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Entrepreneur Characteristics, Human Capital Diversity and Access to Debt Financing Among SMEs: Moderating Effect of Academic Qualification and Social Networks

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Abstract

The purpose of the study was to investigate entrepreneur characteristics and human capital diversity as determinants of debt financing among micro, small, and medium enterprises. Additionally, the moderating effect of academic qualification and social networks is ascertained. Drawing on a diverse sample from various micro, small and medium enterprises in Ghana, the research employs a cross-sectional quantitative survey design. The findings reveal significant positive relationships between entrepreneurial characteristics, human capital diversity, and access to debt financing. Additionally, academic qualifications demonstrate an interactive effect, enhancing the joint impact of entrepreneurial characteristics and human capital diversity on financial access. Social networks emerge as influential moderators, accentuating the importance of external relationships in shaping access to debt financing for entrepreneurs. The study contributes to a nuanced understanding of the factors influencing SMEs' financial outcomes and offers actionable insights for entrepreneurs, policymakers, and financial institutions.

Keywords: *Entrepreneur characteristics; social network; academic qualification; human capital diversity; debt financing.*

Introduction

The landscape of small and medium-sized enterprises (SMEs) has witnessed significant transformations in recent years, marked by globalization, technological advancements, and dynamic market conditions (Prasanna et a, 2019; Gamage et al, 2020). Small and medium-sized enterprises (SMEs) plays a pivotal role in fostering economic development, driving innovation, and generating employment opportunities globally (Erdin & Ozkaya, 2020; Gherghina et al, 2020). SMEs constitute a diverse and dynamic segment of the business landscape, contributing significantly to the overall economic output of nations (Abisuga-Oyekunle et a, 2020). Despite their economic importance, SMEs often face unique challenges, particularly in accessing the financial resources necessary for sustaining and expanding their operations (Gamage et al, 2020; Yoshino & Taghizadeh, 2019). Debt financing, as a fundamental component of the financial landscape, emerges as a critical mechanism for SMEs to overcome capital constraints and facilitate growth (Wasiuzzaman & Nurdin, 2019; Calabrese et al, 2022).

However, small and medium-sized enterprises (SMEs) encounter a myriad of challenges when seeking access to debt finance, posing significant hurdles to their growth and development. One prominent challenge stems from the inherent risk associated with SMEs, as their size and often limited operating history make them less appealing to traditional lenders. Financial institutions, wary of potential default, may

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impose stringent collateral requirements and demand higher interest rates, exacerbating the financial burden on SMEs (Kira, 2013; Yoshino, 2017; Cameron & Hoque, 2016).

SMEs, acknowledged as pivotal contributors to economic vitality, encounter a complex interplay of factors influencing their access to debt financing. As the lifeblood of entrepreneurial endeavours, debt finance serves as a catalyst for SMEs, fuelling growth, innovation, and sustainability. Yet, the multifaceted challenges embedded in this process demand a meticulous investigation to unveil nuanced insights (Kira, 2017; Megersa, 2020). Additionally, the inherent dynamism and financial acumen embedded in entrepreneurship are the driving forces behind the success of SMEs, positioning them as indispensable components of economic vitality and growth. Despite their significance, the intricate dynamics governing the relationship between entrepreneurial characteristics, human capital, and access to debt finance within the SME sector remain inadequately explored.

Entrepreneurial characteristics, encompassing the unique attributes and behaviors of individuals driving SMEs, have been recognized as influential factors in shaping the financial environment of these enterprises (Mayr et al, 2021; Singh & Kaur, 2021). The risk-taking propensity, financial acumen, and innovative strategies employed by entrepreneurs significantly impact the financial decisions, resilience, and growth trajectories of SMEs. Concurrently, human capital—comprising the skills, knowledge, and experience of entrepreneurs—contributes significantly to the strategic decision-making processes underpinning financial management within SMEs (Yuliarmi et al, 2021; Nohong et al, 2021).

The role of academic qualifications extends beyond merely diversifying the skill sets introduced into SMEs; it holds the potential to fundamentally reshape the dynamics governing entrepreneurial characteristics, human capital, and access to debt finance. As entrepreneurs with diverse academic backgrounds join SMEs, their educational experiences may influence strategic decision-making, risk perception, and financial management practices (Wasiuzzaman & Nurdin, 2019). Academic qualifications serve as a lens through which entrepreneurs interpret and respond to financial challenges, thereby altering the intricate interplay between key elements within the SME financial landscape.

Similarly, social networks, encompassing relationships with peers, mentors, and industry stakeholders (Nguyen, 2022; Yuiarmi et al, 2021), wield substantial influence over the financial ecosystem of SMEs. The moderating impact of social networks goes beyond mere networking; it shapes the flow of information, resource accessibility, and collaborative opportunities within the SME sector. Entrepreneurs embedded in robust social networks may gain insights into financial strategies, access mentorship, and establish connections that facilitate smoother debt financing processes. This dynamic interaction underscores the pivotal role of social networks in not only influencing but actively shaping the financial pathways of SMEs. The collaborative and supportive nature of these relationships can create a ripple effect, mitigating challenges and fostering an environment conducive to improved debt financing access for SMEs.

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Comprehending the nuanced dynamics between entrepreneurial characteristics, human capital, and access to debt finance among SMEs is of paramount in the academic literature. Therefore, the study explored the multifaceted relationships between entrepreneurial characteristics, human capital, and access to debt finance among SMEs. By focusing on the moderating roles of academic qualifications and social networks. The rest of the paper is arranged as follows; section 2 presents the literature review; section 3 presents the research methodology employed for the study; section 4 focuses on the empirical analysis and discussion and lastly, section 5 discusses the conclusion and future research directions.

Theoretical Background

Resource-Based View and Social Capital

The study draws upon two foundational theoretical frameworks - the Resource-Based View (RBV) and Social Capital Theory to provide a robust framework to investigate the intricate dynamics between entrepreneurial characteristics, human capital, academic qualifications, social networks, and access to debt finance among Small and Medium-sized Enterprises (SMEs). Resource-Based View (RBV) as acknowledged in the management literature provides a concrete framework to ascertain the role of a firm's resources in achieving and sustaining a competitive advantage. According to this perspective, the unique bundle of resources possessed by a firm, including human capital and entrepreneurial characteristics, forms the basis for its competitive success (Lockett et al, 2009; Madhani, 2010). While social capital theory provides a lens through which to understand the impact of social relationships and networks on organizational outcomes. This theory posits that the social connections a firm possesses, often referred to as social capital, contribute to its ability to access resources, information, and opportunities (Engbers et al, 2017; Lin, 2002).

The integration of the Resource-Based View (RBV) and Social Capital Theory serves as a strategic choice to provide a comprehensive understanding of the complex interplay between entrepreneurial characteristics, human capital, academic qualifications, social networks, and access to debt finance among Small and Medium-sized Enterprises (SMEs) (Chisholm & Nielsen, 2009; Gupta et al, 2011). The RBV offers a solid perspective on how internal resources, such as the dynamic qualities of entrepreneurs and the collective knowledge of human capital, contribute to a firm's competitive advantage and financial performance.

Simultaneously, social capital theory complements this internal focus by highlighting the significance of external social networks in influencing a firm's access to critical resources and opportunities (Lin, 2017; Swanson et al, 2020). By merging these theoretical frameworks, the study aims to capture the holistic nature of SMEs' financial dynamics, acknowledging the intertwined roles of internal capabilities and external relationships. Furthermore, the integration of the RBV and social capital theory brings about a synergistic approach that allows for a more nuanced exploration of the moderating influences of academic

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qualifications and social networks on the relationships between entrepreneurial characteristics, human capital, and debt finance access.

This integrative approach acknowledges the dynamic and interconnected nature of SMEs' financial landscape. It recognizes that academic qualifications not only contribute to the internal human capital of the firm but also extend into the realm of social networks, creating a bridge between internal and external resources. The resulting theoretical framework aligns with the reality that SMEs operate in environments where internal capabilities and external relationships are inseparable elements influencing their financial resilience and growth potential.

Hypotheses Development

Entrepreneurial Characteristics and Debt Finance Access

Drawing lessons from the Resource-Based View (RBV), a theory that underscores the significance of internal resources in shaping a firm's competitive advantage, our hypothesis posits that a positive relationship exists between the dynamic characteristics exhibited by entrepreneurs and the access of Small and Medium-sized Enterprises (SMEs) to debt finance. In this context, we anticipate that SMEs led by entrepreneurs possessing unique characteristics, such as a proclivity for risk-taking and financial acumen, are more likely to navigate the financial landscape successfully, resulting in increased access to debt financing opportunities.

Studies in the field of entrepreneurial financing have ascertained that the financing of business start-ups underscores the relevance of entrepreneurial characteristics in the context of debt financing. These studies emphasize that the risk-taking propensity of entrepreneurs significantly influences the financial strategies employed in start-ups, impacting their ability to secure external funding (Cole & Skolyk, 2018; Fairlie et al, 2022). The hypothesis posits that a positive relationship exists between the dynamic characteristics exhibited by entrepreneurs and the access of Small and Medium-sized Enterprises (SMEs) to debt finance. The dynamism brought about by distinctive entrepreneurial qualities becomes a key factor in enhancing SMEs' likelihood of securing debt financing, aligning with the RBV's emphasis on the strategic value of internal resources in achieving competitive advantage.

H1: The characteristics of entrepreneurs such as risk-taking propensity, financial acumen and financial strategies have a positive impact on SMEs' access to debt financing.

Human Capital and Debt Finance Access

The human capital of SMEs is acknowledged to influence the financial outcomes – access to finance and financial performance of SMEs. Studies have emphasized the role of collective human capital in entrepreneurial teams, suggesting that a diverse set of skills and expertise positively correlates with business performance. Additionally, Nohong et (2021) and Abdesamed & Wahab (2014) that the entrepreneurial

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team's human capital diversity is positively associated with innovation, which can be a key driver in accessing external financing.

The collective skills and knowledge within entrepreneurial teams play a crucial role in shaping SMEs' financial outcomes, particularly in the context of accessing external financing (Davidsson & Honig, 2003; Elfring & Hulsink, 2003; Stam et al., 2014). Our hypothesis (H2) suggests a positive relationship between the collective human capital within SMEs and their ability to secure debt financing. This conceptualization extends beyond individual entrepreneurial characteristics, emphasizing the combined skills and knowledge embedded in the entrepreneurial team as crucial determinants of SMEs' financial outcomes.

H2: The human capital diversity of SMEs has a positive impact on access to debt finance

Moderating Effect of Academic Qualification

In a synthesis of the resource-based view (RBV) and social capital theory, our hypothesis (H3) posits those academic qualifications function as crucial moderators in shaping the relationships between entrepreneurial characteristics, human capital, and access to debt finance within Small and Medium-sized Enterprises (SMEs). This conceptual framework suggests that a diverse academic background among entrepreneurs enhances positive relationships, fundamentally altering the dynamics within SMEs and influencing their access to debt finance.

Extending these empirical insights, our hypothesis suggests that academic qualifications act as a catalyst in shaping the intricate relationships between entrepreneurial characteristics, human capital, and debt finance access. The varied educational backgrounds among entrepreneurs are expected to enrich the skill set within SMEs, thereby enhancing their ability to navigate financial complexities and secure debt financing. Based on above theory hypothesis 3 is proposed;

H3: the association between entrepreneurial characteristics and access to debt finance is positively moderated by academic qualification of entrepreneur.

H4: the association between human capital and access to debt finance is positively moderated by the academic qualification of the entrepreneur.

Moderating Effect of Social Networks

In consonance with the tenets of social capital theory, our hypotheses 5-6 contends that social networks, encompassing relationships with peers, mentors, and industry stakeholders, serve as pivotal moderators in influencing the relationships between entrepreneurial characteristics, human capital, and access to debt finance within Small and Medium-sized Enterprises (SMEs) (Nguyen, 2022; Yuliarmi et al, 2021). This theoretical framework posits that robust social networks play a crucial role in amplifying positive relationships, thereby smoothing the path to debt finance access through the provision of external support and resources (Owusu et al, 2017).

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The hypotheses anticipate that the strength and robustness of social networks act as significant moderators, intensifying the positive relationships between entrepreneurial characteristics, human capital, and debt finance access. Entrepreneurial ventures embedded within well-connected social networks are expected to navigate financial challenges more adeptly, capitalizing on external support and resources provided by diverse relationships.

H5: the association between entrepreneurial characteristics and access to debt finance is positively moderated by entrepreneur's social networks.

H4: the association between human capital and access to debt finance is positively moderated by the entrepreneur's social networks.

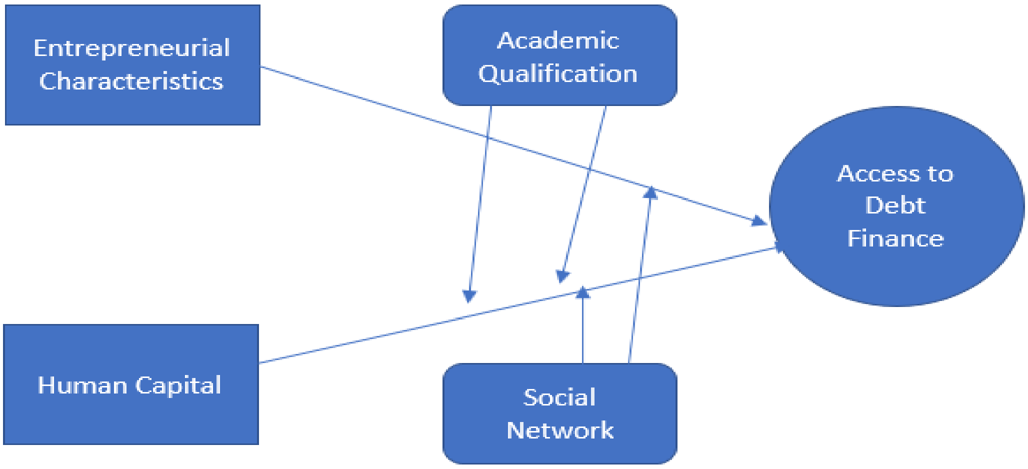

Figure 1. Conceptual framework.

Source: Author Construct (2024).

Method

Survey Design

The study employs a cross-sectional quantitative survey to investigate a theoretical relationship outlined in the conceptual model. A field survey is conducted, targeting key informants from various industries within the Micro, Small, and Medium Enterprise (MSME) sector in Ghana. The data collection involves establishing a unique dataset using information from entrepreneurs and small business owners provided by the Ghana Enterprise Agency, mainly consisting of enterprises that have received support from the National Entrepreneurship and Innovation Program. The decision to collect primary data through a field survey is driven by the unavailability of relevant secondary data. This approach aligns with accepted research practices in this domain (Galanaki, 2019).

The study focuses on entrepreneurs and small business owners within the Micro, Small, and Medium Enterprise (MSME) sector in Ghana as the target population. Using a purposive sampling approach, informants are selected from this population for inclusion in the field survey. Initial contact with identified

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individuals is established through email, seeking their attention and permission to administer the questionnaire. The communication also outlines the purpose and objectives of the study. A total of 420 individuals are contacted for participation in the field survey.

Data Collection

The survey utilizes a questionnaire as the primary data collection tool, designed following recommendations from management literature to ensure clarity and eliminate ambiguities. Divided into two sections, the questionnaire captures respondent profiles in Section 1 and focuses on the construct under study in Section 2. Using a 7-Likert scale, the questionnaire includes statements for measurement, with each latent variable having a minimum of three indicators for robust data collection. Content validity is established by adapting measurement items from existing management literature, and a rigorous process of validity and reliability testing is applied, particularly for self-developed variables. To address common method bias, the questionnaire is strategically shuffled to prevent predictability. This meticulous approach enhances the overall reliability and validity of the collected data.

The response rate from the field survey constitutes 70%, with 280 completed questionnaires contributing to this percentage. During the survey, participants were assured of complete anonymity, which likely contributed to a higher response rate. Instances of non-response were attributed to respondents' busy work schedules and other commitments. Additionally, a common method bias test is conducted to ensure the authenticity and reliability of the data collected during the field survey, a practice supported by Kanwal et al. (2019) and observed in a study by Saridakis et al. (2017). The results of the test reveal no issues of common method bias, as the factors derived from the study account for 58.8% of the variance, while the method factors contribute only 1.7% to the variance (Pavlou & El Sawy, 2006; Elmahgop, 2024; Emeka & Mordi Kelvin, 2023). This outcome enhances confidence in the integrity of the data obtained from the field survey.

Measures

Dependent Variable

Access to Debt Finance refers to an organization's operational capability to obtain external funds through borrowing mechanisms, such as loans or bonds, to support its financial needs and business operations. Measuring access to debt finance involves designing a set of questions to gather information on various aspects related to the perceived ease of obtaining loans, the loan application process, awareness of terms and conditions, the relationship with lenders, previous debt financing experience, satisfaction with financing options, barriers to access, future financing needs, and overall perception of access to debt finance. These are self-developed scales.

Independent Variable

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Entrepreneur Characteristics refer to observable and measurable traits, behaviours, and attributes that distinguish individuals engaged in entrepreneurial activities. These include risk-taking propensity, innovativeness, proactiveness, adaptability, vision and goal orientation, resourcefulness, persistence, networking skills, leadership qualities, and customer focus. These measures are selected by synthesizing studies conducted by Slavee & Prodan (2012) and Fatki & Asah (2011)

Human Capital

Moderating Variable

Academic Qualification refers to the formal educational credentials, degrees, and qualifications attained by entrepreneurs. This includes the level of education completed, such as undergraduate or postgraduate degrees, the field of study, and any specialized training or certifications relevant to their entrepreneurial activities. The measurement items included the highest degree obtained, the prestige of the educational institutions attended, and the alignment of academic qualifications with the industry or sector in which they operate. This is a self-developed scale.

Social Network refers to the structured and dynamic web of interpersonal relationships that entrepreneurs cultivate within and outside their professional spheres. These relationships involve connections with peers, mentors, industry stakeholders, and other relevant individuals. This construct is assessed based on the quantity, quality, and diversity of these connections, considering factors such as the frequency of interaction, the strength of ties, and the range of resources exchanged. Measuring scales are developed from studies conducted by Nguyen (2022) and Yuiarmi et al (2021).

Data Analysis

Profile of Respondents

The profile of the respondents in this study comprises a diverse sample of 280 entrepreneurs, with the majority being male business owners. The average business operational duration is approximately five years, indicating a mix of relatively established enterprises within the entrepreneurial landscape. The surveyed entrepreneurs span across various sectors, reflecting a broad spectrum of economic activities. The sectors covered include hospitality, fabrication and manufacturing, logistics, agro-processing, ICT services, and real estate and construction. This diversity in sectors enhances the comprehensiveness of the study, providing insights into the entrepreneurial landscape across different industries. The inclusion of both experienced and newer businesses ensures a balanced representation, contributing to a nuanced understanding of entrepreneurial characteristics, social networks, and academic qualifications within this dynamic and multifaceted business environment.

Table 1. Profile of respondents.

???	Frequency
Gender	
Male	162
Female	118

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Respondents Age (in years)	
18 – 25	-
26 – 30	45
31 – 35	59
36 - 40	89
41 – 45	38
46 - 50	49
> 50	
Educational Background	
Doctorate Degree	24
Master's Degree	96
Bachelor's Degree	160
High School Diploma	-
Years of Operations (Business Establishment)	
< 5	104
6 – 10	38
11 – 15	62
16 – 20	52
> 20	24
Industry Sector	
Hospitality	42
Fabrication and Manufacturing	68
Logistics	32
Agro-processing	72
ICT services	66

Descriptive Statistics

Table 2 presents the descriptive statistics for the surveyed data, offering a comprehensive overview of key measures. The mean, representing the average value of the dataset, is reported for each variable. Standard deviation, a measure of the dispersion of values from the mean, provides insights into the variability within the dataset. Additionally, kurtosis, a measure of the distribution's tail behavior, is reported to assess the data's shape and identify any outliers.

Furthermore, the table includes the minimum and maximum data points for each variable, showcasing the range of values observed in the dataset. These statistics collectively offer a detailed snapshot of the central tendency, variability, and distribution characteristics of the surveyed data, providing valuable insights for subsequent analyses and interpretations.

Table 2. Descriptive statistics.

Constructs	Mean	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
ENC1	5.123	1.000	7.000	1.589	.234	-.758
ENC2	5.328	1.000	6.000	1.785	.345	-.465
ENC3	4.521	1.000	7.000	.7488	.836	-.251
ENC4	4.920	1.000	7.000	.8014	.991	-.474
ENC5	4.975	1.000	7.000	.8668	.697	-.933
HUC1	5.029	1.000	7.000	.7689	1.095	.139

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HUC2	4.332	2.000	6.000	1.098	1082	.463
HUC3	4.521	1.000	7.000	.7274	2.004	-1.356
HUC4	4.339	1.000	7.000	.7986	2.389	-1.415
HUC5	4.456	1.000	7.000	.7712	3.699	-1.303
AQ1	4.339	1.000	7.000	.8828	3.636	-1.122
AQ2	4.189	1.000	7.000	1.119	1.082	-1.748
AQ3	4.521	1.000	7.000	.7274	3.023	-.698
AQ4	4.339	1.000	7.000	.7598	2.701	-.999
SN1	4.456	2.000	7.000	.7288	2.911	-.267
SN2	4.339	1.000	7.000	.7615	2.186	-.919
SN3	5.231	2.000	7.000	.243	1.092	-.124
SN4	4.364	1.000	7.000	.6929	1.829	-1.284
SN5	4.636	1.000	7.000	.7650	1.230	-.912
ADF1	4.368	1.000	6.000	.7376	.449	.662
ADF2	4.450	2.000	7.000	.6248	2.231	-.762
ADF3	4.476	1.000	5.000	.5879	1.344	-1.018
ADF4	5.092	2.000	7.000	1.291	1.029	-1.452
ADF5	4.849	1.000	6.000	-1.572	1.003	-.894

Structural Model Assessment

Exploratory factor analysis serves as a classical measurement model for evaluating both observed and latent variables, offering insights into the structural equivalence between them (Zuckerman & Aluja, 2015). Structural validity is assessed through exploratory factor analyses, extracting four factors explicitly using the principal component method with varimax rotation based on a sample size of 280 (N=280). These factors collectively account for 31.37% of the variance. The Initial Kaiser–Meyer Olkin (KMO) measure of sample adequacy and Bartlett test of Sphericity are conducted, yielding a Bartlett test of Sphericity (Approx: $\chi 2$ = 801.432, df = 279, sig. = 00) and a KMO value of 0.753, indicating satisfactory structural model outcomes (Korzynski et al., 2020; Hair Jr et al., 2014).

Furthermore, the reliability and validity of the measurement items undergo scrutiny using Cronbach's alpha and average variance extracted techniques. Each of the constructs under study demonstrates appropriate alpha values and average variance extracted values, establishing a robust foundation for further analyses to explore the relationships between various latent variables. The detailed results of these analyses, including factor loadings, alpha values, and average variance extracted values, are presented in Table 3.

Table 3. Outcome of factor analysis, reliability, and validity tests.

Constructs	Loadings	Alpha	Average Variance Extracted
Entrepreneur Characteristics (ENC)			
ENC1	0.678	0.723	0.769
ENC2	0.866		
ENC3	0.675		
ENC4	0.684		
ENC5	0.718		
Human Capital Diversity (HUC)		0.818	0.826
HUC1	0.783		
HUC2	0.835		
HUC3	0.885		

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HUC4	0.611		
HUC5			.
Academic Qualification (AQ)			.761
AQ1	0.816	0.746	
AQ2	.788		
AQ3	.765		
AQ4	.828		
Social Network (SN)			
SN1	0.882		
SN2	0.874	0.768	.692
SN3	0.876		
SN4	0.869		
SN5	0.870		
Access to Debt Financing			
ADF1	0.776		
ADF2	0.832	0.808	.813
ADF3	0.765		
ADF4	0.674		
ADF5	0.818		

Correlation Analysis

The correlation analysis reveals valuable insights into the relationships among the key variables under investigation. The results indicate a significant and positive association between entrepreneurial characteristics and social networks ($b = 0.65$, $p < 0.001$), suggesting that entrepreneurs with distinct characteristics tend to have more extensive and influential social networks. Additionally, academic qualifications exhibit a positive association with both entrepreneurial characteristics ($b = 0.48$, $p < 0.001$) and social networks ($b = 0.39$, $p < 0.001$), emphasizing the interconnectedness between educational background and entrepreneurial attributes.

Moreover, the correlation between academic qualifications and access to debt finance is positive but moderate ($b = 0.32$, $p < 0.01$), suggesting that entrepreneurs with higher academic qualifications may have enhanced access to debt financing options. The correlation matrix provides a comprehensive understanding of the interplay between these variables, laying the groundwork for further regression analyses to explore predictive relationships. These findings contribute valuable insights to the understanding of the nuanced dynamics between entrepreneurial characteristics, social networks, academic qualifications, and access to debt finance within the context of small and medium-sized enterprises (SMEs).

Table 4. Correlation test outcome.

Variables	**1**	**2**	**3**	**4**	
1. Access to Debt Financing	-	-	-	-	-
2. Entrepreneur Characteristics	0.324*	-	-	-	-
3. Human Capital	0.412**	0.118	-	-	-
4. Academic Qualification	0.323	0.483**	0.398*	-	-
5. Social Network	0.425	0.248*	0.393*	0.219	-

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Regression Analysis

A hierarchical regression analysis was conducted to investigate the relationship between independent variables and the access to debt financing among small business owners. The results indicate a significant and consistent association between both entrepreneurial characteristics and human capital diversity with access to debt financing, as evidenced by the t-statistics across all three models.

The three models (I, II, and III) exhibit progressively increasing R2 values of 0.286, 0.512, and 0.638, respectively. These R2 values represent the proportion of variance in access to debt financing explained by the independent variables. The rising R2 values suggest that the inclusion of moderating variables such as academic qualification and social networks enhances the overall explanatory power of the models. Table 5 presents the outcome of the regression analysis.

Table 5. Regression outcome.

???	Model I	Model II	Model II
Entrepreneur Characteristics	0.512 (5.376)		
Human Capital Diversity	0.418 (9.093)		
Interactive Effect			
Entrepreneur Characteristics × Academic Qualification		0.567 (11.783)	
Human Capital Diversity × Academic Qualification		0.448 (8.530)	
Entrepreneur Characteristics × Social Networks			0.327 (3.849)
Human Capital Diversity × Social Networks			0.387 (7.638)
R^2	0.286	0.512	0.638
ΔR^2	-	0.226	0.126

Discussion

The regression results reveal compelling insights into the determinants of access to debt financing among small business owners. Inferring from the progressive increase in R^2 values from Model I to Model III indicates that the inclusion of academic qualification and social networks as moderating conditions significantly enhances the models' explanatory power. Model III, with an R2 of 0.638, suggests that approximately 63.8% of the variance in access to debt financing can be explained by the combined influence of entrepreneur characteristics, human capital diversity, and social networks.

The findings of the study indicate there exists a positive relationship between entrepreneur characteristics such as risk-taking attitude, proactiveness innovativeness, and access to debt financing, especially among micro, small, and medium enterprises. This aligns with prior research emphasizing the role of entrepreneurs' dynamic qualities, such as risk-taking propensity and financial acumen, in shaping their access to external funding.

Furthermore, the significant relationship between human capital diversity and access to debt financing suggests that a varied set of skills and knowledge within the entrepreneurial team positively contributes to securing external financial support. This emphasizes the multifaceted nature of human capital and its relevance in navigating the complexities of debt financing access.

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The observed interactive effects, particularly those involving entrepreneur characteristics and academic qualifications, as well as human capital diversity and academic qualifications, reveal noteworthy associations within the study. These findings signify that the conjoint influence of entrepreneurial characteristics and academic qualifications, along with human capital diversity and academic qualifications, amplifies their collective impact on access to debt financing.

When entrepreneurs possess a distinctive set of characteristics coupled with a solid academic background, or when a diverse human capital is complemented by robust academic qualifications, the resulting synergy significantly enhances the likelihood of gaining access to debt financing. This underscores the importance of considering not only individual attributes but also the synergistic effects of entrepreneurial qualities and educational backgrounds in shaping financial outcomes for small businesses. The interactive dynamics between these factors contribute to a more nuanced understanding of the intricate relationships influencing the financing landscape for entrepreneurs.

Moreover, entrepreneur characteristics and social networks, as well as human capital diversity and social networks, unveil substantial relationships within the study. These findings underscore the pivotal role played by social networks in modulating the influence of individual entrepreneurial attributes and human capital diversity on the attainment of debt financing. This implies that the presence of robust social networks serves as a moderating factor, shaping the connection between entrepreneurial qualities, varied human capital, and the accessibility of debt financing. Entrepreneurs equipped with strong social connections may find their advantages in terms of financial access further magnified, underscoring the critical significance of external relationships in the financial landscape for small businesses.

For entrepreneurs, this underscores the need to invest in networking efforts, participate in industry events, and cultivate mentorship relationships to harness the full potential of their entrepreneurial attributes and human capital diversity. Policymakers and financial institutions, recognizing the influence of social networks, may consider initiatives that facilitate networking opportunities for small businesses, thereby contributing to a more supportive ecosystem for financial success.

Conclusion

The purpose of the study was to investigate entrepreneur characteristics and human capital diversity as determinants of debt financing among micro, small, and medium enterprises. Additionally, the moderating effect of academic qualification and social networks is ascertained. Using a sample of firms within the MSMEs sector in Ghana, the study findings revealed the significant impact of entrepreneur characteristics, human capital diversity, and their interactive effects on financial outcomes.

The study highlights the influential role of academic qualifications in shaping the relationship between individual attributes and access to debt financing. The interactive effects observed suggest that a combination of entrepreneurial characteristics or human capital diversity with strong academic backgrounds

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significantly enhances the likelihood of securing external financial support. Additionally, the study emphasizes the moderating role of social networks in the financial landscape for small businesses. Entrepreneurs with robust social connections experience amplified benefits in terms of access to debt financing, underscoring the strategic importance of external relationships.

The study acknowledges certain limitations, including potential constraints on generalizability due to a focus on specific regions and industries, a cross-sectional design limiting causal inferences, and reliance on self-reported data that may introduce biases. Future research is recommended to address these limitations by exploring diverse settings, adopting longitudinal approaches, and combining self-reported data with objective measures.

References

Abisuga-Oyekunle, O. A., Patra, S. K., & Muchie, M. (2020). SMEs in sustainable development: Their role in poverty reduction and employment generation in sub-Saharan Africa. *African Journal of Science, Technology, Innovation and Development*, *12*(4), 405-419.

Calabrese, R., Degl'Innocenti, M., & Zhou, S. (2022). Expectations of access to debt finance for SMEs in times of uncertainty. *Journal of Small Business Management*, *60*(6), 1351-1378.

Cameron, J., & Hoque, M. (2016). SME OWNERS AND DEBT FINANCING: MAJOR CHALLENGES FOR EMERGING MARKET. *CORPORATE OWNERSHIP & CONTROL*, 542.

Chisholm, A. M., & Nielsen, K. (2009). Social capital and the resource-based view of the firm. *International Studies of Management & Organization*, *39*(2), 7-32.

Cole, R. A., & Sokolyk, T. (2018). Debt financing, survival, and growth of start-up firms. *Journal of Corporate Finance*, *50*, 609-625.

Elmahgop, F. O. (2024). Evaluating the impact of COVID-19 on the profitability metrics of Saudi Arabian banks: A panel data analysis. Asian Journal of Economic Modelling, 12(1), 19–34. https://doi.org/10.55493/5009.v12i1.4984

Emeka, O., & Mordi Kelvin, A. (2023). Effect of bankruptcy risk on value of conglomerate firms in Nigeria. International Journal of Economics, Business and Management Studies, 10(1), 10–19. https://doi.org/10.55284/ijebms.v10i1.837

Engbers, T. A., Thompson, M. F., & Slaper, T. F. (2017). Theory and measurement in social capital research. *Social Indicators Research*, *132*, 537-558.

Erdin, C., & Ozkaya, G. (2020). Contribution of small and medium enterprises to economic development and quality of life in Turkey. *Heliyon*, *6*(2).

Fairlie, R., Robb, A., & Robinson, D. T. (2022). Black and white: Access to capital among minority-owned start-ups. *Management Science*, *68*(4), 2377-2400.

Fatoki, O., & Asah, F. (2011). The impact of firm and entrepreneurial characteristics on access to debt finance by SMEs in King Williams' town, South Africa. *International Journal of Business and management*, *6*(8), 170.

Gherghina, Ş. C., Botezatu, M. A., Hosszu, A., & Simionescu, L. N. (2020). Small and medium-sized enterprises (SMEs): The engine of economic growth through investments and innovation. *Sustainability*, *12*(1), 347.

Gupta, V. K., Huang, R., & Yayla, A. A. (2011). Social capital, collective transformational leadership, and performance: A resource-based view of self-managed teams. *Journal of managerial issues*, 31-45.

Kira, A. R. (2013). The evaluation of the factors influence the access to debt financing by Tanzanian SMEs. *European Journal of Business and Management*, *5*(7), 1-24.

Lin, N. (2002). *Social capital: A theory of social structure and action* (Vol. 19). Cambridge university press.

Lin, N. (2017). Building a network theory of social capital. *Social capital*, 3-28.

Lockett, A., Thompson, S., & Morgenstern, U. (2009). The development of the resource-based view of the firm: A critical appraisal. *International journal of management reviews*, *11*(1), 9-28.

Madhani, P. M. (2010). Resource based view (RBV) of competitive advantage: an overview. *Resource based view: concepts and practices, Pankaj Madhani, ed*, 3-22.

Mayr, S., Mitter, C., Kücher, A., & Duller, C. (2021). Entrepreneur characteristics and differences in reasons for business failure: evidence from bankrupt Austrian SMEs. *Journal of Small Business & Entrepreneurship*, *33*(5), 539-558.

Megersa, K. (2020). Improving SMEs' access to finance through capital markets and innovative financing instruments: some evidence from developing countries.

Naradda Gamage, S. K., Ekanayake, E. M. S., Abeyrathne, G. A. K. N. J., Prasanna, R. P. I. R., Jayasundara, J. M. S. B., & Rajapakshe, P. S. K. (2020). A review of global challenges and survival strategies of small and medium enterprises (SMEs). *Economies*, *8*(4), 79.

Nguyen, B. (2022). Small business investment: The importance of financing strategies and social networks. *International Journal of Finance & Economics*, *27*(3), 2849-2872.

Nguyen, B. (2022). Small business investment: The importance of financing strategies and social networks. *International Journal of Finance & Economics*, *27*(3), 2849-2872.

Nguyen, B. (2022). Small business investment: The importance of financing strategies and social networks. *International Journal of Finance & Economics*, *27*(3), 2849-2872.

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Nohong, M., Munir, A. R., & Hakim, H. (2021). Financing Decision, Human Capital Investment, and Entrepreneurial Performance: An Empirical Study on SME in Makassar. *Academy of Strategic Management Journal*, *20*(3), 1-12.

Owusu, J., Osman, M. H. B. M., Ismail, M. B., & Latif, A. A. B. A. (2017). A conceptual framework for financing sme growth in Ghana. *European Journal of Business and Management*, *9*(19), 11-13.

Prasanna, R. P. I. R., Jayasundara, J. M. S. B., Naradda Gamage, S. K., Ekanayake, E. M. S., Rajapakshe, P. S. K., & Abeyrathne, G. A. K. N. J. (2019). Sustainability of SMEs in the competition: A systemic review on technological challenges and SME performance. *Journal of Open Innovation: Technology, Market, and Complexity*, *5*(4), 100.

Singh, P., & Kaur, C. (2021). Factors determining financial constraint of SMEs: a study of unorganized manufacturing enterprises in India. *Journal of Small Business & Entrepreneurship*, *33*(3), 269-287.

Slavec, A., & Prodan, I. (2012). The influence of entrepreneur's characteristics on small manufacturing firm debt financing. *Journal for East European Management Studies*, 104-130.

Swanson, E., Kim, S., Lee, S. M., Yang, J. J., & Lee, Y. K. (2020). The effect of leader competencies on knowledge sharing and job performance: Social capital theory. *Journal of Hospitality and Tourism Management*, *42*, 88-96.

Wasiuzzaman, S., & Nurdin, N. (2019). Debt financing decisions of SMEs in emerging markets: empirical evidence from Malaysia. *International Journal of Bank Marketing*, *37*(1), 258-277.

Yoshino, N. (2017). Solutions for SMEs' difficulties in accessing finance: Asian experiences.

Yuliarmi, N. N., Dewi, N. P., Rustariyuni, S. D., Marhaeni, A. A. I. N., & Andika, G. (2021). The effects of social capital and human resources on financing and SMEs performance. *International Journal of Human Capital in Urban Management*, *6*(1).

Yuliarmi, N. N., Dewi, N. P., Rustariyuni, S. D., Marhaeni, A. A. I. N., & Andika, G. (2021). The effects of social capital and human resources on financing and SMEs performance. *International Journal of Human Capital in Urban Management*, *6*(1).

Yuliarmi, N. N., Dewi, N. P., Rustariyuni, S. D., Marhaeni, A. A. I. N., & Andika, G. (2021). The effects of social capital and human resources on financing and SMEs performance. *International Journal of Human Capital in Urban Management*, *6*(1).