

Environmental Factors Effect on Entrepreneurship Performance in Women Owned Batik Industries Dar es Salaam Tanzania: The moderating role of the government policy

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Abstract

Recent years have witnessed significant advancements in women's entrepreneurship in Tanzania. Nonetheless, its overall impact on the performance of women's owned business is comparatively constrained, especially in relation to male-led entrepreneurial initiatives. Although many studies have investigated the determinants of business performance, there is insufficient targeted research on particular industries, such as the local textile sector, in emerging economies like such as Tanzania. This study examines the impact of business environmental factors on the performance of women-owned businesses within the batik industry in Dar es Salaam. The study, which is grounded in Resource-based View (RBV) theory, hypothesis that business environmental factors specifically resource availability, business support services, socio-political conditions, human capital, and a conducive entrepreneurial sub-cultures are directly linked to the performance of firms. It is hypothesized that government policy influences the relationship between environmental factors and the performance of women-owned SMEs in the batik sector. The research utilizes data gathered by the author during PhD studies conducted in Dar es Salaam in 2024. A combination of stratified and simple random sampling methods was employed to select 290 respondents. Data were gathered using structured surveys and questionnaires. The analysis utilized Multiple Linear Regression (MLR), the results indicate a moderate correlation between predictors and outcomes. While Government support and finance boost growth, but skills development, infrastructure, market access, and technology are needed for stronger results.

Keywords: Environmental Factors, Entrepreneurship, Performance, Batik Industries, Dar es Salaam

1.0 Introduction

Women entrepreneurship is a vital concept and a growing global phenomenon in the wake of the most important role it plays to the contribution of domestic economy (GEM, 2019). Evidence from the recent empirical studies has shown that women entrepreneurs are among the growing at a fast rate entrepreneurial populace ever witnessed worldwide. For instance, Global Entrepreneur-ship Monitor (GEM) evidenced about 231 million women entrepreneurs in the 59 economies began business activities globally (Elam et al., 2019). Besides, the importance of women entrepreneurship has been recognized internationally in the economic development process (ILO, 2020; UN Women, 2020). Women entrepreneurs are recognized for their contribution in employment creation, poverty alleviation and wealth generation across all economies (OECD, 2018; Foss et al., 2019). Small and medium-sized enterprises (SMEs) makes up around 90per cent of all businesses in the advanced countries providing 60 -70per cent of employment and contributing 55per cent of the Gross Domestic Products (GDP) (Algan, 2019). Equally, in the emerging economies SMEs create 7 out 10 jobs and 40per cent of the GDP – WB (2024), thus making SMEs a critical source of sole proprietorship and employment opportunities for local communities (Abisuga-Oyekunle et al., 2020; Veronica, et al., 2020). According to Deka (2018) and Sallah et al., (2020), women entrepreneurship is increasingly being recognized as the most significant, endowed with an untapped potential for innovation, employment and economic growth. However, according to Safa (2018) it is not well represented in

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the manufacturing industry in African countries including Tanzania (Kiyabo & Isaga, 2019). It is a huge setback, despite SMEs being a stimulus of Tanzania's manufacturing industry, and being widely acknowledged as significant sustainable economic growth partner (Malik & Jasińska-Biliczak, 2018; Smith et al., 2022), the industry is only focused on textiles at 5 to 10 per cent establishments - Census of Industrial Production (CIP) (URT, 2018).

A significant number of studies (i.e., Nawi et al., 2020; Octavia et al., 2021; Utomo and Susanta, 2022; Ayinaddis, 2023; Utami et al., 2024) have examined the environmental factors influencing the performance of women-owned businesses (WOBs) in the batik industry). However, the majority of studies are conducted in developed countries, raising questions about the generalizability of the findings (Moreau et al., 2019; Ferrero-Ferrero et al., 2021). It is essential to conduct further research, particularly in developing countries such as Tanzania, to understand the classification of environmental factors and their implications on performance. Furthermore, contextual research is essential for the careful formulation and planning of permanent solutions to performance impediments, as well as for understanding their effects to improve WOBs in the batik industry. The significance of moderating variables has been overlooked in prior studies on WOBs within the batik industry. This trend constrains both theory development and the comprehension of how environmental factors influence performance on WOBs (Torres et al., 2018). This study examines the moderating effect of government policy on the relationship between batik SMEs performance and economic growth.

Environmental factors encompass all elements present within the business environment of SMEs that significantly influence firm performance (Simpson et al., 2012). They are complex and heterogeneous; even within the same industry, different SMEs may encounter distinct trading conditions. Consequently, delineating the critical success factors (CSFs) and performance of SMEs presents significant challenges. The author has identified skilled individuals, innovative and learning capabilities, and socio-political variables, including the availability of government assistance, business support services, and a favourable entrepreneurial sub-culture. This classification is predicated on the notion that the performance of WOBs in the batik industry is affected by environmental business factors.

Tanzania, which is situated in East Africa, has a population of approximately 61.7 million (PHC, 2022). She ranks as the second largest economy in East Africa, following Kenya, and is the seventh largest in sub-Saharan Africa (AGRO AF, 2024). The economy of the country is primarily sustained by a strong agricultural sector and a promising mining sector. Tanzania's industrial development strategy aims to reduce reliance on foreign goods by emphasizing import substitution and the processing of agricultural products, aligning with her development objectives. Consequently, the primary industries include textiles, cigarette manufacturing, distilling, and food processing (Mwinuka & Mwangoka, 2023). Globally, the textile industry has served as a catalyst for development and economic growth. This presents a significant opportunity for Tanzania, characterized by competitive wage costs and other favourable conditions (Bwana et al., 2020; Kulaya, 2020). To expand the Tanzanian economy, it is essential to enhance the growth of various industrial sectors, particularly the textile and apparel industry, which presents significant growth potential. In 2024, revenue in Tanzania's apparel market was projected to reach US\$2.21 billion, with an anticipated annual growth rate of 3.93 per cent from 2024 to 2029 (Apparel-Tanzania, 2024). However, industry instability is evident when compared to other countries; the United States is projected to generate the highest revenue in the apparel market, reaching US\$359 billion in 2024 (Apparel-Tanzania, 2024). Tanzania's apparel market exhibits significant demand for traditional African prints and handmade clothing (Seidu et al., 2022). Research to identify factors that enhance the growth and performance of the sector is essential for enabling the industry to realize its full potential.

2.0 Literature Review

2.1 Theoretical Perspective

The Resource-based View (RBV) theory of the firm provides a theoretical framework highlighting the importance of internal resources in attaining competitive advantage (CA) (Baia et al., 2020). The theory illustrates the strategic advancement of entrepreneurs in businesses, utilizing their limited

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resources and capabilities. Barney (1991) posits that success is attained in comparison to other firms through the acquisition of unique resources. In this perspective, the performance of a firm is most effectively elucidated through the critical success factors (CSFs) it possesses. Competitive advantage is attained when a firm possesses intangible resources that meet the criteria of being valuable, rare, inimitable, and non-substitutable (Varadarajan, 2023).

The theory is characterized by an inward focus, leveraging the 'strengths' of internal resources while mitigating 'weaknesses' as its primary positive implications (Yuga et al., 2020). The application of RBV theory is evident in multiple studies, including Dawa et al., (2021) and Nandi et al. (2020), concerning business performance. Nonetheless, the theory has not adequately recognized the importance of capital good acquisition for the performance of a firm (Alnoor, 2020). The focus on internal exploitation highlights a shift in the theory away from the importance of resource acquisition, which is considered essential for organizational performance and sustainability (Kijkasiwat et al., 2021). The present study examines the role of a moderating variable in strengthening the relationship between environmental factors and the performance of a firm. Chai et al., (2020) and Vershinina et al., (2020) identify a significant relationship between government policy and firm performance. The inclusion of government policy in the current study as a moderating variable is substantiated by Ndirangu (2019), who advocated for further investigation into government policy to identify weaknesses and gaps affecting performance in the textile industry's clothing sector.

The application of RBV theory in this study provides a suitable framework for understanding how owner-managers in the batik and textile industry are responsible for establishing, leading, and analysing issues related to their firms, considering both internal and external resources. The Resource-Based View (RBV) asserts that a firm can maintain competitive advantage by possessing and effectively utilizing rare resources (Wernerfelt, 1984). Owner-managers with superior critical success factors (resources) are anticipated to exhibit enhanced performance in their firms (Penrose, 1959).

2.2 Hypotheses Development

Research demonstrates that access to critical resources, including capital and loans, continues to pose a substantial challenge for numerous business owners and managers. Funds have been recognized as a crucial resource for supporting women-owned businesses; however, restricted access to credit has negatively impacted both the initiation and performance of these enterprises (Pendo, 2021). From this perspective, aligned with the Resource-based View (RBV), access to critical resources such as capital, collateral, and supportive financial institutions significantly impacts women's ability to lead and sustain business ventures. The lack of these resources significantly hinders their entrepreneurial potential.

Caldera et al., (2019) identify inadequate financial resources or insufficient capital as a major barrier to business performance. This constraint negatively impacts the growth and sustainability of women-owned businesses, as evidenced by other studies (i.e., Pramono et al., 2021; Abebe and Kegne, 2023; Ackah et al., 2024). In this context, insufficient financial resources hinder businesses from investing in new technology and human capital, resulting in a lack of innovation and competitiveness in the market (Onileowo et al., 2021). Conversely, Woldie et al., (2018) identified a non-significant effect of resource availability on women's business performance. The authors argue that high interest rates and additional bank charges constitute a significant barrier to accessing financial resources. The lack of requisite collateral and credit history serves as a barrier, thus, excluding women's businesses from formal financial systems. Similarly, it has been observed that navigating regulatory requirements for accessing finance is time-consuming and complex for most SMEs (Kamanga & Mwaikambo, 2020).

The prevailing view among scholars is that education equips owner-managers with the necessary knowledge and skills for effective business management (Shahzad et al., 2020). Ngoc and Tien (2023) established that human resource is a crucial asset, contributing to the quality of the workforce through skills and abilities that are essential for the success of firm activities. A firm that lacks a qualified workforce to effectively manage customer relations, marketing, sales, networking, and negotiation may experience negative consequences (Jabbouri and Farooq, 2021; Das et al., 2023). Insufficient

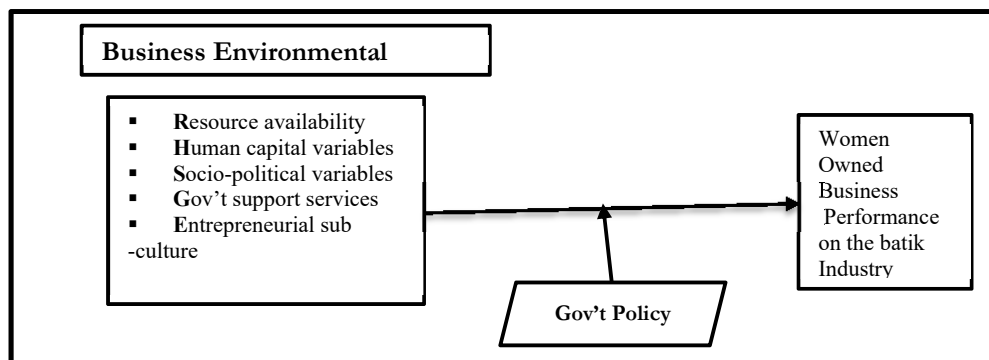
human resource in SMEs correlates with suboptimal performance. Jha et al., (2018) found that both hard and soft skills are essential for the successful initiation and management of businesses by women entrepreneurs. Conversely, insufficient foundational training results in diminished growth potential (Panda, 2018). Consistent with the Resource-based View therefore, the lack of human resource is expected to affect negatively growth and performance of a firm.

In the socio-political context, credible evidence suggests that SMEs can enhance performance through government assistance, either directly (Park et al., 2019) or indirectly (Nakku et al., 2020). Government assistance is manifested through effective tax policies, licensing procedures, legal frameworks, and funding programs. SMEs are significantly influenced by fiscal policy privileges, a stable political environment, and government support, which are key factors contributing to their success. Consequently, the lack of government support is regarded as a constraint that adversely impacts the performance of women entrepreneurs (Panda, 2018). Government support facilitates the initiation and growth of SMEs by offering capacity-building and management assistance directly, while also indirectly fostering a more supportive economic, regulatory, and institutional environment (Prasannath et al., 2024). Conversely, inadequate infrastructure, the lack of market research, and unfavourable location have all been identified as obstacles. Similarly, corruption significantly undermines national integrity and, as a result, erodes the legal system (Kjennerud et al., 2019).

Sub-cultural factors can influence women's entrepreneurial engagement in a specific region, ethnicity, and religion, either positively or negatively. For instance, certain prominent tribes and national cultures continue to portray women as individuals prohibited from engaging publicly with men (Mathew, 2019). Giwa and Babakatun (2019) investigated the influence of religion, culture, and gender roles on the effective operation of women-owned businesses. Evidence indicates that gender bias and cultural beliefs hinder economic capabilities, thus, adversely affecting women's entrepreneurship development and ultimately undermining economic growth. Basedau et al., (2018) found a negative correlation between religious dimensions, indicating that religion has ambivalent effects on economic growth and social cohesion.

Government support services, specifically business development services (BDS), encompass a wide array of technical assistance aimed at enhancing the performance and sustainability of small and medium-sized enterprises (SMEs) (Joseph et al., 2022). These services are essential for addressing the challenges faced by SMEs, thus, improving their overall business operations. Mori (2015) and Le et al., (2024) indicate that the acquisition and application of various Business Development Services (BDS) represent intangible resources that Women-Owned Businesses (WOBs) in the batik industry can leverage to enhance SME performance. The Resource-based View provides a theoretical framework for understanding how access to BDS resources contributes to superior industry performance compared to those lacking such services. Consequently, variations in performance among WOBS in the batik SMEs industry can be most effectively elucidated by differences in the possession and utilization of various resources. Thus, consistent with the Resource-based View, all the previous discussion results in hypothesis H₁ which states that business environmental factors are positively related with WOBS performance in the batik industry.

2.3 Conceptual Model



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Figure 1. Research Framework

- H1: Business environmental factors are positively correlated with the success of WOBs in the batik business.
- H1a: Resource availability is favourably correlated with WOBs performance in the batik industry.
- H1b: Human resource has a positive correlation with the performance of WOBs in the batik business.
- H1c: Socio-political variables exhibit a positive correlation with the performance of WOBs in the batik sector.
- H1d: Government support services are positively correlated with the performance of WOBs in the batik sector.
- H1e: The entrepreneurial subculture is favourably correlated with the performance of WOBs in the batik business.

2.4 Government Policy as a Moderating Variable

Previous studies have investigated government policy as a determinant of WOBs on growth and performance. Khan et al. (2021) indicate that the special function of government funding, particularly direct subsidies, in moderating the relationship between SME growth and economic development has not been thoroughly examined, despite suggestions by Farinha et al., (2020) regarding its potential impact on the growth and performance of SMEs. This study investigates the moderating effect of government policy on entrepreneurial performance in relation to intangible resources. Small and medium-sized enterprises (SMEs) exhibit a diversity and frequently face resource constraints. Moreover, their precarious financial conditions exacerbate the challenges in implementing substantial initiatives to overcome growth barriers, thus, indicating the need for government intervention policies. Previous studies from Tanzania Tonya and Kagata (2024); and Endris and Kassegn (2022) from Sub-Saharan Africa have indicated that micro and smaller-sized firms lacking government support have experienced constrained growth. According to Musabayana et al. (2022), government support enhances SMEs' performance both directly (Park et al., 2019) and indirectly (Nakku et al., 2020).

The development of SMEs in advanced countries has been facilitated by policies that enhance their performance. Thus, the government policy offers greater support for the growth and performance of SMEs. Accordingly, in the alignment with the Resource-Based View (RBV), which posits that firms achieve competitive advantage through strategic intangible resources, hypothesis H2 posits that government policy moderates the relationship between business environmental factors and the performance of women-owned businesses in the batik industry.

3.0 Research Methodology

The study was conducted in Dar es Salaam, the Tanzania's largest commercial city, which has a population of 5.3 million and hosts the majority of the country's SMEs (Isaga, 2019). The region is situated in the eastern part of the country along the Indian Ocean, covering a total area of 1,590 km² (Ndetto & Matzarakis, 2013). The region is characterized by a vibrant informal sector, predominantly led by women engaged in services and related activities, including clothing tailoring, and batik production. The region was chosen due to having the highest number of industrial establishments in the country (NBS MITI, 2015). Thus, it was envisaged that owner-managers in Dar es Salaam could represent those in other regions facing similar entrepreneurial challenges, as noted by Pallangyo (2021). This study utilized an explanatory research design to establish causal relationships, with data collected at a single point in time, thereby employing a cross-sectional research design. The study design enables the examination of the relationship between business environmental factors and WOBs performance within the batik industry.

The study's sample size of 289.2 individuals was derived from a 0.05 margin of error based on

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1,044 active practitioners officially registered and recognized by the Community Development Officers (CDOs) responsible for women entrepreneurs, project management, and capacity building in the region. The study employed a sample size of 290 participants because it is permissible to add up participants above the required sample size (Alotumi, 2021). The targeted owner-managers for inclusion in the study were selected using a simple random sampling technique. The sample size estimation utilized the formula proposed by Yamane (1967):

$$\eta = \frac{N}{(1+N(e^2))} \quad \eta = \frac{1,044}{1+1.044(0.05)^2} = 289.2$$

Whereas: η = sample size; N = population size and e = margin error (confidence interval which is +/- 5%), $N = 1,044$. The study population consisted of female batik owner-managers, with individual group members serving as the unit of analysis for data collection aimed at understanding the phenomenon (King et al., 2023). The study utilized probability, multi-stage, and random sampling methods to determine the sample size of batik SME owner-managers, facilitating the generalization of the findings.

The sample size was determined by dividing the study area into five sampling units, corresponding to five councils. Subsequently, 14 wards from each cluster were selected at random. Data collection from the clusters proved challenging due to their size; in the third stage, 10 hamlets from each ward were randomly selected to engage with Street Executive Officers (See Table 1). Female batik owner-managers were organized at the street executive offices following the instructions of Ward Executive Officers (WEOs), who requested their participation in completing the questionnaire for data collection.

Table 1. Sampling Framework

| District | No. of Wards | Associations in the ward | Female batik practitioners |
|--------------|--------------|-------------------------------|----------------------------|
| Ubungo | 14 | - | 49 |
| Kinondoni | 20 | Kiwohede Uwabama Tabote | 56 |
| Ilala | 25 | ATD Care Iwapoa Tabote | 78 |
| Temeke | 24 | - | 55 |
| Kigamboni | 9 | Tabote | 52 |
| Total | 95 | 5 | 290 |

3.1 Data Collection and Analysis Procedures

3.1.1 Data Collection

A survey method was utilized, employing a structured and close-ended questionnaire to gather data from the respondents. A pre-test of the tool was conducted with a sample of 30 participants to assess comprehension, clarity, ambiguity, and difficulty of the responses in the field (Nyarubeli et al., 2023). The pre-test facilitates modifications of the instrument, leading to the development of an improved version prior to the data collection. Variables were assessed using a five-point Likert-type scale derived from prior research, where 5 represents strongly agree (SA=5) and 1 indicates strongly disagree (SD=1), with the exception of categorical variables. The study collected data during PhD research from October 2023 to April 3, 2024. The collected data, once processed and validated, underwent the analysis using IBM SPSS Version 27. The inferential statistics utilized a Multivariate linear regression (MLR) analysis model to assess the relationship between business environmental factors and WOBs performance in the batik industry.

3.2 Data Analysis

The study used MLR analysis model, which, according to Dobson and Barnett (2018), takes into account the quantity of predictor variables in the model, with the dependent variable measured on a

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continuous scale. The analysis aimed to determine the impact of explanatory variables on the performance of WOBs, utilizing the following equation:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \varepsilon$$

Y_i denotes an endogenous variable reflecting the overall performance condition of WOBs in the batik industry when subjected to regression analysis. X_1 to X_5 represent independent variables, as proposed by Khan et al. (2021), which measure constructs related to business environmental factors. X_1 represents Resource Availability (RA); X_2 denotes Human Resource Variables (HR); X_3 signifies Socio-Political Variables (SPv); X_4 indicates Business Support Services (BSs); and X_5 reflects Entrepreneurial Sub-Culture (ESc). In this context, β_1 to β_5 denote regression coefficients, with the subscript i representing the total number of observations. The symbol ε signifies an error term, which accounts for the proportion of variance in the outcome variable not explained by the regression model. The empirical model generated the coefficients and t-statistics for each exogenous variable, along with their corresponding p-values. Each exogenous variable possesses a distinct statistical value; thus, to ascertain a significant effect on WOBs performance, the coefficients were evaluated for their statistical p-value. If the p-value of a given coefficient is less than 0.05, this indicates that the null hypothesis should be rejected and the alternative hypothesis accepted. If the p-value is greater than 0.05, the null hypothesis is not rejected, and the alternative hypothesis is not accepted.

3.3 Diagnostic Tests of Variables

The appropriate application of the MLR model necessitates adherence to key assumptions to effectively address the research problem. The data underwent initial descriptive analysis to evaluate their normality, employing the Kolmogorov-Smirnov test, which yielded $D(290) = p\text{-value} > 0.05$. Consequently, the normality assumption was upheld, and the data set was verified as normally distributed. The multicollinearity test was assessed using the variance inflation factor (VIF) for each of the exogenous variables. Kyriazos and Poga (2023) indicate that a VIF value greater than 10 suggests severe multicollinearity among explanatory variables. However, the VIF values in this analysis did not exceed the threshold of 10, and the tolerance values were less than 0.10. Consequently, multicollinearity could not be confirmed in the model. The Durbin-Watson coefficient quantifies the presence of autocorrelation in residuals. The acceptable Durbin-Watson range indicating no autocorrelation is between the recommended limits of 1.5 and 2.5 (Ghasemi et al., 2023). The calculated D-W value of 1.744 falls within the acceptable range. The regression analysis indicates the absence of autocorrelation within the model.

The presence of outliers was analysed through Distance-Based Methods (Merza & Mohammed, 2021). The observation indicated that the distances between each data point and their nearest points did not differ significantly from one another, suggesting that the possibilities generated by an alternative method were not supported (Osborne & Overbay, 2019). The investigation confirmed the absence of abnormalities in the data set. The linear relationship was established by creating a scatter plot between each independent variable and the outcome variable. The data pattern along the straight line indicates that the dataset follows a normal distribution. As Luan (2022) states, heteroscedasticity occurs when the error term does not exhibit constant variance. The fundamental assumption of regression requires that there be equal variance among independent observations in a study. According to Uyanto (2022), the Breusch-Pagan heteroscedasticity test indicated that the R-square value for the multiple regression was 0.257. The calculated R-square, or Breusch-Pagan statistic, was 74.53 (0.257×290). The value associated with a significance level of 0.052 indicates no evidence of heteroscedasticity.

3.4 Validity and Reliability of the Instrument

In scholarly research, the validation of relevant measurement instruments is deemed essential. Statistical tools were essential in the primary extraction and rotation methods utilized in this study. Factor loading served as a diagnostic instrument in the exploratory factor analysis (EFA) technique,

while Bartlett's test of Sphericity evaluated the correlation matrix, and sampling adequacy was determined using the Kaiser–Meyer–Olkin (KMO) measure. The EFA technique identified five factors for extraction, accounting for a cumulative variance of 54.997%.

3.5 Validity Analysis

The research instrument was subjected to a pilot study to ensure it measured the intended objective. The pre-test involved a sample size of 30 respondents to assess the consistency and reliability of the items of the instrument (Nawi et al., 2020). The Cronbach Alpha (α) of the questionnaire was determined to be 0.771, thereby confirming the validity of the research instrument. The study achieved the acceptable level of validity at 0.7 (Shrestha, 2021).

3.6 Reliability Analysis

According to Sürücü and Maslakci (2020), reliability assesses the internal consistency of a construct and according to Shrestha (2021), measured variables are considered reliable when the Cronbach's alpha value is greater than or equal to 0.7. All Cronbach's alpha measures in the study exceeded the recommended minimum acceptable level (Penniston et al., 2017). Consequently, all Cronbach's Alpha values shown in Table 2, demonstrated adequate internal consistency, thereby affirming the reliability of the research instrument.

Table 2. Reliability Analysis

| Item-Total Statistics | | Number of items | Cronbach's Alpha if Item Deleted |
|-----------------------|---------------------------|-----------------|----------------------------------|
| RA | Availability of fund | 6 | .732 |
| BSc | Training support | 6 | .712 |
| SPv | Government incentives | 6 | .724 |
| HR | Knowledge | 6 | .806 |
| ESc | Cultural influence | 6 | .794 |
| WP | Increase in profitability | 6 | .745 |

3.7 Ethical issues and considerations

Ethical requirements were prior to the engagement of the target sample were observed through the following: First, the letter requesting for access to the target participants for data collection was submitted to the appropriate government offices. Also, informed consent was obtained prior to the survey, and participants were assured of anonymity and confidentiality (Rharzouz et al., 2024). As observed by Husband (2020), voluntary participation, informed consent, anonymity, and confidentiality are deliberately pursued to prevent any harm or negative impact on participants. Furthermore, the published and unpublished reports of other scholars were appropriately acknowledged to avoid plagiarism. Similarly, data falsification and fabrication were completely avoided to prevent compromising the study's integrity and violating the fundamental principles of research ethics.

4.0 Findings and Discussion

Hypothesis testing was conducted using multivariate regression (MLR) analysis through confirmatory factor analysis (CFA), which provides the researcher with control over the variables and model specification. The impact of the explanatory variables on WOBs performance was analysed. The regression analysis examined Hypothesis (H1) to assess the relationship between intangible resources and WOBs performance in the batik industry, as presented in Table 3a. The regression value $R = 0.507$ indicates a positive and strong correlation between the two variables, suggesting that 50.7per cent of the variation in WOB performance in the batik industry can be attributed to business environmental factors. The results in Table 3a indicate a R square value of 0.257, which implies that 25.7per cent of the variability in the dependent variable is accounted for by the explanatory variables

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collectively, while the remaining 74.3per cent is attributed to the error terms.

The analysis of variance (ANOVA) results presented in Table 3b demonstrate the significance of the model employed to assess the correlation between explanatory variables and the dependent variable. The F-statistic value of 19.620, with an associated probability value of 0.000 ($F = 19.620$, $p < 0.001$) and degrees of freedom of 284, indicates that business environmental factors significantly predict the performance of WOBs in the study area. In conclusion, after establishing the acceptable model fit, the next steps involved testing coefficients and hypotheses.

Table 3a. Overall Model Summary

| Model Summary ^b | | | | | |
|----------------------------|-------------------|----------|--------|----------------------------|-------|
| Adjusted R | | | | | |
| Model | R | R Square | Square | Std. Error of the Estimate | DW |
| 1 | .507 ^a | .257 | .244 | .49602 | 1.744 |

a. Predictors: (Constant), ESc, HR, RA, SPv, BSs

b. Dependent Variable: WP

Note. R = Regression value; RS = R. Square; S = Square; Std.E. Estimate; DW= Durbin-Watson.

Table 3b. Multiple Regression Analysis of Variance
ANOVA^a

| Model | | SS | df | MS | F | Sig. |
|-------|------------|--------|-----|-------|--------|-------------------|
| 1 | Regression | 24.136 | 5 | 4.827 | 19.620 | .000 ^b |
| | Residual | 69.873 | 284 | .246 | | |
| | Total | 94.009 | 289 | | | |

a. Dependent Variable: WP

b. Predictors: (Constant), ESc, HR, RA, SPv, BSs

Note. SS =Sum of squares; df = degrees of freedom; MS = Mean Square; F = statistics; Sig = p-value.

Table 3c. Multiple regression – Coefficients

| Coefficients ^a | | | | | | | |
|---------------------------|------------|-----------------------------|---------------------------|-------------------------|-------|------|---------------|
| Model | | Unstandardized Coefficients | Standardized Coefficients | Collinearity Statistics | | | |
| | | B | Std. Error | Beta | t | Sig. | Tolerance VIF |
| 1 | (Constant) | .869 | .326 | | 2.669 | .008 | |
| | RA | .165 | .061 | .165 | 2.684 | .008 | .695 1.439 |
| | BSc | .021 | .111 | .019 | .191 | .849 | .259 3.854 |
| | SPv | .176 | .058 | .197 | 3.034 | .003 | .620 1.614 |
| | HR | .242 | .051 | .251 | 4.784 | .000 | .952 1.050 |
| | ESc | .123 | .129 | .103 | .948 | .344 | .220 4.549 |

a. Dependent Variable: WP

A close examination of the coefficients in Table 3c indicates that resource availability ($p = 0.008$), social political variables ($p = 0.003$), and human capital variables ($p < 0.001$) are significant

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determinants of business growth and can elucidate the performance of WOBs. The data support hypotheses H1a, H1b, and H1c, indicating that WOBs' performance in the batik industry is positively related to resource availability, socio-political variables, and human resource variables. The data support hypothesis (H1), which posits a positive relationship between intangible resources and WOB performance.

The standardized coefficients column in Table 3c illustrates the strength and direction of the relationship between each independent variable—resource availability, human capital, and social political factors—and the dependent variable. At this stage, it is clear that human resource (0.30) exhibits a stronger correlation with WOBs performance compared to resource availability (0.17) and socio-political variables (0.20). The relationships indicate that greater intangible resources enhance WOB performance, while limitations in these resources adversely impact performance. The following equation illustrates the relationships between intangible resources and WOBs performance in the batik industry, where RA denotes resource availability, SPv represents social political variables, and HR signifies human resource. The performance of WOBs is expressed as $0.869 + (0.17RA) + (0.20SPv) + (0.30HR)$.

4.1 The Moderating Impact of Government Policy

Table 4. Regression Analysis of the Moderating Effect of Government Policy on Intangible Resources
Coefficients^a

| | | Unstandardized Coefficients | | Standardized Coefficients | | |
|--------------|-------|-----------------------------|-------|---------------------------|------|--|
| Model | B | Std. Error | Beta | t | Sig. | |
| 2 (Constant) | 2.994 | .618 | | 4.843 | .000 | |
| RA | -.055 | .114 | -.050 | -.485 | .628 | |
| HR | .102 | .073 | .106 | 1.392 | .165 | |
| SPv | .199 | .125 | .168 | 1.601 | .111 | |
| govt_policy | -.592 | .165 | -.436 | -3.583 | .000 | |
| interaction | .007 | .002 | .475 | 3.260 | .001 | |

a. Dependent Variable: WP

a. Dependent Variable: Women Performance, govt_mod_intangible = interacting variable (product of gov't policy and intangible resources).

The analysis of the moderating effect of government policy, as presented in Table 4, reveals that the coefficient for the first predictor (RA) is negative and statistically insignificant, indicated by a p-value of greater than 0.005. This suggests that resource availability adversely impacts the performance of WOBs, implying that lower resource availability correlates with diminished performance in the batik industry. Both HR and SPv coefficients are statistically insignificant, yet they exhibit a positive relationship with WOBs performance. Table 4 indicates that the moderating variable, government policy (govt_policy), exhibits a significant p-value of less than 0.001. The data support hypothesis H2, which posits that government policy moderates the relationship between business environmental factors and WOBs performance in the batik industry. The interaction effect of the government policy presented in Table 4 is statistically significant, with a p-value of less than 0.005, indicating the presence of a moderation effect. This indicates that regulatory policies, such as tax breaks, subsidies, and import restrictions, have a positive impact on industrial development, whereas their absence may result in negative consequences (Ibrahim & Mustapha, 2019).

Furthermore, the financial inadequacy and the lack of knowledge resources affecting the performance of SMEs, when supported by government financing policies, significantly influence their ability to cope with challenges (Peter et al., 2018; Park & Kim, 2020).

5.0 Conclusion and Recommendations

5.1 Conclusions

The findings of the study demonstrated that the regression analysis produced statistically significant results in the expected directions. Table 3c demonstrates that three hypotheses attained statistical support, suggesting that the proposed theoretical framework is consistent with the data. The hypothesis H1 suggests a positive correlation between intangible resources and SME performance, with sub-hypotheses H1a to H1c being statistically supported. This finding aligns with the Resource-based View (RBV), which posits that the presence or lack of strategic intangible resources (Barney, 1991) significantly influences SME performance, positively or negatively (Jabbouri & Farooq, 2021; Rajput et al., 2023; Das et al., 2023). The results related to Hypothesis H1 indicate that the management of intangible strategic resources notably enhances the performance of women-owned businesses (WOBs) in the batik industry.

The results of the hypothesis testing support Hypothesis H2, which posits that government policy moderates the relationship between intangible resources and the performance of WOBs. The results demonstrate that the performance of SMEs is influenced by the degree and efficacy of strategic resource utilization. Furthermore, government support programs can alleviate resource constraints faced by SMEs (Peter et al., 2018). This finding is consistent with the Resource-Based View, which asserts that firms achieve competitive advantage by effectively leveraging their unique capabilities and resources. Thus, it is reasonable to conclude that human resource capital is a vital element for SME owner-managers in Tanzania's textile and apparel industry.

5.2 Recommendations

This study recommends that the government, as the primary policy-making body, develops and implements empowerment programs to enhance the identified competencies, taking into account the nation's potential and global trade opportunities in the sector. Moreover, improving SMEs' access to marketing support services may aid their transformation into viable and sustainable business entities, thus allowing them to contribute significantly to the manufacturing industry.

6.0 Limitations and Suggestions for Further Research

The study provides important insights, yet it also uncovers several inherent limitations. The research focused exclusively on women-owned SMEs within the batik industry, which may limit the generalizability of the results to other sectors or male-owned businesses. Secondly, the use of a cross-sectional research design restricts the ability to draw causal inferences about temporal changes. The reliance on self-reported data can lead to bias, particularly regarding social desirability and recall accuracy. Future research should employ longitudinal designs to improve comprehension of the long-term impacts of intangible resources and government policies on the performance of SMEs. Broadening the research scope to include a wider range of industries and geographic regions in Tanzania could provide more comprehensive and generalizable insights. Future research could investigate additional moderating variables, such as market conditions, technological adoption, and institutional support, that may influence the relationship between strategic resources and SME performance.

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