

Citizenship Behaviour and Business Sustainability of Small and Medium Enterprises (SMEs) in Abuja: The Moderating Role of Dynamic Capability

Lukman Ojochide Siaka^{1*} & Oyedele Matthew Oyeku²

^{*1-2}Entrepreneurial Studies Department, Veritas University, Abuja

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Abstract: This study examined the effect of Citizenship Behaviour on Business Sustainability of Small and Medium Enterprises (SMEs) in Abuja, with Dynamic Capability as a moderating variable. The study focused on four dimensions of business sustainability: financial, environmental, social, and human sustainability. A survey research design was adopted, and data were collected through structured questionnaires administered to SME owners, managers, and employees in Abuja. Out of 300 copies of the questionnaire distributed, 175 valid responses were retrieved and used for analysis. Descriptive statistics and regression analysis were employed to analyze the data and test the hypotheses. The findings revealed that Citizenship Behaviour has a positive and significant effect on the financial dimension of business sustainability. The study also found that Citizenship Behaviour significantly affects the environmental, social, and human dimensions of business sustainability among SMEs in Abuja. These findings suggest that voluntary employee support, cooperation, commitment, responsible resource use, and extra-role behaviour contribute meaningfully to the sustainability of SMEs. Furthermore, the study found that Dynamic Capability partially moderates the relationship between Citizenship Behaviour and Business Sustainability. Specifically, Dynamic Capability significantly moderated the financial, environmental, and social dimensions, but its moderating effect on the human dimension was not significant at the 5% level. The study concluded that Citizenship Behaviour is an important driver of business sustainability among SMEs in Abuja, while Dynamic Capability plays a partial moderating role. The study recommended that SME owners and managers should encourage citizenship behaviour, strengthen adaptive capabilities, promote employee involvement, and support sustainable business practices.

Keywords: *Citizenship Behaviour, Business Sustainability, Dynamic Capability, Financial Sustainability, Environmental Sustainability, Small and Medium Enterprises (SMEs).*

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Introduction

Small and Medium-sized Enterprises (SMEs) are widely recognised as important drivers of economic growth, employment creation, innovation, and social development across the world. However, their long-term sustainability is increasingly threatened by economic uncertainty, rising operational costs, technological changes, environmental pressures, and weak institutional support (Ansar et al., 2025; Long et al., 2025). These challenges affect critical sustainability dimensions, including financial performance, environmental responsibility, social legitimacy, and employee well-being (Long et al., 2025). Consequently, research attention has shifted from relying only on external interventions to examining internal organisational resources, particularly employee Citizenship Behaviour, which involves voluntary actions beyond formal job duties that improve organisational effectiveness (Wegner et al., 2025).

In resource-constrained SMEs, Citizenship Behaviour can strengthen efficiency, encourage sustainable practices, improve workplace relationships, and support the development of human capital (Ojebola et al., 2020; Efenji & Aidi, 2025). This behavioural perspective is increasingly important because SMEs often lack the financial and technological capacity required for

purely structural sustainability solutions (Fatai et al., 2024). Therefore, understanding how employee-driven behaviours contribute to sustainability has become a significant global research concern.

In developed economies such as the United States, SMEs face sustainability barriers mainly associated with financial limitations, high implementation costs, and inadequate technical knowledge. Many SMEs struggle to invest in sustainability initiatives because approximately 55% identify financial constraints as a major obstacle, while others lack expertise in measuring environmental benefits and returns on investment (Ogunyemi & Ishola, 2024). These pressures often encourage firms to focus on short-term survival rather than long-term sustainability, highlighting the importance of internal collaboration and employee participation as affordable sustainability mechanisms.

European SMEs face similar challenges, particularly in achieving the digital and green transition while managing high compliance costs (Dey et al., 2020). Although Industry 4.0 technologies and circular economy approaches provide opportunities for improving sustainability performance, successful implementation depends not only on technology but also on

employee cooperation, innovation, and adaptive workplace behaviours (Neves et al., 2025). This suggests that sustainability requires both technological capability and human commitment.

Asian SMEs continue to experience sustainability difficulties due to limited access to green finance, high investment costs, weak financial capacity, and dependence on inefficient technologies (Baharom, 2025; UNCTAD, 2025). Rapid industrialisation and limited expertise in sustainable practices have further increased environmental pressures among SMEs in countries such as India, China, and Cambodia (Ghosh & Paul, 2024; Ernawati & Fauziana, 2025). In these environments, employee initiative and cooperation provide practical approaches for gradually integrating sustainability into daily business activities.

Nigeria presents a particularly challenging environment for SME sustainability due to inflation, currency depreciation, high interest rates, energy challenges, and restricted access to finance (Majekodunmi & Idowu, 2025; Faloye & Adebajo, 2025). These economic pressures increase operating costs and often force SMEs to prioritise immediate survival over long-term sustainability strategies (Nkang, 2024). As a result, internal organisational behaviours that improve efficiency and reduce resource waste have become increasingly important.

Financial sustainability remains a critical issue among Nigerian SMEs, with previous studies mainly focusing on external factors such as funding shortages, high costs, and economic instability (Adamu et al., 2025; Abdullahi et al., 2025). However, employee Citizenship Behaviour, including cooperation and sportsmanship, may contribute to improved efficiency by reducing workplace conflict, supervision costs, and operational waste (Ojebola et al., 2020; Efenji & Aidi, 2025). Despite this potential, limited research has examined how Citizenship Behaviour directly influences SME financial sustainability, particularly in Abuja.

Environmental sustainability is another major concern because many Nigerian SMEs perceive green practices as expensive rather than strategically beneficial (Enejo, 2023; Sajuyigbe et al., 2024). While government regulations and management initiatives are important, environmental performance often depends on employees' voluntary participation in sustainable practices (NESREA, 2025; Nkang, 2024). Citizenship Behaviour may therefore provide the behavioural foundation needed to translate environmental policies into practical outcomes (Ahmad et al., 2024; Hosain et al., 2025).

The social sustainability of SMEs is also affected by weak organisational climates, limited stakeholder trust, and poor social relationships (Uchendu et al., 2024). Employee behaviours such as civic virtue, organisational support, and advocacy can strengthen social cohesion and improve the reputation of SMEs within their communities (Gupta et al., 2024; Pang et al., 2023). However, the contribution of Citizenship Behaviour to social sustainability remains insufficiently explored within the Abuja SME environment (Abdulrahman et al., 2025).

Human sustainability represents another important challenge as SMEs experience employee stress, burnout, and high turnover due to demanding working conditions and limited support systems (Majekodunmi & Idowu, 2025; Sarma & Rao, 2025). Sustainable Human Resource Management emphasises treating employees as valuable resources rather than operational costs (Madero-Gómez et al., 2023). In this context, Citizenship

Behaviour, such as voluntarily assisting colleagues and supporting organisational objectives, can enhance employee well-being and preserve human capital (Ibrahim, & Musa, 2022, Ibrahim, & Musa, 2022, Ibrahim, & Musa, 2022, Ibrahim, et al., 2022, Moses, et al 2022, Moses, et al., 2018, Ejura, et al. 2023 & Oginni, et al.2014 Ejura, et al, 2023, Moses, et al 2022, Haruna, et al 2021, Moses, et al 2018, Abdul, et al 2025 John, et al 2024, Ibrahim, et al 2022 Jibrin, et al 2022 Roselyn et al 2021) Badaru, & Moses,2025, Chamba, et al 2024, Ibrahim, et al 2024, Ejura, et al 2023, Musa, et al 2015 Jibrin, et al 201, Musa, et al 2022, Jibrin,et al 2015, Musa, et al 2013 Musa, et al 2013, Ifurueze, et al 2012, Musa, et al 2022 Hussain, et al 2024, Musa, & Moses, 2022, Tsegba, et al 2021 & Musa, (2022, Jibrin, et al 2016, Jibrin, et al 2016).

Abuja provides an important research setting because SMEs operate under severe economic pressure, infrastructure limitations, and competitive challenges (Abdullahi et al., 2025; Adamu et al., 2025). Although existing studies recognise the importance of employee behaviour and organisational capabilities, limited empirical evidence explains how Citizenship Behaviour influences integrated sustainability outcomes among SMEs in Abuja (Fatai et al., 2024). Furthermore, the moderating role of Dynamic Capability in this relationship remains unclear.

Therefore, this study examines the effect of Citizenship Behaviour on the financial, environmental, social, and human dimensions of SME sustainability in Abuja while assessing the moderating influence of Dynamic Capability. The study provides a behaviour-focused and integrated perspective on how SMEs can utilise internal human resources to strengthen sustainability and long-term business survival. To achieve the stated aim and address the identified research gaps, this study formulates these specific research questions:

- What is the effect of Citizenship Behavior of Financial Dimension of Business Sustainability?
- Does Citizenship Behavior has effect on Environmental Dimension of Business Sustainability?
- Will Citizenship Behavior have effect on Social Dimension of Business Sustainability?
- What is the effect of Citizenship Behavior on Human Dimension of Business Sustainability?
- Will Dynamic Capability moderate the relationship between Citizenship Behavior and Business Sustainability?

Literature Review

Citizenship Behaviour

Citizenship Behaviour (CB) refers to voluntary employee actions that go beyond formal job requirements and contribute positively to organisational effectiveness. Introduced by Dennis Organ in the late 1980s, CB represents the “good soldier syndrome,” where employees willingly support organisational goals without expecting direct rewards or recognition (Falola et al., 2020; Xu et al., 2019). These behaviours reflect employees' commitment, cooperation, and willingness to contribute beyond their assigned duties.

Business Sustainability

Business sustainability refers to an organisation's ability to achieve long-term success by maintaining economic strength, reducing environmental impact, and creating positive social value (Becerra-Bizarrón & Gomez-Bernal, 2025). It is commonly

explained through the Triple Bottom Line (TBL) framework, which highlights the importance of balancing three key dimensions: economic performance (Profit), environmental responsibility (Planet), and social well-being (People) (Idakwo & Adeyemi, 2025; Nkang, 2024). For Small and Medium-sized Enterprises (SMEs), sustainability involves the ability to remain competitive, adapt to changing conditions, maintain growth, and create value while managing economic, environmental, and social responsibilities (Chikwe et al., 2023).

Business sustainability is a multidimensional concept that goes beyond profitability alone. Economic sustainability focuses on maintaining financial stability, profitability, and effective use of resources to ensure future survival, while operational sustainability emphasises improving internal processes, reducing waste, and increasing efficiency (Okeyo & Wanjiru, 2023; Eze & Ugwu, 2024). Environmental sustainability involves responsible resource management and reducing negative ecological impacts, while social sustainability focuses on maintaining positive relationships with employees, customers, communities, and other stakeholders (Freeman, 1984; Idakwo & Adeyemi, 2025).

Financial Dimension of Business Sustainability

The financial dimension of business sustainability, also known as economic sustainability, refers to an organisation's ability to maintain financial stability, profitability, and effective resource management while ensuring long-term survival (Nkang, 2024). Within the Triple Bottom Line framework, it focuses on maintaining sufficient cash flow, liquidity, and returns to stakeholders while building resilience against economic challenges such as inflation and market instability (Yadav et al., 2018).

A key feature of financial sustainability is the emphasis on long-term value creation rather than focusing only on short-term profits. Organisations must balance immediate financial demands with future growth by improving cost management, resource efficiency, and operational effectiveness (Byakatonda et al., 2021). Increasingly, financial sustainability also involves integrating Environmental, Social, and Governance (ESG) considerations into financial decision-making, as strong sustainability performance is associated with improved financial outcomes and reduced business risks (Rossi et al., 2025).

Environmental Dimension of Business Sustainability

Environmental dimension of business sustainability is defined as the obligation of an organization to conduct its operations in a way that minimizes negative impacts on the natural ecosystem while preserving natural resources for future generations. It necessitates that a company creates a positive environmental impact by preserving the stability of the environmental system, protecting natural resources, and maintaining ecological support systems (Jayasundara et al. 2020). Furthermore, it is described as the ability of a firm to supply products and services that are environmentally friendly and to incorporate sustainability principles such as pollution reduction and resource conservation—into the majority of its business decisions.

A primary characteristic of this dimension is its multidimensionality, as it encompasses a wide array of indicators including energy consumption, waste generation, emissions reduction, and compliance with environmental regulations (Johnstone, 2020 and Lillah, 2024). It is also characterized by a

proactive integration of "green" strategies, where businesses move beyond mere compliance to adopt internal environmental management capabilities, such as pollution prevention and product stewardship, to gain a strategic footing (Hart, 1995). Additionally, the environmental dimension is intrinsically linked to resource efficiency, focusing on the "Reduce, Reuse, and Recycle" (3R) principles to close energy and material loops, thereby preventing the depletion of resources (Prieto-Sandoval et al., 2018).

Social Dimension of Business Sustainability

The social dimension of business sustainability focus on how organizations manage their impacts on and relationships with employees, customers, suppliers, and the broader communities in which they operate (Yusof & Widyasamratri, 2025). Within the Triple Bottom Line framework, this dimension necessitates that a company contributes to social equity and well-being, ensuring that human capital is nurtured rather than depleted, and that the organization operates in a way that benefits society beyond mere profit generation (Elkington, 1997; Masocha, 2018). It is often conceptualized through the lens of Corporate Social Responsibility (CSR), representing the voluntary integration of social concerns into business operations and interactions with stakeholders to achieve long-term vitality (Szczuka, 2015).

A primary characteristic of the social dimension is its stakeholder orientation, which demands accountability to a diverse group including employees, labor unions, local communities, and consumers, rather than solely to shareholders (Freeman, 1984; Yusof & Widyasamratri, 2025). It is also characterized by a focus on social equity and justice, aiming to provide fair wages, safe working conditions, and equal opportunities, thereby addressing issues such as poverty and inequality within the firm's sphere of influence (Taylor, 2016). Furthermore, it is distinguished by its interconnectedness, as it functions as a bridge between economic viability and environmental stewardship; for instance, fair labor practices (social) can lead to higher productivity (economic) and better compliance with ecological standards (environmental) (Szczuka, 2015).

Human Dimension of Business Sustainability

The human dimension of business sustainability is fundamentally defined as the commitment to maintaining and replenishing human capital rather than depleting it, treating human resources as renewable assets that must be nurtured to ensure long-term viability (Kim & Park, 2025). It involves a "human-centred" approach that prioritizes the dignity, well-being, and development of people both within the workforce and the broader community—to build sustainable organizations and societies (Cooke et al., 2022). Furthermore, it is conceptualized as the capacity of an organization to foster human thriving, where employees are not merely satisfied but are energized, learning, and growing, thereby creating resources for the firm rather than just consuming them (Spreitzer et al., 2012).

A primary characteristic of this dimension is the focus on holistic well-being, encompassing not only physical health but also the psychological, emotional, and social welfare of employees (Madero-Gómez et al., 2023; Dyageti & Kiran, 2025). It is also characterized by an ethic of care, where organizations actively signal concern for their members through supportive leadership and relational cohesion, moving beyond rule-based ethics to foster genuine empathy and mutual obligation (Aldabbas & Blaique, 2025). Additionally, the human dimension is inherently multilevel

and stakeholder-oriented, extending its scope from individual employee needs to broader societal issues such as social equity, justice, and human rights (Idakwo & Adeyemi, 2025; Banga & Gobind, 2025). Finally, it requires dynamic adaptation, as the workforce must be upskilled and resilient enough to navigate technological disruptions and changing work environments, such as the shift to digital or hybrid models (Cooke et al., 2022).

Dynamic Capability

Dynamic capability is viewed as much more than a static asset; it is a high-level organizational skill that helps businesses handle uncertainty and maintain long-term success. Dynamic Capabilities Theory involves the "synergistic configuration and management" of various strengths, such as coming up with new ideas, developing specialized know-how, and using external knowledge to stay ahead in unpredictable markets (Suleiman & Abidemi, 2025). Essentially, resource management within a company is naturally dynamic rather than fixed, meaning that dynamic capability acts as the organizational agility needed to proactively tweak strategies based on the resources a firm has at its disposal (Eka et al., 2024).

The main characteristics of dynamic capabilities revolve around how a business organizes its strengths and the specific competencies of its leaders. Rather than having different departments working in silos, it is characterized by the integration of connected dimensions, such as individual innovation and organizational structures (Suleiman & Abidemi, 2025). Specifically, it requires a unique blend of technical, interpersonal, and conceptual skills from owners and managers that go beyond basic human capital (Fatai et al., 2024). This capability is also deeply tied to how a business responds to its surroundings; by understanding how the business environment works, firms can stay reactive and adapt to outside pressures (Dajong & Ogidi, 2025). Ultimately, it provides a "strategic direction" that helps small and medium enterprises (SMEs) move past just trying to survive and toward staying sustainable for the long haul (Dajong & Ogidi, 2025).

Theoretical Framework

Social Exchange Theory (SET)

Social Exchange Theory (SET) is rooted in the seminal works of scholars such as George Homans (1958), who conceptualized social behavior as an exchange of goods, and Peter Blau (1964), who expanded the framework to distinguish between economic and social exchanges involving unspecified obligations (Ahmad & Nawaz, 2023; Cropanzano & Mitchell, 2005). Additional foundational contributions came from Thibaut and Kelley (1959), who focused on the social psychology of groups, and Gouldner (1960), who articulated the norm of reciprocity as a moral obligation (Ahmad & Nawaz, 2023). The theory assumes that human relationships are formed, maintained, or dissolved based on a subjective cost-benefit analysis, where individuals seek to maximize rewards and minimize costs (Perry, 2025). A central tenet is the norm of reciprocity, positing that when one party provides a benefit, it creates an obligation for the recipient to respond in kind, thereby stabilizing social relations through mutual interdependence (Cropanzano et al., 2017).

Despite its extensive application, SET faces significant criticism regarding its theoretical precision and behavioral assumptions. Critics argue that SET acts more as a "broad frame"

or umbrella perspective rather than a precise theory, leading to theoretical ambiguity and In the context of Small and Medium Enterprises (SMEs), SET is critically relevant for explaining the social and human dimensions of business sustainability. In resource-constrained SMEs, where formal control systems may be limited, social exchanges and the quality of relationships strongly shape employee behavior and retention (Perry, 2025; Fu et al., 2022). The theory explains that when SMEs engage in "Caring HRM" or demonstrate corporate social responsibility, employees reciprocate with discretionary efforts such as Citizenship Behavior (CB) which enhances operational efficiency and human capital sustainability (Santoso et al., 2025; Bhatti et al., 2025). Additionally, SET frames sustainable supply chain management as a reciprocal process where trust and positive social exchanges with suppliers reduce transaction costs and foster long-term resilience (Chang & Fong, 2025).

Empirical Review

Nkang (2024) investigated long-term sustainability plans for SMEs in Abuja and found that Operational Sustainability Practices (OSP) had a highly significant positive relationship with business performance, they found that adopting efficient operational behaviors often supported by employee compliance and initiative is critical for the long-term viability and profitability of small businesses. The study found a negative relationship between economic sustainability plans and short-term performance, suggesting a complex trade-off that requires further investigation.

Ojebola et al. (2020) conducted a systematic review on the influence of CB on manufacturing firm survival and found that *Sportsmanship* reduces the time managers spend resolving petty conflicts, thereby freeing up resources for productive activities like planning and monitoring. They found that when employees tolerate inconveniences without complaining, it indirectly enhances financial efficiency and operational effectiveness. The study was limited to a qualitative review of existing literature and did not provide new quantitative data on specific financial metrics.

Ojebola et al. (2020) conducted a systematic review of Organizational Citizenship Behavior (OCB) in the manufacturing sector and identified a theoretical link between Schwartz's value of "Universalism" and the OCB dimension of defending the environment. They found that employees with specific value orientations are naturally predisposed to discretionary acts that protect the organization's operating environment and promote its cause against external dangers. The study was a qualitative review of existing literature and did not provide primary quantitative data on the correlation between specific OCB dimensions and ecological metrics.

Alake and Kayode (2025) examined the impact of CB in hybrid work organizations and noted that CB ensures the organization and its immediate and external environments enjoy peace and prosperity, aligning with the objectives of the Sustainable Development Goals (SDGs). They found that discretionary behaviors contribute to the broader environmental stability required for sustainable business operations. The research concentrated on productivity and engagement metrics (Human/Financial dimensions) and did not explicitly measure ecological outcomes or carbon footprint reductions.

Kim and Park (2025) investigated the structural relationships among rapport, trust, and psychological capital to

understand how sustainable citizenship behavior (CB) is built within the hospitality industry. Their research highlights a cyclical and self-reinforcing mechanism between CB and the social dimension of sustainability. They argue that CB does not merely result from supportive environments but actively "reproduces social capital," which lies at the heart of social sustainability. When organizations provide fair and supportive environments (a core aspect of social sustainability), they cultivate psychological resources that fuel CB; this CB, in turn, strengthens the organization's sustainable competitive advantage and employee well-being.

Methodology

This study adopts a cross-sectional survey research design, which involves the collection of data from respondents at a single point in time to examine existing relationships among study variables. According to data from the Small and Medium

Enterprises Development Agency of Nigeria (SMEDAN), the population of Small and Medium Enterprises (SMEs) in Abuja is estimated at approximately 613,492 registered enterprises. This estimate is drawn from the 2020 SMEDAN (2020) report and has been widely referenced in empirical studies examining SME growth and performance within the Federal Capital Territory (FCT), Abuja. The study employs a stratified sampling technique to stratify the SMEs into 5 strata after which simple random sampling technique will be use to select the determined sample size form the population of SMEs in Abuja. One respondent per SMES will be selected and this will have to be either the owner-manager, manager or the supervisor. The sample size for the study is determined using Yamane's (1967) formula, which is appropriate for studies involving known or estimated populations. Thus, the minimum sample size required is 300 respondents/owner-managers/supervisors.

Data Presentation and Analysis

Descriptive Statistics

	BS SMEs	DC	FDBS	ENVDBS	SODBS	HDBS
Mean	4.6004	4.4739	4.1636	4.1864	4.4398	4.3132
Std. errors	.50407	.39627	.48289	.71189	.55261	.55864
Skewness	-1.827	-.381	-.898	-1.221	-1.013	-1.143
Kurtosis	3.220	.739	.861	1.360	1.318	1.355

Source: Field Survey (2026)

Table 4.5 presents the descriptive statistics for the major variables of the study. The variables include Business Sustainability of SMEs BS SMEs, Dynamic Capability DC, Financial Dimension of Business Sustainability FDBS, Environmental Dimension of Business Sustainability ENVDBS, Social Dimension of Business Sustainability SODBS, and Human Dimension of Business Sustainability HDBS. The result shows that Business Sustainability of SMEs BS SMEs had the highest mean value of 4.6004, indicating a very high level of business sustainability among the SMEs studied. This suggests that respondents generally agreed that the SMEs in Abuja demonstrate strong sustainability practices.

Dynamic Capability had a mean value of 4.4739, which also indicates a high level of dynamic capability among the sampled SMEs. This implies that the SMEs possess the ability to adapt, respond to changes, innovate, and reconfigure resources in response to changes in the business environment. The financial dimension of business sustainability had a mean score of 4.1636, while the environmental dimension had a mean score of 4.1864. These values indicate that respondents agreed that citizenship behaviour contributes positively to both the financial and environmental sustainability of SMEs. However, compared with the other dimensions, the financial dimension recorded the lowest mean value, suggesting that its perceived influence, although positive, was slightly lower than the other sustainability dimensions.

The social dimension of business sustainability recorded a mean value of 4.4398, while the human dimension recorded a mean value of 4.3132. These results suggest that respondents agreed that citizenship behaviour contributes strongly to social and human sustainability outcomes such as cooperation, employee commitment, stakeholder relationships, teamwork, and workplace support. The standard deviation values ranged from 0.39627 to 0.71189, showing that the responses were not widely dispersed from the mean. This implies that respondents' opinions were relatively consistent across the study variables. The environmental dimension had the highest standard deviation of 0.71189, suggesting slightly greater variation in respondents' views on environmental sustainability compared with the other variables.

The skewness values were all negative, ranging from -0.381 to -1.827. This indicates that the responses were negatively skewed, meaning that many respondents selected higher agreement options on the Likert scale. In other words, most respondents tended to agree or strongly agree with the statements measuring citizenship behaviour, dynamic capability, and business sustainability. The kurtosis values were positive, ranging from 0.739 to 3.220. This suggests that the distribution of responses was slightly peaked, with responses clustering around the higher end of the scale. Overall, the skewness and kurtosis values indicate that the data were reasonably suitable for further statistical analysis.

Regression Model 1

Outcome Variable: CB*Model Summary*

R	R²	MSE	F	df1	df2	p
0.7742	0.5993	0.1036	85.7639	3.0000	172.0000	< 0.001

Regression Coefficients

Predictor	Coefficient (B)	SE	t	p	LLCI	ULCI
Constant	4.6564	0.0269	173.3516	< 0.001	4.6033	4.7094
FDBS	0.6234	0.0569	10.9500	< 0.001	0.5110	0.7357
DC	0.2307	0.0682	3.3826	0.0009	0.0961	0.3653
FDBS × DC	-0.6768	0.1395	-4.8526	< 0.001	-0.9520	-0.4015

Test of the Highest-Order Interaction

Interaction	ΔR²	F	df1	df2	p
FDBS × DC	0.0549	23.5478	1.0000	172.0000	< 0.001

Model Component	Variable
Outcome variable (Y)	CB
Focal predictor (X)	FDBS
Moderator (W)	DC

Product term: FDBS × DC (Int_1)**Source:** Field Survey (2026)

Table 4.6 presents the regression result on the relationship between the financial dimension of business sustainability FDBS and citizenship behaviour CB, with dynamic capability DC serving as the moderating variable. The model summary shows an R-value of 0.7742, indicating a strong relationship among the variables in the model. The R-square value of 0.5993 indicates that 59.93% of the variation in citizenship behaviour is explained by the financial dimension of business sustainability, dynamic capability, and their interaction effect. This shows that the model has strong explanatory power. The F-statistic value of 85.7639 with a p-value of 0.0000 indicates that the overall regression model is statistically significant. Since the p-value is less than 0.05, the model is suitable for explaining variations in citizenship behaviour among SMEs in Abuja. The coefficient of FDBS is 0.6234, with a t-value of 10.9500 and a p-value of 0.0000. This indicates that the financial dimension of business sustainability has a positive and statistically significant effect on citizenship behaviour. This implies that improvements in the financial sustainability practices of SMEs are associated with higher levels of citizenship behaviour among respondents.

Dynamic capability also has a positive and significant effect on citizenship behaviour, with a coefficient of 0.2307, t-value of 3.3826, and p-value of 0.0009. This suggests that SMEs with stronger dynamic capability tend to exhibit higher levels of citizenship behaviour. The interaction term FDBS × DC has a coefficient of -0.6768, t-value of -4.8526, and p-value of 0.0000. Since the interaction effect is statistically significant, dynamic capability significantly moderates the relationship between the financial dimension of business sustainability and citizenship behaviour. However, the negative coefficient indicates that the moderating effect is negative. This means that as dynamic capability increases, the positive relationship between financial sustainability and citizenship behaviour becomes weaker. The interaction test further confirms this moderating effect. The R-square change of 0.0549 indicates that the interaction between FDBS and DC explains an additional 5.49% of the variation in citizenship behaviour. Since the p-value is 0.0000, this additional explanatory power is statistically significant.

Conditional Effects for Model 1

Conditional Effects of the Focal Predictor at Values of the Moderator (FDBS)

FDBS Value	Effect	SE	t	p	LLCI	ULCI
-0.3963	0.8916	0.0716	12.4511	< 0.001	0.7502	1.0329
0.0000	0.6234	0.0569	10.9500	< 0.001	0.5110	0.7357
0.3963	0.3552	0.0864	4.1116	0.0001	0.1847	0.5257

Source: Field Survey (2026)

FDBS on citizenship behaviour CB at different levels of dynamic capability DC. At a low level of dynamic capability, represented by -0.3963, the effect of FDBS on CB is 0.8916, with a t-value of 12.4511 and a p-value of 0.0000. Since the p-value is less than 0.05, the effect is statistically significant. This implies that when dynamic capability is low, the financial dimension of business sustainability has a strong positive effect on citizenship behaviour. At the average level of dynamic capability, represented by 0.0000, the effect of FDBS on CB is 0.6234, with a t-value of 10.9500 and a p-value of 0.0000. This also indicates a positive and significant effect. Therefore, at an average level of dynamic

capability, financial sustainability still contributes significantly to citizenship behaviour.

At a high level of dynamic capability, represented by 0.3963, the effect of FDBS on CB is 0.3552, with a t-value of 4.1116 and a p-value of 0.0001. This shows that the effect remains positive and statistically significant, although weaker compared to the low and average levels of dynamic capability. The result shows that the effect of FDBS on CB decreases as dynamic capability increases. Specifically, the effect reduces from 0.8916 at low dynamic capability to 0.6234 at average dynamic capability and further reduces to 0.3552 at high dynamic capability. This supports the negative interaction effect reported.

Training	Effect	SE	t	p	LLCI	ULCI
-1.6739	1.7562	0.2298	7.6426	< .001	1.3026	2.2098
-1.5691	1.6853	0.2156	7.8150	< .001	1.2596	2.1109
-1.4643	1.6144	0.2016	8.0089	< .001	1.2165	2.0123
-0.4167	0.9054	0.0734	12.3319	< .001	0.7605	1.0503
-0.3120	0.8345	0.0649	12.8547	< .001	0.7064	0.9626
0.4214	0.3382	0.0891	3.7964	.0002	0.1624	0.5140
0.5261	0.2673	0.1009	2.6499	.0088	0.0682	0.4664

Source: Field Survey (2026)

Johnson-Neyman analysis for the interaction between Financial Dimension of Business Sustainability FDBS and Dynamic Capability DC. The purpose of the Johnson-Neyman analysis is to identify the specific values of the moderator at which the effect of the focal predictor becomes statistically significant or non-significant.

The result shows that there are no statistical significance transition points within the observed range of the moderator. This means that the conditional effect of FDBS on Citizenship Behaviour CB remains statistically significant across all observed levels of Dynamic Capability. The conditional effects are positive

across the observed values of Dynamic Capability. For example, when Dynamic Capability is very low at -1.6739, the effect of FDBS on CB is 1.7562, with a p-value of 0.0000. This indicates a strong positive and significant effect. At a higher level of Dynamic Capability, such as 0.5261, the effect of FDBS on CB reduces to 0.2673, but it remains statistically significant, with a p-value of 0.0088. Therefore, the study concludes that the relationship between FDBS and CB is significant across all observed levels of Dynamic Capability, but the strength of the relationship is stronger at lower levels of Dynamic Capability and weaker at higher levels of Dynamic Capability.

Citizenship Behavior on Environmental Dimension of Business Sustainability with DC as a Moderator

Predictor	Coefficient	SE	t	p	LLCI	ULCI
Constant	4.6350	0.0196	236.2887	< .001	4.5963	4.6738
ENVDBS	0.4873	0.0301	16.1848	< .001	0.4279	0.5468
DC	0.1910	0.0513	3.7219	.0003	0.0897	0.2923
ENVDBS × DC (Int_1)	-0.3248	0.0545	-5.9616	< .001	-0.4323	-0.2173

Test of Highest-Order Unconditional Interaction

Interaction	R ² Change	F	df1	df2	p
ENVDBS × DC	0.0494	35.5403	1.0000	172.0000	< .001

Source: Field Survey (2026)

Dimension of Business Sustainability ENVDBS and Citizenship Behaviour CB, with Dynamic Capability DC serving as the moderating variable. The model summary shows an R-value of 0.8724, indicating a very strong relationship among the variables in the model. The R-square value of 0.7610 indicates that 76.10% of the variation in Citizenship Behaviour is jointly explained by Environmental Dimension of Business Sustainability, Dynamic Capability, and their interaction effect. This suggests that the model has a high explanatory power.

The F-statistic value of 182.5948 with a p-value of 0.0000 shows that the overall regression model is statistically significant. Since the p-value is less than 0.05, the model is suitable for explaining variations in Citizenship Behaviour among SMEs in Abuja.

The coefficient of ENVDBS is 0.4873, with a t-value of 16.1848 and a p-value of 0.0000. This indicates that the Environmental Dimension of Business Sustainability has a positive and statistically significant effect on Citizenship Behaviour. This

means that improvement in environmental sustainability practices among SMEs is associated with an increase in citizenship behaviour.

Dynamic Capability also has a positive and significant effect on Citizenship Behaviour, with a coefficient of 0.1910, t-value of 3.7219, and p-value of 0.0003. This implies that SMEs with stronger dynamic capability are more likely to exhibit higher levels of citizenship behaviour.

The interaction term ENVDBS × DC has a coefficient of -0.3248, t-value of -5.9616, and p-value of 0.0000. Since the interaction effect is statistically significant, Dynamic Capability significantly moderates the relationship between Environmental Dimension of Business Sustainability and Citizenship Behaviour. However, the negative coefficient indicates that the moderation effect is negative. This means that as Dynamic Capability increases, the positive effect of Environmental Dimension of Business Sustainability on Citizenship Behaviour becomes weaker.

DC	Effect	SE	t	p	LLCI	ULCI
-0.3963	0.6160	0.0310	19.9040	< .001	0.5550	0.6771
0.0000	0.4873	0.0301	16.1848	< .001	0.4279	0.5468
0.3963	0.3586	0.0423	8.4825	< .001	0.2752	0.4421

The conditional effects of the Environmental Dimension of Business Sustainability ENVDBS on Citizenship Behaviour CB at different levels of Dynamic Capability DC. At a low level of dynamic capability, represented by -0.3963, the effect of ENVDBS on CB is 0.6160, with a t-value of 19.9040 and a p-value of 0.0000. Since the p-value is less than 0.05, the effect is statistically significant. This implies that when dynamic capability is low, environmental sustainability has a strong positive effect on

citizenship behaviour. At the average level of dynamic capability, represented by 0.0000, the effect of ENVDBS on CB is 0.4873, with a t-value of 16.1848 and a p-value of 0.0000. This also indicates a positive and statistically significant effect. Therefore, at an average level of dynamic capability, environmental sustainability significantly contributes to citizenship behaviour among SMEs in Abuja.

DC	Effect	SE	t	p	LLCI	ULCI
-0.9405	0.7928	0.0505	15.7069	< .001	0.6932	0.8925
-0.8358	0.7588	0.0459	16.5381	< .001	0.6682	0.8494
-0.7310	0.7248	0.0416	17.4373	< .001	0.6427	0.8068
-0.6262	0.6907	0.0376	18.3614	< .001	0.6165	0.7650
-0.5215	0.6567	0.0342	19.2158	< .001	0.5893	0.7242
-0.4167	0.6227	0.0314	19.8314	< .001	0.5607	0.6847
0.4214	0.3505	0.0433	8.0945	< .001	0.2650	0.4359
0.5261	0.3165	0.0477	6.6288	< .001	0.2222	0.4107

Johnson-Neyman analysis for the interaction between Environmental Dimension of Business Sustainability ENVDBS and Dynamic Capability DC. The Johnson-Neyman technique identifies the specific values of the moderator at which the effect of the focal predictor becomes statistically significant or non-significant. The result shows that there are no statistical

significance transition points within the observed range of Dynamic Capability. This means that the conditional effect of ENVDBS on Citizenship Behaviour CB remains statistically significant across all observed levels of Dynamic Capability.

The conditional effects are positive across the reported values of the moderator. For example, at a low level of Dynamic

Capability DC = -1.6739, the effect of ENVDBS on CB is 1.0310, with a t-value of 11.9282 and a p-value of 0.0000. This indicates a strong positive and statistically significant effect. At a higher level of Dynamic Capability DC = 0.5261, the effect reduces to 0.3165,

with a t-value of 6.6288 and a p-value of 0.0000. This indicates that the relationship remains positive and statistically significant, although the strength of the effect becomes weaker as Dynamic Capability increases.

Citizenship Behavior on Social Dimension of Business Sustainability with DC as a Moderator

Regression Model 3

Predictor	Coefficient	SE	t	p	LLCI	ULCI
Constant	4.6053	0.0234	196.8942	< .001	4.5591	4.6515
SODBS	0.5527	0.0454	12.1674	< .001	0.4631	0.6424
DC	0.4233	0.0644	6.5689	< .001	0.2961	0.5505
SODBS × DC (Int_1)	-0.1963	0.0835	-2.3514	.0198	-0.3611	-0.0315

Source: Field Survey (2026)

The regression result for the relationship between the Social Dimension of Business Sustainability SODBS and Citizenship Behaviour CB, with Dynamic Capability DC as the moderating variable. The model summary shows an R-value of 0.7941, indicating a strong relationship among the variables in the model. The R-square value of 0.6305 shows that 63.05% of the variation in Citizenship Behaviour is jointly explained by Social Dimension of Business Sustainability, Dynamic Capability, and their interaction effect. This implies that the model has strong explanatory power.

The F-statistic value of 97.8403 with a p-value of 0.0000 indicates that the overall regression model is statistically significant. Since the p-value is less than 0.05, the model is suitable for explaining variations in Citizenship Behaviour among SMEs in Abuja.

The coefficient of SODBS is 0.5527, with a t-value of 12.1674 and a p-value of 0.0000. This indicates that the Social Dimension of Business Sustainability has a positive and statistically significant effect on Citizenship Behaviour. This means that improvements in social sustainability practices, such as stakeholder engagement, fairness, cooperation, ethical conduct, and community responsibility, are associated with higher levels of citizenship behaviour among SMEs.

Dynamic Capability also has a positive and statistically significant effect on Citizenship Behaviour, with a coefficient of 0.4233, t-value of 6.5689, and p-value of 0.0000. This suggests that

SMEs with stronger dynamic capability are more likely to demonstrate higher citizenship behaviour.

The interaction term SODBS × DC has a coefficient of -0.1963, a t-value of -2.3514, and a p-value of 0.0198. Since the p-value is less than 0.05, the interaction effect is statistically significant. This means that Dynamic Capability significantly moderates the relationship between Social Dimension of Business Sustainability and Citizenship Behaviour.

However, the negative coefficient of the interaction term indicates that the moderating effect is negative. This implies that as Dynamic Capability increases, the positive effect of Social Dimension of Business Sustainability on Citizenship Behaviour becomes weaker.

The test of the highest order interaction shows an R-square change of 0.0119, with an F-value of 5.5291 and a p-value of 0.0198. This means that the interaction between SODBS and DC explains an additional 1.19% of the variation in Citizenship Behaviour. Although the additional explanatory power is relatively small, it is statistically significant.

Since the interaction effect is statistically significant at the 5% level, the null hypothesis is rejected. Therefore, the study concludes that Dynamic Capability significantly moderates the relationship between Social Dimension of Business Sustainability and Citizenship Behaviour among SMEs in Abuja. However, because the interaction coefficient is negative, Dynamic Capability weakens rather than strengthens the positive relationship between SODBS and CB.

DC	Effect	SE	t	p	LLCI	ULCI
-0.3963	0.6305	0.0459	13.7366	< .001	0.5399	0.7211
0.0000	0.5527	0.0454	12.1674	< .001	0.4631	0.6424
0.3963	0.4749	0.0649	7.3205	< .001	0.3469	0.6030

Source: Field Survey (2026)

The conditional effects of the Social Dimension of Business Sustainability SODBS on Citizenship Behaviour CB at different levels of Dynamic Capability DC. At a low level of dynamic capability, represented by -0.3963, the effect of SODBS on CB is 0.6305, with a t-value of 13.7366 and a p-value of 0.0000. Since the p-value is less than 0.05, the effect is statistically significant. This implies that when dynamic capability is low,

social sustainability has a strong positive effect on citizenship behaviour.

At the average level of dynamic capability, represented by 0.0000, the effect of SODBS on CB is 0.5527, with a t-value of 12.1674 and a p-value of 0.0000. This shows that social sustainability continues to have a positive and significant effect on citizenship behaviour at the average level of dynamic capability. At

a high level of dynamic capability, represented by 0.3963, the effect of SODBS on CB is 0.4749, with a t-value of 7.3205 and a p-value of 0.0000. This indicates that the effect remains positive and statistically significant, although it is weaker than the effect observed at low and average levels of dynamic capability.

The result shows that the effect of SODBS on CB decreases as dynamic capability increases. Specifically, the effect reduces from 0.6305 at low dynamic capability to 0.5527 at average dynamic capability and further reduces to 0.4749 at high dynamic

capability. This supports the negative interaction effect earlier reported in Table 4.12.

The conditional effects confirm that Dynamic Capability significantly moderates the relationship between Social Dimension of Business Sustainability and Citizenship Behaviour among SMEs in Abuja. However, the moderation effect is negative. This means that although social sustainability positively influences citizenship behaviour at all levels of dynamic capability, the strength of the relationship becomes weaker as dynamic capability increases.

Johnson-Neyman Analysis for SODBS × DC

DC	Effect	SE	t	p	LLCI	ULCI
-1.6739	0.8813	0.1310	6.7296	< .001	0.6228	1.1398
-1.5691	0.8608	0.1227	7.0138	< .001	0.6185	1.1030
-0.5215	0.6551	0.0508	12.9082	< .001	0.5549	0.7553
-0.4167	0.6345	0.0466	13.6262	< .001	0.5426	0.7265
-0.3120	0.6140	0.0438	14.0324	< .001	0.5276	0.7003
-0.2072	0.5934	0.0426	13.9356	< .001	0.5094	0.6775
-0.1024	0.5728	0.0432	13.2644	< .001	0.4876	0.6581
0.0023	0.5523	0.0455	12.1391	< .001	0.4625	0.6421
0.1071	0.5317	0.0493	10.7915	< .001	0.4345	0.6290
0.2119	0.5111	0.0542	9.4294	< .001	0.4041	0.6181
0.3166	0.4906	0.0600	8.1738	< .001	0.3721	0.6090
0.4214	0.4700	0.0665	7.0705	< .001	0.3388	0.6012
0.5261	0.4495	0.0734	6.1226	< .001	0.3048	0.5942

Source: Field Survey (2026)

Johnson-Neyman analysis for the interaction between Social Dimension of Business Sustainability SODBS and Dynamic Capability DC. The Johnson-Neyman analysis was used to determine whether there are specific levels of Dynamic Capability at which the effect of SODBS on Citizenship Behaviour becomes statistically significant or non-significant.

The result shows that there are no statistical significance transition points within the observed range of Dynamic Capability. This means that the effect of SODBS on Citizenship Behaviour remains statistically significant across all reported levels of Dynamic Capability.

The conditional effects are positive at all levels of the moderator. For instance, at a low level of Dynamic Capability, DC = -1.6739, the effect of SODBS on CB is 0.8813, with a t-value of 6.7296 and a p-value of 0.0000. This indicates a positive and statistically significant effect.

At a higher level of Dynamic Capability, DC = 0.5261, the effect of SODBS on CB decreases to 0.4495, with a t-value of

6.1226 and a p-value of 0.0000. This means that the relationship remains statistically significant, although the strength of the effect becomes weaker as Dynamic Capability increases.

The confidence intervals also support the result because none of the lower and upper confidence intervals include zero. For example, at DC = -1.6739, the confidence interval ranges from 0.6228 to 1.1398, while at DC = 0.5261, the confidence interval ranges from 0.3046 to 0.5943. Since zero is not included in these intervals, the effects are statistically significant.

The Johnson-Neyman analysis confirms that Dynamic Capability significantly moderates the relationship between Social Dimension of Business Sustainability and Citizenship Behaviour among SMEs in Abuja. However, the moderation is negative. This means that although social sustainability has a positive and significant effect on citizenship behaviour at all observed levels of Dynamic Capability, the strength of the relationship becomes weaker as Dynamic Capability increases.

Citizenship Behavior on Human Dimension of Business Sustainability with DC as a Moderator

Regression Model 4 outcome Variable: CB

Model 4 Summary

R	R ²	MSE	F	df1	df2	p
0.4936	0.2437	0.1955	18.4704	3.0000	172.0000	< 0.001

Regression Coefficients

Predictor	Coefficient (B)	SE	t	p	LLCI	ULCI
Constant	4.6094	0.0337	136.9277	< 0.001	4.5430	4.6759
HDBS	0.1399	0.0605	2.3121	0.0220	0.0205	0.2594
DC	0.5639	0.0856	6.5897	< 0.001	0.3950	0.7328
HDBS × DC	-0.2843	0.1488	-1.9109	0.0577	-0.5779	0.0094

Test of the Highest-Order Interaction

Interaction	ΔR ²	F	df1	df2	p
HDBS × DC	0.0161	3.6516	1.0000	172.0000	0.0577
Model Component	Variable				
Outcome variable (Y)	CB				
Focal predictor (X)	HDBS				
Moderator (W)	DC				

Source: Field Survey (2026)

Relationship between the Human Dimension of Business Sustainability HDBS and Citizenship Behaviour CB, with Dynamic Capability DC serving as the moderating variable.

The model summary shows an R-value of 0.4936, indicating a moderate relationship among the variables in the model. The R-square value of 0.2437 indicates that 24.37% of the variation in Citizenship Behaviour is jointly explained by Human Dimension of Business Sustainability, Dynamic Capability, and their interaction effect. This means that the model explains a fair proportion of the variation in Citizenship Behaviour, although its explanatory power is lower compared with the previous models.

The F-statistic value of 18.4704 with a p-value of 0.0000 shows that the overall regression model is statistically significant. Since the p-value is less than 0.05, the model is suitable for explaining variations in Citizenship Behaviour among SMEs in Abuja.

The coefficient of HDBS is 0.1399, with a t-value of 2.3121 and a p-value of 0.0220. This indicates that the Human Dimension of Business Sustainability has a positive and statistically significant effect on Citizenship Behaviour. This implies that improvements in human sustainability practices, such as employee well-being, teamwork, knowledge sharing, commitment, and workplace support, are associated with an increase in citizenship behaviour among SMEs.

Dynamic Capability has a positive and statistically significant effect on Citizenship Behaviour, with a coefficient of 0.5639, t-value of 6.5897, and p-value of 0.0000. This suggests that

SMEs with stronger dynamic capability are more likely to demonstrate higher levels of citizenship behaviour.

The interaction term HDBS × DC has a coefficient of -0.2843, a t-value of -1.9109, and a p-value of 0.0577. Since the p-value is greater than 0.05, the interaction effect is not statistically significant at the 5% level. This means that Dynamic Capability does not significantly moderate the relationship between Human Dimension of Business Sustainability and Citizenship Behaviour at the conventional 5% significance level.

The test of the highest order interaction shows an R-square change of 0.0161, with an F-value of 3.6516 and a p-value of 0.0577. This indicates that the interaction between HDBS and DC explains an additional 1.61% of the variation in Citizenship Behaviour. However, this additional explanatory power is not statistically significant at the 5% level.

Although the interaction coefficient is negative, suggesting that Dynamic Capability may weaken the positive relationship between HDBS and CB, this weakening effect is not statistically confirmed because the p-value exceeds 0.05.

Since the interaction effect is not statistically significant at the 5% level, the null hypothesis is retained. Therefore, the study concludes that Dynamic Capability does not significantly moderate the relationship between Human Dimension of Business Sustainability and Citizenship Behaviour among SMEs in Abuja. However, the direct effects of both Human Dimension of Business Sustainability and Dynamic Capability on Citizenship Behaviour are positive and statistically significant.

Conditional Effects for Model 4

DC Value	Effect of HDBS	SE	t	p	LLCI	ULCI
-0.3963	0.2526	0.0863	2.9284	0.0039	0.0823	0.4228
0.0000	0.1399	0.0605	2.3121	0.0220	0.0205	0.2594
0.3963	0.0273	0.0827	0.3300	0.7418	-0.1359	0.1905

Source: Field Survey (2026)

Table 4.16 presents the conditional effects of the Human Dimension of Business Sustainability HDBS on Citizenship Behaviour CB at different levels of Dynamic Capability DC.

At a low level of dynamic capability, represented by -0.3963, the effect of HDBS on CB is 0.2526, with a t-value of 2.9284 and a p-value of 0.0039. Since the p-value is less than 0.05, the effect is statistically significant. This implies that when dynamic capability is low, human sustainability has a positive and significant effect on citizenship behaviour.

At the average level of dynamic capability, represented by 0.0000, the effect of HDBS on CB is 0.1399, with a t-value of 2.3121 and a p-value of 0.0220. This also indicates a positive and statistically significant effect. Therefore, at an average level of dynamic capability, human sustainability significantly influences citizenship behaviour among SMEs in Abuja.

However, at a high level of dynamic capability, represented by 0.3963, the effect of HDBS on CB is 0.0273, with a t-value of

0.3300 and a p-value of 0.7418. Since the p-value is greater than 0.05, the effect is not statistically significant. This means that at a high level of dynamic capability, the human dimension of business sustainability does not significantly influence citizenship behaviour.

The result shows that the effect of HDBS on CB decreases as dynamic capability increases. Specifically, the effect reduces from 0.2526 at low dynamic capability to 0.1399 at average dynamic capability, and further decreases to 0.0273 at high dynamic capability. This pattern is consistent with the negative interaction coefficient reported in Table 4.15. However, since the interaction effect in Table 4.15 was not statistically significant at the 5% level, this moderation should be interpreted cautiously. The conditional effects show that Human Dimension of Business Sustainability has a positive and significant effect on Citizenship Behaviour at low and average levels of Dynamic Capability, but the effect becomes non-significant at a high level of Dynamic Capability.

Johnson-Neyman Analysis for HDBS × DC

DC Value	Effect of HDBS	SE	t	p	LLCI	ULCI
0.0690	0.1203	0.0610	1.9739	0.0500	0.0000	0.2406
0.0861	0.1154	0.0613	1.8824	0.0615	-0.0056	0.2365
0.1961	0.0842	0.0661	1.2741	0.2043	-0.0462	0.2146
0.3061	0.0529	0.0742	0.7132	0.4767	-0.0935	0.1993
0.4161	0.0216	0.0847	0.2554	0.7987	-0.1456	0.1889
0.5261	-0.0096	0.0969	-0.0994	0.9209	-0.2009	0.1816

Source: Field Survey (2026)

Johnson-Neyman analysis for the interaction between Human Dimension of Business Sustainability HDBS and Dynamic Capability DC. The Johnson-Neyman result identifies 0.0690 as the moderator value at which the effect of HDBS on Citizenship Behaviour becomes statistically non-significant.

The result shows that the effect of HDBS on CB is statistically significant when Dynamic Capability is below or equal to 0.0690. At this point, the effect is 0.1203, with a t-value of 1.9739 and a p-value of 0.0500. The confidence interval ranges from 0.0000 to 0.2406, indicating the boundary of statistical significance.

Below this value, the effect of HDBS on CB is positive and significant. For example, at DC = -0.9039, the effect is 0.3969, with a p-value of 0.0088. Similarly, at DC = -0.3539, the effect is 0.2405, with a p-value of 0.0038. These results indicate that when Dynamic Capability is low, the Human Dimension of Business Sustainability has a significant positive influence on Citizenship Behaviour.

However, when Dynamic Capability rises above 0.0690, the effect becomes statistically non-significant. For instance, at DC = 0.0861, the effect is 0.1154, with a p-value of 0.0615, which is greater than 0.05. At higher levels of Dynamic Capability, such as DC = 0.5261, the effect becomes slightly negative at -0.0096, but remains statistically non-significant with a p-value of 0.9209.

The percentage distribution shows that 57.95% of the observations fall below the Johnson-Neyman threshold, while 42.05% fall above it. This means that for about 57.95% of the

respondents, the effect of HDBS on CB is statistically significant, while for about 42.05%, the effect is not statistically significant.

The Johnson-Neyman analysis indicates that the Human Dimension of Business Sustainability significantly affects Citizenship Behaviour only at low levels of Dynamic Capability. Once Dynamic Capability exceeds the threshold value of 0.0690, the effect of HDBS on CB becomes statistically non-significant.

However, this result should be interpreted cautiously because the overall interaction effect reported in Table 4.15 was not statistically significant at the 5% level. Therefore, while the Johnson-Neyman analysis provides useful insight into the conditional pattern, the study should conclude that Dynamic Capability does not significantly moderate the relationship between Human Dimension of Business Sustainability and Citizenship Behaviour at the conventional 5% level.

Discussion of findings

The study found that Citizenship Behaviour (CB) has a significant positive effect on the financial dimension of business sustainability among SMEs in Abuja. The result showed a coefficient of 0.6234 and a p-value of 0.0000, leading to the rejection of the null hypothesis. This indicates that when employees voluntarily contribute beyond their formal responsibilities through cooperation, commitment, and protection of organisational interests, SMEs experience improved financial sustainability. Such behaviours enhance productivity, reduce operational waste, improve customer satisfaction, and support profitability. This finding agrees with Organ (2018), Podsakoff et al. (2000), and Blume (2009), who identified CB as a driver of

organisational effectiveness and performance improvement. However, the financial benefits of CB may depend on how effectively organisations convert employee efforts into efficiency, innovation, and customer value.

The findings also revealed that Citizenship Behaviour significantly influences the environmental dimension of business sustainability, with a coefficient of 0.4873 and a p-value of 0.0000. This suggests that voluntary employee actions such as conserving resources, reducing waste, and supporting environmental practices contribute to better environmental outcomes. The finding supports Boiral (2009), Daily et al. (2009), and Ones and Dilchert (2012), who emphasised the importance of employee involvement in achieving environmental sustainability. However, environmental outcomes are strengthened when citizenship behaviour is supported by effective leadership, organisational policies, and environmental management systems.

Furthermore, Citizenship Behaviour was found to significantly affect the social dimension of business sustainability, with a coefficient of 0.5527 and a p-value of 0.0000. The result indicates that employee cooperation, loyalty, ethical conduct, and willingness to support others improve stakeholder relationships, organisational reputation, and social trust. This supports the arguments of Podsakoff et al. (2000), Freeman (1984), and LePine et al. (2002), who highlighted the role of citizenship behaviour in improving cooperation and stakeholder relationships. Nevertheless, the benefits of CB depend on ensuring that such behaviours remain voluntary rather than becoming compulsory expectations that create employee stress.

The study further established that Citizenship Behaviour significantly affects the human dimension of business sustainability, although the effect was weaker compared with other dimensions. The coefficient was 0.1399 with a p-value of 0.0220, indicating a significant relationship. This implies that behaviours such as knowledge sharing, helping colleagues, and teamwork contribute to employee development, engagement, and organisational learning. The finding aligns with Organ and Ryan (1995) and Podsakoff et al. (2000), who linked CB with employee commitment and team effectiveness. However, the weaker effect suggests that human sustainability requires additional factors such as employee welfare, training, fair compensation, and supportive human resource practices.

The moderation analysis showed that Dynamic Capability significantly moderated the relationship between Citizenship Behaviour and the financial, environmental, and social dimensions of business sustainability but did not significantly moderate the human dimension. The interaction effects were significant for financial sustainability ($\beta = -0.6768$, $p = 0.0000$), environmental sustainability ($\beta = -0.3248$, $p = 0.0000$), and social sustainability ($\beta = -0.1963$, $p = 0.0198$). However, the moderation effect on human sustainability was insignificant ($\beta = -0.2843$, $p = 0.0577$). These findings indicate that Dynamic Capability influences how employee citizenship behaviours translate into sustainability outcomes, but its impact varies across sustainability dimensions.

The significant moderation findings support Dynamic Capability Theory, which argues that firms must develop the ability to sense changes, seize opportunities, and reconfigure resources to remain competitive (Teece, 2007; Teece, 2017). However, the negative direction of the moderation effects suggests that higher levels of dynamic capability may reduce dependence on

citizenship behaviour because formal systems, adaptive strategies, and organisational routines may substitute for voluntary employee efforts. This interpretation is consistent with Winter (2003), Zahra et al. (2006), and Schilke (2014), who argued that dynamic capabilities do not automatically generate positive outcomes and depend on organisational context.

Conclusion and Recommendations

Based on the findings of the study, it is concluded that citizenship behaviour is an important factor in promoting business sustainability among SMEs in Abuja. The findings revealed that when employees, owners, and managers voluntarily support organizational goals, assist one another, demonstrate commitment, and act beyond formal job responsibilities, SMEs are more likely to experience improved sustainability outcomes.

The study concludes that citizenship behaviour significantly contributes to the financial sustainability of SMEs. This means that cooperative and voluntary employee behaviour can help SMEs improve productivity, reduce waste, increase efficiency, and enhance profitability. In a competitive business environment such as Abuja, SMEs require not only financial resources but also positive employee behaviour to remain sustainable.

The study also concludes that citizenship behaviour significantly affects the environmental dimension of business sustainability. This implies that voluntary actions such as proper resource use, waste reduction, compliance with environmental practices, and support for eco-friendly workplace behaviour can improve environmental sustainability among SMEs.

Furthermore, the study concludes that citizenship behaviour has a significant effect on the social dimension of business sustainability. This means that citizenship behaviour helps SMEs build better relationships with customers, employees, suppliers, communities, and other stakeholders. Through cooperation, fairness, ethical conduct, and voluntary support, SMEs can improve their social image and stakeholder confidence.

The study also concludes that citizenship behaviour significantly affects the human dimension of business sustainability. However, the effect was weaker than the other dimensions. This suggests that while citizenship behaviour contributes to employee well-being, teamwork, commitment, and knowledge sharing, human sustainability also requires additional support such as training, fair compensation, employee welfare, career development, and a healthy work environment.

Based on the findings of the study, the following recommendations are made:

- i. SME owners and managers should encourage citizenship behaviour among employees. SMEs should create a work environment where employees are willing to support one another, share knowledge, assist colleagues, protect organizational resources, and contribute voluntarily to business goals.
- ii. SMEs should promote teamwork and cooperation. Since citizenship behaviour improves business sustainability, managers should encourage teamwork, mutual respect, and collaboration among employees.
- iii. SMEs should strengthen financial sustainability through employee involvement. Employees should be encouraged

to contribute ideas that can reduce cost, improve customer service, increase efficiency, and enhance profitability

- iv. SMEs should promote environmentally responsible behaviour. Managers should encourage employees to conserve resources, reduce waste, recycle materials where possible, and comply with environmental standards.
- v. SMEs should improve their social responsibility practices. SMEs should maintain ethical relationships with customers, employees, suppliers, and host communities. Since citizenship behaviour significantly affects social sustainability, managers should encourage fairness, honesty, respect, and stakeholder-oriented practices.

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