in unfavourable situations. For example, strong financial management systems may include keeping healthy cash reserves or diversifying income sources to withstand economic shocks, whereas robust technology systems may include providing redundancy in IT equipment to reduce downtime. These systems and processes must be able to perform under increasing strain or after rapid interruptions, lowering the risk of catastrophic failures (Bhamra et al., 2011).

Anticipating and planning for potential hazards is critical to increasing resilience. Robust organisations practise proactive risk management, which involves recognising weaknesses and installing protections before they become serious concerns. This involves developing contingency plans, guaranteeing operational flexibility, and establishing emergency procedures that may be implemented as necessary. For example, in supply chains, organisations may invest in many suppliers or diversify their supplier base to reduce the risk of interruptions from a single source. Furthermore, strong organisations establish resilience through redundancy—having backup systems, equipment, or procedures in place so that if one element of the system fails, another can take over with little impact on operations (Hosseini et al., 2016). While robustness greatly improves an organization's capacity to endure shocks, it must be balanced with the requirement for flexibility and responsiveness. An overemphasis on robustness can lead to inflexibility, making it difficult for an organisation to respond to new possibilities or changes in the environment. As a result, organisations must establish a level of resilience that ensures stability without becoming inflexible. This is especially true in businesses with rapid technical advancements or market instability, where staying stable in the face of change requires a willingness to innovate and adapt (Hosseini et al., 2016).

Robustness is also important in ensuring long-term sustainability. Organisations that design robust systems that can absorb disruptions without compromising performance are better positioned to survive not only acute crises but also long-term problems. This includes constantly testing and strengthening systems, stress testing, and learning from previous disruptions in order to continuously enhance resilience tactics. In this sense, robustness is not only about immediate survival, but also about building an organisation that is better prepared to deal with future challenges (Vogus & Sutcliffe, 2007).

**Quality Service Delivery**

In the contemporary service-oriented economy, the capacity to continually provide superior services is a crucial factor in an organization's success and enduring viability. Service quality delivery involves not just meeting client expectations but also beyond them to provide memorable experiences that foster customer loyalty and elevate brand reputation. In competitive sectors like healthcare, hospitality, and retail, where consumers possess several choices, superior service quality may serve as the distinguishing element that affects client decisions. The delivery of service quality involves several characteristics that together shape the customer's impression of value and overall satisfaction, hence affecting organisational performance (Parasuraman et al., 1985). The delivery of service quality is a dynamic and continuous process necessitating frequent monitoring, feedback, and enhancement. Organisations that thrive in providing high-quality service cultivate a culture of excellence, wherein people are taught, enabled, and driven to fulfil client expectations. Effective service quality management necessitates the alignment of all organisational facets, encompassing customer-facing activities and back-end operations, to guarantee constant and exceptional service delivery. Organisations prioritising service quality get elevated client satisfaction, resulting in increased customer loyalty, repeat transactions, and improved market positioning (Parasuraman et al., 1985).

**Measures of Service Quality Delivery**

**Reliability**

Reliability denotes a service provider's capacity to regularly supply promised services with accuracy and dependability. It signifies the

organization's dedication to meeting client expectations with exceptional consistency, guaranteeing that services are delivered as anticipated on every occasion. Reliability cultivates confidence and engenders loyalty, since clients are more inclined to revisit a service provider that regularly provides excellence without exception. This component is particularly significant in service sectors because service outcomes directly affect clients' lives, including healthcare, hotels, and finance. A dependable service provider improves the total client experience by minimising uncertainty and fostering confidence in the given service (Parasuraman et al., 1985). The significance of dependability in service quality delivery is seen in its function of fulfilling client expectations. In service sectors, clients often possess elevated expectations concerning the uniformity of the services rendered to them. Reliability guarantees that these expectations are fulfilled without requiring clients to doubt the service provider. In healthcare, people anticipate receiving uniform care throughout each visit to a hospital or clinic. If healthcare practitioners do not fulfil these expectations about correct diagnoses, timely treatments, or follow-up care, patient trust may rapidly diminish, resulting in unhappiness and a decrease in loyalty. Consequently, companies that emphasise reliability can establish a robust reputation and maintain consumer loyalty over time (Zeithaml et al., 1990). Reliability is essential in shaping client views of service quality. Inconsistent service delivery by a provider—exemplified by subpar performance on certain occasions or failure to meet deadlines—may lead clients to see the organisation as unreliable. This sense of unreliability can damage the organization's reputation, even if most services are performed correctly. In contrast, consistently dependable service fosters a robust brand image, since clients recognise they can rely on the supplier for superior and trustworthy service. In sectors like transportation, finance, and retail, where failure can have significant repercussions, ensuring reliability is crucial to prevent consumer discontent and business loss (Parasuraman et al., 1985).

A crucial element of dependability is its relationship with operational efficiency. Organisations that provide dependable services often possess well-defined procedures and systems to guarantee consistency. This may encompass stringent quality control protocols, standardised operational processes, and ongoing oversight of service provision. By executing these processes, service providers may mitigate the risks of failure and guarantee the accurate delivery of services consistently. Moreover, dependability is associated with the efficient training and development of personnel. Well-trained employees, supplied with essential equipment and expertise, are more likely to provide services accurately and punctually, hence enhancing the overall reliability of the service (Zeithaml et al., 1990). Reliability significantly contributes to cultivating consumer trust, which is a crucial factor in customer loyalty. Trust is established when clients are certain that a service provider consistently fulfils their commitments. In industries like banking, legal services, and healthcare, where trust is essential, reliability significantly affects client opinions of the organization's legitimacy and professionalism. An dependable service provider cultivates enduring partnerships, since clients trust that they can depend on the organisation for continuous and superior service. Established trust fosters client loyalty and encourages recommendations, so enhancing the organization's reputation (Parasuraman et al., 1985).

**Empathy**

In the domain of service quality delivery, empathy is crucial in influencing client experiences and views of the service provider. Empathy denotes the capacity of service providers to comprehend, attend to, and respond to the distinct needs and concerns of their clients, delivering tailored attention and exhibiting authentic care for their welfare. This emotional bond cultivates trust and loyalty, since clients perceive value when service providers demonstrate authentic investment in their requirements. Empathy transcends the technical dimensions of service provision,

emphasising the human element of client engagements. In sectors where personal care, customer connection, and emotional involvement are essential, such as healthcare, hospitality, and customer service, empathy is a crucial element of service excellence (Parasuraman et al., 1985). Empathy's significance in service quality delivery is seen in its impact on customer satisfaction. Customer interactions with empathetic personnel foster a sense of understanding and support, therefore substantially improving their entire experience. In healthcare, patients frequently require both technical proficiency and emotional assistance during periods of sickness. A healthcare provider who attentively listens to patients' problems, validates their emotions, and demonstrates authentic compassion can enhance the patient experience, regardless of the therapeutic outcome. Empathy in these situations enhances patient comfort, alleviates anxiety, and fosters a favourable view of the service, despite potential shortcomings in other areas of service delivery (Zeithaml et al., 1990). Furthermore, empathy improves customer satisfaction by fulfilling the emotional and psychological requirements that customers present throughout service encounters. In service interactions, clients expect more than a mere commercial exchange; they typically need an experience that recognises their emotions, worries, and particular requirements. Empathy allows service providers to engage with clients more profoundly, enhancing satisfaction and fostering repeat business. In the hospitality sector, a hotel employee who comprehends a guest's specific needs, recalls their preferences, or provides tailored services can enhance the overall experience. Acts of empathy enhance clients' sense of importance and appreciation, increasing their likelihood of returning or recommending the service (Zeithaml et al., 1990).

Empathy also facilitates the settlement of consumer complaints or concerns. When a service provider empathetically acknowledges a customer's complaint, recognising their dissatisfaction or disappointment, it can mitigate a potentially bad scenario. Customers are more like to perceive that their issues are being acknowledged when they detect that the employee is emotionally responsive to their suffering. This strategy not only addresses the current problem but may also convert an unhappy consumer into a devoted patron. Employees' capacity to exhibit empathy under challenging circumstances can elevate a standard service recovery procedure into a significant opportunity for fostering customer loyalty (Parasuraman et al., 1985). Moreover, empathy in service provision frequently cultivates a favourable brand perception and enhances client allegiance. When clients see that a service provider really values them, they cultivate an emotional bond with the brand. This emotional connection may significantly enhance loyalty, as customers are more inclined to persist with a service that fosters feelings of worth and respect. In competitive service marketplaces with numerous customer options, empathy can distinguish a service provider from its rivals, resulting in enhanced client retention and satisfaction (Zeithaml et al., 1990).

## Theoretical Review

**The Resource-Based View (RBV) of the Firm (Barney, 1991):** The Resource-Based View (RBV) thesis underscores the significance of internal resources and skills in attaining sustained competitive advantage. The Resource-Based View (RBV) posits that hospitals in Rivers State may attain exceptional service delivery by using distinctive resources, including proficient healthcare personnel, state-of-the-art medical apparatus, and robust organisational procedures. These resources enable organisations to exhibit resilience, allowing them to endure interruptions, adapt to changes, and sustain service quality. The Resource-Based View (RBV) associates resilience with the strategic management of resources, indicating that organisations that invest in and cultivate essential resources are more likely to sustain excellent service quality, even during challenging circumstances.

**Dynamic Capabilities Theory (Teece, Pisano, & Shuen, 1997)**: The Dynamic Capabilities Theory elaborates on the Resource-Based View (RBV) and emphasises an organization's capacity to integrate, develop, and reconfigure

both internal and external competences to adapt to swiftly evolving surroundings. This notion is especially pertinent for comprehending resilience in the healthcare industry, since hospitals must continually adjust to external influences like regulatory modifications, technology innovations, and alterations in patient requirements. Dynamic skills, including the capacity for innovation, adaptation, and effective change management, are essential for organisations aiming to establish long-term resilience. The hypothesis posits that hospitals in Rivers State must enhance their ability to swiftly react to disturbances while maintaining consistent service quality.

## Method

### Procedure and Sample

The research employs a positivist methodology, grounded in the conviction that social phenomena, such as service quality and organisational resilience, can be seen, assessed, and quantified using objective techniques. This methodology prioritises the collecting and analysis of empirical data, concentrating on observable facts and their interrelations. The positivist methodology enables the researcher to objectively evaluate hypotheses and ideas via statistical techniques to identify patterns and correlations within the data. This corresponds with the study's emphasis on investigating the correlation between service quality delivery and organisational resilience in hospitals located in Rivers State. This study employed a cross-sectional research approach. The cross-sectional approach is suitable since it facilitates data collection at a singular moment, offering an overview of service quality delivery and organisational resilience in hospitals within Rivers State. This approach is especially beneficial for comprehending the present condition of variables like service quality dimensions (e.g., dependability, empathy) and the elements of organisational resilience (e.g., agility, robustness) without requiring longitudinal monitoring across time. The cross-sectional method allows the researcher to collect data from a diverse array of people, yielding a thorough picture of the examined phenomenon. The study's target population comprises hospitals in Rivers State, including both governmental and private institutions. For this study, the research concentrated on a representative sample of hospitals from both sectors to guarantee data variety. The study employed a non-probability sample technique, especially purposive sampling, to identify individuals likely to yield pertinent and informative information about organisational resilience and service quality delivery. Purposive sampling enabled the researcher to choose individuals according to defined criteria, including hospital administrators, healthcare practitioners (physicians, nurses), and patients with firsthand experience of the services under investigation. The research encompassed 20 hospitals (5 public and 15 private) situated in Port Harcourt, reflecting a variety of hospital kinds and sizes. A designated group of important responders was identified inside each hospital: hospital management, healthcare personnel (including physicians, nurses, and administrators), and patients who had utilised the hospital's services. A total of 200 respondents will participate, with 10 selected from each institution to provide a wide representation of experiences and viewpoints about service quality and resilience in the healthcare sector. Nevertheless, only 172 were recovered and accurately completed.

### Measures

The study employed primary data collection methods where structured questionnaire was used to collect data from the respondents. The questionnaire was designed to assess key dimensions of organizational resilience (such as robustness and agility) adapted from the study of Kantur & Iseri-Say (2015). Robustness was measured through 4 items while agility had 3 Items. For quality service delivery, reliability had 5 Items while empathy also had 5 Items as adapted from Parasuraman et al. (1988). The questionnaire included closed-ended questions using 5 scale Likert scale items to measure participants' perceptions and experiences. The Partial least squares-structural equation modeling was deployed to test the hypotheses through SMART-PLS4.

## Result and Discussion

The results presented in Table 4.1 provide a summary of the demographic characteristics of the respondents in the study. There were 172 respondents in total. In terms of gender, 46.5% (80 individuals) were male, while 53.5% (92 individuals) were female, indicating a slightly higher proportion of female participants. Both male and female perspectives are represented, offering a balanced view of the healthcare environment in the context of the study. Regarding marital status, the majority of respondents were married, with 54.7% (94 individuals) indicating they were married, and 45.3% (78 individuals) reporting being single. The presence of both married and single respondents in good proportion provides a range of experiences and insights into the service quality and resilience of hospitals from varying personal perspectives. For the educational qualifications of the respondents, 14.0% (24 individuals) had attained a PhD or Master's degree, while 44.2% (76 individuals) held a Bachelor's degree (BSc) or Higher National Diploma (HND). A further 20.9% (36 individuals) had a Diploma, 11.6% (20 individuals) had the West African Examination Certificate (WAEC/SSCE), and 9.3% (16 individuals) fell into the "Others" category. The variety of educational qualifications also highlights the diversity in roles and experience of the construct being studied. As for the position of the respondents, 39.5% (68 individuals) were health professionals, 42.4% (73 individuals) were patients, and 18.0% (31 individuals) were from hospital management, covering the major stakeholders in the sector.

Table 1: Demographic Characteristics of Respondents

| | | Frequency | Percent | Valid Percent | Cumulative Percentage |
|---|---|---|---|---|---|
| Gender Distribution | | | | | |
| Valid | Male | 80 | 46.5 | 46.5 | 46.5 |
| | Female | 92 | 53.5 | 53.5 | 100.0 |
| | Total | 172 | 100.0 | 100.0 | |
| Respondent's Marital Status Distribution | | | | | |
| Valid | Married | 94 | 54.7 | 54.7 | 54.7 |
| | Single | 78 | 45.3 | 45.3 | 100.0 |
| | Total | 172 | 100.0 | 100.0 | |
| Respondent's Educational Qualification Distribution | | | | | |
| Valid | PhD/masters | 24 | 14.0 | 14.0 | 14.0 |
| | BSc/HND | 76 | 44.2 | 44.2 | 58.1 |
| | diploma | 36 | 20.9 | 20.9 | 79.1 |
| | WAEC/SSCE | 20 | 11.6 | 11.6 | 90.7 |
| | others | 16 | 9.3 | 9.3 | 100.0 |
| | Total | 172 | 100.0 | 100.0 | |
| Respondent's Position | | | | | |
| Valid | Health professional | 68 | 39.5 | 39.5 | 39.5 |
| | Patient | 73 | 42.4 | 42.4 | 82.0 |
| | Management | 31 | 18.0 | 18.0 | 100.0 |
| | Total | 172 | 100.0 | 100.0 | |

The result summary for the reflective measurement model of organizational reliability and quality service delivery provides valuable insights into the performance of four constructs: Agility, Empathy, Reliability, and Robustness. These constructs were assessed based on their convergent validity and internal consistency reliability, which are essential indicators of the reliability and accuracy of the measurement model (Hair et al., 2017). The interpretation of each construct is as follows:

**Agility:** The indicator loadings for Agility (AG1, AG2, AG3) are 0.893, 0.911, and 0.811, respectively, all of which exceed the 0.70 threshold. This indicates that the indicators are strongly correlated with the Agility construct, demonstrating good convergent validity (Chin, 2010). The indicator reliability values, calculated by squaring the loadings, are 0.797, 0.830, and 0.658, all of which are greater than the 0.50 threshold, confirming that the items are reliable measures of Agility (Hair et al., 2017). The Average Variance Extracted (AVE) for Agility is 0.762, which is well above the minimum threshold of 0.50, suggesting that the Agility construct explains a substantial proportion of the variance in its indicators. Additionally, the composite reliability (rho_c) for Agility is 0.905, indicating excellent internal consistency, and the Cronbach's Alpha (α) value of 0.848 further supports the internal consistency of this construct (Nunnally & Bernstein, 1994).

**Measurement model**

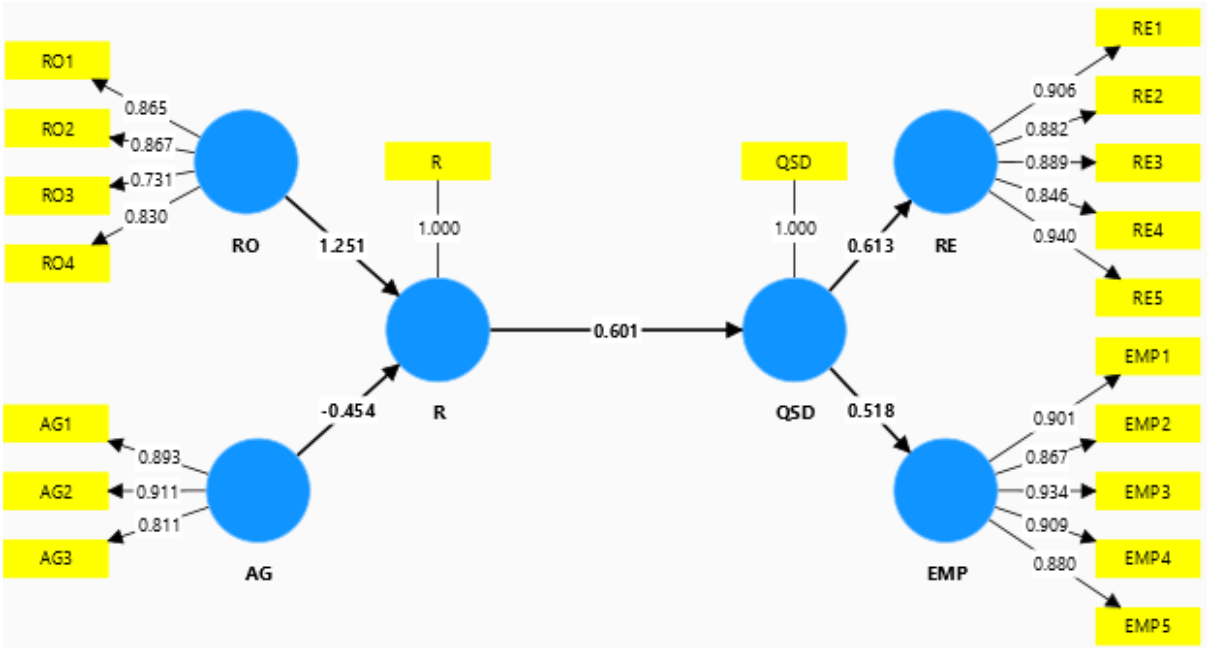


**Figure 1:** Measurement Model (Outer Loadings) for resilience and quality service delivery.

Where, RO=robustness; AG= agility; RE=reliability; EMP=empathy.

**Empathy:** The indicator loadings for Empathy (EMP1, EMP2, EMP3, EMP4, EMP5) range from 0.867 to 0.934, all exceeding the 0.70 threshold, indicating strong convergent validity (Chin, 2010). The indicator reliability for the items ranges from 0.752 to 0.872, all above the 0.50 threshold, which confirms the reliability of the indicators for Empathy (Hair et al., 2017). The AVE for Empathy is 0.807, which is well above the 0.50 threshold, further supporting the convergent validity of the construct. The composite reliability (rho_c) for Empathy is 0.954, indicating excellent internal consistency, and the Cronbach's Alpha (α) is 0.940, reflecting very high reliability (Nunnally & Bernstein, 1994).

**Reliability:** For the Reliability construct, the indicator loadings (RE1, RE2, RE3, RE4, RE5) range from 0.846 to 0.940, all of which exceed the 0.70 threshold, indicating that the indicators

are highly related to the Reliability construct, demonstrating good convergent validity (Chin, 2010). The indicator reliability values for these items are between 0.676 and 0.884, all surpassing the 0.50 threshold, confirming the reliability of the indicators (Hair et al., 2017). The AVE for Reliability is 0.797, which is above the 0.50 threshold, showing that the construct explains a substantial proportion of the variance in its indicators. The composite reliability (rho_c) for Reliability is 0.952, indicating strong internal consistency, and the Cronbach's Alpha (α) is 0.937, reflecting high reliability (Nunnally & Bernstein, 1994).

**Table 2:** Result Summary for Reflective Measurement Model of Organizational Reliability and Quality Service Delivery

| **Constructs** | **Indicators** | **Convergent Validity** | | **Internal Consistency Reliability** | |
|---|---|---|---|---|---|
| | **Loadings ( β )** $(l_k)$ | **Indicator Reliability** $(l_k^2)$ | **AVE** | **Composite Reliability *(rho_c)*** | **Cronbach's Alpha (α)** |
| **Threshold** | **>0.70** | **>0.50** | **>0.50** | **>0.70** | **>0.70** |
| **Agility** AG1 | 0.893 | 0.797 | | | |
| AG2 | 0.911 | 0.830 | 0.762 | 0.905 | 0.848 |
| AG3 | 0.811 | 0.658 | | | |
| Empathy EMP1 | 0.901 | 0.812 | | | |
| EMP2 | 0.867 | 0.752 | | | |
| EMP3 | 0.934 | 0.872 | 0.807 | 0.954 | 0.940 |
| EMP4 | 0.909 | 0.826 | | | |
| EMP5 | 0.880 | 0.774 | | | |
| Reliability RE1 | 0.906 | 0.821 | | | |
| RE2 | 0.882 | 0.676 | | | |
| RE3 | 0.889 | 0.790 | 0.797 | 0.952 | 0.937 |
| RE4 | 0.846 | 0.716 | | | |
| RE5 | 0.940 | 0.884 | | | |
| Robustness RO1 | 0.865 | 0.748 | | | |
| RO2 | 0.867 | 0.752 | | | |
| RO3 | 0.731 | 0.534 | 0.681 | 0.895 | 0.850 |
| RO4 | 0.830 | 0.689 | | | |

**Source: SmartPLS4.0.9.5 Output of Research Data, 2025**

**Robustness:** The indicator loadings for Robustness (RO1, RO2, RO3, RO4) are 0.865, 0.867, 0.731, and 0.830, respectively, all exceeding the 0.70 threshold, which indicates good convergent validity (Chin, 2010). The indicator reliability values for the items range from 0.534 to 0.752, with RO3 (0.534) being slightly lower than the other items but still meeting the 0.50 threshold (Hair et al., 2017). The AVE for Robustness is 0.681, which is above the minimum threshold of 0.50, indicating that the construct explains a sufficient amount of variance in its indicators. The composite reliability (rho_c) for Robustness is 0.895, indicating good internal consistency, and the Cronbach's Alpha (α) is 0.850, reflecting strong internal reliability (Nunnally & Bernstein, 1994).

For Agility (AG), the square root of its AVE (0.873) is higher than its correlations with other constructs (0.688 with Empathy, 0.832 with Reliability, and 0.851 with Robustness), confirming Agility's discriminant validity. For Empathy (EMP), the square root of its AVE (0.899) is greater than its correlations with other constructs (0.688 with Agility, 0.857 with

Reliability, and 0.488 with Robustness), indicating Empathy's discriminant validity. For Reliability (RE), the square root of its AVE (0.893) is higher than its correlations with other constructs (0.832 with Agility, 0.857 with Empathy, and 0.659 with Robustness), showing Reliability's discriminant validity. For Robustness (RO), the square root of its AVE (0.825) is higher than its correlations with Empathy (0.488) and Reliability (0.659). However, the correlation with Agility (0.851) is close but still below the square root of its AVE, indicating some overlap but still supporting Robustness's discriminant validity. All constructs show good discriminant validity, therefore implying that the items that are not supposed to be related are actually not related.

**Table 4.3: Overview of Discriminant Validity – Fornell-Larcker Criterion**

| | AG | EMP | RE | RO |
|---|---|---|---|---|
| **AG** | **0.873** | | | |
| **EMP** | 0.688 | **0.899** | | |
| **RE** | 0.832 | 0.857 | **0.893** | |
| **RO** | 0.851 | 0.488 | 0.659 | **0.825** |

The Fornell-Larcker criterion is used to assess discriminant validity, which ensures that constructs are distinct from one another.

## Test of Hypotheses

*Testing of hypotheses 1,2,3 and 4.*

**Ho1:** There is no significant relationship between agility and reliability.
**Ho2:** There is no significant relationship between agility and empathy.
**Ho3:** There is no significant relationship between robustness and reliability.
**Ho4:** There is no significant relationship between robustness and empathy.

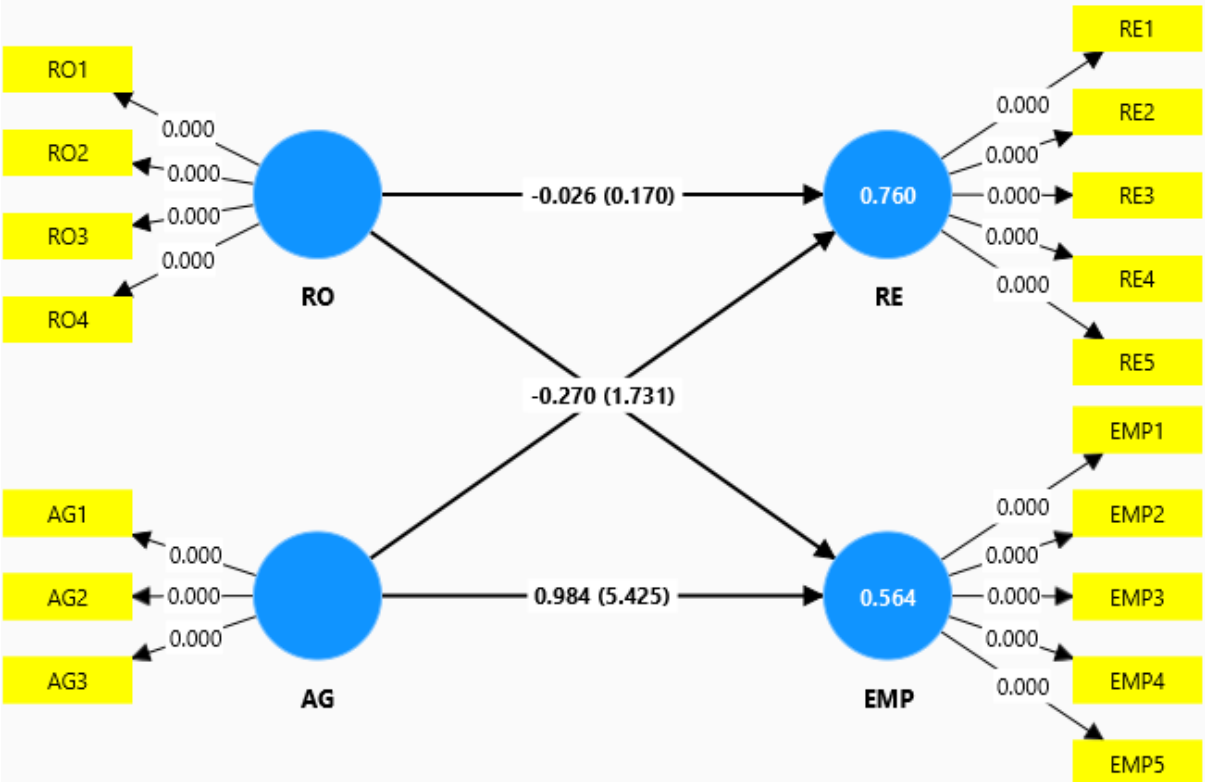

**Figure 2:** Hypotheses 1,2,3 and 4.

The results indicate that Agility (AG) has a strong and statistically significant positive impact on both Empathy (EMP) and Reliability (RE). Specifically, the path from Agility to Empathy shows a high coefficient of 0.984, with a T-statistic of 5.425 and a P-value of 0, confirming that the relationship is highly significant. Similarly, the path from Agility to Reliability has a strong coefficient of 0.896, with a T-statistic of 5.377 and a P-value of 0, indicating a significant positive influence. These findings suggest that organizations with high agility tend to also exhibit high empathy and reliability in their service delivery.

On the other hand, the relationship between Robustness (RO) and Empathy (EMP) is negative, with a coefficient of -0.27. While the T-statistic of 1.731 is above the 1.96 threshold, the P-value of 0.083 indicates that the relationship is not statistically significant at the 5% level, suggesting a weak and marginally significant effect. Furthermore, the relationship between Robustness and Reliability is very weak, with a coefficient of -0.026, a T-statistic of 0.17, and a P-value of 0.865, which confirms that there is no significant effect of Robustness on Reliability. These results highlight that Robustness does not have a strong or statistically significant impact on either Empathy or Reliability in the model.

**Table 4: Summary of hypotheses findings**

| | Original sample (O) | Sample mean (M) | Standard deviation (STDEV) | T statistics (\|O/STDEV\|) | P values |
|---|---|---|---|---|---|
| **AG -> EMP** | 0.984 | 0.95 | 0.181 | 5.425 | 0.000 |
| **AG -> RE** | 0.896 | 0.864 | 0.167 | 5.377 | 0.000 |
| **RO -> EMP** | -0.27 | -0.236 | 0.156 | 1.731 | 0.083 |
| **RO -> RE** | -0.026 | 0.005 | 0.154 | 0.17 | 0.865 |

## Discussion of Findings

### Agility and Empathy

The significant positive relationship between Agility (AG) and Empathy (EMP), with a path coefficient of 0.984 and a T-statistic of 5.425, is a notable finding. It indicates that organizations with high levels of agility are more likely to demonstrate higher levels of empathy in their service delivery. For instance, Kern et al. (2019) revealed that organizations that are agile can better tailor their responses to the specific needs of customers, thereby improving their emotional connection and empathy towards them. This finding emphasizes the role of organizational agility in improving service quality dimensions, especially empathy, which is crucial for building strong customer relationships.

### Agility and Reliability

Similarly, the strong positive impact of Agility (AG) on Reliability (RE) (path coefficient of 0.896 and a T-statistic of 5.377) supports the view that agility enhances organizational reliability. This result highlights that organizations that are agile are not only quick to respond to customer needs but are also dependable in their service delivery. Research by Haeckel (2001) suggests that agility in service organizations helps to improve operational efficiency, which, in turn, enhances their reliability. Agility allows organizations to optimize resources and streamline processes, making them more consistent and dependable in delivering services. This finding aligns with past studies that have shown that agile organizations

can maintain reliability, even in uncertain or rapidly changing environments, because they are able to quickly adjust and meet customer expectations (Narasimhan et al., 2006).

**Robustness and Empathy**

The weak and marginally significant relationship between Robustness (RO) and Empathy (EMP) (with a path coefficient of -0.27 and a T-statistic of 1.731, P-value of 0.083) suggests that robustness does not strongly influence empathy in the same way that agility does. This negative yet weak relationship could be explained by the nature of Robustness, which typically refers to an organization's ability to withstand external pressures and disruptions (Lengnick-Hall & Beck, 2005). While robustness may be crucial for ensuring stability and continuity, it may not necessarily foster emotional or personalized responses to customer needs, which are central to Empathy. Past research by Aghina et al. (2017) suggests that while robustness may help organizations endure and function effectively in challenging circumstances, it does not directly contribute to service aspects that require human connection, such as empathy. Therefore, the marginal significance of this relationship suggests that robustness alone is insufficient in driving empathy within organizations.

**Robustness and Reliability**

The lack of a significant relationship between Robustness (RO) and Reliability (RE) (path coefficient of -0.026, T-statistic of 0.17, and P-value of 0.865) is consistent with previous findings that indicate robustness does not necessarily translate into increased reliability. Robustness, which is primarily concerned with resilience in the face of challenges, may not always correlate with consistent and dependable service delivery. Reliability, as a service quality dimension, focuses on the consistency and dependability of service over time (Parasuraman et al., 1988). Research by Dyer and Singh (1998) suggests that reliability is more closely tied to an organization's operational efficiency and the quality of its processes rather than its capacity to endure disruption. Therefore, this result implies that while robustness is critical for surviving external shocks, it does not directly invariably influence the Reliability of services, as seen in the non-significant path.

**Conclusion**

This study's findings highlight Agility as a crucial element that improves both Empathy and Reliability in service delivery. The robust positive correlations between Agility and these two measures of service quality demonstrate the significance of organisational agility in enhancing customer-centric results. Nonetheless, the tenuous associations between Robustness and Empathy as well as Reliability indicate that, although robustness is crucial for sustaining organisational stability, it does not inherently enhance the quality of interactions or the reliability of service delivery. These findings enhance the existing discourse on the influence of organisational resilience on service quality and elucidate how several characteristics of resilience—agility and robustness—impact the overall service experience.

**Implication**

**Agility and Empathy**

**Practical Implications**: The robust correlation between Agility (AG) and Empathy (EMP) indicates that organisations have to prioritise enhancing their agility to better comprehend and address the emotional and psychological demands of their clients. This entails investing in training and technology that provide rapid answers to customer input, dynamic adjustments in service delivery, and cultivating a culture that emphasises customer-centricity. Organisations may employ agile approaches to enhance the velocity of decision-making, thereby providing customised solutions that demonstrate empathy towards consumers. This is especially significant in service sectors where client pleasure and emotional engagement are paramount.

**Knowledge Implications**: The findings enhance comprehension of how organisational agility may directly enhance service quality aspects, including empathy. This research builds upon prior studies that associated agility with operational results by demonstrating that agility may also enhance relationship outcomes, such as empathy, which are crucial in sectors including healthcare, retail, and hospitality. The

paper presents actual evidence that agility is not only operationally advantageous but also fosters a competitive advantage through improved customer connections.

**Agility and Reliability**

**Practical Implications**: The significant beneficial influence of Agility (AG) on Reliability (RE) underscores the necessity of agility in ensuring consistent and reliable service delivery. Organisations should prioritise enhancing their operational flexibility and responsiveness to continuously satisfy client expectations. In healthcare, this may entail implementing flexible staffing models or adaptive service standards to maintain reliability during peak periods or unanticipated events, such as a public health crisis. This will prevent service delays or failures, thereby enhancing overall customer trust and pleasure.

**Knowledge Implications**: The findings enhance the existing knowledge by illustrating that agility fosters not just responsiveness but also the capacity to deliver trustworthy and reliable services. Prior literature predominantly focused on agility's function in navigating uncertainty; nevertheless, this study underscores how agility may concurrently enhance dependability, which is essential for sustaining long-term client relationships. This concept enhances our comprehension of how organisations might attain both responsiveness and reliability in a dynamic service context.

**Robustness and Empathy**

**Practical Implications**: The tenuous and weakly significant correlation between Robustness (RO) and Empathy (EMP) indicates that, although robustness is crucial for maintaining organisational stability, it does not directly augment empathy in service delivery. Consequently, organisations should not depend exclusively on robustness measures, such as sustaining strong institutional frameworks or resources, to cultivate customer connections. They should concentrate on enhancing the emotional intelligence of their personnel and developing service models that prioritise consumer requirements. Training programs emphasising emotional intelligence and empathy can enhance relationships, especially in industries such as healthcare and customer service.

**Knowledge Implications**: This research suggests that Robustness, which emphasises tolerance to external shocks, does not inherently lead to improved customer relations or empathy. It indicates the necessity to enhance resilience theories by differentiating between the elements of organisational resilience that promote operational stability, such as robustness, and those that cultivate emotional and relational results, such as agility and responsiveness. This finding may assist future research in enhancing models of organisational resilience to more accurately reflect the complexities of customer-centric outcomes.

**Robustness and Reliability**

**Practical Implications**: The absence of a substantial correlation between Robustness (RO) and Reliability (RE) suggests that organisations should not presume that their ability to manage external disturbances inherently ensures service reliability. Although resilience may assist organisations in weathering crises, it may not enough to guarantee constant service reliability. Organisations should prioritise process optimisation, ongoing quality enhancement, and personnel training to increase reliability. Organisations may need to establish quality control methods or service protocols that guarantee consistency despite external obstacles, rather than depending exclusively on robustness to provide reliability.

**Knowledge Implications**: This outcome contradicts the presumption that organisational resilience, particularly in its Robustness aspect, directly affects dependability. It indicates that additional facets of resilience, such as Agility, may be more crucial in guaranteeing constant service delivery. This discovery enhances resilience theory by emphasising that robustness alone may be inadequate for achieving elevated dependability in service environments. Future study should investigate the interplay of various forms of resilience, such as agility and flexibility, in shaping service quality aspects, including dependability.

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