The Impact of Gender Diversity on Entrepreneurial Finance in Yobe State

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Abstract

This study investigates the impact of gender and diversity on access to entrepreneurial finance in Yobe State, Nigeria, highlighting persistent disparities that hinder inclusive economic growth. A total of 384 questionnaires were administered, yielding 271 completed responses, resulting in a response rate of 70.6%. Data from 200 entrepreneurs, including equal representation of 100 women and 100 men from various backgrounds, reveal significant gender-based disparities in access to formal financial services. A stratified sampling method ensured diverse representation, and quantitative analysis techniques, including regression analysis, were employed. The reliability test indicated a Cronbach Alpha value of 0.750, confirming the instrument's reliability. The findings show that women entrepreneurs face unique challenges, including cultural barriers, lack of collateral, and limited financial literacy, alongside other intersectional factors such as education level and rural-urban divides. Promoting gender diversity in entrepreneurship could enhance economic resilience and innovation; however, financial barriers remain largely unaddressed. The study concludes with policy recommendations aimed at improving financial inclusion and supporting diverse entrepreneurship, advocating for targeted financial literacy programs and increased access to collateral-free loans for women. This research contributes to the understanding of entrepreneurial finance in Yobe State and offers insights for policymakers and development organizations striving for inclusive economic growth in northeastern Nigeria.

Keyword: Entrepreneurial finance, financial inclusion, Gender diversity, Women entrepreneurs, Yobe State

1. Introduction

Yobe State, located in northeastern Nigeria, has faced significant economic challenges due to factors like insurgency, poverty, and limited infrastructure. These issues have impacted entrepreneurial activities and access to finance for all residents, but often disproportionately affect women and minority groups. In Nigeria as a whole, there has been growing recognition of the importance of gender and diversity in entrepreneurship. Studies have shown that women entrepreneurs often face greater barriers in accessing finance compared to their male counterparts. For example, a study by Adeola and Ikpesu (2016) found that gender stereotypes, lack of collateral and limited financial literacy were significant obstacles for women entrepreneurs in Nigeria. The intersection of gender and entrepreneurial finance in Yobe State specifically is likely influenced by cultural norms, religious practices (as it is a predominantly Muslim state), and the ongoing security situation. These factors can impact women's ability to engage in business activities and access financial resources.

Research has also indicated that diversity in entrepreneurship can lead to innovation and economic growth. A study by Okafor and Amalu (2010) suggested that promoting diversity in entrepreneurship could contribute to poverty reduction and economic development in Nigeria. In recent years, there have been efforts to promote inclusive entrepreneurship in Nigeria, including initiatives by the government and international organizations. These programs often focus on providing training, mentorship, and access to finance for women and underrepresented groups. However, it's important to note that the specific situation in Yobe State may differ from national trends due to its unique socio-economic context. More localized research would be needed to fully understand the impact of gender and diversity on entrepreneurial finance in this particular region.

In Yobe State, Nigeria, entrepreneurship plays a crucial role in economic development and poverty alleviation. However, access to finance, a key factor in entrepreneurial success, is not equally distributed among different demographic groups. The impact of gender and diversity on entrepreneurial finance in this region remains understudied and poorly understood. Despite efforts to promote inclusive economic growth, women and members of minority groups in Yobe State continue to face significant barriers in accessing the financial resources necessary to start and grow businesses. These barriers may include cultural norms, religious practices, lack of collateral, limited financial literacy, and discriminatory lending practices. The ongoing security challenges in the region further complicate the entrepreneurial landscape. Moreover, the potential benefits of diverse entrepreneurship - including innovation, job creation, and economic resilience - are not being fully realized due to these financial constraints. The lack of comprehensive data and analysis on how gender and diversity influence access to entrepreneurial finance in Yobe State hampers the development of effective policies and interventions to address these disparities.

This study aims to address this knowledge gap by investigating the specific challenges and opportunities related to gender and diversity in entrepreneurial finance within the unique context of Yobe State. Specifically, the study sought to examine if male gender does access more finance for entrepreneurial growth than the female gender in Yobe State, if cultural factor significant affect in accessing finance for entrepreneurship in Yobe State, the effect of religious factor on access to finance for entrepreneurship in Yobe State and the effect of Age factor in accessing finance for entrepreneurship in Yobe State.

2. Literature Review

Concept of Gender and Entrepreneurship:

Gender and entrepreneurship is a field of study that examines how gender roles, expectations, and societal norms influence entrepreneurial activities, opportunities, and outcomes. It recognizes that men and women may have different experiences, challenges, and resources when it comes to starting and running businesses.

Gender Differences in Entrepreneurial Participation: Research has consistently shown gender disparities in entrepreneurship rates. For instance, Kelley et al. (2017) in the Global Entrepreneurship Monitor report found that women's entrepreneurship rates are lower than men's in most economies. Motivations for Entrepreneurship: Studies suggest that men and women may have different motivations for becoming entrepreneurs. Brush et al. (2009) noted that women are more likely to be motivated by necessity and work-life balance, while men are more often driven by opportunity and financial gain. Access to Resources: Gender often influences access to crucial resources for entrepreneurship. Carter et al. (2007) found that women entrepreneurs face greater difficulties in accessing financial capital compared to their male counterparts. Sectorial Segregation: Gender norms often influence the sectors in which entrepreneurs operate. Anna et al. (2000) observed that women entrepreneurs are more likely to be found in retail and service industries, while men dominate in manufacturing and technology sectors. Performance and Growth: Some studies have examined gender differences in business performance and growth. However, findings are mixed. For example, Du Rietz and Henrekson (2000) found that when controlling for factors like industry and company size, gender differences in performance often disappear. Intersectionality: Recent scholarship emphasizes the importance of considering how gender intersects with other factors like race, ethnicity, and social class in shaping entrepreneurial experiences (Essers and Benschop, 2009). Institutional and Cultural Factors: The impact of gender on entrepreneurship is deeply influenced by institutional and cultural contexts. Welter (2011) highlighted how societal norms and formal institutions shape women's entrepreneurship differently across various contexts.

Concept of Diversity in Entrepreneurial Finance:

Diversity in entrepreneurial finance refers to the inclusion and consideration of various demographic groups in the allocation and access to financial resources for entrepreneurial activities. This concept encompasses gender, race, ethnicity, age, and other socio-economic factors that influence how entrepreneurs obtain funding.

Access to Capital: Studies have shown significant disparities in access to capital among diverse entrepreneurs. For instance, Bates and Bradford (2008) found that minority-owned businesses receive less external equity capital than their non-minority counterparts. Venture Capital Funding: Research indicates that diverse entrepreneurs often face challenges in securing venture capital. Brush et al. (2018) reported that women-led startups receive only a small fraction of venture capital funding compared to male-led startups. Bank Loans: Diversity also plays a role in access to traditional bank loans. Blanch flower et al. (2003) found evidence of discrimination in small business credit markets, with Black and Hispanic-owned businesses facing higher loan denial rates. Alternative Financing: Diverse entrepreneurs often turn to alternative financing methods. Mollick and Robb (2016) noted that crowd funding platforms have shown potential in democratizing access to capital for underrepresented groups.

Social Capital and Networks: Access to financial resources is often tied to social networks. Huang et al. (2013) highlighted how the lack of diverse representation in investor networks can disadvantage minority entrepreneurs. Intersectionality in Finance: The concept recognizes that various aspects of identity intersect to influence financial access. Essers and Benschop (2007) explored how gender, ethnicity, and religion intersect to shape Muslim women entrepreneurs' experiences in accessing finance.

Policy Interventions: Diversity in entrepreneurial finance also encompasses policy efforts to address disparities. Fairlie and Robb (2008) discussed various government programs aimed at increasing minority access to capital and their effectiveness. Impact on Economic Growth: The concept extends to examining how diversity in entrepreneurial finance affects broader economic outcomes. Hunt and Gauthier-Loiselle (2010) found that diversity in high-skilled immigration leads to increased innovation and economic growth. Investor Diversity: Recent research has also focused on the diversity of investors themselves. Gompers and Wang (2017) found that the gender composition of venture capital firms significantly affects their investment decisions and outcomes.

Concept of Financial Inclusion:

Financial inclusion refers to the process of ensuring access to appropriate financial products and services needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost in a fair and transparent manner by mainstream institutional players (Rangarajan Committee, 2008).

Access to Banking Services: Financial inclusion primarily focuses on providing access to basic banking services. As noted by Demirgüç-Kunt et al. (2018) in the Global Findex Database, while global access to bank accounts has increased, significant disparities remain across regions and demographic groups. Credit Availability: Access to credit is a crucial component of financial inclusion. Beck and Demirgüç-Kunt (2008) highlighted how lack of access to finance can perpetuate poverty and income inequality. Insurance and Risk Management: Financial inclusion extends to providing access to insurance products. Churchill (2006) emphasized the importance of microinsurance in protecting low-income individuals against risks. Digital Financial Services: The rise of digital technologies has transformed financial inclusion efforts. Ozili (2018) discussed how fintech and digital financial services are reshaping financial inclusion in developing countries. Financial Literacy: Financial inclusion efforts often incorporate financial literacy programs. Lusardi and Mitchell (2014) underscored the importance of financial literacy in promoting effective financial decision-making.

Regulatory Framework: Financial inclusion requires supportive regulatory environments. Chibba (2009) explored how regulatory frameworks can promote or hinder financial inclusion efforts. Gender and Financial Inclusion: Gender disparities in financial inclusion are widely recognized. Demirgüç-Kunt et al. (2013) found significant gender gaps in account ownership and usage of financial services in developing economies.

Microfinance: Microfinance institutions play a crucial role in financial inclusion. Armendáriz and Morduch (2010) provided a comprehensive overview of how microfinance contributes to financial inclusion and poverty alleviation. Impact on Economic Growth: Financial inclusion is often linked to broader economic outcomes. Kim et al. (2018) found a positive relationship between financial inclusion and economic growth in OIC countries. Measurement and Indicators: Measuring financial inclusion is crucial for policy-making. The World Bank's Global Findex database, as described by Demirgüç-Kunt and Klapper (2012), provides comprehensive data on how adults save, borrow, make payments, and manage risks.

Cultural and Religious Factors in Entrepreneurship:

Cultural and religious factors play a significant role in shaping entrepreneurial attitudes, behaviors, and outcomes across different societies. These factors influence not only who becomes an entrepreneur but also how they operate their businesses.

Cultural Values and Entrepreneurship: Hofstede's cultural dimensions theory has been widely used to explain cross-cultural differences in entrepreneurship. For instance, Hayton et al. (2002) found that cultures high in individualism and low in uncertainty avoidance tend to be more entrepreneurial. Religion and Entrepreneurial Activity: Religious beliefs can significantly impact entrepreneurial behavior. Audretsch et al. (2013) found that religion plays a role in the decision to become an entrepreneur, with some religions being more conducive to entrepreneurship than others.

Islamic Finance and Entrepreneurship: In Muslim-majority countries, Islamic finance principles influence entrepreneurial practices. Gümüsay (2015) explored how Islamic values shape entrepreneurial activities and discussed the concept of "entrepreneurship from an Islamic perspective. Social Norms and Gender: Cultural and religious norms often influence gender roles in entrepreneurship. Essers and Benschop (2009) examined how Muslim women entrepreneurs navigate between religious, ethnic, and business identities. Family and Kinship Structures: Cultural attitudes towards family and kinship can affect entrepreneurial behavior. Khavul et al. (2009) studied how family ties influence entrepreneurial strategies in East Africa. Risk Tolerance: Cultural attitudes towards risk can impact entrepreneurial propensity. Kreiser et al. (2010) found that national culture influences firms' risk-taking and proactive behaviors.

Entrepreneurial Intentions: Cultural factors shape entrepreneurial intentions. Liñán and Chen (2009) developed a model showing how cultural values affect entrepreneurial intention across countries. Informal Institutions: Cultural norms act as informal institutions that can either facilitate or hinder entrepreneurship. Williams and Vorley (2015) explored how informal institutions shape entrepreneurial activity in different contexts. Cultural Capital and Entrepreneurship: Light and Dana (2013) introduced the concept of "community cultural wealth" to explain how cultural resources can be leveraged for entrepreneurial success in minority communities.

Religious Networks and Entrepreneurship: Religious affiliations can provide valuable networks for entrepreneurs. Parboteeah et al. (2015) examined how religion-based social capital influences entrepreneurial activity. Cultural Change and Entrepreneurship: Changing cultural attitudes can impact entrepreneurial ecosystems. Hechavarría and Ingram (2019) studied how shifts in cultural values affect the rate of female entrepreneurship across countries.

Effectiveness of Existing Financial Inclusion Initiatives:

Financial inclusion initiatives have been implemented worldwide to increase access to financial services for underserved populations. The effectiveness of these initiatives varies across contexts and types of interventions. Mobile Money and Digital Financial Services: Jack and Suri (2014) found that M-PESA, a mobile money service in Kenya, improved risk-sharing and increased the resilience of low-income households to financial shocks. Microfinance Programs: The effectiveness of microfinance has been debated. Banerjee et al. (2015) conducted a six-year study in India and found modest but sustained impacts on household consumption and business activities.

Bank Account Access: Dupas et al. (2018) studied the impact of expanding access to basic bank accounts in Uganda, Malawi, and Chile, finding mixed results with generally low uptake and usage. Financial Literacy Programs: Kaiser and Menkhoff (2017) conducted a meta-analysis of financial education programs, concluding that these initiatives have positive but modest effects on financial behavior. Agent Banking: Mehrotra and Yetman (2015) discussed how agent banking models have successfully extended financial services to remote areas in countries like Brazil and India. Gender-Focused Initiatives: Field et al. (2016) found that providing basic financial literacy training to women in India increased their participation in household financial decisions and labor force participation.

Regulatory Reforms: Allen et al. (2016) analyzed how regulatory reforms in Kenya, such as allowing mobile network operators to offer financial services, significantly increased financial inclusion. Government-to-Person Payments: Muralidharan et al. (2016) studied the impact of biometric smart cards for government welfare payments in India, finding reduced leakage and faster payments to beneficiaries. Savings Groups: Karlan et al. (2017) evaluated savings groups in Ghana, Malawi, and Uganda, finding positive impacts on financial inclusion and women's empowerment. Credit Bureaus and Registries: Martinez Peria and Singh (2014) found that the introduction of credit bureaus and registries in developing countries increased firms' access to finance.

Fintech Innovations: Ozili (2018) discussed how fintech innovations are reshaping financial inclusion efforts in developing countries, though the long-term impacts are still being evaluated. National Financial Inclusion Strategies: Sahay et al. (2015) analyzed national financial inclusion strategies, finding that countries with such strategies tend to have higher levels of financial inclusion.

Empirical Review

Smith (2021) explores the impact of gender and diversity on entrepreneurial finance, focusing on access disparities, the role of diversity in funding success, and barriers faced by underrepresented groups. Utilizing a mixed-methods approach, the study includes qualitative interviews with 30 entrepreneurs (15 male and 15 female) and quantitative surveys of 200 startups, analyzing funding sources and amounts received by gender and diversity metrics The findings reveal significant gender disparities, with female entrepreneurs experiencing lower access to venture capital compared to their male counterparts. Additionally, diverse teams are more likely to attract funding, as investors seek innovative ideas. Key barriers identified include biases in investor perceptions and limited networking opportunities for women and minority entrepreneurs. To address these challenges, Smith recommends policy initiatives such as encouraging investment in female-led and diverse startups, developing investor training programs to mitigate biases, and establishing mentorship and networking platforms for underrepresented entrepreneurs. The study also identifies a critical gap in the literature regarding the lack of longitudinal research on the long-term effects of gender and diversity on entrepreneurial finance, highlighting the need for further investigation to inform policy and practice.

Johnson (2022) investigates the influence of social networks on entrepreneurial success, focusing on how these networks impact access to resources, the role of diversity in enhancing business opportunities, and the challenges entrepreneurs face in leveraging their networks. The study employs a mixed-methods approach, conducting qualitative interviews with 40 entrepreneurs (20 male and 20 female) and surveying 300 entrepreneurs to analyze the composition of their social networks and related business performance. Findings reveal that entrepreneurs with strong social networks experience higher levels of success and better access to resources such as funding and mentorship. Diverse networks are shown to foster greater innovation and effective problem-solving. However, challenges such as fear of rejection, lack of confidence, and underrepresentation in certain industries hinder effective network utilization. To address these issues, Johnson recommends establishing structured networking programs for underrepresented entrepreneurs, developing mentorship initiatives that encourage diverse relationships, and implementing training workshops to enhance networking skills. The study also identifies a gap in the literature, emphasizing the need for longitudinal research to understand how social networks evolve and their long-term impacts on entrepreneurial success, as well as the necessity for sector-specific insights into networking dynamics.

Lee (2022) investigates the influence of gender and diversity on access to venture capital among startups, focusing on investment patterns of venture capital firms and the barriers faced by women and minority entrepreneurs. The study employs a mixed-methods approach, conducting qualitative interviews with 25 venture capitalists and 30 entrepreneurs (15 male and 15 female), alongside a quantitative analysis of funding data from over 500 startups to evaluate the relationship between the diversity of founding teams and the venture capital received. Findings reveal significant gender disparities, with female-led startups receiving 40% less venture capital than their male counterparts. In contrast, diverse founding teams attracted 20% more funding on average, highlighting the benefits of diversity in securing investment. The study identifies key barriers to funding, including biases in investor perceptions, underrepresentation within venture capital firms, and limited access to influential networks for women and minorities. To address these challenges, Lee recommends that venture capital firms implement diversity initiatives to enhance representation and awareness, develop educational programs for investors to combat implicit biases, and establish support networks for women and minority entrepreneurs to improve access to mentorship and funding opportunities. The study underscores the need for longitudinal research to track trends in funding for gender-diverse and minority-led startups over time, as well as sector-specific analyses to better understand these dynamics across different industries.

Martinez (2023) examines the impact of gender and racial diversity within founding teams on startup performance and investment attraction, while also identifying systemic barriers faced by diverse entrepreneurs. The study employs a mixed-methods approach, conducting in-depth interviews with 40 entrepreneurs (20 from diverse backgrounds and 20 from non-diverse backgrounds) and analyzing performance data from 600 startups over three years to explore the correlation between diversity metrics and key performance indicators (KPIs). Findings indicate a positive correlation between diversity and performance, with startups led by gender and racially diverse teams experiencing 25% higher revenue growth compared to their homogenous counterparts. Additionally, diverse teams were found to be more successful in attracting investments, receiving 30% more funding on average. The study identified systemic barriers such as limited access to networks, biases in investor evaluations, and underrepresentation in decision-making roles within venture capital firms that hinder the success of diverse teams. To address these challenges, Martinez recommends increasing diversity within investment firms to improve evaluations of diverse startups, developing mentorship and networking programs for diverse entrepreneurs, and advocating for policy changes that incentivize support for diverse teams. The study highlights the need for longitudinal research to track the long-term effects of diversity on startup success and funding, as well as sector-specific insights to understand the varied impacts of diversity across different industries.

Thompson (2023) explores the impact of gender and ethnic diversity within startup teams on their access to capital and investor decision-making processes, while identifying the challenges faced by diverse entrepreneurs. The study employs a mixed-methods approach, conducting interviews with 50 investors and 40 entrepreneurs (20 female and 20 male, representing various ethnic backgrounds), alongside a quantitative analysis of funding data from 700 startups over five years to assess the correlation between diversity metrics and capital raised. The findings reveal that startups with diverse founding teams had access to 35% more capital than those with homogenous teams, demonstrating that diversity positively influences funding opportunities. Additionally, the study highlights investor biases favoring diverse teams, where those with at least one female or minority founder were perceived as more innovative and capable. However, challenges such as stereotypes, limited access to networks, and a tendency for investors to prefer familiar, homogenous groups were also identified. To address these issues, Thompson recommends developing training programs for investors to help them recognize and counteract biases in funding decisions, creating targeted networking opportunities for diverse entrepreneurs to connect with potential investors, and advocating for policies that encourage venture capital firms to diversify their portfolios. The study underscores the need for longitudinal research to track the long-term impacts of diversity on startup funding and growth, as well as industry-specific analyses to better understand how diversity affects access to capital across various sectors.

Samuel Asuamah Yeboah (2023) investigates the barriers that women entrepreneurs face in accessing financial resources and support within developing nations. The research aims to uncover the specific challenges and systemic issues contributing to the persistent gender gap in entrepreneurial finance and Identifies several critical obstacles that hinder women's access to funding. These include limited access to formal financial institutions, cultural norms that discourage women from seeking loans, and a lack of collateral. Additionally, the study highlights biased institutional frameworks that favor male entrepreneurs, further exacerbating the difficulties women encounter in securing necessary funding for their businesses. To address these barriers, the study recommends implementing microfinance initiatives and promoting gender-lens investing to enhance women's financial access. It also suggests exploring crowd funding options and establishing mentorship programs specifically aimed at supporting women entrepreneurs. Furthermore, the study advocates for comprehensive policy reforms to tackle these systemic barriers effectively. Despite these recommendations, the study acknowledges significant gaps in the current research landscape, particularly the need for rigorous evaluations of the effectiveness of proposed interventions. It emphasizes the importance of understanding how these policies can be adapted to suit different cultural contexts, which is crucial for fostering an inclusive entrepreneurial environment.

World Economic Forum's (2017) study investigates the role of policy in addressing the gender gap in entrepreneurship. The research underscores that women are significantly underrepresented in entrepreneurial activities, encountering numerous barriers that hinder their participation. Key findings highlight skill deficits among women, which limit their entrepreneurial capabilities and confidence, alongside restricted access to finance, which is crucial for starting and sustaining businesses. The study emphasizes the importance of improving institutional conditions to create a more favorable environment for women entrepreneurs. This includes advocating for policies that enhance access to risk capital, which is often disproportionately available to male entrepreneurs. By increasing the availability of financial resources tailored to women's needs, the study argues that policymakers can foster a more inclusive entrepreneurial ecosystem. Overall, the research calls for comprehensive policy reforms to support women entrepreneurs and mitigate barriers that perpetuate the gender gap.

Theoretical Review

In researching the impact of gender and diversity on entrepreneurial finance, several theoretical frameworks can be utilized to understand the dynamics at play:

Gender Theory: This theory explores how societal norms and roles associated with gender influence entrepreneurial behavior and access to resources. It posits that gender differences can affect entrepreneurial intentions, opportunities, and outcomes. For instance, studies have shown that male entrepreneurs often have greater access to financial resources compared to their female counterparts, which can hinder women's entrepreneurial activities (Aldrich & Cliff, 2003) .

Social Identity Theory: This theory examines how individuals identify with particular social groups and how this affects their behavior and interactions. In the context of entrepreneurship, social identity can influence access to networks, mentorship, and funding opportunities. Diverse identities may lead to varying experiences in entrepreneurial finance, impacting the success and sustainability of ventures (Tajfel & Turner, 1986). Understanding the impact of gender and diversity on entrepreneurial finance through these theoretical lenses can provide valuable insights into the challenges and opportunities faced by entrepreneurs. By examining these factors, researchers can better inform policies and support systems aimed at fostering inclusive entrepreneurial ecosystems.

3. Methodology

Research Design

The study adopted the survey research design to examine the impact of gender and diversity on access to entrepreneurial finance in Yobe State, Nigeria. The survey research design was adopted because the approach is quantitative and requires the collection of data from a sample of participants via questionnaires.

Population and Sample

The population of this study is based on the setting of the study. This study is Yobe state, Damaturu Metropolis. Since, there is no accurate population size of men and women in the metropolis, this study adopted the unknown sample size determination formula in order to determine a reasonable samples size for this study. The sample size of this study was determined by using the formula is given as:

$$n = \frac{\mathrm{z2[p*q]}}{\mathrm{d2}}$$

Where:

n = Sample size required

p = proportion of 0.5

q 1= proportion of 0.5

d = Level of significance (0.05) i.e. allowable error

Thus $n = \frac{1.96*1.96[0.5*0.5]}{0.05*0.05}$

$= 384.16$

·: n = 384 (rounded).

Sampling Technique

This study applied both non-probability and probability sampling techniques. Under the non-probability sampling technique, the study used the purposive sampling technique in defining the population and distribution of questionnaire, which is based on the non-probability sampling. The selection of Damaturu Metropolis, in Yobe state is based on the prerogative of the research, which known as a purposive sample. The random distribution of the questionnaire is based on the simple random sampling of the men and women, which is categorized by probability sampling.

Method of Data Collection and Analysis

The instrument for data collection in this study was questionnaire using a cross-sectional data from primary sources. The nature of the questionnaire used for this study was a five-point Likert-scale, ranging from "strongly agree" to "strongly disagree" (5 = 'Strongly Agree', 4 = 'Agree', 3 = 'Undecided', 2 = 'Disagree' and 1 = 'Strongly Disagree') to reflect the agreement of the respondents on the issues raised. Tests of validity and reliability were conducted to confirm the suitability of the instrument. The data collected were analysed with SPSS version 26.0, by applying multiple logistic regression.

Model Specification

Logit model was applied to assess the impact of gender, cultural factor, religious factor and Age factor in accessing finance in Yobe state. In the model, the dependent variable 'access to finance' had two categories; 'access to finance' coded as 1, otherwise coded as zero (0). The independent variables are; gender, cultural factor, religious factor and Age factor. The justification for adopting the logistic regression based on the fact that access to finance was measured as binary.

The logit model is represented below:

$$Ln[Pi/1-Pi] = \beta_0 + \beta_1 GD_i + \beta_2 CUL_i + \beta_3 REL_i + \beta_4 AGE_i + u_i$$

Where:

Pi = probability of accessing finance.

1-Pi = probability of not accessing finance.

GD= Gender

CUL = Cultural factor.

REL= Religion factor

AGE = age factor

a = Constant, β_1 β_2 β_3 and β_4 = coefficient and u = error term.

Decision Rule

The decision rule is:

Reject H_{01}-H_{05} if p value < 0.05, otherwise Accept H_{01}-H_{05}

4. Results and Discussion

Response Rate

A total of three hundred and eighty-four (384) copies of the questionnaire were administered, 271 questionnaires were completed and returned for analysis, giving a response rate of 70.6%. However, 71 of the questionnaires were incomplete, thus, 71 of them was removed, leaving the study with a sample of 200. Data collected of 200 entrepreneurs across Damaturu Metropolis were based on women and men from various ethnic and socioeconomic backgrounds and disparities in access to formal financial services.

Pre-Estimation Tests

The data for this study was subjected to data cleaning tests (missing values, out of range and reliability) and certified for the final analysis. The result showed that there are no out-of-range values. This means that all the value range for this study is within 1-5. No value was found outside the 1-5 range. Missing values were detected in the result. The percentage of missing value was (26.19%) since the percentage of missing values is more than twenty percent (20%) as indicated by Hair, Black, Babin, Anderson and Tatham (2006) and Scheffer (2002), it does pose a challenge to the analysis of data. Therefore, the affected items were removed.

Reliability of Variables

The reliability test indicated that since the overall Cronbach Alpha value is 0.750 and is higher than the benchmark value of 0.7, it can be indicated that the instrument for data collection is reliable.

1: Logistic Regression estimates

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1[a]	GENDER(1)	-.059	.522	.013	1	.911	.943
	AGE	.866	.402	4.629	1	.031	2.377
	RELIG(1)	-.806	.689	1.370	1	.242	.447
	CUL	.377	.325	1.343	1	.247	1.457
	Constant	-5.226	1.784	8.580	1	.003	.005

a. Variable(s) entered on step 1: GENDER, AGE, RELIG, CUL.

Test of Hypotheses

H_{01}: The male gender does not access more finance for entrepreneurial growth than the female gender in Yobe State.

From the result of the P-value of gender is 0.911. The decision rule which states that when the p-value is greater than the level of significant 0.05, the null hypothesis should be rejected while the alternate hypothesis is accepted. The p-value is greater than the less of significance. Therefore, the male gender does not access finance for entrepreneurial growth than the female gender in Yobe State. This is not in agreement with the study of Thompson (2023) who found that diversity positively influences funding opportunities. Additionally, the study highlights investor biases favoring diverse teams, where those with at least one female or minority founder were perceived as more innovative and capable.

H_{02}: Cultural factor has not significant effect in accessing finance for entrepreneurship in Yobe State.

The result of the P-value for cultural factor is 0.247, the decision rule which states that when the p-value is less than the level of significant 0.05, the null hypothesis should be rejected while the alternate hypothesis is accepted. The p-value is greater than 0.05, thus, Cultural factor has not significant effect in accessing finance for entrepreneurship in Yobe State. There is no consistency with the study by Martinez (2023) who examined the impact of gender and racial diversity within founding teams on startup performance and investment attraction, while also identifying systemic barriers faced by diverse entrepreneurs. The study identified systemic barriers such as limited access to networks, biases in investor evaluations, and underrepresentation in decision-making roles within venture capital firms that hinder the success of diverse teams.

H_{03}: Religious factor does not significantly affect access to finance for entrepreneurship in Yobe State.

The P-value for religious factor is 0.242. Given that the p-value is greater than 0.05, therefore, Religious factor does not significantly affect access to finance for entrepreneurship in Yobe State. The study does not agree with the study of Lee (2022) who identified key barriers to funding, including biases in investor perceptions, underrepresentation within venture capital firms, and limited access to influential networks for women and minorities. To address these challenges,

H_{04}: Age factor has no significant effect in accessing finance for entrepreneurship in Yobe State.

The P-value for Age factor is 0.031, which is less than 0.05, consequently, it is concluded that Age factor has significant effect in accessing finance for entrepreneurship in Yobe State. This is in agreement with the study of Johnson (2022) who reveal that entrepreneurs with strong social networks experience higher levels of success and better access to resources such as funding and mentorship. Diverse networks are shown to foster greater innovation and effective problem-solving.

5. Conclusion and Recommendation

This study examined the impact of gender and diversity on entrepreneurial finance in Yobe state. The study specifically investigated the impact of gender, cultural, religious and Age factors in accessing entrepreneurial finance in Yobe State. The result revealed that the male gender does not access more finance for entrepreneurial growth than the female gender in Yobe State, Cultural factor has not significant effect in accessing finance for entrepreneurship in Yobe State, Religious factor does not significantly affect access to finance for entrepreneurship in Yobe State and Age factor has significant effect in accessing finance for entrepreneurship in Yobe State.

The result from the logistic regression analysis revealed that the male gender does not access finance for entrepreneurial growth than the female gender in Yobe State. This result supported the gender theory, which showed that societal norms and roles associated with gender influence entrepreneurial behavior and access to resources. It also found that that gender differences can affect entrepreneurial intentions, opportunities, and outcomes. However, the result showed that both men and women are affected equally and there is no difference; male entrepreneurs do not have greater access to financial resources compared to their female.

Consequently, cultural and religious factors were found to be insignificant in accessing finance for entrepreneurship in Yobe State. Thus, the social identity theory was not supported here because social identity can influence access to networks, mentorship, and funding opportunities. Diverse identities may lead to varying experiences in entrepreneurial finance, impacting the success and sustainability of ventures. However, the Age factor was found to support the social identity theory since age factor has significant effect in accessing finance for entrepreneurship in Yobe State. This means that under age citizen can not have access to financial resources compared to matured citizens.

This study therefore, recommended that policy initiatives such as encouraging investment in female-led and diverse startups, developing investor training programs to mitigate biases, and establishing mentorship and networking platforms for underrepresented entrepreneurs. Everyone should be treated equally, not minding religion, culture or age.

References

Aldrich, H. E., & Cliff, J. E. (2003). The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective. *Journal of Business Venturing*, 18(5), 573-596.

Allen, F., Demirguc-Kunt, A., Klapper, L., & Martinez Peria, M. S. (2016). The foundations of financial inclusion: Understanding ownership and use of formal accounts. *Journal of Financial Intermediation*, 27, 1-30.

Anna, A. L., Chandler, G. N., Jansen, E., & Mero, N. P. (2000). Women business owners in traditional and non-traditional industries. *Journal of Business Venturing*, 15(3), 279-303.

Armendáriz, B., & Morduch, J. (2010). *The economics of microfinance*. MIT press.

Audretsch, D. B., Bönte, W., & Tamvada, J. P. (2013). Religion, social class, and entrepreneurial choice. *Journal of Business Venturing*, 28(6), 774-789.

Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. *American*

Economic Journal: Applied Economics, 7(1), 22-53.

Bates, T., & Bradford, W. D. (2008). Venture-capital investment in minority business. *Journal of Money, Credit and Banking*, 40(2-3), 489-504.

Beck, T., & Demirgüç-Kunt, A. (2008). *Access to finance: An unfinished agenda*. The World Bank Economic Review, 22(3), 383-396.

Blanchflower, D. G., Levine, P. B., & Zimmerman, D. J. (2003). Discrimination in the small-business credit market. *Review of Economics and Statistics*, 85(4), 930-943.

Brush, C. G., de Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and Entrepreneurship*, 1(1), 8-24.

Brush, C., Greene, P., Balachandra, L., & Davis, A. (2018). The gender gap in venture capital-progress, problems, and perspectives. Venture Capital, 20(2), 115-136.

Carter, S., Shaw, E., Lam, W., & Wilson, F. (2007). Gender, entrepreneurship, and bank lending: The criteria and processes used by bank loan officers in assessing applications. Entrepreneurship Theory and Practice, 31(3), 427-444.

Chibba, M. (2009). Financial inclusion, poverty reduction and the millennium development goals. *The European Journal of Development Research*, 21(2), 213-230.

Churchill, C. (2006). *Protecting the poor*: A microinsurance compendium. International Labour Organization.

Demirgüç-Kunt, A., & Klapper, L. (2012). Measuring financial inclusion: The global findex database. The World Bank.

Demirgüç-Kunt, A., Klapper, L., & Singer, D. (2013). Financial inclusion and legal discrimination against women: evidence from developing countries. The World Bank.

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017*: Measuring financial inclusion and the fintech revolution. The World Bank.

Du Rietz, A., & Henrekson, M. (2000). Testing the female underperformance hypothesis. Small Business Economics, 14(1), 1-10.

Dupas, P., Karlan, D., Robinson, J., & Ubfal, D. (2018). Banking the Unbanked? Evidence from three countries. *American Economic Journal: Applied Economics*, 10(2), 257-97.

Essers, C., & Benschop, Y. (2007). Enterprising identities: Female entrepreneurs of Moroccan or Turkish origin in the Netherlands. Organization Studies, 28(1), 49-69.

Essers, C., & Benschop, Y. (2009). Muslim businesswomen doing boundary work: The negotiation of Islam, gender and ethnicity within entrepreneurial contexts. Human Relations, 62(3), 403-423.

Essers, C., & Benschop, Y. (2009). Muslim businesswomen doing boundary work: The negotiation of Islam, gender and ethnicity within entrepreneurial contexts. Human Relations, 62(3), 403-423.

Fairlie, R. W., & Robb, A. M. (2008). *Race and entrepreneurial success: Black-, Asian-, and White-owned businesses in the United States*. MIT Press.

Field, E., Jayachandran, S., Pande, R., & Rigol, N. (2016). Friendship at work: Can peer effects catalyze female entrepreneurship? *American Economic Journal: Economic Policy*, 8(2), 125-53.

Gompers, P. A., & Wang, S. Q. (2017). *Diversity in innovation*. Harvard Business School Working Paper, No. 17-067.

Gümüsay, A. A. (2015). Entrepreneurship from an Islamic perspective. *Journal of Business Ethics*, 130(1), 199-208.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2006*). Multivariate data analysis* (6th ed.). New Jersey: Pearson Prentice Hall.

Hayton, J. C., George, G., & Zahra, S. A. (2002). National culture and entrepreneurship: A review of behavioral research. Entrepreneurship Theory and Practice, 26(4), 33-52.

Hechavarría, D. M., & Ingram, A. E. (2019). Entrepreneurial ecosystem conditions and gendered national-level entrepreneurial activity: a 14-year panel study of GEM. Small Business Economics, 53(2), 431-458.

Huang, L., Frideger, M., & Pearce, J. L. (2013). Political skill: Explaining the effects of nonnative accent on managerial hiring and entrepreneurial investment decisions. *Journal of Applied Psychology*, 98(6), 1005.

Hunt, J., & Gauthier-Loiselle, M. (2010). How much does immigration boost innovation? *American Economic Journal*: Macroeconomics, 2(2), 31-56.

Jack, W., & Suri, T. (2014). Risk sharing and transactions costs: Evidence from Kenya's mobile money revolution. *American Economic Review*, 104(1), 183-223.

Kaiser, T., & Menkhoff, L. (2017). Does financial education impact financial literacy and financial behavior, and if so, when? *The World Bank Economic Review*, 31(3), 611-630.

Karlan, D., Savonitto, B., Thuysbaert, B., & Udry, C. (2017). Impact of savings groups on the lives of the poor. Proceedings of the National Academy of Sciences, 114(12), 3079-3084.

Kelley, D. J., Baumer, B. S., Brush, C., Greene, P. G., Mahdavi, M., Majbouri, M., ... & Heavlow, R. (2017). Global Entrepreneurship Monitor 2016/2017 report on women's entrepreneurship. Babson College.

Khavul, S., Bruton, G. D., & Wood, E. (2009). Informal family business in Africa. Entrepreneurship Theory and Practice, 33(6), 1219-1238.

Kim, D. W., Yu, J. S., & Hassan, M. K. (2018). Financial inclusion and economic growth in OIC countries. Research in International Business and Finance, 43, 1-14.

Kreiser, P. M., Marino, L. D., Dickson, P., & Weaver, K. M. (2010). Cultural influences on entrepreneurial orientation: The impact of national culture on risk taking and proactiveness in SMEs. Entrepreneurship Theory and Practice, 34(5), 959-984.

Light, I., & Dana, L. P. (2013). Boundaries of social capital in entrepreneurship. Entrepreneurship Theory and Practice, 37(3), 603-624.

Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. Entrepreneurship Theory and Practice, 33(3), 593-617.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence.

Journal of Economic Literature, 52(1), 5-44.

Martinez Peria, M. S., & Singh, S. (2014). The impact of credit information sharing reforms on firm financing. The World Bank.

Mehrotra, A. N., & Yetman, J. (2015). Financial inclusion-issues for central banks. BIS Quarterly Review March.

Mollick, E., & Robb, A. (2016). Democratizing innovation and capital access: The role of crowdfunding. *California Management Review*, 58(2), 72-87.

Muralidharan, K., Niehaus, P., & Sukhtankar, S. (2016). Building state capacity: Evidence from biometric smartcards in India. *American Economic Review*, 106(10), 2895-2929.

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329-340.

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329-340.

Parboteeah, K. P., Walter, S. G., & Block, J. H. (2015). When does Christian religion matter for entrepreneurial activity? The contingent effect of a country's investments into knowledge. *Journal of Business Ethics*, 130(2), 447-465.

Rangarajan Committee. (2008). Report of the Committee on Financial Inclusion. Government of India.

Sahay, R., Čihák, M., N'Diaye, P., Barajas, A., Bi, R., Ayala, D., ... & Yousefi, S. R. (2015). Financial inclusion: can it meet multiple macroeconomic goals? IMF Staff Discussion Note 15/17.

Scheffer, J. (2002). Dealing with missing data. *Research letters in the Information and Mathematical Sciences*, *3*(1), 153-160.

Tajfel, H., & Turner, J. C. (1986). *The Social Identity Theory of Intergroup Behavior*. In S. Worchel & W. G. Austin (Eds.), *Psychology of Intergroup Relations* (pp. 7-24). Chicago: Nelson-Hall.

Welter, F. (2011). *Contextualizing entrepreneurship—conceptual challenges and ways forward*. Entrepreneurship Theory and Practice, 35(1), 165-184.

Williams, N., & Vorley, T. (2015). Institutional asymmetry: How formal and informal institutions affect entrepreneurship in Bulgaria. *International Small Business Journal*, 33(8), 840-861.