

## Development of Learning Organisation Model for Survival of Quantity Surveying Firms in Nigeria

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### **Abstract:**

*The survival of Quantity Surveying Firms (QSFs) in Nigeria has been undermined by rising competition, economic pressures, and the absence of an effective learning organisation model that promotes continuous learning and adaptability. This study develops and validates a context-specific Learning Organisation (LO) model for enhancing the survival of Quantity Surveying Firms (QSFs) in Nigeria. A quantitative, explanatory research design was adopted. Primary data were collected through a structured questionnaire administered to registered QSFs in Abuja and Kaduna, Nigeria. A total of 474 valid responses were analysed using SPSS and Smart PLS 3. Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed to test hypothesised relationships and develop a predictive learning organisation model. The results reveal that learning leadership significantly influences learning organisation characteristics, while learning environment has a direct and significant effect on organisational survival. Learning organisation characteristics strongly predict firm survival and mediate the effect of leadership on survival outcomes. In contrast, learning processes show no significant direct influence on learning organisation characteristics. The validated model demonstrates strong explanatory power and predictive relevance. The study is limited by its cross-sectional design and focus on two major Nigerian cities, which may constrain wider generalisation. Future research could apply longitudinal approaches, test the model across other regions or professional service firms, and explore moderating effects such as firm size, digital maturity, or market conditions.*

**Keywords:** Learning Organisation, Learning Leadership, Organisational Survival, Quantity Surveying Firms, PLS-SEM

### **1. Introduction**

The construction industry plays a crucial role in national development by providing and sustaining infrastructure that boosts citizens' quality of life and contributes significantly to economic growth and employment (Isang, 2023). In Nigeria, this sector contributes approximately 5% to the GDP but suffers with inefficiencies like cost overruns, project delays, and poor quality, mainly due to weak project management, limited skilled manpower, regulatory

challenges, and an underperforming procurement system (Costarchemdigital, 2025; IHEME and Chiagorom, 2018).

Globally, Quantity Surveying (QS) practices face survival challenges, with firms in some countries adopting advanced learning practices, digital systems, and structured professional development to maintain competitiveness (Diaz, 2023). In Nigeria and South Africa, strategies like service diversification and basic knowledge management prevail but lack the sophistication seen in developed contexts (Moyanga and Agboola, 2020; Okereke et al., 2022).

Central to thriving in such turbulent environments is the concept of a learning organisation, built on three foundational building blocks: Learning Environment, Learning Processes, and Learning Leadership (Irina, 2022; Hussain et al., 2021). These foster continuous learning, innovation, and strategic adaptation by promoting psychological safety, knowledge sharing, and leadership aligned with continuous development (Edmondson, 2018; Park and Joo, 2022).

These foundational building blocks collectively nurture learning organisation characteristics, which are the fundamental traits enabling an organisation to continuously learn, adapt, and improve through effective knowledge acquisition, sharing, and application (Edmondson, 2018; Park and Joo, 2022).

Despite the potential of Quantity surveying in Nigeria, firms mainly rely on informal learning, short term adjustments, and unsustainable fee competition, facing high barriers to technology adoption, ineffective knowledge management, poor public recognition, and corruption (Olatunde et al., 2023; Buba, 2025). The COVID 19 pandemic further exposed these weaknesses, underscoring the importance of agile leadership and a culture of learning and innovation, which some firms managed to harness successfully (Modiba and Harinarain, 2024).

Learning oriented firms have been shown to outperform peers in growth, responsiveness, and client loyalty (Disha, 2024; Wanyama and Kinyua, 2025). Yet, Nigeria's Quantity Surveying firm's survival strategies remain fragmented and short term, lacking a structured foundation for resilience (Moyanga et al., 2024; Olatunde et al., 2023; Moyanga et al., 2025).

Existing learning organisation models are mostly imported and unadapted to Nigeria economic, cultural, and institutional realities, limiting their effectiveness (Dorda and Shtëmbari, 2020; Mousa *et al.*, 2022). Therefore, this study aims to develop a contextually relevant learning organisation model to enhance the survival of Quantity surveying firms in Nigeria by bridging theory and practice, promoting resilience and innovation in the volatile construction sector.

## 2. Literature review

### 2.1 Theoretical framework

A theoretical framework serves as a foundational blueprint guiding research by situating a study within the context of existing theories and conceptual models relevant to the phenomena under investigation (Collins and Stockton, 2018). It provides a structured lens through which researchers view their research questions and hypotheses, enabling focused inquiry and coherence throughout the study (Kivunja, 2018; Solichah *et al.*, 2025). Van der Walddt, (2024) emphasise that a theoretical framework consists of specific theories related to aspects of human endeavor, which provide explanatory power for understanding events or behaviors in research. A well-developed theoretical framework anchors the research in scholarly traditions, connects key variables, and justifies methodological choices (Sarah, 2022). Theoretical frameworks serve as foundational lenses that evolve by integrating interdisciplinary insights and adapting to emerging technological and contextual changes. This adaptability ensures frameworks remain pertinent and effective across dynamic research environments. Modern approaches emphasise data driven and grounded theory methodologies to craft responsive frameworks that guide research design, analysis, and real world application effectively (Luft, 2022). Such frameworks articulate clear conceptual foundations, identify relationships among variables, and incorporate assumptions that guide analysis and interpretation (Adom *et al.*, 2018). Theoretical frameworks differ from conceptual frameworks in their foundation drawing explicitly from established theory rather than evolving primarily from empirical concepts or researcher insight (Varpio *et al.*, 2020). Critically, frameworks assist researchers to avoid deviation from accepted theories, build predictability into hypotheses, and navigate complex phenomena systematically (Kivunja, 2018; Sarah, 2022). The strength of a theoretical framework lies in its ability to contextualise research within the broader scholarly dialogue, facilitate synthesis of prior research, and enhance the interpretation and generalisability of findings (Edmondson, 2018). Learning theories have been developed to describe how people and animals learn; to understand the complex process of learning. There are common theories, namely; behaviorism (Skinner, 1953), cognitivism (Gagne, 1984), constructivism (Boyle, 1997), experiential (Kolb, 1984), humanistic (Huitt, 2009) and social situational (Bandura, 1977) learning theories. These theories inform the design of effective learning environments that accommodate diverse learning needs, promote active engagement, and support continuous learning essential for personal and organisational success in dynamic contexts (Edmondson, 2018; Goh, 2020).

## 2.2 Conceptual Framework

A conceptual framework is a structured model that a researcher develops to explain the natural progression of the phenomenon under study (Adom *et al.*, 2018). It integrates key concepts, empirical findings, and critical theories, helping to organise and systematise the existing knowledge base relevant to the research focus (Salawu *et al.*, 2023). Essentially, it represents the researcher's explanation of how the research problem will be explored.

The conceptual framework provides a comprehensive and integrated way of viewing the study, often presented either graphically or narratively to illustrate the relationships between the main variables or constructs (Shields and Whetsel, 2017; Adom *et al.*, 2018). The framework also facilitates specification and precise definition of key concepts within the research problem, helping to delimit the scope effectively (Yousaf, 2023). Its graphical or narrative form elucidates the key constructs and presumes the relationships among them, aiding in constructing a coherent worldview of the phenomenon (Adom *et al.*, 2018).

Among its many benefits, the conceptual framework helps to justify the research topic's significance by highlighting underlying assumptions and setting clear pathways to address the problem and Particularly, it is valuable when existing theories are inadequate or inapplicable, providing a bespoke structure tailored to the unique demands of the study (Salawu *et al.*, 2023).

### 2.2.1 Discussion of the conceptual framework

The conceptual framework developed in this study presents a structured and systematic approach for understanding how a learning organisation model can support the survival of quantity surveying firms in Nigeria. The framework is anchored on the interrelationship between five core constructs: Learning Environment (LE), Learning Leadership (LL), Learning Processes (LP), Learning Organisation Characteristics (LOC), and Organisational Survival (OS). These constructs are positioned in a logical flow that captures the transformation of internal learning capabilities into tangible outcomes that enhance organisational sustainability.

The conceptual framework identifies Learning Environment (LE), Learning Leadership (LL), and Learning Processes (LP) as the independent variables, which represent the key factors driving organisational dynamics within quantity surveying firms. These variables influence the development of Learning Organisation Characteristics (LOC), an internal organisational outcome reflecting cultural traits such as shared vision, teamwork, and adaptability. LOC influence on Organisational Survival (OS), are treated as dependent variables in the framework. LOC acts as a mediating variable that transforms the effects of LE, LL, and LP into tangible organisational resilience

and sustained competitiveness, while OS represents the ultimate measure of a firm's ability to maintain relevance and functionality in the face of internal and external challenges.

At the foundation of the framework lies the learning environment, which refers to the internal atmosphere that supports or inhibits learning within the organisation. This includes elements such as psychological safety, appreciation of diversity, openness to new ideas, availability of time for reflection, and the presence of supportive technological and training systems. The learning environment plays a critical role in shaping how individuals and teams engage with knowledge and innovation. In the context of quantity surveying firms, a well-structured learning environment encourages collaboration, experimentation, and continuous engagement, all of which are essential for adapting to the dynamic nature of the construction industry.

Learning leadership which represents the behaviours, attitudes, and strategies adopted by organisational leaders to foster a learning culture. Leaders influence learning by promoting shared vision, tolerating mistakes, delegating responsibilities, empowering subordinates, and supporting continuous development. Effective leadership, particularly in quantity surveying firms, helps in creating alignment between strategic objectives and employee actions. By nurturing a conducive climate for learning and motivating staff to engage in reflective practices, leadership becomes a critical enabler in the transformation process from learning to performance.

Closely linked to the learning environment is learning processes form the operational backbone of the model? These processes include the mechanisms through which knowledge is acquired, shared, and applied across the organisation. Examples include experimentation, mentoring, feedback systems, peer learning, formal training, and reflection. The framework also recognises the importance of psychological and emotional factors such as motivation, self-efficacy, and team dynamics in influencing learning. In quantity surveying firms, learning processes must be agile and inclusive, ensuring that knowledge transfer and application are continuous, strategic, and aligned with industry demands. The effectiveness of these processes determines the extent to which the organisation can adapt to changes and maintain competitiveness.

The interaction among the learning environment, learning leadership, and learning processes gives rise to learning organisation characteristics. These characteristics encompass the internal traits, values, and behaviours that define a mature learning organisation. Such characteristics include shared vision, open communication, teamwork, continuous improvement, adaptability, and a commitment to innovation. They represent the internal cultural transformation that occurs when learning is institutionalised within the firm. In the quantity surveying profession, the presence of these

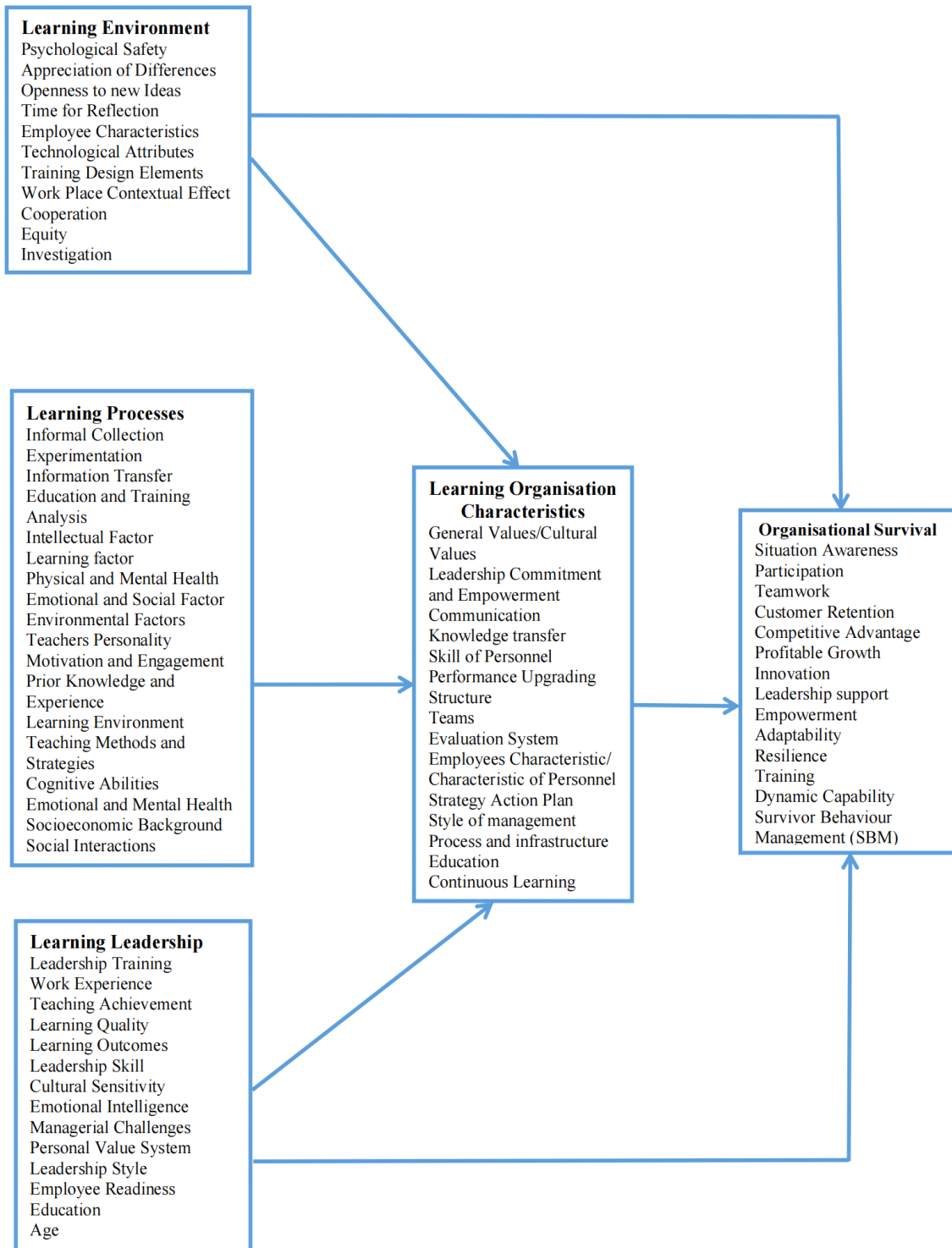
characteristics ensures that firms are not only reactive but proactive, capable of identifying and responding to opportunities and threats effectively.

At the apex of the framework is organisational survival, which is the ultimate outcome and dependent variable. Organisational survival refers to a firm's ability to maintain relevance, competitiveness, and functionality over time. It is characterised by indicators such as strategic foresight, customer retention, teamwork, innovation, leadership support, and adaptability. The framework posits that the survival of quantity surveying firms is significantly influenced by the extent to which they exhibit the characteristics of a learning organisation. In essence, firms that build strong learning capabilities are better equipped to respond to changes, leverage opportunities, and mitigate risks in a highly competitive environment.

The flow of influence in the conceptual framework begins with the foundational elements learning environment, learning leadership, and learning processes which collectively shape the organisation's learning characteristics. These characteristics in turn drive the firm's ability to survive, adapt, and grow. The conceptual framework thus presents a causal and dynamic system where continuous learning fosters organisational resilience. It demonstrates that learning should not be treated as a one off initiative but as a strategic process embedded in all aspects of the firm's operations.

In the specific context of quantity surveying firms in Nigeria, the conceptual framework is both timely and relevant. The industry is confronted with challenges such as economic volatility, regulatory shifts, technological disruption, and talent attrition. This framework addresses these challenges by offering a roadmap for fostering learning agility, institutional resilience, and competitive strength. It serves as a practical guide for firm leaders, policymakers, and stakeholders seeking to improve organisational performance through learning.

In conclusion, the conceptual framework provides a robust theoretical foundation for understanding the role of learning in organisational survival. It offers a comprehensive view of how internal capacities can be harnessed to drive sustainable success in professional service firms. By focusing on the interconnections between learning inputs, organisational culture, and survival outcomes, the conceptual framework not only advances academic knowledge but also offers practical implications for the development and transformation of quantity surveying firms in Nigeria. In view of this, the Figure 1 shows the conceptual framework for this study based on the theoretical frameworks reviewed.



**Figure 1: Conceptual Framework for Organisational survival.**

Source: Researcher’s Construct (2023)

### 2.3 Hypothesis Development

Based on the views of different authors on the subject matter of this research, alternative hypotheses were drawn out using the objectives and the research

questions. This enables the study to conclude better on the variables involved in the framework's constructs.

**H<sub>1</sub>** Research confirms that a supportive learning environment fosters collaboration, knowledge sharing, and innovation, which are essential for the development of a strong learning organisation culture. Organisations with robust learning environment embed shared vision and continuous improvement, enhancing adaptability in volatile environments (Kanyamukenge and Kyongo, 2023; Lin, 2023; Sağsan *et al.*, 2024). Learning environments that promote psychological safety, resource availability, and collaborative climates drive improved learning outcomes and organisational capabilities (Boitet *et al.*, 2024).

**H<sub>2</sub>** Effective learning processes enable organisations to structure knowledge acquisition, processing, application, strengthening teamwork, personal mastery, and continuous development (Sağsan *et al.*, 2024; Ivan, 2025). Learning processes operationalise the dynamic mechanisms through which learning becomes embedded within organisational systems and culture, directly influencing organisational learning capacity and innovation (Ju *et al.*, 2021).

**H<sub>3</sub>** Leaders who foster learning cultures through transformational and adaptive leadership styles create environments of empowerment, knowledge sharing, and innovation. Leadership commitment significantly predicts organisational learning performance and culture (Gandolfi and Stone, 2018; Dobrzinskiene *et al.*, 2022; Karimi *et al.*, 2023).

**H<sub>4</sub>** Firms investing in supportive learning environments and active learning leadership demonstrate higher agility, innovation, and resilience, enabling them to navigate market challenges and seize opportunities effectively. These factors collectively contribute to increased organisational survival rates in competitive and rapidly evolving markets (Edmondson, 2018; Hassan, 2024; Mohammad *et al.*, 2024).

**H<sub>5</sub>** Organisations exhibiting strong learning cultures with shared vision, team learning, systems thinking, and continuous learning are better positioned to adapt strategically and sustain competitive advantage, resulting in improved survival and growth outcomes (Akpa *et al.*, 2021; Kittel and Seufert, 2023; Hael *et al.*, 2024).

Considering the research questions in chapter one and the reviews of literature in chapter two, the following null hypotheses are therefore formulated;

**H<sub>01</sub>** Learning environment does not have significant impact on learning organisation characteristics.

**H<sub>02</sub>** Learning processes does not have significant effect on learning organisation characteristics.

**HO<sub>3</sub>** Learning leadership does not have significant influence on learning organisation characteristics.

**HO<sub>4</sub>** There is no significant relationship between learning environment, learning leadership and organisational survival.

**HO<sub>5</sub>** There is no significant relationship between learning organisation characteristics and organisational survival.

### **3. Methodology**

The study adopted a positivist research philosophy and a quantitative, explanatory research design to examine the relationships between learning organisation constructs and the survival of Quantity Surveying Firms (QSFs) in Nigeria. This approach was considered appropriate for testing hypothesised relationships among latent variables and for developing a statistically validated learning organisation model grounded in empirical data.

The population comprised registered Quantity Surveying Firms operating in Nigeria, with a sampling frame of 190 firms obtained from professional registration records. The study focused on firms located in Abuja and Kaduna, selected due to their high concentration of active QSFs and regional representation of Nigeria's construction industry. Using established sample size determination procedures and adjusting for non-response bias, 236 firms were targeted. Three questionnaires were administered per firm to capture perspectives at strategic, management, and operational levels, recognising the multi-level nature of organisational learning. A total of 708 questionnaires were distributed, of which 474 valid responses were retrieved, representing an effective response rate of approximately 67%. Data were collected using a structured questionnaire developed from validated constructs in learning organisation and organisational survival literature. The instrument measured five latent variables: Learning Environment (LE), Learning Processes (LP), Learning Leadership (LL), Learning Organisation Characteristics (LOC), and Organisational Survival (OS). Items were measured on a five-point Likert scale, ranging from strongly disagree to strongly agree. The questionnaire content was reviewed for clarity and relevance and aligned with prior empirical studies to ensure content validity.

Data analysis was conducted using SPSS and SmartPLS 3 software. Descriptive statistics and the Relative Importance Index (RII) were used to assess the significance of learning organisation components. Inferential analysis involved Multiple Regression Analysis (MRA) and Partial Least Squares Structural Equation Modelling (PLS-SEM) to test hypothesised relationships and develop the learning organisation model.

PLS-SEM was selected due to its suitability for complex models, predictive research objectives, and large sample sizes, as well as its robustness against non-normal data distributions. The reflective measurement model was evaluated using indicator loadings, Cronbach's alpha, composite reliability, and average variance extracted (AVE). All constructs satisfied recommended thresholds, with factor loadings exceeding 0.70, reliability coefficients above 0.70, and AVE values greater than 0.50, confirming internal consistency and convergent validity. Discriminant validity was established using the Fornell-Larcker criterion and HTMT ratio. The structural model was assessed by examining path coefficients, coefficient of determination ( $R^2$ ), effect size ( $f^2$ ), predictive relevance ( $Q^2$ ), and collinearity diagnostics (VIF). Bootstrapping with 5,000 subsamples was employed to test the statistical significance of hypothesised paths. The results demonstrated strong explanatory power and predictive relevance, supporting the development and validation of a learning organisation model for the survival of Quantity Surveying Firms in Nigeria.

#### **4. Results and Discussion of Findings**

Tables 1 and 2 shows the presentation and analysis of Section A of the questionnaire; this is the profile of the respondents and some basic questions concerning the organisations practicing learning organisation in quantity surveying firms. The frequency distributions and percentile were used to analyse Section A of the Questionnaire. Table 1 presents the distribution of respondent firms, all located in Abuja and Kaduna, with 62.7% based in Abuja and 37.3% in Kaduna. Regarding firm size, 31.6% of respondents reported having 15 - 20 employees, 20.9% have 6 - 15 employees, and 33.5% have more than 20 employees, while 13.9% have fewer than 5 employees. The respondents' years of experience within their firms vary, with 27.2% having up to 5 years, 20.3% between 6 and 10 years, 15.8% with 11 - 15 years, 13.3% with 16 - 20 years, and 23.4% possessing over 20 years of experience. Additionally, the average years of experience of respondents within their firm's show that 22.8% have between 0 - 5 years, 35.4% have 6 - 10 years, 14.6% have 11 - 15 years, 5.7% have 16 - 20 years, and 21.5% have more than 20 years of average experience. The demographic profile of the respondents implies that the study's findings are grounded in a diverse and representative sample of quantity surveying firms in Abuja and Kaduna, enhancing the generalisability of the results within these key regions. The variation in firm sizes and the broad range of employee experience levels suggest that

insights are drawn from multiple organisational contexts and stages of career development, which likely influence how learning organisation practices are implemented and perceived. This diversity strengthens the study's ability to capture comprehensive perspectives on learning processes and organisational survival, making the findings relevant for both established and emerging firms in the sector.

**Table 1: Demographic Information of the Respondents (A)**

<b>Demographic information</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Locations of the firms</b>		
Abuja	297	62.7
Kaduna	177	37.3
Total	474	100
<b>Number of Employees</b>		
15 - 20 years	150	31.6
6 – 15 years	99	20.9
Above 20 years	159	33.5
Below 5	66	13.9
Total	474	100
<b>Years of experience in the firm</b>		
0 – 5 years	129	27.2
11 – 15 years	75	15.8
16 – 20 years	63	13.3
6 – 10 years	96	20.3
Above 20 years	111	23.4
Total	474	100
<b>Average years of experience of respondent</b>		
0 – 5 years	108	22.8
11 – 15 years	69	14.6
16 – 20 years	27	5.7
6 – 10 years	168	35.4
Above 20 years	102	21.5
Total	474	100

Source: Researcher's field survey (2025)

Table 2 presents the highest academic qualifications of the respondents, showing that 10.1% hold PhDs, 39.2% possess postgraduate degrees (M.Sc./M.Tech.), and 40.5% have undergraduate degrees (B.Sc./B.Tech). Additionally, 7% hold HNDs, 1.9% have National Diplomas (ND), while 1.3% have other qualifications. The table also details respondents'

professional qualifications, with 25.3% classified as Fellows, 53.8% as Members, 10.8% as Probationers, and 10.1% falling under other categories. Regarding job positions within their firms, 7% are Directors, 5.1% Assistant Directors, 28.5% Managers, 8.2% Assistant Managers, 26.5% Quantity Surveyors, 20.3% Assistant Quantity Surveyors, and 4.4% Graduate Quantity Surveyors. This distribution indicates that the majority of respondents have substantial professional experience and expertise, enhancing the reliability of their feedback.

Further, the size of projects managed by the firms, based on the Federal Ministry of Works classification, reveals that 49.4% of firms handle large projects (above 250 million Naira), 24.1% handle medium projects (51 - 250 million Naira), 24.7% manage small projects (0 - 50 million Naira), and 1.9% fall outside this classification. Regarding the recognition of learning organisation as a survival source, 48.1% of respondents agreed, 44.3% strongly agreed, while 5.1% disagreed, and 2.5% strongly disagreed.

The broad educational and professional qualifications of respondents indicate a knowledgeable and experienced sample, essential for capturing informed perspectives on learning organisation practices and survival strategies within quantity surveying firms. The varied ranks and positions further ensure that insights are drawn from decision makers and practitioners at multiple organisational levels, enriching the study's relevance. The significant proportion of firms managing large scale projects suggests that the findings are applicable to firms with considerable operational capacity, potentially facing complex challenges requiring advanced learning and adaptive capabilities. The strong consensus recognising learning organisation as vital for survival underscores the perceived importance of learning practices in sustaining competitive advantage in the industry. Collectively, these demographic insights affirm the credibility and applicability of the study's conclusions across diverse organisational contexts in the Nigeria's quantity surveying sector.

**Table 2: Demographic Information of the Respondents (B)**

<b>Demographic information</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Highest level of educational qualification attained</b>	<b>Frequency</b>	<b>Percentage</b>
PhD	48	10.1
M.sc/M.tech	186	39.2

B.sc/B.tech	192	40.5
HND	33	7
ND	9	1.9
Others	6	1.3
Total	474	100
<b>Highest level of professional qualification attained</b>		
Fellow	120	25.3
Member	255	53.8
Others	48	10.1
Probation	51	10.8
Total	474	100
<b>Rank/Designation/Position in the firm</b>		
Director	33	7
Assistant Director	24	5.1
Manager	135	28.5
Assistant Manager	39	8.2
Quantity Surveyor	126	26.5
Assistant Quantity Surveyor	96	20.3
Graduate Quantity Surveyor	21	4.4
Total	474	100
<b>Size of projects handled by your firm as indicated by the Federal Ministry of works classification</b>		
Large (Above 250 million Naira)	234	49.4
Medium (51-250 million Naira)	114	24.1
Small (0-50 million Naira)	117	24.7
Not Applicable	9	1.9
Total	474	100
<b>Do you recognize LO as source of survival?</b>		
Agree	228	48.1
Disagree	24	5.1
Strongly Agree	210	44.3
Strongly Disagree	12	2.5
Total	474	100

Source: Researcher's field survey (2025)

#### 4.1 Structural model path coefficient (hypothesis testing)

The assessment of the relevance and significance of the structural relationships involved in the model. PLS-SEM provides a path coefficient among the constructs that represent the hypothesized relationship of the constructs in the model. The specific hypothesized relationships of the constructs in the model, as shown in Figure 4.1 are discussed as follows. The path coefficient in Structural Equation Modeling (SEM) ranges from approximately  $-1$  to  $+1$ . Values close to  $+1$  indicate a strong positive relationship between constructs, while values near  $-1$  usually suggest a weak or insignificant relationship (Jony and Lopez, 2021; Ramayah *et al.*, 2023). The significance of these relationships is assessed by t-values or p-values obtained through bootstrapping. Common thresholds for t-values are 1.65, 1.96, and 2.57, which correspond to significance levels of  $p \leq 0.10$ ,  $p \leq 0.05$ , and  $p \leq 0.01$  respectively (Lai *et al.*, 2022; Ponomareva *et al.*, 2022; Cheah *et al.*, 2022). These standards help researchers to confidently interpret the strength and significance of the relationships between latent constructs.

***H<sub>01</sub>: There is no significant impact of learning environment on learning organisation characteristics.***

The relationship between learning environment and learning organisation characteristics has a p-value = 0.264, which is greater than 0.05 with a t-value of 1.118 and a path coefficient of 0.178, which signifies a positive and not statistically significant relationship between them, and thus  $H_{01}$  was not supported at the 5% level.

Therefore, the stated null hypothesis was accepted and thus implies that learning environment has no significant impact on learning organisation characteristics of quantity surveying firms in Nigeria.

***H<sub>02</sub>: There is no significant relationship between learning environment and organisational survival.***

The relationship between the learning environment and organisational survival has a p-value = 0.000, which is less than 0.05 with a t-value of 2.3502 and path coefficient of 0.406, which signifies a positive and statistically significant relationship between them, and thus  $H_{02}$  is supported.

Therefore, the null hypothesis was rejected and this implies that there is a statistically significant relationship between learning environment and organisational survival.

***H<sub>03</sub>: There is no significant relationship between learning leadership and learning organisation characteristics***

The relationship between learning leadership and learning organisation characteristics has a p-value = 0.024, which is less than 0.05 with a t-

value of 1.8521 and a path coefficient of 0.354, which signifies a positive and statistically significant influence between them, and thus  $H0_3$  was not supported.

Therefore, the stated null hypothesis was rejected and implies that learning leadership has a statistical significant influence on learning organisation characteristics.

***H0<sub>4</sub>: There is no significant relationship between learning leadership and organisational survival***

The relationship between learning leadership and organisational survival has a p-value = 0.195, which is greater than 0.05 with a t-value of 0.6945 and a path coefficient of -0.040, which signifies a positive and not statistically significant relationship between them, and thus  $H0_4$  is supported.

Therefore, the stated null hypothesis was accepted and thus implies that no statistically significant relationship between learning leadership and organisational survival.

***H0<sub>5</sub>: There is no significant relationship between learning organisation characteristics and organisational survival.***

The relationship between learning organisation characteristics and organisational survival has a p-value = 0.0006, which is less than 0.05 with a t-value of 3.970 and a path coefficient of 0.576, which signifies a positive and statistically significant relationship between them, and thus  $H0_5$  is supported.

Therefore, the stated null hypothesis was rejected and thus implies a statistically significant relationship between learning organisation characteristics and organisational survival.

***H0<sub>6</sub>: There is no significant relationship between learning processes and learning organisation characteristics***

The relationship between learning processes and learning organisation characteristics has a p-value = 0.132, which is greater than 0.05 with a t-value of 9.665 and a path coefficient of 0.279, which signifies a positive and no statistically significant effect between them, and thus  $H0_6$  is not supported.

Therefore, the stated null hypothesis was accepted and thus implies that learning processes has no statistically significant effect on learning organisation characteristics.

Out of the six null hypotheses tested,  $H0_1$ ,  $H0_4$ , and  $H0_6$  were supported, indicating that the learning environment has no significant impact on

learning organisation characteristics, there is no significant relationship between learning leadership and organisational survival, and learning processes do not significantly affect learning organisation characteristics. In contrast,  $H0_2$ ,  $H0_3$ , and  $H0_5$  were not supported, revealing a statistically significant positive effect of the learning environment on organisational survival, learning leadership significantly influences learning organisation characteristics, and a significant relationship exists between learning organisation characteristics and organisational survival among quantity surveying firms in Nigeria.

The findings imply that in Nigeria's quantity surveying firms, the learning environment and learning organisation characteristics are critical drivers of organisational survival, highlighting the need for firms to cultivate these areas to enhance resilience and competitiveness. The significant influence of learning leadership on learning organisation characteristics suggests that strong leadership focused on learning can shape the organisation's capacity to adapt and thrive. However, the lack of significant impact from learning processes indicates that having formalised learning activities may not be sufficient without supportive environmental and leadership factors. Thus, the study underscores prioritising a conducive learning environment and leadership commitment to foster organisational practices that sustain survival and growth in this sector.

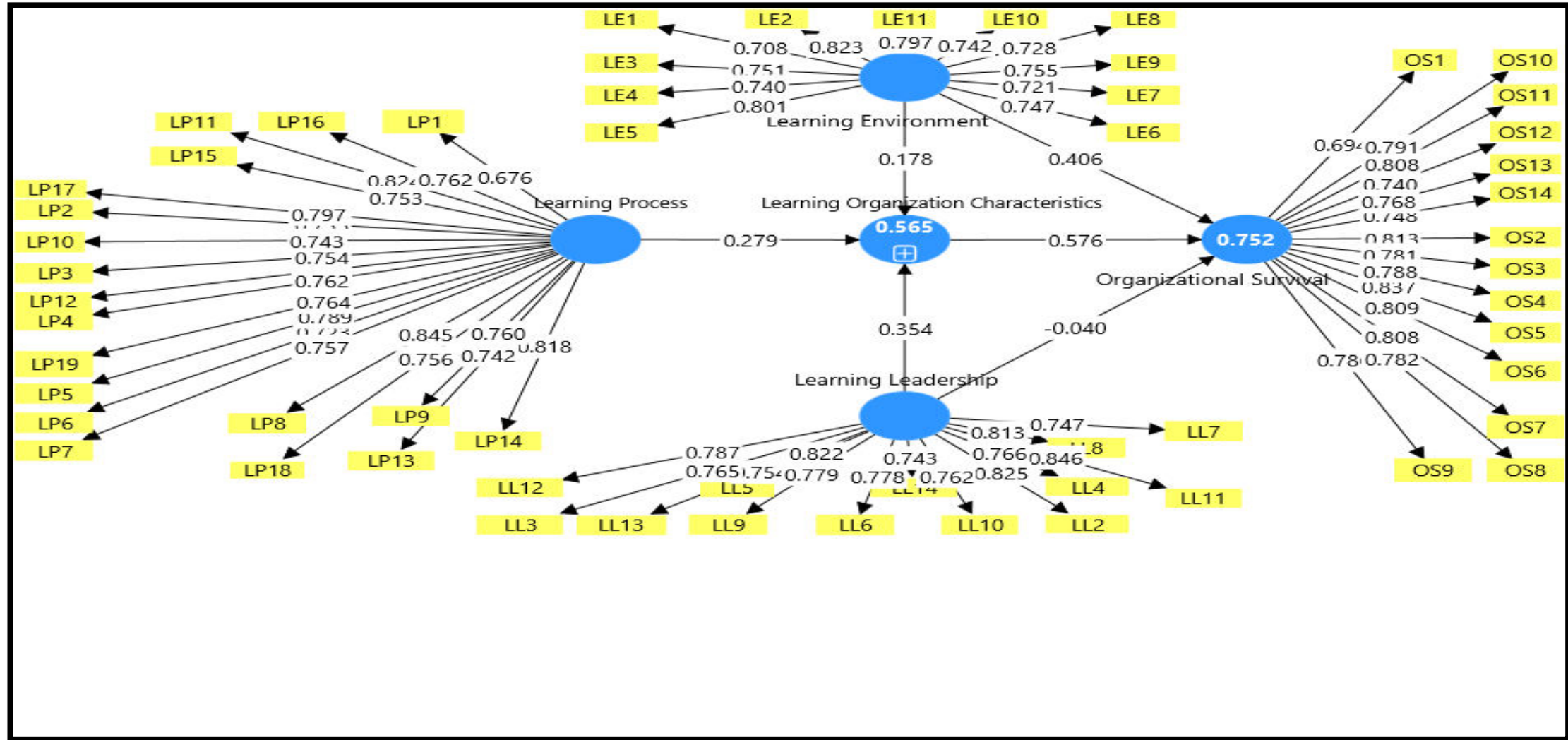


Figure 4.1: Structural Model with Path Coefficient and R<sup>2</sup>

Source: Researcher’s analysis of data, (2025)

### 4.3 Effect size ( $f^2$ )

The  $f^2$  technique investigates the changes in  $R^2$  values when a specified construct is excluded from the model to examine the impact of the excluded exogenous construct on the endogenous constructs. According to Hair *et al.*, (2022), the recommended values for  $f^2$  are 0.02, 0.15 and 0.35, representing a small, medium, and large significant effect, respectively. There is no effect if the value of  $f^2$  is less than 0.02. In this study learning environment have a small effect on learning organisation characteristics, learning environment have a medium effect on organisational survival, learning leadership have a small effect on learning organisation characteristics, learning leadership have no effect on organisational survival, learning organisation characteristics have a large effect on organisational survival, learning processes have a small effect on learning organisation characteristics. However, most of the constructs of the model have a significant effect on their exogenous variables in this study as presented in Table 3. Literature supports these interpretations, recognising  $f^2$  as a valuable measure to understand individual construct impacts and guiding model improvement decisions (Mumtaz *et al.*, 2021; Hair *et al.*, 2022; Msamba and Enock, 2024)

**Table 3: Effect size ( $F^2$ )**

Constructs	Effect Size ( $F^2$ )	Decision
Learning Environment → LO Characteristics	0.0238	Small effect
Learning Environment → Organisational Survival	0.2840	Medium effect
Learning leadership → LO Characteristics	0.1002	Small effect
Learning leadership → Organisational Survival	0.0025	No effect
LO Characteristics → Organisational Survival	0.6087	Large effect
Learning Process → LO Characteristics	0.0456	Small effect

Source: Researcher's field survey (2025)

### 4.4 Predictive relevance ( $Q^2$ )

The predictive relevance ( $Q^2$ ) of a model in PLS-SEM is evaluated using a blindfolding procedure to assess how well the model predicts the endogenous constructs. A  $Q^2$  value greater than zero indicates the model has predictive relevance, meaning it can accurately predict data points not used during model estimation. According to Hair *et al.*, (2022),  $Q^2$  values are interpreted as follows:  $Q^2 \geq 0.02$  indicates small predictive relevance,  $Q^2 \geq 0.15$  indicates medium predictive relevance,  $Q^2 \geq 0.35$  indicates large or significant predictive

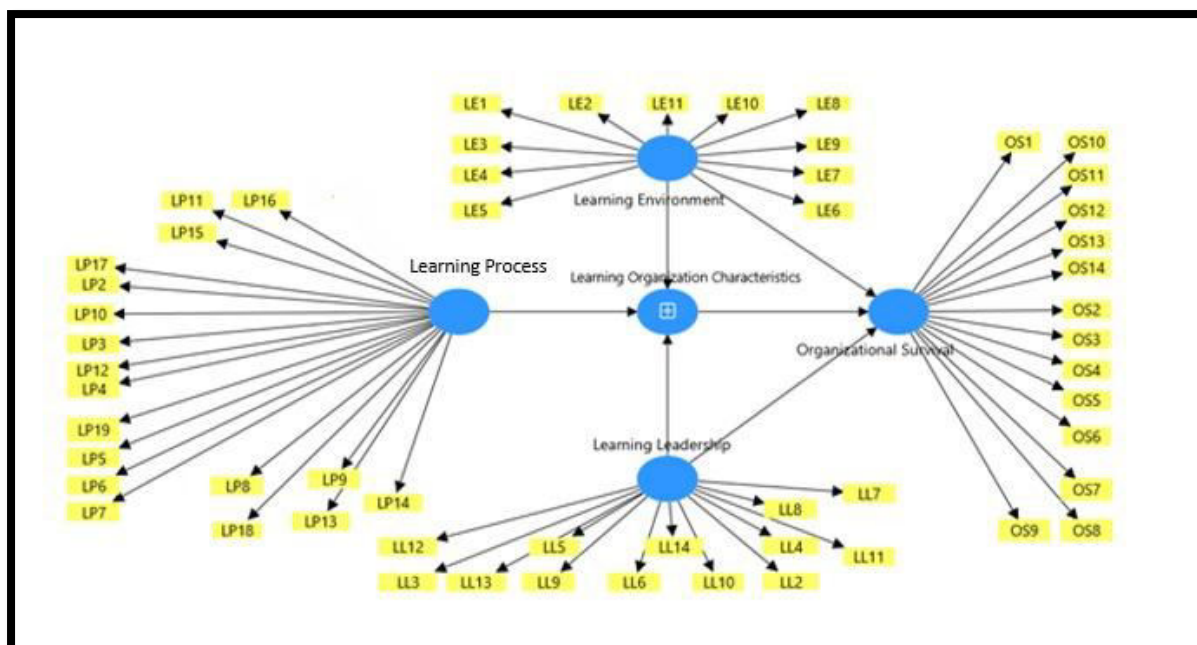
relevance, and a  $Q^2$  value of zero or below suggests the absence of predictive relevance. This interpretation helps verify that the model provides meaningful and useful predictions beyond merely fitting existing data, which is important for robust quantitative research (Mumtaz *et al.*, 2021; Hair *et al.*, 2022; Haji-Othman *et al.*, 2023)

Table 4 shows that all  $Q^2$  values are above zero and are said to be statistically significant, and it was found that learning organisation characteristics and organisational survival attained  $Q^2$  value of 0.5384 and 0.4688 respectively, which is included in the large value category, meaning that the model can explain large amount of the research data. Therefore, the model can be said to be a very good or have an excellent predictive value.

**Table 4: Predictive relevance ( $Q^2$ )**

Constructs	RMSE	MAE	$Q^2$ predict	Decision
Learning Organisation Characteristics	0.7465	0.4358	0.4688	SS
Organisational Survival	0.7039	0.4483	0.5384	SS

Source: Researcher’s field survey, (2025)



**Figure 2: Structural Model**

Source: Researcher’s analysis of data (2025))

## 5. Conclusion

This study set out to develop a learning organisation model to enhance the survival of quantity surveying firms in Nigeria. The findings show that the learning environment and learning processes do not significantly predict learning organisation characteristics in the structural model. In contrast, learning leadership emerged as the only significant contributor to learning organisation characteristics, underscoring the crucial role of leaders in shaping effective learning cultures. The final model confirms that survival in quantity surveying firms is driven by three key pathways: the direct effect of the learning environment and learning organisation characteristics, and the indirect effect of learning leadership through learning organisation characteristics. The validated learning organisation model provides a practical framework for strengthening and improving the survival prospects of quantity surveying firms in Nigeria.

### 5.1 Recommendations

Based on the findings, the following recommendations are essential to ensure the effective implementation of the developed learning organisation model for quantity surveying firms in Nigeria. The adoption of these recommendations will significantly enhance organisational learning capacity, adaptability, and long term survival.

- i. Quantity surveying firms should strengthen their leadership orientation as learning leadership showed a significant influence on learning organisation characteristics.
- ii. Firms should enhance their learning environment since it directly contribute to organisational survival.
- iii. Firms should prioritise developing strong learning organisation characteristics as this was the strongest predictor of organisational survival.

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