

Small Enterprises Behavioural Intention to Participate in Public Procurement in Tanzania: The Moderating Role of Attitude

Isaya Emmanuel Machaine¹, Nurliyana Binti Maludin^{2*}, Lai Soon Wong³

¹Teh Hong Piow Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Jalan Universiti, Bandar Barat, 31900 Kampar, Perak Darul Ridzuan, Malaysia.

Email: imachaine@gmail.com

²Teh Hong Piow Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Jalan Universiti, Bandar Barat, 31900 Kampar, Perak Darul Ridzuan, Malaysia.

Email: nurliyana@utar.edu.my

³Teh Hong Piow Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Jalan Universiti, Bandar Barat, 31900 Kampar, Perak Darul Ridzuan, Malaysia.

Email: lswong@utar.edu.my

ABSTRACT

This study investigates the behavioural intentions of Small Enterprises (SEs) to participate in public procurement, using the Theory of Planned Behavior (TPB) as the guiding framework. While TPB traditionally posits that attitude, subjective norms and perceived behavioural control (PBC) directly predict behavioural intention, this study extends the model by including perceived benefits as an additional determinant and testing the moderating role of attitude. A cross-sectional survey design was employed, collecting data from 189 SEs owners and managers across Dar es Salaam and Dodoma. Partial Least Squares Structural Equation Modeling (PLS-SEM) approach was used to deduce the findings. Results showed that perceived benefits and PBC significantly predicted SEs' intention to engage in procurement, while subjective norms and attitude exhibited weak direct relationships. A moderation analysis of these features showed that attitude, whereas moderating on the subjective norms side, also had the effect of negatively moderating the relationship between PBC and intention (hypothetical overconfidence where both variables are high). The effect of attitude on perceived benefits was insignificant, meaning that these practical evaluations drive intention independently. The study adds to TPB by integrating the perspective of a developing economy and demonstrates that SEs' procurement participation was determined mainly by pragmatic assessments rather than attitudinal and normative aspects. The findings have practical implications in terms of developing capacities, financial access, transparent procurement processes, as well as promoting the availability of a supportive network to increase SEs involvement.

CORRESPONDING

AUTHOR (*):

Nurliyana Binti Maludin
(nurliyana@utar.edu.my)

KEYWORDS:

Public Procurement
Behavioural Intention
Theory of Planned Behaviour (TPB)
Small Enterprises (SEs)
Attitude
Tanzania

CITATION:

Isaya, E. M., Nurliyana, M., & Lai, S. W. (2025). Small Enterprises Behavioural Intention to Participate in Public Procurement in Tanzania: The Moderating Role of Attitude. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 10(11), e003676. <https://doi.org/10.47405/mjssh.v10i11.3676>

Contribution/Originality: This study's negative moderation of attitude on perceived behavioural control suggests that a combination of high confidence and strong attitude may foster overconfidence, thereby weakening behavioural intention. This offers a novel perspective on the interplay between psychological and structural factors, extending the understanding of how TPB constructs interact beyond their traditional direct pathways.

1. Introduction

The history of public procurement in Tanzania has been marked by great developments since independence in the 1960s as an aspect of the country's overall economic and governance plan (Mchopa et al., 2024). Procurement was highly centralized in the initial years after independence, with state agencies managing the provision of goods and services. While supposed to provide fair resource allocation, the system of governance turned out to be inefficient, inflexible, and corrupt (Kihamba, 2021). In the 1990s, a wave of procurement reforms swept across developing countries, spurred by global trade liberalization and anti-corruption policies, prompting Tanzania to reform its purchasing system. One of such milestones, therefore, was the adoption of the Public Procurement Act (PPA) of 2001 and the subsequent amendment (Maliganya, 2016) of the PPA in 2011, which, along with the Public Procurement Regulations (PPR) passed in 2013, formed the principal legislative foundation for procurement (Maliganya, 2015). These reforms reinforced fairness, transparency, and value for money and established the Public Procurement Regulatory Authority (PPRA) to achieve this and promote best practices of the profession (Mchopa et al., 2024).

Despite these successes, challenges still exist among SEs. Inadequate enforcement of laws, perceived corruption, and governance issues persistently obstruct openness and efficiency in procurement. Slow adoption of e-procurement among SEs has also hampered progress (Komba et al., 2023; Kajimbwa, 2018). As of 2017, Tanzania lacked a fully operational digital platform; however, the recent implementation of the National e-Procurement System of Tanzania (NeST) has demonstrated positive progress in streamlining processes and enhancing accountability (Dello & Yoshida, 2017). Procurement planning, supplier management, or planning for more of the business beyond regulation are increasingly recognized as important for improving efficiency and competitiveness. Well-conducted planning, evaluation, and supplier development are critical for ensuring efficiency in organizations and the national economy. Therefore, though recent reforms have improved Tanzania's procurement system, ongoing challenges also emphasize the necessity of further innovation, ethical practices and the embedding of technology (Changalima et al., 2021).

1.1. Small Enterprises Procurement Challenges

Although public procurement in Tanzania presents substantial opportunities for Small Enterprises (SEs), their participation remains limited due to multiple interrelated challenges (Dello & Yoshida, 2017). A key issue lies in perceived benefits, as SEs often question whether their effort involved in public tenders justifies the potential gains. Limited transparency in procurement information and high competition from established firms discourage smaller enterprises from pursuing opportunities. Complex bureaucratic procedures and lengthy processes further reduce the attractiveness of participation, with

many SEs perceiving the costs and risks as outweighing the potential rewards (Mchopa et al., 2024).

Moreover, perceived behavioural control represents another major obstacle. Small Enterprises (SEs) do not have access to abundant financing, and hence, there is a lack of capacity to finance bid preparation costs and the contract execution requirements (Khan et al., 2023). Lack of technological know-how and the difficulty of complying with regulations and procurement standards also erodes their own sense of competence. Weak digital infrastructure, and, in particular, the lack of adoption of e-procurement, further complicates the issues, limiting transparency and making it difficult to perform efficiently (Akenroye et al., 2020). Regarding subjective norms, SEs may experience a small-scale isolation for procurement purposes owing to a poor trust system support, lack of confidence in procurement bodies, and low confidence of the industry in the company's attitude towards procurement institutions (Komba et al., 2023). Meanwhile, low levels of networking and collaboration possibilities limit them from participating in those business events, in order to participate in public tenders positively (Israel, 2025). And lastly, attitude toward procurement is often shaped by prior experiences. Failed attempts, skepticism about fairness, and inadequate incentives can generate reluctance to engage (Saastamoinen et al., 2017). However, resource limitations and the absence of training also help to fuel a low attitude that will further lead SEs to consider procurement a burden as opposed to a tool that would be useful (Akenroye et al., 2024).

These challenges combined inhibit SEs' ability as well as willingness to participate in public procurement. Although reforms were made in the procurement system of Tanzania, and a new procurement regime has been largely reformed, many deficiencies exist in examining the reasons behind how SEs still have low participation (Maliganya, 2015). Previous study, such as Mohamed et al. (2018), Matari (2024), Mohamed and Box (2017), focuses on certain areas of structural and institutional constraints, including regulatory inefficiency and corruption, whereas there has been less study on psychological and behavioural aspects that impact SEs' decisions. Theory of Planned Behavior (TPB) offers a significant area of observation into the challenges, to suggest solutions to fill this gap, highlighting how behavioural intention can be influenced by attitude, subjective norms, perceived behavioural control, and perceived benefits. Although evidence suggests that these constructs play a significant role in SE behavioural action, limited empirical studies has been conducted in the Tanzania context to examine their combined and moderating effects. In particular, the moderating role of attitude in either strengthening or weakening the influence of subjective norms, perceived benefits and perceived behavioural control has received little attention. Addressing these gaps is essential to deepen theoretical understanding and inform targeted interventions aimed at improving SE participation in public procurement.

1.2. Significance of the Study

This empirical study on the behavioural determinants of Small Enterprises' (SEs) intention to participate in public procurement offers key dimensional measures. Utilizing the Theory of Planned Behaviour (TPB), the study enhances the theory of how attitude, subjective norms, perceived behavioural control, and perceived benefits affect decision making in the context of a developing economy. Notably, the study also expands TPB by examining the moderating influence of attitude, thereby providing new perspectives on how the psychological and contextual factors play a role in the development of

behavioural intention. From a practical standpoint, the findings may be useful for policymakers, procurement authorities, support institutions, etc.

In spite of the government's attempts to engage SEs, their participation is still minimal. Identifying the determinants of intention, this study suggests ways to build evidence-based interventions that address SEs' psychological and social barriers that exceed policy guidance. For instance, if training, easing compliance requirements, or explaining the tangible benefits of procurement participation can bolster SEs' perceived control, then participation may be positively affected. This study contributes to the broader discourse on inclusive economic growth. SEs constitute the backbone of Tanzania's economy, and they must increase their participation in public procurement to ensure competitiveness, innovation, and equitable distribution of wealth. These variables render this study both theoretically and practically significant for augmenting SEs' participation in public procurement.

1.3. Research Objectives

This study aims to examine the factors influencing the behavioural intention of Small Enterprises (SEs) to participate in public procurement, with a focus on the roles of attitude, perceived behavioural control, subjective norms, and perceived benefits. Specifically, the study seeks to achieve the following objectives: -

- i. To determine the effect of key behavioural factors (perceived behavioural control, subjective norms, attitude and perceived benefit) on SEs' behavioural intention to participate in public procurement.
- ii. To examine the moderating effect of attitude on the relationship between behavioural factors and SEs' behavioural intention to participate in public procurement.

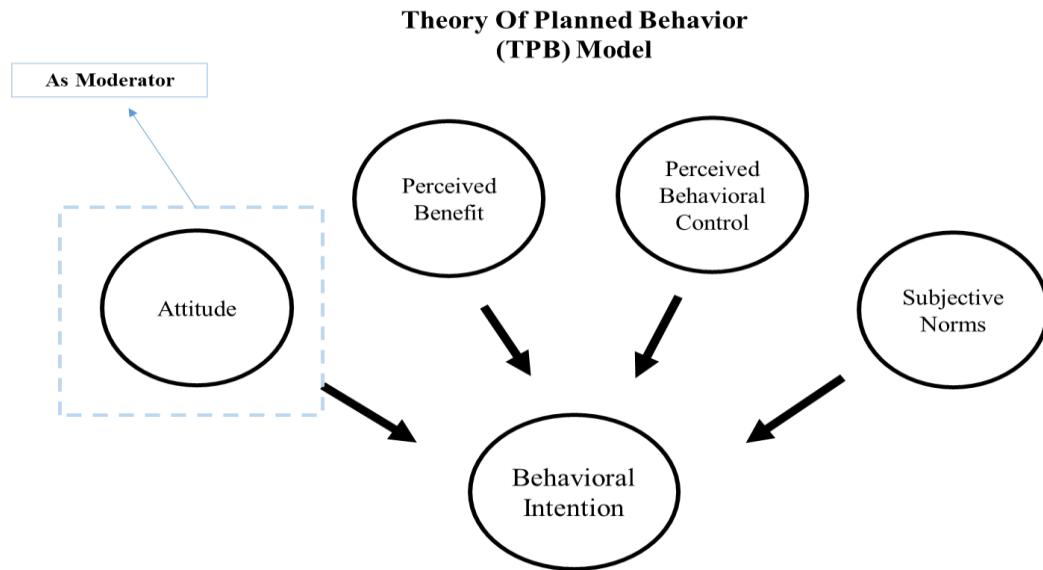
2. Literature Review

2.1. Theoretical foundation

The Theory of Planned Behavior (TPB), proposed by [Ajzen \(1991\)](#), provides a comprehensive framework for understanding how attitude, social influences and perceptions of control shape behavioural intentions. It has been widely applied to predict behavior in diverse fields such as health, marketing and entrepreneurship ([Ajzen, 2020](#); [Maskari, 2022](#); [Bellová & Špírková, 2021](#)). The central proposition of TPB is that intention serves as the most immediate predictor of behavior, and this intention is determined by four interrelated constructs: attitude, subjective norms, perceived benefits and perceived behavioural control (See [Figure 1](#)) ([Ajzen, 1991](#)).

Attitude refers to an individual's positive or negative evaluation of performing a specific behavior, shaped by beliefs about likely outcomes and the value attached to those outcomes ([Ajzen, 1991](#)). Subjective norms capture the influence of social pressures, whether from family, peers, or institutions, that encourage or discourage behavior ([La Barbera & Ajzen, 2021](#)). PBC, in contrast, describes an individual's perceived ease or difficulty of conducting those behaviors; comprising internal capacities and external constraints ([Ajzen, 2020](#)). It is essential to note that TPB identifies PBC as capable of directly affecting behavior, especially when individuals perceive genuine control over the situation.

Figure 1: Theory of Planned Behavior (TPB) Model Dimensions



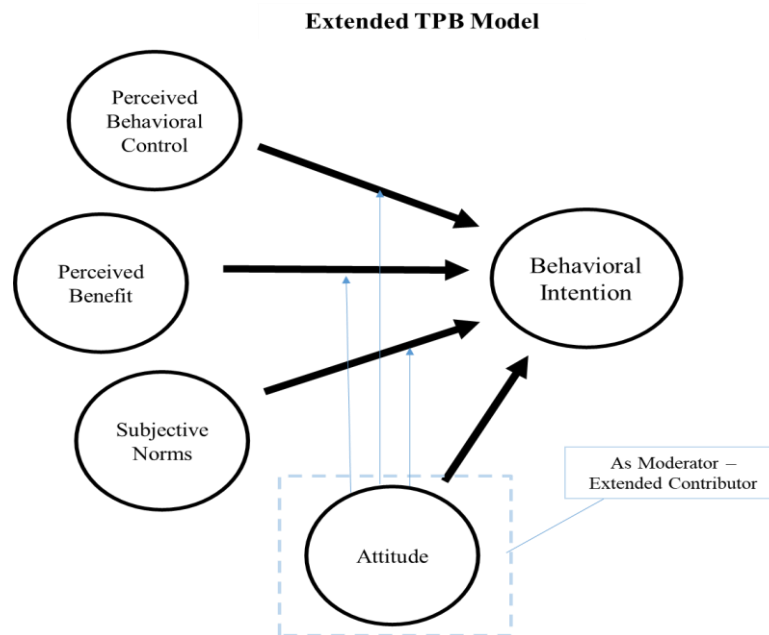
Source: [Ajzen \(1991\)](#)

The TPB model is particularly appropriate where decision-making is influenced not only by internal orientations, but also by external constraints, as in cases of SE participation in public procurement. SEs play a significant role in Tanzania's economy but are rarely involved in public procurement [Mahuwi and Israel \(2023\)](#). TPB offers a useful perspective to tackle this gap and emphasizes that attitude, subjective norms and perceived control combine to influence behavioural intention. For example, SEs who consider procurement as transparent and rewarding are likely to have intentions to engage ([Ajzen, 1991](#); [Kalula et al., 2024](#)). Similarly, subjective norms such as peer, association or regulatory pressure can also facilitate engagement, especially in cultures where community expectations predominate ([Ni, 2024](#)). Last but not least, perceived control is pivotal, since SEs are required to feel like they are competent to cope with intricate requirements (e.g., financial credentials and compliance papers) before initiating intention to action ([Pacho, 2023](#); [Nzilano et al., 2022](#)).

Therefore, the study employed the empirically tested TPB framework (See [Figure 1](#)) to examine the procurement participation of SEs in Tanzania. The ongoing low participation rates, despite government policy intervention ([Nzilano et al., 2022](#)), indicate that structural incentives alone are not enough; instead, empirically testing the psychological and social factors is necessary. Through attitude, norms, and perceived control, TPB allows for a more detailed scrutiny of how SEs develop intentions and how or why so many are reluctant to participate. The enduring applicability of the theory to the study of SE involvement in public procurement in emerging markets is highlighted by its established utility in accounting for behavior decisions in a complex system. But emphasizing attitude as a moderator is highly pertinent as it recognizes how internal evaluations and other drivers of intention converge on a large scale in public procurement involvement. Whereas the Theory of Planned Behavior (TPB) traditionally conceptualizes attitude, subjective norms, perceived benefits and perceived behavioural control as parallel predictors of intention, this study builds on this paradigm by acknowledging that attitude can amplify or attenuate the influence of these predictors ([Figure 2](#)). For example, favorable attitude can enhance the impact of subjective norms in the way to which social support mediates stronger behavioural intentions. Conversely, within a situation where

attitude is poor, even strong normative or perceived control pressures may not be able to achieve intention (Kalula et al., 2024). The Tanzanian SEs condition, characterized by restricted resources and bureaucratic constraints, underlines the concept of attitude, whereby psychological disposition becomes a powerful determinant of the usefulness of external coercion and perceived benefits (Pacho, 2023). Moreover, by introducing attitude as a moderator, it validates an important contribution: It adapts TPB to circumstances where decision-making is highly conditional on rational assessment as well as socio-environmental constraints.

Figure 2: Theory of Planned Behavior – Modified Model



Source: Ajzen (1991)

2.2. Previous Literature on Constructs

Indeed, previous TPB studies have found that attitude, subjective norms, and perceived behavioural control are important predictors of intention. In the literature with regard to SE procurement, these constructs provide insight into willingness and reluctance to participate in tendering activity (Alomar, 2023). It has been well established that attitude is one of the key variables influencing behavioural intention. SEs will be more likely to be engaged in procurement when they think that it will bring benefits such as increased sales, market expansion, or enhanced credibility (Alomar, 2023). Positive prior impressions gained of transparent and fair processes related to procurement can further contribute to a positive attitude towards the new procurement practices (Mgawe & Shatta, 2024). In contrast, lack of confidence, or the sense of a corrupted entity in one or more instances, can give rise to skepticism, reducing the overall willingness to be interested. So, attitude can moderate not only the cognitive appraisal of the procurement, but also the emotional motivation of the SEs to participate.

There are subjective norms in the social dimension of procurement decision-making. SEs tend to function in an environment where the expectations of colleagues, industry bodies, or even external regulators play a major role (Ajzen, 1991; Glas & Eßig, 2018). For instance, Gunawan et al. (2024) estimated that perceived expectations by government

organizations and business networks induced SEs to engage in procurement. Such pressures can also strengthen positive beliefs, which perpetuate the spiral of normative influence and intention. Because of cultural norms with strong collective identity and informal networks, such as those found in Tanzania, these normative cues play a particularly powerful role in societies.

Perceived behavioural control (PBC) measures SEs' confidence in their capability to satisfy procurement needs. In fact, high PBC arises where SEs have access to adequate resources, experience, and institutional support (Ajzen, 1991; Latip & Sharkawi, 2021). On the other hand, there is a lack of financial capability, bureaucracy, and limited administrative knowledge that leads to feelings of low control that, in turn, discourage action. Low PBC can act as an obstacle to intention formation (Latip & Sharkawi, 2021), even when attitude and norm support are available. Digital procurement platforms and training programs, for example, improve PBC by making participation more likely and attractive.

Finally, behavioural intention is the degree to which individuals are ready to act and is the product of attitude, norm, and perceived control combined (Ajzen, 1991; Akenroye et al., 2020). SEs that are positive about procurement, have support networks, and availability of resources have strong intentions (Di Mauro et al., 2020). Nevertheless, intention is also fragile in the event of a weak level of any of the three antecedents, since one has to combine the preceding antecedents to be successful in participation. The TPB model has been found to be able to account for SE procurement behavior in the literature. Individually, each construct adds value but collectively influences the emergence of intent in interactions (Nzilano et al., 2022). These findings highlight the need to consider both individual and contextual factors in examining how SEs respond to public procurement.

2.3. Hypotheses Development

2.3.1. Perceived Behavioural Control and Behavioural Intention

Perceived behavioural control (PBC) refers to the extent to which SEs perceive their ability, resources, and opportunities to successfully engage in public procurement (Mgawe & Shatta, 2024). In the TPB, PBC is seen as a key determinant of intention since, despite positive attitude and social support, SEs can be prevented from acting if they lack confidence that they are ready to act or able to act. Within procurement environments, this difficulty may also be about understanding what a tender document means, complying with legal or financial obligations or using a digital procurement platform (Hagger et al., 2022). TPB suggests that the greater the perceived control, the higher the intention to engage (La Barbera & Ajzen, 2021). SEs are, thus, more likely to engage in procurement if they feel they have adequate resources and the necessary knowledge and institutional support (Rutatola et al., 2024). On the other hand, if companies do not have a strong confidence about overcoming bureaucratic and technical barriers, their intention decreases even when attitude or norms are positive (Shatta & Mabina, 2024). Hence, based on the above, we stipulate as follows:

H1: Perceived Behavioural Control has a significant effect on Behavioural Intention to participate in Public Procurement.

2.3.2. Perceived Benefit and Behavioural Intention

Perceived benefits are a crucial factor in shaping SEs' behavioural intention toward public procurement. The concept is widely recognized across various fields, emphasizing that individuals or firms are more likely to engage in an activity when the expected benefits are clear and substantial (Alviyendra & Pardede, 2024; Zhang et al., 2018). Public procurement, as a key instrument for infrastructure development and service delivery, offers SEs potential advantages such as market expansion, increased revenue, and reputational growth (Mahuwi & Israel, 2023; Akenroye et al., 2020). Empirical evidence suggests that perceived benefits strongly predict intention in procurement participation. For instance, studies in Tanzania show that suppliers' and buyers' perceived benefits of e-procurement significantly affect their intention to use such systems, ultimately improving procurement outcomes (Mgawe & Shatta, 2024; Shatta & Mabina, 2024). Studies by Flynn and Davis (2017), Zhang et al. (2018) and Ancarani et al. (2019) underscores that, benefits like certainty of payment, innovation and creativity, improved business opportunities, competitiveness, and gaining social image, propels Small Enterprises willingness or intention to participate in public procurement. Similarly, Boison et al. (2022) found that performance expectancy, closely related and an analogous to perceived benefit, significantly drives behavioural intention to adopt procurement technologies in Ghana. These findings highlight that SEs are more willing to engage in procurement when they recognize clear value, whether economic, strategic, or technological. We therefore hypothesize that:

H2: Perceived Benefit has a significant effect on Behavioural Intention to participate in Public Procurement.

2.3.3. Subjective Norms and Behavioural Intention

Subjective norms take into consideration the effect of social pressure on SEs' intention to engage in procurement (Boison et al., 2022). Consistent with TPB, the higher SEs perceive that key referents such as peers, mentors, industry associations and government believe they should participate, the greater will be their intention to do so (Abayomi et al., 2020; Xu et al., 2023). Especially powerful in conveying these perceptions are social networks and professional communities. For instance, if enterprises observe that their fellow SEs are participating in procurement or when regulatory bodies and associations push for participation, then SEs tend to participate (Pacho, 2023; Nzilano et al., 2022). Attitude may be further reinforced by normative influence, making the formation of intention more likely. Study shows that organizational cultures favoring ethical and sustainable practices strengthen the effect of norms. Transparent and fair leadership has also improved normative influence, so it encourages SEs to do the same (Gunawan et al., 2024). Thus, the suitability of SEs to engage in procurement largely depends on social and institutional pressures in their sphere. Therefore, it is hereby hypothesized that:

H3: Subjective Norms have a significant effect on Behavioural Intention to participate in Public Procurement.

2.3.4. Attitude and Behavioural Intention

Attitude represents an SE's overall evaluation of participating in public procurement, whether positive or negative. As posited by TPB, attitude significantly shapes behavioural intention (Mgawe & Shattaa, 2024). A favorable perception often stems from recognizing

procurement as a source of growth opportunities, stability and access to broader markets (Di Mauro et al., 2020). Organizational factors, such as support for procurement initiatives, positive experiences with e-procurement, and management endorsement, also contribute to developing positive attitude (Alomar, 2023; Rutatola et al., 2024). The more benefits SEs perceive, such as transparency, efficiency or competitiveness, the stronger their intention to participate. On the other hand, negative experiences such as perceptions of corruption or excessive bureaucracy can weaken attitude and reduce intention. Prior experiences and situational enablers, therefore, play a central role in shaping attitude, which subsequently influence SEs' readiness to participate in procurement (Pacho, 2023). It is thus hypothesized that:

H4: Attitude significantly influences Behavioural Intention to participate in Public Procurement.

2.3.5. Moderating Effect of Attitude

Attitude can serve as a critical moderator in the relationship between other behavioural antecedents and intention. Within the TPB theory, subjective norms, perceived benefits and PBC influence intention, yet the strength of these relationships often depends on an individual's overall evaluation of the behavior (Ajzen, 1991; Wong et al., 2018). In the context of public procurement, attitude determines whether external influences translate into a concrete willingness to participate in a behaviour and in this context, public procurement.

Perceived benefits and intention are also subject to attitudinal moderation. SEs that recognize procurement as beneficial in terms of growth, competitiveness, or reputation are more likely to act when such recognition aligns with a positive attitude (Mwesiumo et al., 2021; Patel et al., 2023). Attitude strengthens the link by transforming perceived advantages into actionable intention. However, negative attitude, often arising from mistrust, risk perceptions, or lack of understanding, may weaken or nullify the influence or perceived benefits (Chidambaram et al., 2023).

The interaction between subjective norms and intention is shaped by attitude. When SEs perceive strong social pressure from peers, networks, or institutions to engage in procurement, a favorable attitude amplifies this effect, making compliance with social expectations more likely (Sia & Jose, 2019; Shen et al., 2019). Conversely, if SEs hold negative attitude, normative pressure may have little or no impact. Moreover, both experiential attitude (based on emotions) and instrumental attitude (based on perceived usefulness) can interact with subjective norms to shape intention (Wan et al., 2017).

Finally, the role of PBC is also contingent on attitude. SEs with strong PBC i.e., confidence in resources, knowledge, and support are more likely to convert their attitude into firm intentions (La Barbera & Ajzen, 2021; Mgawe & Shatta, 2024). A positive attitude toward procurement, combined with high perceived control, enhances the likelihood of participation. In contrast, even favourable attitude may fail to generate intention if SEs perceive bureaucratic obstacles, lack of resources or insufficient training (Ho et al., 2022). This attitude strengthens or weakens the extent to which PBC translates into behavioural intention. It is henceforth hypothesized that:

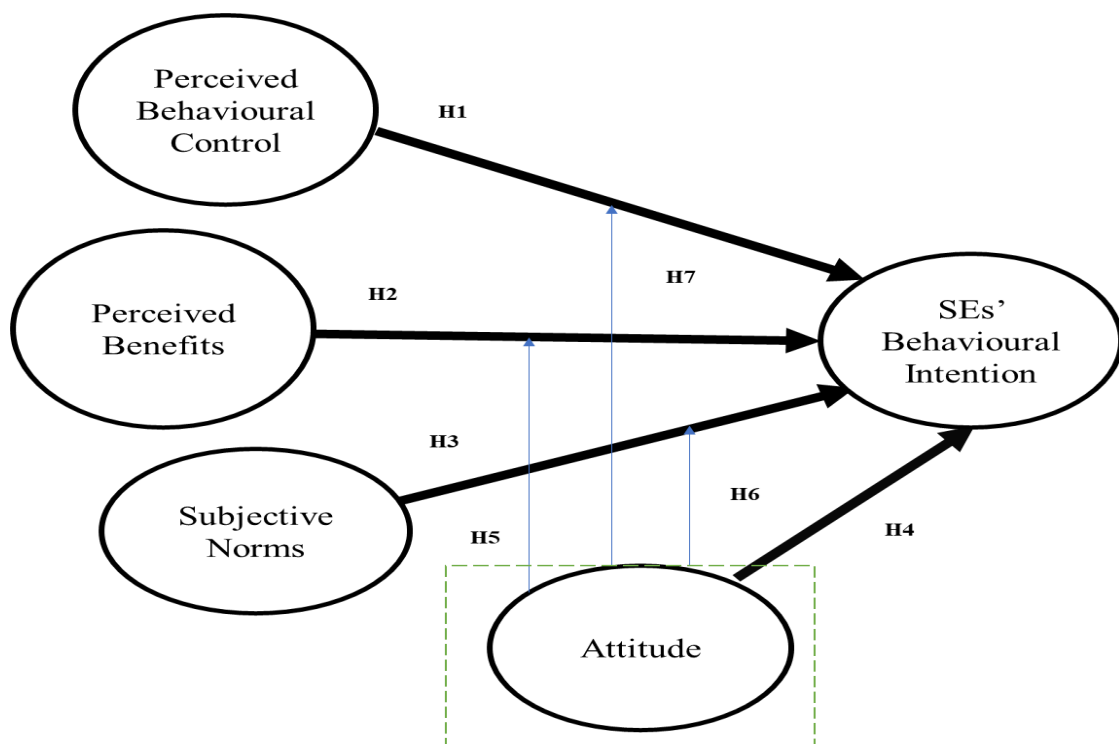
H5: Attitude significantly moderates the relationship between perceived benefit and behavioural intention to participate in public procurement.

H6: Attitude significantly moderates the relationship between subjective norm and behavioural intention to participate in public procurement.

H7: Attitude significantly moderates the relationship between PBC and behavioural intention to participate in public procurement.

According to the model (Figure 3), developed following the hypothesis indication, we further contribute to enhancing the Theory of Planned Behavior (TPB) analysis for SEs in the frame of their behavioural intention to engage in public procurement. The model suggests that perceived behavioural control, perceived benefits, subjective norms and attitude directly affect the intention as H1 - H4. Perceived behavioural control, on one hand, is shown to be related to confidence of the SEs in handling procurement requirements; while perceived benefits, on the other hand, focus on anticipated benefits like market expansion and profitability. Subjective norms reflect social and institutional pressures affecting participation. Also, attitude is identified as a moderator H5–H7, indicating the ability to increase or decrease the effects of the predictors on intention. The integration provides a comprehensive understanding of the interaction between antecedents of behaviour and behavioural intention influencing SEs' procurement participation.

Figure 3: Conceptual Framework (Extended TPB Model)



3. Research Methods

3.1. Research Design

This study adopted a quantitative research design anchored in the Theory of Planned Behavior (TPB) to examine the intention of Small Enterprises (SEs) to participate in public procurement in Tanzania. The design was cross-sectional in nature, allowing data to be collected at a single point in time from a relatively large sample of SEs owners and

managers. The use of a structured questionnaire ensured consistency in responses and enabled the measurement of key TPB constructs: attitude, subjective norms, perceived behavioural control, and behavioural intention, in a standardized and comparable manner. The adoption of a quantitative approach was consistent with the study's positivist orientation, with emphasizes on objectivity, measurement and generalization. Positivism, rooted in the natural sciences, provides a systematic way to examine social phenomena and is well-suited for testing hypotheses and explaining causal relationships. In this context, the design allowed for the empirical testing of the theoretical framework and provided insights into behavioural patterns influencing SE participation in procurement.

The cross-sectional approach was an appropriate means of capturing perceptions and behavior tendencies of SEs as these relate to the business environment in which they operate. As argued by [Maier et al. \(2023\)](#), cross-sectional studies are useful tools to obtain good-quality information on specific study questions. In addition, the questionnaire was structured in a design or format of presentation of questions to minimize variation between data collection and to enhance reliability among respondents who were exposed to a similar question format. This methodological approach allowed identification of behavioural trends while at the same time, ensured accuracy, representativeness and practicality in a Tanzanian context.

3.2. Population and Data Collection

The study population was small enterprises (SEs) in Tanzania, which are business owners and managers that play a significant role in the national economy development and job provision [Gamba \(2019\)](#). Because of the magnitude of this population, the study was narrowed down to SEs in Dar es Salaam and Dodoma. It is important to note that such regions were strategically selected due to their significance and representativeness; Dar es Salaam serves as the business capital and it is also the home to proportionately many SEs in Tanzania compared to other regions, whereas Dodoma hosts a number of governmental agencies that are also in charge of handling procurement ([Diao et al., 2020](#)). The two regions combined were useful in offering comparative contexts to explore the role of SEs in public procurement, taking account of commercial facets and policy or regulatory dimensions.

As a result of the absence of the sampling frame, the study's sample size was estimated using G*Power 3.1.9.4 for an effect size of 0.15 and $\alpha = .05$, as well as a statistical power of $(1-\beta) = .95$ and 4 predictors. The software suggested at least 166 respondents. With an anticipated missing data, non-responses, straight lining and sensitivity of the study context, as suggested by [Ichinose et al. \(2025\)](#), [Qiu et al. \(2022\)](#) and [Mirzaei et al. \(2022\)](#), the sample size was further augmented by 80%, resulting to a final sample of 300.

Data were collected through self-administered questionnaire that were delivered and picked up. This method consisted of delivering the instruments to respondents at their places of business and picking them up later, when filled in. This mode also had several benefits: it minimized the risk of interviewer bias, enabled participants to complete the survey whenever they preferred and in a self-paced manner, and increased the potential for high-quality responses. The employment of closed-ended questions also increased comparability and enabled quantitative assessment. A total of 189 useable responses were subsequently used for further analysis by using Smart PLS 4.0 software.

3.3. Research Instrument and Ethical Clearance

The study used a structured questionnaire to collect data using the dimensions of the Theory of Planned Behavior (TPB) in the investigation of SEs' intention to participate in public procurement. All measures used a 5-point Likert scale (1 = Strongly disagree, 5 = Strongly agree). The study selected this scale for its established psychometric reliability, ease of use, and because it is specifically favorable to other more complicated seven or nine-point scales with a range of response options (Revilla et al., 2014). The five-point style was designed to be clear to the respondents and included sufficient variation allowing for statistical analysis to take place. The survey was self-administered through a drop-off and pick-up procedure. This approach was taken in an effort to reduce interviewer influence and allowed respondents to give straightforward, independent responses, at their own convenience, thereby attempting to minimize social desirability bias (Krumpal & Voss, 2020).

The questionnaire was based on the existing academic scales, and items were directly extracted or modified from previous studies. In particular, 5 items were used to evaluate attitude, 5 measured subjective norms, 6 tapped perceived behavioural control and another 5 measured behavioural intention, all the items were adapted and adopted from Zhang et al. (2018), the 5 items that evaluated perceived benefits were adopted from (Ancarani et al., 2019). A pilot test was carried out covering roughly 10% of the anticipated sample with the participation of SE professionals and procurement staff. This pre-test served for clarification, eradication of ambiguities and reassured that the items were contextually relevant. Changes were based on participant input, enhancing the validity of the instrument. Reliability was analyzed by Cronbach's alpha; all constructs were above the acceptable level of 0.70, reflecting satisfactory internal consistency.

Ethical approval was granted by the institutional review board of Universiti Tunku Abdul Rahman, conforming to international norms and standards of research. Other appropriate governmental authorities in the regions where the study was undertaken were also requested to grant permission for data collection. Participants were informed of the purpose of the study, and written consent was obtained before taking part in the study. Confidentiality and anonymity were assured, and identifying information was removed from the dataset. These measures simply strengthened the scientific and ethical quality of the study.

3.4. Analytical Procedure

After data collection, the Partial Least Squares Structural Equation Modelling (PLS-SEM) approach with SmartPLS 4.0 was used. This was an appropriate method since it is adequate for both predictive and exploratory study, especially in the area of behavioural studies with complex models and relatively small sample sizes (Hair et al., 2020). This approach allowed flexibility in treating unobserved variables measured by multiple indicators and was consistent with the study's theoretical basis on TPB.

The analysis was performed in two steps: measurement model testing and structural model testing. As such, the measurement model primarily served to assess the reliability and validity of constructs. Reliability was tested using Cronbach's alpha and composite reliability, whereas convergent validity was assessed using Average Variance Extracted (AVE). We assessed discriminant validity and used the Fornell-Larcker criterion and

Heterotrait–Monotrait (HTMT) ratios to ascertain that those constructs were conceptually different (Hair et al., 2020; Sarstedt et al., 2022).

The structural model was investigated to evaluate relationships among constructs. Bootstrapping with resampling was used to obtain standard errors, t-statistics and p-values for hypothesis testing. Path coefficients (β) were used to determine the strength and direction of relationships. Model fit was assessed by using R^2 , f^2 and Q^2 (Hair et al., 2022) for variance explained, effect sizes, and predictive relevance. These results combined provided evidence for the strength, significance and predictive validity of our model. In general, the application of PLS-SEM provides solid testing on direct and moderating effects of TPB variables on SEs' behavioural intention, as well as explaining and predicting the influencing factors in public procurement participation.

3.5. Common Method Bias

As self-reported data were utilized from a single research instrument in the study, attention to potential common method bias (CMB) was exerted. In order to mitigate this risk, a number of process controls were utilized. The questionnaire itself was developed using straightforward language, enabling a high degree of understanding and lessening the possibility of participants interpreting items incorrectly. Respondents were guaranteed anonymity and confidentiality, lessening concerns about social desirability. The drop off and pick up technique also meant that respondents were able to complete the questionnaire in privacy, at their own time and pace, reducing response anxiety. Post-hoc statistical tests were performed to test for possible CMBs after all independent variables (collinearity) with a VIF value (Hair, 2020). The VIF value was < 3.3 through the test of behavioural intention model, indicating that common method variance did not have a significant impact on this study. Furthermore, the discriminant validity based on the HTMT ratio also observed construct discrimination (Sarstedt et al., 2022). Together, this set of measures aimed to rule out that common method bias had a major impact on the results of the study.

4. Results

4.1. Descriptive Analysis

There were 189 valid responses after excluding 33 incomplete questionnaires (effective response rate: 74.33%), based on a total of 223 returned surveys. Most of the respondents were male (64.00%), and 36.00 % were female. There was an almost equal percentage between job position for managers (53.40%) and owners (46.60%), so there were key decision-makers to gather insights from. The most predominant age group was 29–39 (46.60%), followed by the age range of 40–50 years (27.50%), a relatively younger and economically productive age category. Levels of education generally tended to be high, with a majority holding at least a bachelor's degree (55.00%), suggesting that SEs owners are relatively well-educated individuals.

45.50% of the firms surveyed had five or fewer years of business experience, so relatively younger businesses responded well, followed by 28.60% who had 6-10 years in the business, 25.90% were businesses that had operated for 11 years and beyond (see Table 1). All were small enterprises (5–49 employees), validating the SEs nature of the sample framed in the study. Suppliers were the largest category (51.90%), followed by service providers (33.90%) and contractors (14.20%). Geographically, the majority of the

respondents were located in Dodoma (55.60%) and Dar-es-Salaam (44.40%), being centers of power and business, respectively, within Tanzania. These features illustrate an SEs community of young, educated decision-makers in predominantly new firms with limited scale that influences their ability to engage in public procurement (see [Table 1](#)).

Table 1: Descriptive statistics

Indicator	Category	Frequency	Percentage
Gender	Male	121	64.00
	Female	68	36.00
Job Description	Manager	101	53.40
	Owner	88	46.60
Age Group (years)	18–28	38	20.10
	29–39	88	46.60
	40–50	52	27.50
	51+	11	5.80
	Educational Level	Primary	9
Educational Level	Secondary	32	16.90
	Diploma	13	6.90
	Bachelor	104	55.00
	Masters	29	15.30
	PhD	2	1.10
	Age of Business (years)	0–5 years	86
6–10 years		54	28.60
11–15 years		27	14.30
16+ years		22	11.60
Type of Business		Supplier	98
	Service Provider	64	33.90
	Contractor	27	14.20
Business Location	Dodoma	105	55.60
	Dar-es-Salaam	84	44.40
Number of Employees	5–49	189	100.00

4.2. Measurement Model Evaluation

The examination of the measurement model concentrated on reliability, convergent and discriminant validity of the constructs. Scale reliability was tested using Cronbach's Alpha and Composite Reliability (CR), resulting in acceptable internal consistency for all variables. As shown in [Table 2](#), Cronbach's Alpha and CR of Attitude were recorded as 0.834 and 0.842, respectively, which is above the standard value of 0.7. Behavioural Intention also demonstrated strong construct validity (Cronbach's Alpha = 0.903 and CR = 0.911). Reliability was also adequate for Perceived Behavioural Control (0.849; 0.852) and Perceived Benefit (0.786; 0.810). Subjective Norms, though with slightly lower values of Cronbach's Alpha (0.69) and CR (0.682), remained marginally above the threshold for exploratory study. These findings support the internal consistency of the concepts.

The Average Variance Extracted (AVE) is used to test convergent validity. The AVE values for attitude (0.601), behavioural intention (0.721), perceived behavioural control (0.624), perceived benefit (0.610) and subjective norm (0.599) all exceeded the suggested 50% cutoff, suggesting that each construct explains a good amount of variance in its item indicators. This indicates that the items can adequately reflect the latent variables involved.

The outer loadings (displayed in Figure 4) were also analyzed individually. Loading items under Attitude has values over 0.70 except item ATT5 (0.700), which was, however, still acceptable. All 4 BI indicators (BI1–BI4) displayed high loadings, greater than 0.86, and the reflective indicator for BI5 loaded moderately at a value of 0.775, which is acceptable as well. Items for Perceived Behavioural Control loaded at between 0.750 and 0.819, once more supporting reliability. Perceived Benefit items were also between 0.709 and 0.866, indicating good measurement quality. Subjective norms achieved loadings between 0.721 and 0.817, which indicated the same shared variance with its latent concept. The variance inflation factor (VIF) for all the items was between 1.223 and 2.949, well below the cutoff value of 5, which confirmed that multicollinearity was not an issue (displayed in Table 2).

Figure 4: Outer Loadings Statistics

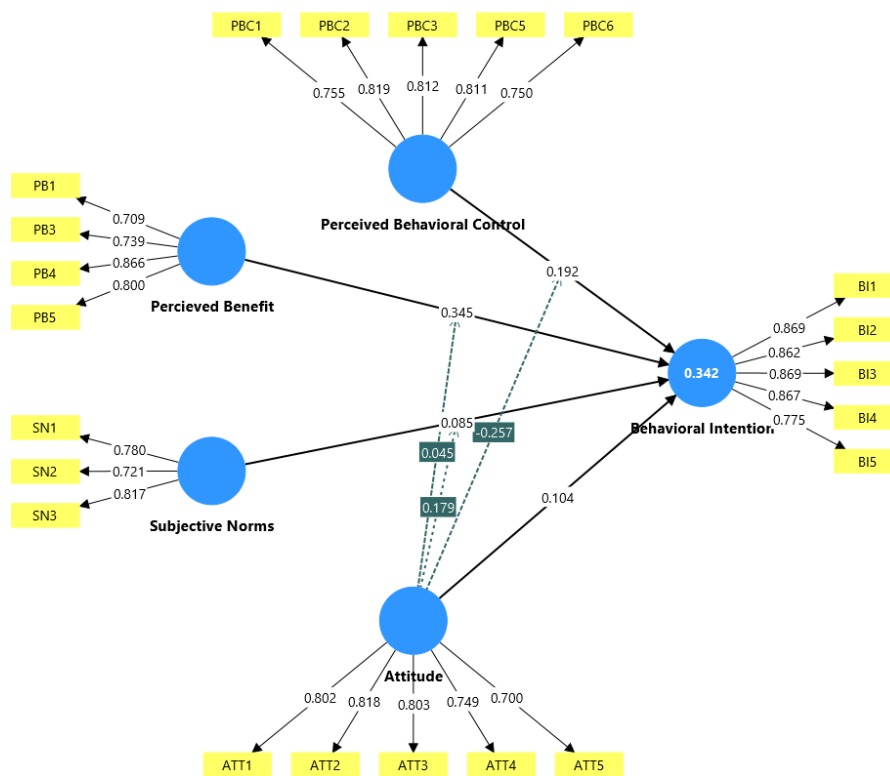


Table 2: Statistical Assessment – PLS-SEM

Construct / Items	Loadings	VIF	Cronbach's Alpha	CR	AVE	F ²	R ²	Q ²
Attitude			0.834	0.842	0.601	0.011		
ATT1	0.802	2.007						
ATT2	0.818	1.966						
ATT3	0.803	1.904						
ATT4	0.749	1.799						
ATT5	0.700	1.566						
Behavioural Intention			0.903	0.911	0.721	0.088	0.342	0.269
BI1	0.869	2.820						
BI2	0.862	2.931						
BI3	0.869	2.949						
BI4	0.867	2.910						
BI5	0.775	1.863						
Perceived Behavioural Control			0.849	0.852	0.624	0.039		

PBC1	0.755	1.820				
PBC2	0.819	2.013				
PBC3	0.812	2.055				
PBC5	0.811	2.032				
PBC6	0.750	1.716				
Perceived Benefit			0.786	0.810	0.610	0.127
PB1	0.709	1.330				
PB2	0.739	1.532				
PB3	0.866	1.971				
PB4	0.800	1.720				
Subjective Norm			0.669	0.682	0.599	0.008
SN1	0.780	1.223				
SN2	0.721	1.343				
SN3	0.817	1.415				

Note: Attitude – ATT, Behavioural Intention – BI, Perceived Behavioural Control – PBC, Subjective Norms – SN, Perceived Benefit – PB.

Discriminant validity was evaluated using both Heterotrait–Monotrait (HTMT) ratios and the Fornell–Larcker criterion. The HTMT ratios (in Table 3), supports the presence of discriminant validity where all values were lower than the threshold of 0.85, with the maximum value at Attitude vs. Perceived Benefit being 0.624.

Table 3: Discriminant validity Heterotrait-monotrait ratio (HTMT) – Matrix

Constructs	ATT	BI	PBC	PB	SN	ATT x SN	ATT x PB
BI	0.407						
PBC	0.413	0.373					
PB	0.624	0.559	0.404				
SN	0.349	0.407	0.545	0.391			
ATT x SN	0.267	0.043	0.113	0.123	0.070		
ATT x PB	0.357	0.181	0.112	0.270	0.136	0.370	
ATT x PBC	0.206	0.221	0.070	0.131	0.139	0.524	0.542

Note: Attitude – ATT, Behavioural Intention – BI, Perceived Behavioural Control – PBC, Subjective Norms – SN, Perceived Benefit – PB.

Discriminant validity was also supported as per the Fornell–Larcker criterion of root AVEs above their correlations with other constructs in Table 4.

Table 4: Fornell-Larcker criterion

Constructs	ATT	BI	PBC	PB	SN
Attitude	0.775				
Behavioural Intention	0.355	0.849			
Perceived Behavioural Control	0.350	0.334	0.790		
Perceived Benefit	0.502	0.483	0.328	0.781	
Subjective Norms	0.266	0.327	0.423	0.288	0.774

Note: Attitude – ATT, Behavioural Intention – BI, Perceived Behavioural Control – PBC, Subjective Norms – SN, Perceived Benefit – PB.

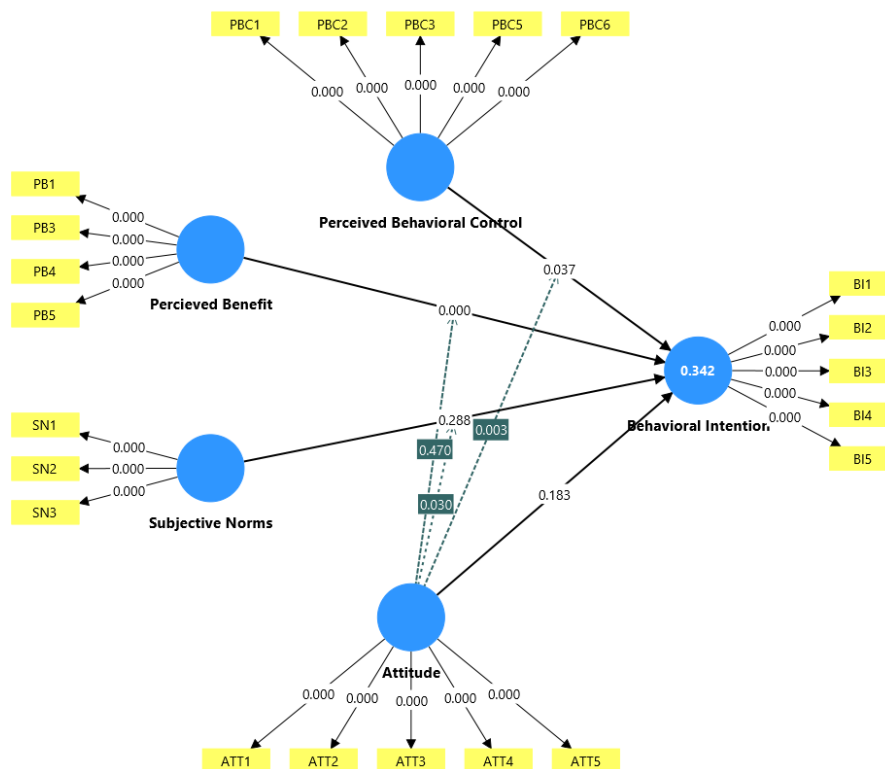
For instance, AVE square roots for Behavioural Intention with 0.849 and Attitude (0.355), Perceived Behavioural Control (0.334), Perceived Benefit (0.483) and Subjective Norms (0.327). In general, the testing of the measurement model is supportive of reliability, convergent validity and discriminant validity of constructs. The findings provide evidence

that the instrument has sufficient reliability and validity for testing the hypothesized structural relationships within the model.

4.3. Structural Model Evaluation

Model evaluation was conducted to assess the associations between constructs (the direct and moderation effects) by path coefficients (β values), t-values, and p-values. The predictive relevance of the analysis with R^2 and Q^2 is also included (in Table 2). Good model fit and predictive accuracy were obtained. Behavioural Intention scored $R^2 = 0.342$, meaning that the predictors were able to explain 34.2% of its variance (Figure 5) and is acceptable in the social sciences (Hair et al., 2020). A Q^2 value of 0.269 also confirmed the predictive relevance, which demonstrates that the model has the power to explain SEs' behavioural intention. The structural model offers solid proof that Perceived Benefits and Perceived Behavioural Control are strong determinants of behavioural intention, whereas Attitude and Subjective Norms have negligible direct effects. The moderated mediation effect demonstrates that the interaction, especially with Subjective Norms, has a substantial impact on intention.

Figure 5: Construct Correlation Effect Modelling Structure



The results offer valuable information about the behavioural intention of SEs' participation in public procurement. The direct and indirect connections showed conflicting evidence in support of the proposed model. Perceived Behavioural Control had a significant positive influence on Behavioural Intention ($\beta = 0.192$, $t = 2.091$, $p = 0.037$) (Table 5). The result proves that SEs will participate in public procurement only when they feel they are equipped with sufficient resources, knowledge and confidence in order to fulfil the requirements and effectively compete. This highlights the need for capacity-building through training, simplified procedures to comply with measures, and financial assistance. By increasing SEs perceived control, the interventions can reinforce the behavioural intention of these firms to access procurement opportunities. This result

gives support to H1, which shows evidence for the direct positive effect of Perceived Behavioural Control on Behavioural Intention, which is especially consistent with the Tanzanian situation for SEs because they tend to be very difficultly constrained in terms of capacity-focused procurement participation. This finding is consistent with the Theory of Planned Behavior in which perceived behavioural control emerges as one of the key predictors of intention. If managers from SEs feel that they have sufficient resources, knowledge and ability to overcome obstacles, the intention to participate in procurement is increased in line with TPB assumptions. The importance of perceived behavioural control in predicting intention is evident in a range of studies. For instance, a study in tourism at Mount Bromo, Indonesia, has verified that PBC had a direct positive effect on visitors' behavioural intentions (Sinambela et al., 2022). Furthermore, an American study among adults aged 40–70 years decreed that PBC moderated the associations between intention and HL on health behaviors (Cheng et al., 2016). PBC acted as a mediator of attitude-intention associations in the marine conservation context, thereby emphasizing its task to translate positive appraisals into behaviour (Ni, 2024). These results are in line with the present study, which shows that SEs who have a strong perception of control are more likely to have the intention to participate in procurement.

Table 5: Constructs Correlation Assessment

Correlation Effect	beta	Standard deviation	T statistics	P values	Decision
Direct Correlation Effect					
ATT → BI	0.104	0.078	1.331	0.183	<i>Not-Supported</i>
PBC → PI	0.192	0.092	2.091	0.037	<i>Supported</i>
PB → BI	0.345	0.076	4.545	0.000	<i>Supported</i>
SN → BI	0.085	0.080	1.063	0.288	<i>Not-Supported</i>
Moderating Correlation Effect					
ATT x PBC → BI	-0.257	0.086	2.989	0.003	<i>Supported</i>
ATT x PB → BI	0.045	0.062	0.722	0.470	<i>Not-Supported</i>
ATT x SN → BI	0.179	0.083	2.164	0.030	<i>Supported</i>

Note: Attitude – ATT, Behavioural Intention – BI, Perceived Behavioural Control – PBC, Subjective Norms – SN, Perceived Benefit – PB.

The strongest direct effect is Perceived Benefit on behavioural intention ($\beta = 0.345$, $t = 4.545$, $p = 0.000$) (Table 5), indicating that perceived benefits of procurement participation significantly contribute to the intention to engage. The positive and highly significant effect suggests that SEs' intention to participate in procurement is primarily driven by the perceived benefits associated with it (such as profit maximization, publicity enhancement and competitive posture) (Zhang et al., 2018; Ancarani et al., 2019). If the benefits from engaging are seen to outweigh the costs of forming intentions, which in this context includes dealing with bureaucratic difficulties, SEs can develop an intention to act. This is in accordance with rational behavior which postulates that decisions should be taken based on the expected utility. The result upholds H2 in that Perceived Benefit is a significant predictor of Behavioural Intention, which is, importantly, crucial for SEs in Tanzania, where procurement performance assessment is made on the basis of cost-benefit analysis. This finding is consistent with the Theory of Planned Behavior, which posits that behavioural intention is determined by perceived benefit, subjective norms and perceived control (Mgawe & Shatta, 2024). Where perceived benefit acts as a positive reinforcer, showing that SEs' procurement intention is based on expected profit potential.

Perceived benefit has been shown to be a strong predictor of behavioural intention in various settings. [McCue et al. \(2015\)](#), concluded that if individuals see significant gains, they are likely to act. In terms of procurement, savings are an option, followed by transparency and competition as factors driving the decision to adopt ([Kikavets, 2020](#)). Similarly, in Tanzania, [Mgawe and Shatta \(2024\)](#) established that suppliers' and buyers' behavioural intention to adopt e-procurement was influenced by perceived benefits, which had a direct effect on procurement performance. Similarly, [Boison et al. \(2022\)](#) discovered that performance expectancy, a construct closely related to benefit perceived, was statistically significant in its effect on the adoption of blockchain technology in Ghana's public perception systems. These findings validate the emphasis laid on perceived benefits by SEs when considering procurement involvement and its role as a determinant of intention.

Subjective Norms did not have a significant impact on SEs' behavioural intention to participate in public procurement at ($\beta = 0.085$, $t = 1.063$, $p = 0.288$) (see [Table 5](#)). The result indicates that social pressures or others' expectations, such as from peers, business associations and community networks, do not have a strong impact on SEs to shape procurement intentions. Tanzanian SEs appear to depend more on their self-assessment of benefits and capability, rather than conforming to external approval. This result is consistent with the scenario where individualistic homogeneity (emotional experience) prevails over collectivistic norms/situational influence in business decisions ([Kumar & Mohan 2021](#)). The finding does not provide support to H3, which stated that Subjective norms were supposed to have a strong positive impact on BI in Tanzania; however, the influence of SN seems less in this case. According to TPB ([Ajzen, 2020](#)), the intention to perform a behavior is predicted by attitude, subjective norms, and perceived behavioural control. Previous study has demonstrated the significant effects of subjective norms on SEs application of practices such as circular economy initiatives or financing decisions, but contrary to TPB, this work reveals their poor predictive ability in Tanzanian procurement context ([Khan et al., 2023](#)). Subjective norms frequently emerge as predictors of behavioural intentions. For instance, study exploring SEs' adoption of circular economy practices found that social pressure from peers and industry leaders had a positive influence on intention ([Khan et al., 2023](#); [Khan et al., 2024](#)). Studies on funding decisions also imply that entrepreneurs are more likely to practice in a certain way when encouraged by relevant agents. In the field of public tendering, subjective norms has been found to motivate SEs to adopt e-tendering, especially when participation has become an industry norm ([Nassir et al., 2023](#); [Oshoma et al., 2024](#)). Yet other study shows that the impact of subjective norms is dependent on the context. For example, studies of whistleblowing found that the relationship between normative influence and behaviour strength was mediated by commitment and culture in an organization ([Oshoma et al., 2024](#); [Rutatola et al., 2024](#)). These results suggest that cultural and structural contexts in Tanzania might reduce the influence of subjective norms on SEs' involvement in public procurement.

Attitude had a non-significant impact on Behavioural Intention ($\beta = 0.104$, $t = 1.331$, $p = 0.183$) (see [Table 5](#)). The finding implies that even though SEs have positive intentions towards public procurement, a positive attitude alone does not motivate participation. Practical challenges were limited resources; technical incompetence, and administrative bureaucracy, which appeared to have diluted attitude. This suggests that in the Tanzanian procurement context, perceived power and benefits outweigh attitude. This result contradicts the hypothesis H4 that attitude is a major determinant of behavioural intention in participating in public procurement. Attitude is anticipated, based on the

Theory of Planned Behavior, to be a strong predictor of intention to act (Ajzen 1991). This finding challenge such an assumption, arguing that pragmatic concerns (that is, capacity and utility) override influences of attitude on SEs' intentions to procure within under-resourced settings. Studies have typically supported the notion that attitude is a very strong predictor of behavioural intention (Ajzen, 1991; Ajzen, 2020). In procurement and entrepreneurship literature, for instance, it has been demonstrated that positive attitude increases participation intentions (Di Mauro et al., 2020). Nevertheless, there are also findings of exceptions in resource-constrained contexts. Wang (2011) has demonstrated that negative anticipated emotions can overpower positive attitude, leading to decreased intention. In this way, Mgawe and Shatta, (2024) found that if attitude is low but subjective norm and perceived behavioural control are high, SEs may still undertake procurement.

The moderation analysis offered significant contributing insights. Moderating effects were also tested, which reveal that, attitude did not moderate ($\beta = 0.045$, $t = 0.722$, $p = 0.470$) the effect of Perceived Benefit on behavioural intention (see Table 5). The result implies that the SEs with favorable attitude towards PP motive gains do not substantially bolster nor attenuate the relationship between the benefits of participating in PP and their intention to participate. This indicates that instrumental perceived consequences (e.g., for financial profit, market access, growth), as the more cognitive dimension of perceived intention, are triggered by intention without even having to be mediated by personal attitude. The result is evidence that does not support *H5*. However, in the SE context in Tanzania, this moderating role becomes non-significant. Attitude is believed to be one of the most consistent predictors of intention along with subjective norms and perceived behavioural control (Ajzen, 1991; 2020). This indicates that mediation is not significant in this case, which could be an aberration contextually, where perceived benefits act independently rather than through the attitude in the formation of behavioural intentions. Although TPB suggests attitude is an important predictor of intention, evidence from a number of studies demonstrates that in situations characterized by limited resources or pragmatic decision-making, perceived benefits alone may have the ability to predict intention independently of attitude. For example, Nassir et al. (2023) discovered that in technology adoption, perceived usefulness (a surrogate for benefit) significantly influenced intention directly above and beyond attitudinal effects. Similarly, Patel et al. (2023) stated that economic and strategic benefits made participation in innovation systems more related to attitude than cognitive functions of the entrepreneurs when examining SEs. In contrast, studies such as Mwesiumo et al. (2021) and Oshoma et al. (2024) posits that, positive attitude can moderate the influence of perceived benefits, particularly with organizational support and supportive situations. The divergence indicates that in the context of Tanzanian SEs, where considerations such as survival and utility are more salient, perceived benefit-to-intention is operating independently of attitude.

Attitude significantly moderates the direct effect of Subjective Norms on Behavioural Intention at ($\beta = 0.179$, $t = 2.164$, $p = 0.030$) (as shown in Table 5). The finding indicates that SEs' behavioural intention is strengthened when subjective norms such as peer pressure, institutional encouragement, or industry expectations are supported by favorable attitude. This means that even if social influences encourage participation, SEs are unlikely to act unless they also hold positive evaluations of procurement. Thus, building both supportive networks and positive attitude is crucial for enhancing SE engagement in public procurement. The finding supports *H6*, showing that Attitude moderates the relationship between Subjective Norms and Behavioural Intention,

although in Tanzania, the strength of this moderation is shaped by contextual institutional and social dynamics. The Theory of Planned Behavior (TPB) establishes that both attitude and subjective norms directly predict behavioural intention (Ajzen, 2020; Hagger et al., 2022). The current finding extends TPB by showing that these variables also interact, with attitude amplifying or dampening the effect of subjective norms. This supports the interdependence of TPB constructs in shaping behavioural outcomes. Evidence suggests that attitude can condition the influence of subjective norms on intention. For example, Nassir et al. (2023) indicate that attitude can moderate the effect of social norms on behaviour, particularly in situations where people are subject to competing norms. Similarly, Wong et al. (2018) found that subjective norms were less likely to influence intention when people have positive attitude, particularly in a context that involves the need for moral or ethical judgment. According to Sia and Jose (2019), norms are direct predictors of intention by personal moral obligation. Conversely, other study suggests that strong subjective norms can overcome weak attitude, especially in very collectivistic societies where social endorsement supersedes personal judgment. This also implies that the conditioning effect of attitude may not always be uniform, and such context-dependent factors as the SE sector in Tanzania underscore the importance of matching individual attitude and collective pressure.

Attitude significantly moderates the strong effect of Perceived Behavioural Control on Behavioural Intention at ($\beta = -0.257$, $t = 2.989$, $p = 0.003$) (as shown in Table 5). The finding reveals that while both attitude and perceived behavioural control (PBC) positively influence intention individually, their interaction yields a negative moderating effect. This suggests that SEs with both strong positive attitude and high confidence may develop overconfidence, underestimating procedural or financial challenges. As a result, their attitude fails to translate into firm intentions, highlighting the complexity of psychological and practical dynamics in procurement participation. The finding supports *H7*, confirming that Attitude significantly moderates the relationship between Perceived Behavioural Control and Behavioural Intention, though in Tanzania, the moderation produced a negative effect dampening the influence of PBC on behavioural intention. The Theory of Planned Behavior (TPB) positions both attitude and perceived behavioural control as direct predictors of intention (Ajzen, 1991; 2020). The present finding extends this framework by showing a significant interaction between the two. While TPB does not explicitly theorize moderation, this result reflects the interdependence of constructs in shaping intention. Empirical evidence supports reciprocal moderation between attitude and PBC. A meta-analysis by Hagger et al. (2022) noted that the strength of the attitude–intention relationship depends on the level of perceived control, with higher PBC amplifying intentions. Similarly, studies in consumer behavior show that PBC conditions the effect of attitude on purchase intentions, with weaker attitude translating into intentions only when PBC is high (Fischer & Karl, 2022; Otchengco Jr et al., 2021). In public sector contexts, study indicates that officials with positive attitude toward procedural rationality may fail to act if they perceive insufficient control due to bureaucracy or political interference (Gruber, 2023). Conversely, strong perceived control can amplify positive attitude into intention. The present finding differs slightly by showing a negative moderation effect, suggesting that in Tanzania’s SEs context, confidence combined with strong attitude may foster overconfidence, weakening intention. This nuanced interaction highlights the importance of contextual factors in TPB applications (Ajzen, 2020; Hagger et al., 2022).

4.5. Implications of the Results

The implications for SEs, their managers and owners in the procurement sector are significant. First, the strong effect of PBC on behavioural intention to engage in public procurement indicates that the SEs' intention to participate in procurement activities is influenced strongly by how likely it is to benefit from participating, meaning, expected benefits are likely to meet further needs for revenue growth and firm visibility, as well as help in being competitive. For penetrating SEs, this underscores the need to find an optimal balance between costs and benefits, and strategically position themselves to make use of procurement opportunities. Managers and owners need to put resources into cogent business models that connect participation in tendering to firm-level growth and long-term competitiveness (instead of just being another chance operation).

Perceived behavior control also appeared as a strong predictor, suggesting that SEs need to develop their internal capacity. For managers and owners, this entails investing in the development of staff-related competencies in tendering, contracting and law compliance. For instance, SEs need better internal systems, including financial management capacity and digital readiness, to keep pace with the demand for procurement. Affordable financing is another critical enabler, and leaders should actively look to partner with banks, microfinance institutions and government-financed funding models to unlock financial blockages.

Concurrently, findings indicate that attitude itself is not enough to predict intention. This discovery presents a challenge to managers, noting that not only do they need to create favorable perceptions, but they also need to develop realistic strategies that overcome bureaucratic and resourcing barriers. Also, the nonsignificant impact of subjective norms implies that peer pressure or social beliefs are of little significance in determining SEs behaviors in Tanzania. As such, to the extent that managers want knowledge-based strategic action, they would be well-served to encourage autonomous reasoning rather than network-driven behaviors for decision-making.

The moderation findings offer managerial implications with nuances. The moderation of attitude on PBC warns SEs not to be overconfident. Sometimes, even with high confidence and enthusiasm, it's the seasoned owners who need to prevent inflated expectations and mitigate the damage of overly optimistic expectations due to otherwise sober assessments of resource constraints. On the other hand, the subjective norms underwent significant attitude moderation, which suggests that positive perception can be a multiplier for a supportive network. Second, leaders should develop inner confidence and positive external connections. Taken together, these results highlight the need for a strategic, resource and institutional support to enhance SEs' meaningful engagement in public procurement.

4.6. Contributions

This study makes several critical contributions to theory, literature, and practice, with unique relevance to Tanzania's SEs context. Theoretically, the findings challenge the universality of the TPB, particularly the assumption that attitude and subjective norms consistently predict behavioural intention. The lack of effect of attitude and subjective norms reveals that in resource-constrained settings, practical considerations such as perceived benefits and control dominate. This contextual dimension from TPB adds to what was already known that behavior drivers depend on real-life circumstances, and in

this case, pragmatic perceptions of gain and capability trump social or attitudinal influences.

The moderating findings add originality to the literature. Attitude's negative moderation of perceived behavioural control contradicts most prior studies, suggesting that in Tanzania's SEs, the combination of high confidence and strong attitude may foster overconfidence, thereby weakening behavioural intention. This offers a novel perspective on the interplay between psychological and structural factors, extending the understanding of how TPB constructs interact beyond their traditional direct pathways. Similarly, the finding that attitude strengthens the influence of subjective norms highlights the interdependence of these constructs in contexts where institutional support and networking are weak. By contrast, the absence of moderation between attitude and perceived benefit further enriches the literature by showing that perceived advantages function independently of personal evaluations in decision-making processes.

For the body of knowledge, the study offers a nuanced explanation of SEs procurement participation, emphasizing that intention is not uniformly shaped across contexts but reflects local institutional, cultural, and resource dynamics. In practical terms, the uniqueness renders the study particularly significant for developing economies such as Tanzania, in which SEs operate under resource-constrained environments. By demonstrating variation in the strategies of TPB constructs, the current work makes an empirical case for scholars and decision makers to reconceptualize procurement practices that are situation-specific and evidence-based.

5. Conclusion

This paper investigated the behavioural intention of SEs to engage in public procurement using the guiding input of the Theory of Planned Behavior and further extended by adopting moderating relationships. The identification of SEs perceived benefits and perceived behavioural control as the most salient predictors of intention highlights the importance of robust benefits and capability in driving procurement engagement. On the other hand, SEs' attitude and subjective norm had a very limited direct influence on behavioural intention to engage in public procurement, which was inconsistent with TPB. Subsequent exploration by moderation analysis revealed an intricate and complex relations. Attitude moderated the effect of subjective norms, while negatively moderating the relationship between perceived control and intention, indicating possible overconfidence. In addition, attitude did not moderate the impact of perceived benefits, which suggests SEs' decision-making in procurement contexts is dominated by pragmatic evaluations. Taken together, these findings emphasize that although TPB offers a valuable theoretical frame, its use in limited-resource settings necessitates critical adaptation. The study in general extends the TPB with its contextual aspects, and in particular, it contributes to practice by empirically showing that capacity building, benefit communication, and institutional support are crucial drivers for increasing SEs participation in procurement. It recommends that interventions must be pragmatic and SEs must distance themselves from attitudinal campaigns to concentrate on the construction of structurally and capacity-building interventions that will engender true participation.

5.1. Limitations and Recommendations

Although the study makes noteworthy contributions, it indicates important limitations for future work. The study has been confined to SEs in two regions of Tanzania, and this may limit the generalization of its findings to the overall SEs context. Nevertheless, the generalizability of the current findings is limited, and future work should be extended to other areas, such as a nationally-representative sample, to improve external validity. The design of the present study was cross-sectional, which prevents us from being able to follow up changes of SEs' attitude, perceptions and behavior over time. A longitudinal approach would yield richer information about the development of SEs' procurement participation. The preference of self-reported data outcomes may include biases like social desirability or recall imprecision, although attempts were made to minimize these loopholes. It remains to be seen how other contextual factors, such as regulatory support, corruption risks or digital adoption, would moderate the relationship with TPB constructs. Cross-cultural or cross-sectoral comparative studies could also reveal patterns or deviations at a broader level. From a practical standpoint, interventions focusing on supporting SEs to secure their finances and training, as well as creating more convenient procurement processes, should be devised by policymakers. Capacity development and digital readiness programmes are particularly important to enhancing perceived control, whereas clear communication about procurement benefits can increase SEs' intention to participate.

Ethics Approval and Consent to Participate

Prior to the commencement of the data collection, ethical approval was formally requested and subsequently granted by Universiti Tunku Abdul Rahman (UTAR) Ethics Review Board (Approval No: U/SERC/56(A)-513/2024). All participants were informed about the purpose of the study, and informed consent was obtained to warrant voluntary participation and confidentiality throughout the study.

Acknowledgement

Part of this article was extracted from a doctoral thesis that is yet to be submitted to Universiti Tunku Abdul Rahman, Perak, Malaysia.

Funding

The authors would like to thank the Institute of Accountancy Arusha (IAA), Tanzania, for funding the publication of this article. The views expressed herein are those of the authors and do not necessarily reflect the views of the funding institution.

Conflict of Interest

The authors declare no conflicts of interest.

References

Abayomi, O. J., Zhang, X., Peng, X., & Zhao, S. (2020). How do institutional pressures and behavioural intentions affect mobile services adoption? The moderating role of

- perceived risk. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems*, 51(2), 82-100. <https://doi.org/10.1145/3400043.3400049>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I. (2002). Perceived behavioural control, self-efficacy, locus of control, and the theory of planned behavior 1. *Journal of applied social psychology*, 32(4), 665-683. <https://doi.org/10.1111/j.1559-1816.2002.tb00236.x>
- Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human behavior and emerging technologies*, 2(4), 314-324. <https://doi.org/10.1002/hbe2.195>
- Akenroye, T. O., Owens, J. D., Elbaz, J., & Durowoju, O. A. (2020). Dynamic capabilities for SME participation in public procurement. *Business Process Management Journal*, 26(4), 857-888. <https://doi.org/10.1108/BPMJ-10-2019-0447>
- Akenroye, T. O., Oyedijo, A., Abubakre, A., Zsidisin, G., El Baz, J., & Vishnu, C. R. (2024). One size does not fit all: deciphering the interdependence between barriers hindering SMEs' involvement in public sector procurement. *International Journal of Public Sector Management*, 37(7), 935-965. <https://doi.org/10.1108/IJPSM-06-2024-0184>
- Alomar, M. A. (2023). What are the determinants of the attitude of civil servants toward using e-public procurement?: The case of Belgium. *International Journal of Electronic Government Research (IJEGR)*, 19(1), 1-22. 10.4018/IJEGR.320500
- Alviyendra, E., & Pardede, R. (2024). The effect of perceived benefit and perceived risk on purchase decisions that are mediated by purchase intention using the Alfagift application. *Return: Study of Management, Economic and Bussines*, 3(9), 665-685. <https://doi.org/10.57096/return.v3i9.273>
- Ancarani, A., Di Mauro, C., Hartley, T., & Tátrai, T. (2019). A comparative analysis of SME friendly public procurement: results from Canada, Hungary and Italy. *International Journal of Public Administration*, 42(13), 1106-1121. <https://doi.org/10.1080/01900692.2019.1575853>
- Bellová, J., & Špírková, T. (2021). The Theory of Planned Behaviour as a Research Tool an Connection with Tax Law and Economics. *Financial Law Review*, 21(1), 1-15.
- Boison, D. K., Malcarm, E., Antwi-Boampong, A., Doumbia, M. O., & Hiran, K. K. (2022). Assessing Factors Affecting the Blockchain Adoption in Public Procurement Delivery in Ghana: A Correlational Study Using UTAUT2 Theoretical Framework. *International Journal of Ambient Computing and Intelligence (IJACI)*, 13(1), 1-13. DOI: 10.4018/ijaci.314568
- Changalima, I. A., Mushi, G. O., & Mwiseje, S. S. (2021). Procurement planning as a strategic tool for public procurement effectiveness: Experience from selected public procuring entities in Dodoma city, Tanzania. *Journal of Public Procurement*, 21(1), 37-52. <https://doi.org/10.1108/JOPP-05-2020-0047>
- Cheng, C., Cheung, M. W. L., & Lo, B. C. (2016). Relationship of health locus of control with specific health behaviours and global health appraisal: a meta-analysis and effects of moderators. *Health psychology review*, 10(4), 460-477. <https://doi.org/10.1080/17437199.2016.1219672>
- Chidambaram, V., Rana, N. P., & Parayitam, S. (2024). Antecedents of consumers' online apparel purchase intention through Virtual Try On technology: A moderated moderated-mediation model. *Journal of Consumer Behaviour*, 23(1), 107-125. <https://doi.org/10.1002/cb.2158>
- Dello, A., & Yoshida, C. (2017, June). Online tendering and evaluation for public procurement in Tanzania. In *2017 18th IEEE/ACIS International Conference on*

- Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD)* (pp. 137-141). IEEE. DOI: 10.1109/SNPD.2017.8022713
- Diao, X., Kweka, J., McMillan, M., & Qureshi, Z. (2020). Economic transformation in Africa from the bottom up: New evidence from Tanzania. *The World Bank Economic Review*, 34(Supplement_1), S58-S62. <https://doi.org/10.1093/wber/lhz035>
- Di Mauro, C., Ancarani, A., & Hartley, T. (2020). Unravelling SMEs' participation and success in public procurement. *Journal of public procurement*, 20(4), 377-401. <https://doi.org/10.1108/JOPP-03-2018-0013>
- Fischer, R., & Karl, J. A. (2022). Predicting behavioural intentions to prevent or mitigate COVID-19: A cross-cultural meta-analysis of attitude, norms, and perceived behavioural control effects. *Social Psychological and Personality Science*, 13(1), 264-276. <https://doi.org/10.1177/19485506211019844>
- Flynn, A., & Davis, P. (2017). Explaining SME participation and success in public procurement using a capability-based model of tendering. *Journal of Public Procurement*, 17(3), 337-372. <https://doi.org/10.1108/JOPP-17-03-2017-B003>
- Gamba, F. J. (2019). SME development policies of Tanzania and Rwanda: Comparability of policy presentation on focus, significance, challenges and participation. *Journal of Development and Communication Studies*, 6(1), 1-17. DOI:10.4314/jdcs.v6i1.1
- Glas, A. H., & Eßig, M. (2018). Factors that influence the success of small and medium-sized suppliers in public procurement: evidence from a centralized agency in Germany. *Supply Chain Management: An International Journal*, 23(1), 65-78. <https://doi.org/10.1108/SCM-09-2016-0334>
- Gruber, J. (2023). *Controlling bureaucracies: Dilemmas in democratic governance*. Univ of California Press.
- Gunawan, R. R., Siagian, H., Tarigan, Z. J. H., & Jie, F. (2024). The role of supplier-buyer relationship in enhancing business performance through supply chain management practice, total quality management implementation and product innovation. *Uncertain Supply Chain Management*, 12(4), 2463-2478. <https://doi.org/10.5267/j.uscm.2024.5.022>
- Hagger, M. S., Cheung, M. W. L., Ajzen, I., & Hamilton, K. (2022). Perceived behavioural control moderating effects in the theory of planned behavior: A meta-analysis. *Health Psychology*, 41(2), 155. <https://doi.org/10.1037/hea0001153>
- Hair Jr, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of business research*, 109, 101-110. <https://doi.org/10.1016/j.jbusres.2019.11.069>
- Ho, S. S., Goh, T. J., & Chuah, A. S. (2022). Perceived behavioural control as a moderator: Scientists' attitude, norms, and willingness to engage the public. *PloS one*, 17(10), e0275643. <https://doi.org/10.1371/journal.pone.0275643>
- Ichinose, Y., Rikitake, R., Watanabe, T., Yamamoto, Y., Kakuwa, T., Toida, T., ... & Higashi, T. (2025). Effect of different questionnaire formats on item nonresponse in older patients with cancer. *BMC geriatrics*, 25(1), 238. <https://doi.org/10.1186/s12877-025-05880-2>
- Israel, B. (2025). Collaborative relationships: a stimulus for innovation culture and participation of SMEs in public procurement. *Management Decision*, 63(3), 998-1017. <https://doi.org/10.1108/MD-08-2023-1338>
- Kajimbwa, M. G. A. (2018). Benchmarking accountability of local government authorities in public procurement in Tanzania: A methodological approach. *Benchmarking: An International Journal*, 25(6), 1829-1843. <https://doi.org/10.1108/BIJ-08-2016-0120>

- Kalula, S., Dida, M., & Yonah, Z. (2024). Applying Theory of Planned Behavior to Examine Users' Intention to Adopt Broadband Internet in Lower-Middle Income Countries' Rural Areas: A Case of Tanzania. <https://doi.org/10.1633/JISTaP.2024.12.1.4>
- Khan, O., Bellini, N., Daddi, T., & Iraldo, F. (2023). Effects of behavioural intention and dynamic capabilities on circular economy adoption and performance of tourism SMEs. *Journal of Sustainable Tourism*, 31(8), 1777-1796. <https://doi.org/10.1080/09669582.2022.2066683>
- Khan, S. A. R., Ahmad, Z., Sheikh, A. A., & Yu, Z. (2024). Green technology adoption paving the way toward sustainable performance in circular economy: a case of Pakistani small and medium enterprises. *International Journal of Innovation Science*, 16(5), 801-822. <https://doi.org/10.1108/IJIS-10-2022-0199>
- Kihamba, J.S. (2021). Public Procurement Reforms in Tanzania: Dispersion of Corruption and Governance. In: Dorasamy, N., Fagbadebo, O. (eds) *Public Procurement, Corruption and the Crisis of Governance in Africa*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-63857-3_10
- Kikavets, V. V., & Tsaregradskaya, Y. K. (2020, February). The implementation of principles of the budget process in the financing of public procurement in the digital economy. In *13th International Scientific and Practical Conference-Artificial Intelligence Anthropogenic nature Vs. Social Origin* (pp. 28-35). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-39319-9_4
- Komba, M. M., Baruti, S. P., & Lwoga, E. T. (2023). The Influence of the National E-Procurement System on Employees' Performance in Selected Public Institutions in Tanzania. *Huria: Journal of the Open University of Tanzania*, 30(1), 151-166. <https://doi.org/10.4314/%u.v30i1.%c>
- Krumpal, I., & Voss, T. (2020). Sensitive questions and trust: Explaining respondents' behavior in randomized response surveys. *SAGE Open*, 10(3), 2158244020936223. <https://doi.org/10.1177/2158244020936223>
- Kumar, N., & Mohan, D. (2021). Sustainable apparel purchase intention: Collectivist cultural orientation and price sensitivity in extended TPB model. *Journal of Revenue and Pricing Management*, 20(2), 149-161. <https://doi.org/10.1057/s41272-021-00297-z>
- La Barbera, F., & Ajzen, I. (2021). Moderating role of perceived behavioural control in the theory of planned behavior: A preregistered study. *Journal of Theoretical Social Psychology*, 5(1), 35-45. <https://doi.org/10.1002/jts5.83>
- Latip, M., & Sharkawi, I. (2021). The influence of attitude, subjective norm, perceived behavioural control, and perceived attributes of innovation towards environmental management practices intention among SMEs. *Malays. J. Consum. Fam. Econ*, 26, 207-229.
- Mahuwi, L., & Israel, B. (2023). A review on participation of SMEs in public procurement: opportunities, challenges, and policy implications. *New Applied Studies in Management, Economics & Accounting*, 6(4), 18-33. [10.22034/nasmea.2023.176305](https://doi.org/10.22034/nasmea.2023.176305)
- Maier, C., Thatcher, J. B., Grover, V., & Dwivedi, Y. K. (2023). Cross-sectional research: A critical perspective, use cases, and recommendations for IS research. *International Journal of Information Management*, 70, 102625. <https://doi.org/10.1016/j.ijinfomgt.2023.102625>
- Maliganya, E. (2015). The next age of public procurement reforms in Tanzania: Looking for the best value for money. Available at SSRN 2709842. <http://dx.doi.org/10.2139/ssrn.2709842>
- Maliganya, E. (2016). The Systemic Flaws of the Tanzania Public Procurement Act, Cap. 410 and Proposed Solutions: A Short Paper Submitted to the Law Review Commission of Tanzania 14th January, 2016. <http://dx.doi.org/10.2139/ssrn.2726971>

- Maskari, S. A. (2025). Navigating Remote Learning: A study on Student Perceptions During Times of Uncertainty. *Qubahan Academic Journal*, 5(1), 810-823. <https://doi.org/10.48161/qaj.v5n1a1482>
- Matari, D. F. (2024). The Factors Hindering the Effective Development of SMEs Businesses in Tanzania a Review Study. *International Journal of Innovative Science and Research Technology*, 9(4). <https://doi.org/10.38124/ijisrt/IJISRT24APR812>
- McCue, C. P., Prier, E., & Swanson, D. (2015). Five dilemmas in public procurement. *Journal of public procurement*, 15(2), 177-207. <https://doi.org/10.1108/JOPP-15-02-2015-B003>
- Mchopa, A. D., Changalima, I. A., Sulle, G. R., & Msofe, R. M. (2024). Public procurement trajectories in Tanzania: a review of reforms, practices, and compliance. *Cogent Business & Management*, 11(1), 2300498. <https://doi.org/10.1080/23311975.2023.2300498>
- Mgawe, N., & Shatta, D. (2024). The Effects of Behavioural Intention to Use E-procurement System on Public Procurement Performance in Emerging Countries: Buyersupplier Perspectives From Tanzania. Available at SSRN 4933082. <http://dx.doi.org/10.2139/ssrn.4933082>
- Mirzaei, A., Carter, S. R., Patanwala, A. E., & Schneider, C. R. (2022). Missing data in surveys: Key concepts, approaches, and applications. *Research in Social and Administrative Pharmacy*, 18(2), 2308-2316. <https://doi.org/10.1016/j.sapharm.2021.03.009>
- Mohamed, B. M., & Box, P. O. (2017). Contribution of procurement function on the public services delivery system: the case of Tanzania. *Journal of Public Administration and Governance*, 7(1), 1-24.
- Mohamed, B. M., Rasheli, G. A., & Mwagike, L. R. (2018). Institutional and regulatory constraints in managing procurement records: Exploratory case of procuring entities in Tanzania. *Records Management Journal*, 28(3), 278-292. <https://doi.org/10.1108/RMJ-02-2018-0005>
- Mwesiumo, D., Glavee-Geo, R., Olsen, K. M., & Svenning, G. A. (2021). Improving public purchaser attitude towards public procurement of innovations. *Technovation*, 101, 102207. <https://doi.org/10.1016/j.technovation.2020.102207>
- Nassir, S., Lebdaoui, I., Chetioui, Y., & Lebdaoui, H. (2025). Factors influencing SMEs' intention to adopt electronic tendering: empirical evidence from an emerging African market. *Journal of Economic and Administrative Sciences*, 41(3), 1189-1202. <https://doi.org/10.1108/JEAS-10-2022-0235>
- Ni, H. (2024). *How Does Collectivism Affect Individual's Attitudes, Subjective Norms, Perceived Behavioural Control, and Behavioural Intentions to Comply Towards Ocean-based Plastic Pollution Messages?* [Undergraduate thesis, Florida State University]. https://purl.lib.fsu.edu/diginole/honors_thesis_submission-983a5920-0495-4a90-a71f-12af28db6eb4
- Nzilano, K. L., Ndyetabula, D. W., & Tundui, H. P. (2022). Entrepreneurial Competencies and Business Start-up Intentions among Technical Graduates in Tanzania: The Mediating Effect of Antecedents of Theory of Planned Behaviour. *African Journal of Innovation and Entrepreneurship (AJIE)*, 1(2), 63.
- Oshoma, A. O., Raji, I. O., & Yusuf, A. (2024). Impact of e-procurement adoption on the performance of SMEs in emerging economy. *International Journal of Procurement Management*, 21(4), 440-466. <https://doi.org/10.1504/IJPM.2024.142788>
- Otchengco Jr, A. M., & Akiate, Y. W. D. (2021). Entrepreneurial intentions on perceived behavioural control and personal attitude: Moderated by structural support. *Asia Pacific Journal of Innovation and Entrepreneurship*, 15(1), 14-25. <https://doi.org/10.1108/APJIE-08-2020-0124>

- Pacho, F. T. (2023). Planned behavior theory and graduates' behaviors towards agricultural entrepreneurship in Tanzania. *East African Journal of Management and Business Studies*, 3(4), 24-33. <https://orcid.org/0000-0001-8966-0889>
- Patel, A. K., Singh, A., Rana, N. P., Parayitam, S., Dwivedi, Y. K., & Dutot, V. (2023). Assessing customers' attitude towards online apparel shopping: A three-way interaction model. *Journal of Business Research*, 164, 113917. <https://doi.org/10.1016/j.jbusres.2023.113917>
- Qiu, S. F., Tang, M. L., Tao, J. R., & Wong, R. S. (2022). Sample size determination for interval estimation of the prevalence of a sensitive attribute under randomized response models. *psychometrika*, 87(4), 1361-1389. <https://doi.org/10.1007/s11336-022-09854-w>
- Revilla, M. A., Saris, W. E., & Krosnick, J. A. (2014). Choosing the number of categories in agree-disagree scales. *Sociological methods & research*, 43(1), 73-97. <https://doi.org/10.1177/0049124113509605>
- Rutatola, P. P., Danieli, G. J., & Changalima, I. A. (2024). The interplay of social influence and top management support on suppliers' behavioural intentions in e-procurement usage. *African Business Management Journal*, 2(1), 57-70. [10.58548/2024abmj21.5770](https://doi.org/10.58548/2024abmj21.5770)
- Saastamoinen, J., Reijonen, H., & Tammi, T. (2017). The role of training in dismantling barriers to SME participation in public procurement. *Journal of public procurement*, 17(1), 1-30. <https://doi.org/10.1108/JOPP-17-01-2017-B001>
- Sarstedt, M., Hair, J. F., Pick, M., Liengaard, B. D., Radomir, L., & Ringle, C. M. (2022). Progress in partial least squares structural equation modeling use in marketing research in the last decade. *Psychology & Marketing*, 39(5), 1035-1064. <https://doi.org/10.1002/mar.21640>
- Shatta, D., & Mabina, B. (2024). The determinants of use behavior of e-procurement system in developing countries: a mediating effect of buyers' and suppliers' attitude from Tanzania. *International Journal of Business Ecosystem & Strategy (2687-2293)*, 6(2), 151-165. <https://doi.org/10.36096/ijbes.v6i2.498>
- Shen, X., Cao, X., Esfahani, S. S., & Saleem, T. (2022). Factors influencing consumers' purchase intention on cold chain aquatic products under COVID-19: an investigation in China. *International Journal of Environmental Research and Public Health*, 19(8), 4903. <https://doi.org/10.3390/ijerph19084903>
- Sia, S. K., & Jose, A. (2019). Attitude and subjective norm as personal moral obligation mediated predictors of intention to build eco-friendly house. *Management of Environmental Quality: An International Journal*, 30(4), 678-694. <https://doi.org/10.1108/MEQ-02-2019-0038>
- Sinambela, G. D. P., Rahayu, S., & Megawati, V. (2022). The Effect Of Subjective Norms, Attitude, Perceived Risk, And Perceived Behavioural Control Of Behavioural Intention Mt. Bromo Tourists In East Java Province. *Ekspektra: Jurnal Bisnis dan Manajemen*, 6(2), 136-147. <http://dx.doi.org/10.25139/ekt.v6i2.5148>
- Wan, C., Shen, G. Q., & Choi, S. (2017). Experiential and instrumental attitude: Interaction effect of attitude and subjective norm on recycling intention. *Journal of environmental psychology*, 50, 69-79. <https://doi.org/10.1016/j.jenvp.2017.02.006>
- Wang, X. (2011). The role of anticipated negative emotions and past behavior in individuals' physical activity intentions and behaviors. *Psychology of Sport and Exercise*, 12(3), 300-305. <https://doi.org/10.1016/j.psychsport.2010.09.007>
- Wong, S. L., Hsu, C. C., & Chen, H. S. (2018). To buy or not to buy? Consumer attitude and purchase intentions for suboptimal food. *International journal of environmental research and public health*, 15(7), 1431. <https://doi.org/10.3390/ijerph15071431>

- Xu, L., Zhang, J., Ding, Y., Zheng, J., Sun, G., Zhang, W., & Philbin, S. P. (2023). Understanding the role of peer pressure on engineering students' learning behavior: A TPB perspective. *Frontiers in Public Health, 10*, 1069384. <https://doi.org/10.3389/fpubh.2022.1069384>
- Zhang, Y., Gu, J., Shan, M., Xiao, Y., & Darko, A. (2018). Investigating private sectors' behavioural intention to participate in PPP projects: An empirical examination based on the theory of planned behavior. *Sustainability, 10*(8), 2692. <https://doi.org/10.3390/su10082692>