RURAL PLANNING JOURNAL
Website: https://journals.irdp.ac.tz/index.php/rpj

DOI: https://doi.org/10.59557/rpj.25.2.2025.209

Socio-Demographic Factors Influencing Public Servants to Engage in Entrepreneurial Activities in the Mara Region, Tanzania

Robert N. Pauline[1], Amani J. Mkelenga[1], and Emmanuel A. Kikwale[1]*

[1]Department of Population Studies; Institute of Rural Development Planning; P.O. Box 138, Dodoma
*Corresponding author: rpauline@irdp.ac.tz

ARTICLE INFO

Keywords

Business environment
Economic diversification
Entrepreneurial activities
Entrepreneurship
Public servants

ABSTRACT

Entrepreneurship among public servants in Tanzania's Mara Region is increasingly becoming vital for economic diversification and poverty reduction. This study assessed the socio-demographic factors influencing public servants' engagement in entrepreneurial activities in the Bunda District, utilizing a binary logistic regression model. A cross-sectional design employing mixed methods was used to collect data from 150 public servants using questionnaires and from ward executive officers through in-depth interviews. The study found that more than half (63.3%) of the respondents engaged in entrepreneurial activities. Based on binary logistic regression analysis, significant predictors of engagement in entrepreneurial activities among public servants include male sex (OR = 2.34, p = 0.010), married/divorced status (ORs = 2.46/4.27, p < 0.05), partner occupation (self-employed OR = 4.58, p = 0.002), and information access (OR = 3.56, p = 0.004). On the other hand, age, partner education, and social media use were non-significant. The study recommends entrepreneurial training and provision of affordable credit to public servants, particularly women and those in lower-income brackets, to enable them to initiate entrepreneurial ventures.

1. Introduction

Entrepreneurship among public servants is an increasingly vital area of study in developing economies like Tanzania, where economic diversification is an essential for sustainable growth and poverty reduction. In this study, entrepreneurship among public servants is conceptually defined as the process by which formally employed civil servants identify, evaluate, and exploit income-generating opportunities outside their salaried public service roles, typically through starting or running side businesses while retaining their public employment (Ofosu-Appiah et al., 2025; Nyathi et al., 2022). Under globalization, engagement in entrepreneurship or the establishment of small and medium-sized enterprises (SMEs) contributes significantly to the development of the economy and growth by alleviating poverty, increasing job opportunities, individual empowerment, self-reliance, self-efficacy, enhanced income, wealth, self-identity, achievement, community and social engagement, and the ability to help the community (Korosteleva and Stępień-Baig 2020; Kimmitt et al., 2020; Aljarodi et al., 2022; Alshebami and Seraj, 2022).
Since entrepreneurship is considered a means of generating revenue and creating wealth, many individuals have embarked on entrepreneurial activities, including those employed in the public sector. Employed individuals engage in entrepreneurial activities to supplement income, pursue financial independence, or address economic challenges such as stagnant wages and limited career progression (Ofosu-Appiah et al., 2025; Nyathi et al., 2022).

Even though entrepreneurship has been a valuable means of poverty alleviation and wealth creation, studies conducted in Tanzania and Sub-Saharan African countries have revealed that, lack of skills, a lack of relevant experience, limited access to finance to initiate business ideas, high taxes, a lack of government support, bribery and corruption were the main factors prohibiting individuals from becoming entrepreneurs (Kessy, 2020; Mgaiwa, 2021; Ntare and Ojwang, 2021; Ofosu-Appiah et al., 2025).

So, for entrepreneurship to prevail in any country, it requires a favourable environment. Bernatzki et al. (2020) and Ruhara and Kayitana (2018) noted that Rwanda's regulatory reforms simplified business registration, enhancing entrepreneurial activity among individuals, including professionals. In Kenya and Ethiopia, studies reveal that community support, social networks, education, business exposure, land tenure, and access to information or ICT enhance entrepreneurial success (Ali et al., 2019; Imbaya et al., 2019; Tubey et al., 2019;

Kamuri, 2022; Issa and Tesfaye, 2020; Nchake and Shuaibu, 2022). To encourage entrepreneurship and reduce unemployment in Tanzania, the government has launched a national entrepreneurship strategy aimed at fostering self-reliance education among its population, including higher education students (URT, 2017). The National Economic Empowerment Council (2020) noted that Tanzania's entrepreneurship strategy reduced regulatory hurdles, fostering youth entrepreneurship.

Previous studies conducted in Tanzania have primarily focused on the impact of entrepreneurship education and training on students' and graduates' entrepreneurial intentions and behaviours (Nyello et al., 2025; Melyoki et al., 2018; Liana, 2022; Magasi, 2022; Makuya and Changalima, 2024). Additionally, some studies have assessed the entrepreneurial intentions of college and university students (Ntare and Ojwang, 2021). However, there is a notable gap in understanding the factors that influence public servants' engagement in entrepreneurial activities. This study investigated how socio-demographic factors influence public servants' engagement in entrepreneurial activities in the Bunda District of Mara Region. The findings will contribute to the existing body of knowledge on entrepreneurship in developing contexts and will guide policies aimed at fostering inclusive economic growth.

2. Literature Review

2.1. Theoretical Framework:

The study employed the Social Ecological Model (SEM). The Social Ecological Model (SEM), proposed by Bronfenbrenner (1979), provides a comprehensive framework for analyzing the socio-demographic factors influencing public servants' entrepreneurial activities in the Mara region. SEM suggests that interconnected levels shape behaviour: intrapersonal (age, education, gender), interpersonal (social networks, family support), community (cultural norms), and institutional (policies, access to finance). In this study, SEM is particularly relevant since it captures the interplay among personal characteristics, social connections, and systemic factors, such as Tanzania's regulatory environment and financial access challenges, that shape entrepreneurial decisions. The model's multi-level approach is well-suited to understanding the complex motivations of public servants, who balance stable employment with entrepreneurial aspirations in a resource-constrained setting.

2.2. Empirical Review

A study done in Brazil and Portugal by Fragoso et al. (2020) found that men had higher entrepreneurial intention than women. This finding is related to a study by Baluku et al. (2021) conducted in Uganda, which reported that younger males are more likely to take entrepreneurial risks. These findings align with Campaña et al. (2015), who reported that in Mexico, gender and family responsibilities limit women's participation in entrepreneurship.

Across Sub-Saharan Africa, socio-demographic factors intersect with economic and institutional challenges. Various studies have identified a lack of skills, limited financial access, poor policies, and bureaucratic hurdles as barriers to youth entrepreneurship, restricting entrepreneurial growth (Carter et al., 2015; Leke and Signé, 2019; Nyati, 2025; Tryphone and Mkenda, 2023; Umar et al., 2025). Thus, factors such as access to business training, access to finance, previous entrepreneurial experience, land ownership, government support, access to business information, and tax matters help explain entrepreneurs' performance (Alene, 2020).
A study on the assessment of entrepreneurial intention among college students in Tanzania, done by Ntare and Ojwang (2021), maintained that unemployment, poverty, job security, self-enjoyment, interest in the entrepreneurship subject, and being my boss are the motivations that force most of the college students to engage in various forms of entrepreneurship to attain financial stability and improve their wellbeing.

Gaete Quezada et al. (2019) noted that education levels correlate with entrepreneurial innovation in Chile. Furthermore, studies conducted in South Africa and Central Africa found that education and social networks are determinants of entrepreneurial success (Herrington et al., 2019; Mayanja et al., 2021). Thus, education matters for individuals to engage in any entrepreneurial activity.
Magagula and Awodiji (2024) reported that skill-acquisition and access-to-information programs enhance entrepreneurial engagement, suggesting the importance of training and information dissemination. Bernatzki et al. (2022) found that government support and regulatory reform enhance SME growth in South Africa and Rwanda and improve the ease of doing business, thereby encouraging entrepreneurship among professionals.

The existing literature has extensively examined the determinants of entrepreneurship across various global contexts and in localized African countries. Most of these studies focused on the engagement of youth/students, or graduates in entrepreneurship; however, little is known about the factors that influence employed individuals to engage in entrepreneurial activities. This study addresses that gap using SEM to systematically link individual, interpersonal, and community factors among public servants' engagement in entrepreneurial activities in Bunda District, Mara Region.

3. Materials and Methods

3.1. Study Area

The study was conducted in Bunda District, Mara Region. The area was selected purposely due to the high concentration of public servants in education, health, and administrative sectors, approximately 3,000, among 243,822 people with an active economic landscape, including agriculture, livestock, and business, which support entrepreneurship (Bundadc.go.tz, NBS, 2022).

4.2. Study Design and Population

The study used a cross-sectional design to collect data from 150 public servants in Bunda District. The design was employed because it captures respondents' data at a single point in time, making it appropriate for resource scarcity, and it allows triangulation of quantitative and qualitative data collected simultaneously. The study included public servants working in Bunda district.

3.3 Sample Size and Sampling

Sample size was obtained using Cochran's formula for an unknown population:

$$n_0 = \frac{z_{\frac{\alpha}{2}}^2 pq}{e^2} \quad \text{.....(i)}$$

Simple random sampling was performed using Excel's random number generator. Sample size (n=150) was calculated with a 50% assumed prevalence of entrepreneurial engagement, 95% confidence level, and 8% margin of error. Eight ward executive officers (WEOs) were purposively selected for in-depth interviews to provide contextual insights.

3.4. Data Collection

Data were collected using a mixed-methods approach to provide a comprehensive understanding of the factors influencing public servants' engagement in entrepreneurial activities. Structured questionnaires were administered to 150 public servants to collect quantitative data. The questionnaire was pre-tested in a nearby ward to ensure clarity, cultural sensitivity, and reliability. Minor revisions were made in response to feedback received. Supplementary qualitative data were collected through in-depth interviews with Ward Executive Officers (WEOs). These interviews were conducted in Swahili by trained enumerators. On the other hand, secondary data were gathered from published literature, government reports, and district business records to contextualize the findings and validate the primary data.

3.5. Data Analysis

The collected data were analyzed using IBM SPSS Statistics version 25. Respondents' characteristics were analyzed using descriptive statistics, and chi-square tests were employed to examine bivariate associations between categorical variables. A binary logistic regression model was used to identify the contribution of each predictor variable to public servants' engagement in entrepreneurial activities. The binary logistic regression model was chosen because the dependent variable is dichotomous, indicating whether a public servant engaged in an entrepreneurial activity or not. In this study, the dependent variable was coded as Y=1 for engagement and Y=0 for non-engagement, and the model estimates the likelihood of public servant engagement in entrepreneurial activities based on predictor variables. The results of the analyses were presented using figures and Tables to enhance clarity and interpretation. Content analysis was employed in the analysis of qualitative data. The general equations are shown as follows:

$$\text{Chi-Square Test } (\chi^2) = \sum_{i=1}^{r}\sum_{j=1}^{c}\frac{(O_{ij}-E_{ij})^2}{E_{ij}} \quad \text{....(ii)}$$

Whereby

E_{ij} is the expected frequency in cells i, j

O_{ij} is the observed frequency in cells i, j

r is the number of rows

c is the number of columns

The binary logistic regression equation is expressed as:

$$\log it(\frac{p}{1-p}) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + ... + \beta_k x_k \quad \text{.(iii)}$$

Whereby p is the probability that a public servant is engaged in entrepreneurial activity

$1-p$ is the probability that a public servant is not engaged in entrepreneurial activity

β_0 is the intercept

$\beta_1, ..., \beta_k$ are the coefficients of the predictor variables.

$x_1, ..., x_k$ are the predictor variables

3.6. Ethical Consideration

Ethical approval was obtained from the Institute of Rural Development Planning, the Mara Regional Administrative Secretary, and the Bunda District Executive Director. Informed consent was secured from all participants, who were made aware of the study's purpose and procedures, as well as their right to withdraw at any time without consequences. To ensure confidentiality, data collection and storage were anonymized, and only aggregated results were reported. Enumerators received training to handle sensitive topics carefully, ensuring they avoided judgment or coercion.

4. Results

4.1 Demographic Characteristics

The findings in Table 1 show that all respondents were public employees and had a post-secondary level of education. Of the 150 respondents, 58.7% were male, and 74.7% were married. Respondents were drawn proportionately from education (62%), health (21%), and administration (17%) sectors.

Table 1: Demographic Characteristics

Variable	Categories	Frequency	Percent (%)
Age of respondents	24-30	36	24
	31-37	56	37.3
	38-44	32	21.3
	45-51	15	10
	52-59	11	7.3
Sex	Male	88	58.7
	Female	62	41.3
	Total	150	100
Occupation	Public employee	150	100
Education level	Postsecondary education	150	100
Marital status	Married	112	74.7
	Divorced	4	2.7
	Widowed	2	1.3
	Single	32	21.3
	Total	**150**	**100.0**

4.2. Engagement of public servants in entrepreneurial activities

More than half (63.3%) of the respondents engaged in entrepreneurial activities, indicating a high entrepreneurial prevalence in the study area (Figure 1). Also, public servants' engagement in entrepreneurial activities may be driven by a need to diversify income to attain financial stability and improve their well-being.

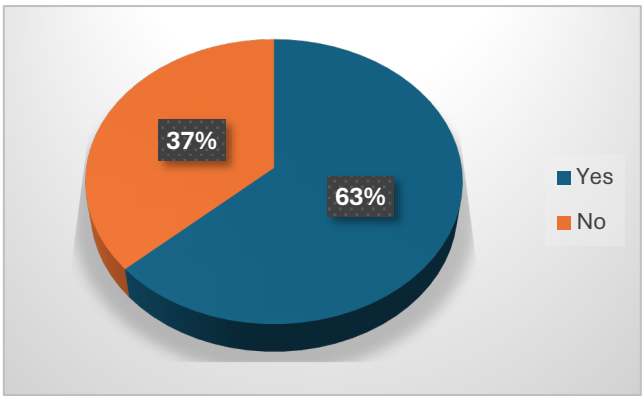

Figure 1: Public servant engagement in entrepreneurial activities in Bunda.

4.3. Entrepreneurial activities

The entrepreneurial activities done by public servants who were interviewed include retail shops (37.3%), livestock keeping (18.7%), money transactions (M-PESA) (18.7%), fruit juice (7.7%), cloth selling (5.4%), food crop selling (4.3%), tailoring (3%), stationery (3%), agriculture (2.4%) music library (1.8%), rental house (0.6%) and pharmacy (0.6 %) as seen in Figure 2. These findings imply that public servants engaged in different entrepreneurial activities to boost their income

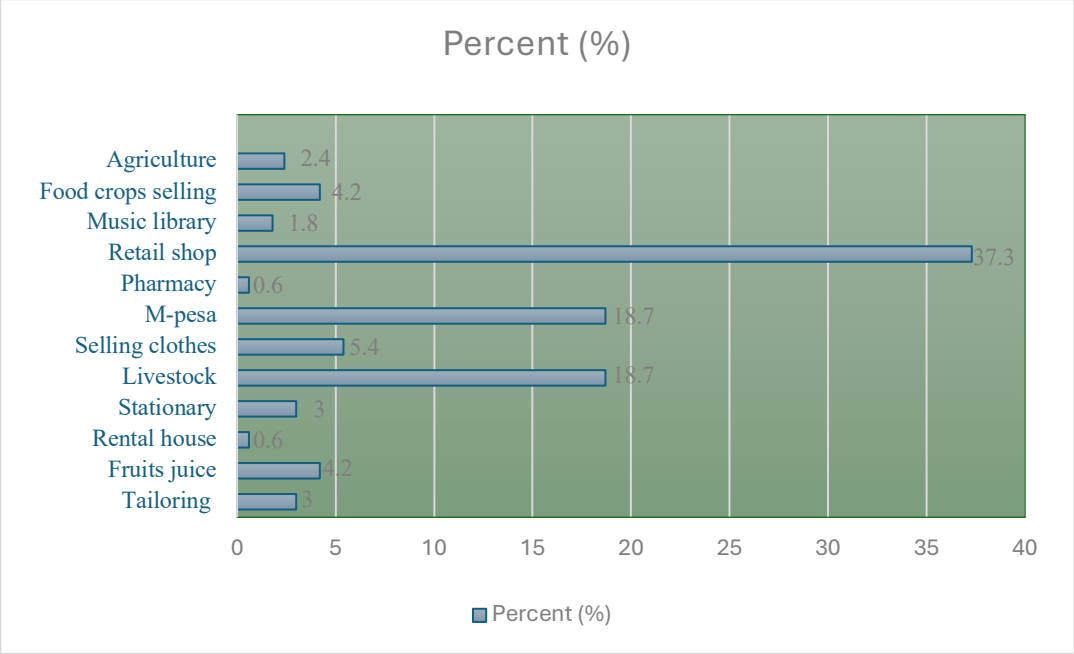

Figure 2: Entrepreneurial activities

During the Key Informant Interview (KII), one of the Ward Executive Officers (WEO) revealed that:

> *"Unlike past years, nowadays government employees in my area of jurisdiction diversify their income by engaging in different entrepreneurial activities; for example, some have small shops, saloons, and stationery, while many engage in agriculture, including myself."(KII with WEO)*

4.4. Bivariate Analysis

Bivariate analysis using the Chi–Square test was conducted to examine the association between public servants' engagement in entrepreneurial activities. The results reveal that several independent variables were significantly associated with entrepreneurship engagement at the 5% and 1% levels.

The results in Table 2 show that age was found to be significantly associated with entrepreneurship engagement among public servants ($\chi^2 = 1.513$, $p = 0.003$), suggesting that participation in entrepreneurship among public servants varies across age groups. Also, sex showed a statistically significant association with entrepreneurial engagement ($\chi^2 = 1.263$, $p < 0.00001$), which indicates gender-based differences in entrepreneurial participation among public servants. Furthermore, partner occupation showed a statistically significant association with entrepreneurship engagement ($\chi^2 = 5.348$, $p = 0.008$). Similarly, access to information demonstrated a statistically significant association with entrepreneurial engagement among public servants ($\chi^2 = 2.637$, $p < 0.00001$). This highlights the availability of information in shaping entrepreneurial decisions.

On the other hand, social media use ($\chi^2 = 0.155$, $p = 0.694$) and marital status ($\chi^2 = 2.185$, $p = 0.535$) were not significantly associated with entrepreneurial engagement among public servants. Variables that showed a statistically significant association at the bivariate level were considered for inclusion in the logistic analysis to assess their independent effects.

Table 2: Cross Tabulation and Chi-Square Between Socio-Demographic Factors and Public Employees' Engagement in Entrepreneurial Activities

Variable	Categories	Engage in Entrepreneurship Yes (%) / No (%)	Chi-Square	p-value
Age group (Years)	24-30	20 (55.6)	1.513	0.003
		16 (44.4)		
	31-37	38 (67.9)		
		18 (32.1)		
	38-44	20 (62.5)		
		12 (37.5)		
	45-51	10 (66.7)		
		5 (33.3)		
	52-59	7 (63.6)		

Variable	Categories	Engage in Entrepreneurship	Chi-Square	p-value
		4 (36.4)		
Sex	Male	59 (67)	1.263	0.000
		29 (33)		
	Female	36 (58.1)		
		26 (41.9)		
Marital status	Married	74 (66.1)	2.185	0.535
		38 (33.9)		
	Divorced	3 (75)		
		1 (25)		
	Widowed	1 (50)		
		1 (50)		
	Single	17 (53.1)		
		15 (46.9)		
Partner education level	Never attended to school	2 (66.7)	0.452	0.929
		1 (33.3)		
	Primary school	7 (70)		
		3 (30)		
	Secondary school	47 (61)		
		30 (39)		
Partner occupation	Not employed	12 (50)	5.348	0.008
		12 (50)		
	Public employee	43 (61.4)		
		27 (38.6)		
	Private sector employed	3 (42.9)		
		4 (57.1)		
	Self-employed	53 (73.9)		
		12 (26.1)		
Information	Yes	90 (65.2)	2.637	0.000
		48 (34.8)		
	No	5 (41.7)		
		7 (58.3)		
Use social media	Yes	94 (63.5)	0.155	0.694
		54 (36.5)		
	No	1 (50)		
		1 (50)		

4.5. Analysis of Binary Logistic Regression

A binary logistic regression model was estimated to examine the effect and contribution of individual variables on engagement in entrepreneurial activities among public servants. association between socio-demographic factors and public servants' engagement in entrepreneurial activities (with categories of dependent variable: yes = 1, no = 0), while simultaneously controlling for all predictors included in the model (Table 3). The overall model was statistically significant, indicating that the set of explanatory variables reliably distinguishes between public servants who engage in intrapreneurial activities and those who do not. The statistically significant constant term (β = -2.20, p = 0.002) represents the baseline log–odds of entrepreneurial engagement when all predictor variables are held at their reference categories.

With respect to gender, sex emerged as a significant predictor of entrepreneurial engagement. Male public servants had significantly higher odds of engaging in entrepreneurial activities compared to their female counterparts (β= 0.85, SE = 0.33, Wald = 6.61, p = 0.010). The odds ratio (OR = 2.34, 95% CI: 1.22–4.48) indicates that males were more than twice as likely to participate in entrepreneurial activities. These findings suggest the preference for gender-based disparities, which can reflect differences in access to resources, social expectations, or willingness to assume financial risk. Marital Status was also significantly associated with entrepreneurial activities. Married public servants were found to have higher odds of engaging in entrepreneurship activities compared to single individuals (β = 0.90, SE = 0.37, Wald = 5.91, p = 0.015), with an odds ratio of 2.46 (OR = 2.46, 95% CI: 1.19–5.09). This indicates that married public servants are 2.46 times more likely to engage in entrepreneurial activities compared to single individuals. Furthermore, divorced individuals exhibit an even stronger association, with significantly higher odds of entrepreneurship engagement compared to single respondents (β = 1.45, SE = 0.70, Wald = 4.29, p = 0.038, OR = 4.27, 95% CI: 1.08–16.88). This suggests that changes in household structure or economic independence following divorce can increase the likelihood of entrepreneurial involvement among public servants.

Partner-related characteristics were also important determinants of entrepreneurial engagement. Public servants whose partners were employed in the public sector had significantly higher odds of engaging in entrepreneurial activities compared to those whose partners were unemployed (β = 0.88, SE = 0.40, Wald = 4.84, p = 0.028, OR = 2.41, 95% CI: 1.10–5.26). This finding can reflect the stabilizing effect of dual and predictable household income, which reduces financial risk and encourages entrepreneurial experimentation. Even stronger effects were observed for respondents whose partners were self-employed. Having a self-employed partner significantly increased the odds of entrepreneurial engagement among public servants by more than four times (β = 1.52, SE = 0.49, Wald = 9.61, p = 0.002, OR = 4.58, 95% CI = 1.75–11.97). This highlights the role of shared entrepreneurial culture, exposure to business networks, and informal knowledge transfer within households.

Access to information was another key predictor of entrepreneurship engagement. Public servants with access to relevant information were significantly more likely to engage to entrepreneurial activities than those without such access (β = 1.27, SE = 0.44, Wald = 8.34, p = 0.004). The estimated odds ratio (OR = 3.56, 95% CI: 1.51–8.38) indicates that information access more than triple the likelihood of entrepreneurial participation. This underscores the critical role of information in reducing uncertainty, identifying opportunities, and facilitating decision-making in entrepreneurial processes. Access to information significantly increases the odds of entrepreneurial engagement by 3.56 times, indicating its critical role in facilitating entrepreneurial activities.

Table 3: Binary Logistic Regression Model Between the Socio-Demographic Factors and Public Employees' Engagement in Entrepreneurship

Variable	Category	β	Std. Error	Wald	p-value	Odds Ratio (Exp(β))	95% CI for OR
Age group	24–30 (Ref)	—	—	—	—	—	—
	31–37	0.48	0.45	1.14	0.286	1.62	0.67 – 3.94
	38–44	0.39	0.49	0.64	0.424	1.48	0.56 – 3.91
	45–51	0.55	0.62	0.78	0.376	1.73	0.51 – 5.84
	52–59	0.61	0.7	0.75	0.388	1.84	0.47 – 7.20
Sex	Ref: Female	-	-	-	-	-	-
	Male	0.85	0.33	6.61	0.01	2.34	1.22 – 4.48
Marital status	Ref: (Single)	-	-	-	-	-	-
	Married	0.9	0.37	5.91	0.015	2.46	1.19 – 5.09
	Divorced	1.45	0.7	4.29	0.038	4.27	1.08 – 16.88
	Widowed	0.65	0.66	0.97	0.324	1.91	0.55 – 6.65
Partner education level	Never attended (Ref)	—	—	—	—	—	—
	Primary	0.4	0.72	0.31	0.578	1.49	0.36 – 6.11
	Secondary	0.28	0.61	0.21	0.649	1.32	0.40 – 4.40
	Tertiary	0.57	0.63	0.82	0.364	1.76	0.52 – 5.91
Partner occupation	Not employed (Ref)	—	—	—	—	—	—
	Public employee	0.88	0.4	4.84	0.028	2.41	1.10 – 5.26
	Private sector	0.32	0.58	0.3	0.583	1.38	0.44 – 4.29
	Self-employed	1.52	0.49	9.61	0.002	4.58	1.75 – 11.97
Information access	No	-	-	-	-	-	-
	Yes	1.27	0.44	8.34	0.004	3.56	1.51 – 8.38
Use of social media	No						
	Yes	0.22	0.59	0.14	0.709	1.25	0.39 – 4.06
Constant	—	-2.2	0.71	9.54	0.002	—	—

4.6. Discussion

The findings of this study demonstrate that gender plays a significant role in shaping entrepreneurial engagement among public servants. Male public servants were found to have significantly higher odds of engaging in entrepreneurial activities compared to their female counterparts (OR = 2.34, p = 0.010). This pattern reflects prevailing socio-cultural norms in the Mara region, where men are often socialized to assume financial risks and are more likely to have control over productive resources, such as capital, land, and business networks. These findings are consistent with empirical evidence from Zimbabwe, Nigeria, and Kenya, where Mashapure et al. (2023), Olu-Owolabi et al. (2020), and Lemma et al. (2023) similarly reported higher entrepreneurial engagement among men. Collectively, these results suggest that gender-based inequalities and sociocultural norms remain persistent for women in engaging in entrepreneurship activities among formally employed public servants.

The study revealed that married (OR = 2.46, p = 0.015) and divorced (OR = 4.27, p = 0.038) public servants were significantly more likely to engage in entrepreneurial activities than single individuals. For married public servants, these effects can be driven by increased households' financial responsibilities, such as children care, education, and housing costs, which motivate income diversification through entrepreneurship. On the other hand, divorced individuals can pursue entrepreneurial activities as a strategy for economic independence and financial security following changes in household structure. These results are consistent with findings from Nigeria, Kenya, and South Africa, where Obi (2021), Sydow et al. (2022), and Bobek et al. (2023) reported that marital transition influences entrepreneurial behavior through economic pressures and autonomy–seeking motivations. The stronger effects observed among divorced individuals in this study further underscore the role of entrepreneurship as a scoping and adaptation mechanism in response to life course disruption.

The study revealed that public servants with partners who are public employees (OR = 2.41, p = 0.028) or self-employed (OR = 4.58, p = 0.002) have higher odds of entrepreneurial engagement. These results align with studies conducted in Zimbabwe and Ghana, which revealed that partners in stable or entrepreneurial roles provide financial or experiential support (Sibanda et al., 2018; Orkoh et al., 2021). Similarly, Balintongog and Montecillo (2025) revealed that strong social support or approval from close family, friends, and colleagues influences engagement in entrepreneurial activities. Together, these findings reinforce the importance of interpersonal and household dynamics in shaiping entrepreneurial behavior.

Access to information (OR = 3.56, p = 0.004) significantly increases entrepreneurial engagement among public servants in Bunda. Information includes market trends, training opportunities, access to loans/credits, and the goods in demand in the study area. This study agrees with the studies conducted in Ghana, Kenya, and South Africa by Agyapong et al. (2024), Omoga et al. (2025), and Van Niekerk et al. (2024), which collectively found that information influences engagement in entrepreneurial ventures.

Using SEM, the findings show that intrapersonal factors, such as sex and interpersonal factors (marital status, partner occupation), strongly shape entrepreneurial engagement, whereas community-level social media use was not significant because public servants prefer traditional networks. The gender effect aligns with cultural norms that restrict women's mobility and risk-taking in the Mara Region. The non-significance of age and education suggests that, among already employed public servants with relatively homogeneous education, these factors lose predictive power.

5. Conclusion

This study assessed socio-demographic factors influencing public servants' engagement in entrepreneurship in Bunda District, Mara Region. The study concludes that more than half of the interviewed public servants (respondents) engaged in entrepreneurial activities. Factors which significantly influenced public servants' engagement in entrepreneurial activities include sex (males OR = 2.34), marital status (married/divorced ORs = 2.46/4.27), partner occupation (self-employed OR = 4.58), and information access (OR = 3.56). Age and education were the factors that were not significant. Thus, fostering equitable access to financial resources can transform public servants into economic catalysts in Bunda district in Mara.

6. Recommendations

Bunda District Council should design and implement entrepreneurial training programmes to impart entrepreneurial competencies and foster behavioural change among public servants. Such training will enable them to launch entrepreneurial ventures that will help them achieve financial stability.

Bunda District Council, in collaboration with financial institutions, should facilitate access to affordable credit to enable them to initiate entrepreneurial ventures. This will empower public servants to act as important economic catalysts,

contributing to local economic development and livelihood diversification in Mara region.

References

Agyapong, A., Ayentimi, D. T., & Sandow, J. N. (2024). The impact of IT capability on the performance of SMEs in Ghana: the mediating role of business process agility. *Technology Analysis & Strategic Management*, 1-16. https://doi.org/10.1080/09537325.2024.2322022.

Ali, D. A., Deininger, K., & Goldstein, M. (2019). Environmental and gender impacts of land tenure regularization in Africa: Pilot evidence from Rwanda. *Journal of Development Economics*, 110, 262-275. https://doi.org/10.1016/j.jdeveco.2013.12.009.

Aljarodi, A., Thatchenkery, T., and Urbano, D. (2022). Female entrepreneurial activity and institutions: empirical evidence from Saudi Arabia. *Res. Glob*. 5:100102. doi: 10.1016/j. resglo.2022.100102.

Alshebami, A. S., and Seraj, A. H. A. (2022). Exploring the influence of potential entrepreneurs' personality traits on small venture creation: The case of Saudi Arabia. *Front. Psychol* 13:13. doi: 10.3389/fpsyg.2022.885980.

Balintongog, V. P., & Montecillo, M. B. (2025). Business Environment and Entrepreneurial Intention among Employed Individuals. *Cognizance Journal of Multidisciplinary Studies*, Vol.5, Issue.5, May 2025, pg. 751-756.

Baluku, M. M., Nansubuga, F., Otto, K., & Horn, L. (2021). Risk aversion, entrepreneurial attitudes, intention and entry among young people in Uganda and Germany: a gendered analysis. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 7(1), 31-59. https://doi.org/10.1177/2393957520960567.

Bernatzki, T., Busse, M., & Hoekstra, R. (2020). "Promoting Rwanda's Business Environment: Drivers of Change and Factuality of Reforms.". *SSRN Electronic Journal*.https://doi.org/10.2139/ssrn.3686211.

Bernatzki, T., Busse, M., & Hoekstra, R. (2022). Promoting Rwanda's business environment: Impact of reforms and drivers of change. *Development Policy Review*, 40(2), e12578. https://doi.org/10.1111/dpr.12578.

Bobek, V., Schachl, A., & Horvat, T. (2023). The impact of women's economic empowerment on the rise of female entrepreneurship and human capital in South Africa. *International Journal of Diplomacy and Economy*, *9*(1), 23-56. https://doi.org/10.1504/IJDIPE.2022.10051340.

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard University Press. Castellani, F., et al. (2021). Access to finance and entrepreneurship in Latin America. *Latin American Economic Review,* 30(1), 1–25. https://doi.org/10.1186/s40503-021-00137-5.

Campaña, J. C., Gimenez-Nadal, J. I., & Molina, J. A. (2015). *Gender differences in the distribution of total work-time of Latin-American families: the importance of social norms* (No. 8933). IZA Discussion Papers. https://doi.org/10.1080/13545701.2017.1410533.

Carter, S., Mwaura, S., Ram, M., Trehan, K., & Jones, T. (2015). Barriers to ethnic minority and women's enterprise: Existing evidence, policy tensions and unsettled questions. *International Small Business Journal,* 33(1), 49-69. https://doi.org/10.1177/0266242618770842.

Fragoso, F, Rocha-Junior, W & Xavier, A. (2020) Determinant factors of entrepreneurial intention among university students in Brazil and Portugal, *Journal of Small Business & Entrepreneurship*, 32:1, 33-57, DOI: 10.1080/08276331.2018.1551459.

Gaete Quezada, R., Acevedo Muñoz, S., Carmona Robles, G., & Palta Layana, O. (2019). Generating Good Public Innovation Practices from The Regions:" Think With I". *Innovar,* 29(74), 147-159. https://doi.org/10.15446/innovar.v29n74.82095.

Herrington, M., & Coduras, A. (2019). The national entrepreneurship framework conditions in sub-Saharan Africa: a comparative study of GEM data/National Expert Surveys for South Africa, Angola, Mozambique and Madagascar. *Journal of Global Entrepreneurship Research,* 9(1), 60.

Imbaya, B. O., Nthiga, R. W., Sitati, N. W., & Lenaiyasa, P. (2019). Capacity building for inclusive growth in community-based tourism initiatives in Kenya. *Tourism Management Perspectives*, *30*, 11-18. https://doi.org/10.1016/j.tmp.2020.100669.

Issa, E. H., & Tesfaye, Z. Z. (2020). Entrepreneurial intent among prospective graduates of higher education institution: an exploratory investigation in Kafa, Sheka, and Bench-Maji Zones, SNNPR, Ethiopia. *Journal of Innovation and Entrepreneurship*, *9*(1), 26. https://doi.org/10.1186/s13731-020-00137-1.

Kamuri, S. (2022). Understanding entrepreneurial vision for growth, innovation and performance in Kenya's leather industry. *Journal of Global Entrepreneurship Research*, *12*(1), 119-130. https://doi.org/10.1007/s40497-022-00308-2.

Kessy, A. T. (2020). Higher education and prospects of graduates' employability in Tanzania. *Journal of Education and Practice*, 11(9), 177–186. https://doi. org/10.7176/jep/11-9-19.

Kimmitt, J., P. Muñoz, and R. Newbery. 2020. "Poverty and the Varieties of Entrepreneurship in the Pursuit of Prosperity." *Journal of Business Venturing* 35 (4): 105939. doi:10.1016/j.jbusvent.2019.05.003.

Korosteleva, J., and P. Stępień-Baig. 2020. "Climbing the Poverty Ladder: The Role of Entrepreneurship and Gender in Alleviating Poverty in Transition Economies." *Entrepreneurship & Regional Development* 32 (1–2): 197–220. doi:10.1080/08985626.2019.1640482.

Leke, A., Signé, L., & Initiative, A. G. (2019). *Spotlighting opportunities for business in Africa and strategies to succeed in the world's next big growth market*. Africa's untapped Business Potential: Countries, sectors, and strategies, 77-95.

Lemma, T. T., Gwatidzo, T., & Mlilo, M. (2023). Gender differences in business performance: Evidence from Kenya and South Africa. *Small Business Economics*, *60*(2), 591-614. https://doi.org/10.1007/s11187-022-00605-w.

Liana, P. (2022). Influence of entrepreneurship education on students' intention to self-employment: A case of open university of Tanzania. *African Journal of Innovation and Entrepreneurship*, *1*(2), 129-146.

Magagula, M. M., & Awodiji, O. A. (2024). The implications of the fourth industrial revolution on technical and vocational education and training in South Africa. *Social Sciences & Humanities Open,* 10, 100896. https://doi.org/10.1016/j.ssaho.2024.100896.

Magasi, C. (2022). The influence of entrepreneurship education on entrepreneurial intentions: Perception of higher business education graduates. *International Journal of Research in Business and Social Science*, *11*(2), 371-380. DOI: 10.20525/ijrbs.v11i2.1701.

Makuya, V & Ismail Abdi Changalima, I. A. (2024) Unveiling the role of entrepreneurship education on green entrepreneurial intentions among business students: gender as a moderator, Cogent Education, 11:1, 2334585, DOI: 10.1080/2331186X.2024.2334585.

Mgaiwa, S. J. (2021). Fostering Graduate employability: Rethinking Tanzania's University practices. *SAGE Open,* 11(2), 1–14. https://doi.org/10.1177/ 21582440211006709.

Mashapure, R., Nyagadza, B., Chikazhe, L., Mazuruse, G., & Hove, P. (2023). Women entrepreneurship development and sustainable rural livelihoods in Zimbabwe. *Arab Gulf Journal of Scientific Research*, 41(4), 557-584. https://doi.org/10.1108/AGJSR-07-2022-0112.

Mayanja, S., Ntayi, J. M., Munene, J. C., Balunywa, W., & Kagaari, J. R. K. (2021). Informational differences and entrepreneurial networking among small and medium enterprises in Uganda. *Journal of Global Entrepreneurship Research,* 11(1), 563–577. https://doi.org/10.1007/s40497-021-00304-y.

Melyoki, L. L., Gielnik, M. M., & Lex, M. (2018). Student training for entrepreneurial promotion in Tanzania: impact on students' entrepreneurial mindset and business creation behaviour. *Business management review*, *21*(2), 43-52.

National Economic Empowerment Council. (2020). *Tanzania's national entrepreneurship strategy:* Progress report. Government of Tanzania.

Nchake, M. A., & Shuaibu, M. (2022). Investment in ICT infrastructure and inclusive growth in Africa. *Scientific African,* 17, e01293. https://doi.org/10.1016/j.sciaf.2022.e01293.

Ntare, P. C., & Ojwang, E. (2021). An assessment of entrepreneurial intention among college students in Tanzania. *African Journal of Applied Research*, *7*(2), 30-43.

Nyathi, L. 2022. Challenges facing SMEs in the Western Cape townships with a focus on gender issues (Master Thesis). Faculty of Commerce, Graduate School of Business (GSB). http://hdl.handle.net/11427/36526

Nyati, N. T., & Chimucheka, T. (2025). Entrepreneurial Passion, Creativity, and Intentions: Insights from Students at Historically Black Institutions in South Africa. *Economics and Entrepreneurship: The Proceedings of the 10th International Conference on Business and Management Dynamics (ICBMD), 315.*

Nyello, R., Kalufya, N., Rengua, C., Nsolezi, M. J., & Ngirwa, C. (2015). Effect of Entrepreneurship Education on the Entrepreneurial Behaviour: The Case of Graduates in the Higher Learning Institutions in Tanzania. *Asian Journal of Business Management*, *7*(2), 37-42.

Obi, A. V. (2021). Overcoming socio-cultural barriers on economic empowerment of rural women through entrepreneurship in agriculture in South East State, Nigeria. *International Journal of Academic Research economics and management sciences Vol. 6, No. 4, 2017, E-ISSN: 2 226-3624*.

Ofosu-Appiah, S., Boahen, P. A. N., & Agbenyegah, A. T. (2025). Socio-ecological barriers to youth entrepreneurship in sub-Saharan Africa: a systematic review of empirical evidence. *Journal of Innovation and Entrepreneurship*, *14*(1), 32. https://doi.org/10.1108/AJEMS-01-2022-0272.

Olu-Owolabi, F. E., Amoo, E., Samuel, O., Oyeyemi, A., & Adejumo, G. (2020). Female-dominated informal labour sector and family (in) stability: The interface between reproduction and

production. *Cogent arts & humanities*, 7(1), 1788878. https://doi.org/10.1080/23311983.2020.1788878.

Omoga, C., Ongaga Odhiambo, P., & Kosgei, N. (2025). *Entrepreneurial performance of small and medium enterprises and digital transformation in Busia County*, Kenya.

Orkoh, E., Blaauw, P. F., & Claassen, C. (2021). Spousal effects on wages, labour supply and household production in Ghana. *South African Journal of Economic and Management Sciences*, *24*(1), 1-18.https://doi.org/10.4102/sajems.v23i1.2853.

Ruhara, C. M., & Kayitana, C. R. (2018). Mind-set and entrepreneurial activities in Rwanda: A firm level investigation. East Africa Research Papers in Business, Entrepreneurship and Management, 1, 1-19. https://ju.se/download/18.243bd3a4161b08d5c58163c0/1520578298479/EARPBEM%202018-12%20Ruhara.pdf.

Sibanda, K., Hove-Sibanda, P., & Shava, H. (2018). The impact of SME access to finance and performance on exporting behaviour at firm level: A case of furniture manufacturing SMEs in Zimbabwe. *Acta Commercii, 18*(1), 1-13. https://doi.org/10.1108/AJEMS-03-2020-0164.

Sydow, A., Cannatelli, B. L., Giudici, A., & Molteni, M. (2022). Entrepreneurial workaround practices in severe institutional voids: Evidence from Kenya. *Entrepreneurship Theory and Practice*, 46(2), 331-367. https://doi.org/10.1016/j.jbusvent.2022.106105.

Alene, E. T. (2020). Determinants that influence the performance of women entrepreneurs in micro and small enterprises in Ethiopia. *Journal of Innovation and Entrepreneurship*, 9(1), 24.DOIhttps://doi.org/10.1186/s13731-020-00132-6.

Tryphone, K., & Mkenda, B. K. (2023). Determinants and constraints of women's sole-owned tourism micro, small and medium enterprises (MSMEs) in Tanzania. *Development Southern Africa*, *40*(2), 329-349. https://doi.org/10.1080/23337940.2019.1600911.

Tubey, W. C., Kyalo, D. N., & Mulwa, A. (2019). Socio-cultural conservation strategies and sustainability of community-based tourism projects in Kenya: A case of Maasai Mara conservancies. *Journal of Sustainable Development*, *12*(6), 90-102. https://doi.org/10.5539/jsd.v12n6p90.

Umar, U. H., Baita, A. J., Hamadou, I., & Abduh, M. (2025). Digital finance and SME financial inclusion in Africa. *African Journal of Economic and Management Studies*, *16*(1), 18-33. https://doi.org/10.1108/9781786355925-008.

URT. (2017). Tanzania Inclusive National Entrepreneurship Strategy. Dodoma: National Economic Empowerment Council.

van Niekerk, L., Claassens, N., Fish, J., Foiret, C., Franckeiss, J., & Thesnaar, L. (2024). Support factors contributing to successful start-up businesses by young entrepreneurs in South Africa. *Work*, *79*(1), 339-350. https://doi.org/10.3233/WOR-230527