




“Moderating role of social capital on the effect of financial behavior on financial inclusion”

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MODERATING ROLE OF SOCIAL CAPITAL ON THE EFFECT OF FINANCIAL BEHAVIOR ON FINANCIAL INCLUSION

Abstract

The need for improved institutional interventions aimed at increasing access to financial services by small and medium enterprises (SMEs) has been emphasized. Complimenting these efforts, this study proposes that building social networks capable of informing requisite financial behaviors would facilitate the financial inclusion of SMEs co-existing in business clusters. This study aimed to empirically test the moderating influence of collective action, bonding, trust, and bridging on the effect of financial behavior on financial inclusion. Using a sample of 311 owners/managers of small and medium scale businesses in sub-urban clusters in South-Eastern Nigeria, the hierarchical moderated regression analysis was used to test the hypotheses of the study. Results show a positive main effect of financial behavior on financial inclusion ($\beta_f = 0.162$; $t(304) = 1.503$; $p < 0.05$). Also, collective action ($\beta_{fca} = 0.201$; $t(304) = 6.906$; $p < 0.05$) and bridging ($\beta_{fbr} = 0.201$; $t(304) = 6.906$; $p < 0.05$) had positive moderating effects, bonding ($\beta_{fb} = 0.032$; $t(304) = 1.423$; $p > 0.05$) and trust ($\beta_{ft} = 0.014$; $t(304) = 0.9609$; $p > 0.05$) were statistically insignificant. For policy implications, social virtues such as bridging and collective action are more veritable tools for financial inclusion than the personal virtues of trust and bonding and should be factored into economic and social intervention being deployed by institutions interested in meeting the banking/financial needs of businesses.

Keywords

bonding, bridging, collective action, trust, financial
behavior, financial inclusion, Nigeria, sub-urban SMEs

JEL Classification

M10, G53, M14

INTRODUCTION

In Nigeria, the financial behavior of individuals and entities is as variegated as one may find anywhere else. Unique to this multifaceted behavior pool are the Igbos (Arisi-Nwugballa, 2016; Nnadozie, 2002). The Igbos are known to be more entrepreneurial than other tribes. They are not as well informed politically as they are economically, making them business-oriented people. The unique disposition of business owners within the South-Eastern part of the country, which houses the Igbos, has made the region a cluster of businesses of various types, much more than the count of businesses within other geographical regions (SMEDAN & NBS, 2013). The subject for discourse is whether the level of inherent financial behavior domiciled within this business environment can be harnessed with the support of social structures in a bid to improve financial inclusion.

Interventions targeted toward improving the level of financial inclusion, especially in Nigeria, have not yielded their expected benefits. Lewis et al. (2017) concluded that Nigeria, the most populous and largest economy in Africa, ranks poorly amongst other African nations with even less population. Nigeria is depicted poorly compared

to countries like Rwanda, Uganda, Kenya, and South Africa (African countries with less population and size of the economy). Population and economics are critical aspects when the issue of financial inclusion is being considered, and it appears as though the Nigerian industry players do not appreciate the importance of financial inclusion, especially amongst its business owners. The Central Bank of Nigeria (2019) stated that the Nigerian policymakers aspire to reach 95% adult financial inclusion by 2024 nationally, but the same report submits that the level of financial inclusion in the South-Eastern part of the country, which is a commercially viable hub, is abysmally low at 29% growth in the financial inclusion rate. The concern here is that interventions geared towards increasing financial inclusion levels amongst these business clusters are centered around technological advancement without due recourse to social systems that could help direct the inherent financial behavior amongst these business owners. A combination of both infrastructural and social supports is critical for modifying financial behaviors and creating a more financially inclusive world population, which is a cardinal aim of the MAYA declaration (Alliance for Financial Inclusion, 2012).

1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Financial behavior (FB) is the way or manner in which an individual or organization acts in response to financial demands or expectations. It is the extent to which a fundamental understanding of financially related information is absorbed and utilized for effective financial decision-making (Huston, 2010; Demirgüç-Kunt & Klapper, 2012). FB is perhaps the most important element of financial literacy, and as such, it measures a firm's ability to prognosticate returns before making investments; determine financial assets and liabilities; monitor financial activities; fund business operations; and set financial goals for the long term (Claessens, 2006; Islam et al., 2018).

Financial inclusion (FI) is the ease and efficiency with which actors in an economy are granted access to both formal and informal financial services in a way that their activities are positively impacted. FI is evaluated on the tetramorous bases of usage, access, welfare, and quality of the financial service rendered (Bongomin et al., 2018b). In this study context, usage is examined, which implies the extent of implementation of FI strategies in an economy. In this regard, FI can be low or high depending on the economic policies in the environment. In environments with high FI, credit facilities are offered little or no stringent conditions; informal and exploitative sources of credit are rarely utilized; businesses save more; and there is the ease of doing business (Sarma & Pais, 2011).

Whereas in environments with low FI, access to financial facilities is restricted, leading to stifling of business prosperity (Kim et al., 2018; Kim, 2016; Bongomin et al., 2018b). As an economic tool, policymakers employ FI for business welfare and sustainable development (Grohmann et al., 2018).

Social capital (SC) constitutes those informal relationships, associations, and networks, which engender shared feelings of camaraderie and cooperation through endearment and reciprocity among actors (Bongomin et al., 2016). In the context of firms, SC represents the number of firm resources, which can be easily possessed and accessed, based on its network of formal and informal relationships (Woolcock & Narayan, 2000; Aldrich & Meyer, 2015). It is enhanced through the systematic coordination and mutual understanding of participants and is measured by the level of trust, collective action, bridging, and bonding that exist in the network (Bongomin et al., 2016). Trust is the confidence that each party has about the integrity, verity, and ability of each participant to remain committed to fulfilling their obligations in the relationship (Paul et al., 2016). Collective action is the ability of the participants to take concurrent steps in the direction of a resolution or agreement and is enhanced by quality information sharing (Adger, 2010). Bridging is the extent to which parties are willing to sustain social interactions, especially when any other party contravenes the social creed. Bonding is the ability of participants to exploit their collective strengths to minimize risks and evenly distribute costs (Paul et al., 2016). Together with economic, cultural, and symbolic capital, SC determines the social characteristics

that firms exhibit as they interact with their environment (Aldrich & Meyer, 2015).

Little or no attempt has been made to establish the relationship between financial behavior and financial inclusion. However, empirical evidence shows a relationship between financial behavior and financial literacy (Servon & Kaestner, 2008), financial well-being (Stromback et al., 2017), voluntary savings and pension finance literacy (Landerretche & Martínez, 2013), risk, leverage, and donations (Wedig, 1994), and financial threat (Fiksenbaum et al., 2017). Attempts to establish a connection between financial behavior and inclusion have been done at the individual level. For instance, Shim et al. (2010) found that financial education of adolescents, especially at school, home, or work is related to their financial behavior, attitudes, and learning. Furthermore, a relationship between financial socialization and financial learning was found, which further predicts financial attitudes and financial behaviors. It means that the extent of exposure to financial information of adolescents at an early stage could determine their level of financial participation at a later stage in life. The same can be said of SMEs: early access to financial services in the form of loans, financial education, and financial payment technologies will be determined by early exposure to financial information. Such information helps them determine which financial opportunities best suits their capabilities, and how the fit will improve financial performance. Hence, Aboagye and Jung (2018) suggested that the variance in financial satisfaction levels for SMEs is accounted for by their savings culture, spending behavior, and financial mentorship.

Bongomin et al. (2018b) suggested that increased financial inclusions of businesses through mobile money transactions will depend on the quality of social networks at their disposal. This connotes the possibility of a moderating influence of social capital – collective action, bonding, trust, and bridging on the financial behavior – financial inclusion relationship. The strength of association among SMEs, and between SMEs and relevant stakeholders will not only strengthen information flow but will also regulate the quality of resource exchange that occurs. Resources exchanged will further inform strategic financial decisions and behaviors of those firms in such a way that im-

proves their participation in financial programs. Collective actions like this are also likely to determine the extent to which the financial decisions and strategies will affect economic performance (Burt, 1997), and enable businesses that find it difficult to access financial services, such as credit, to access them (Bongomin et al., 2018a). Firms high on collective culture regarding issues such as credit and spending are more likely to save more and repay their loans than stand-alone firms (Hadi & Kamaluddin, 2015).

Trust, together with other variables, has been found to correlate with firm effectiveness, firm performance, increased participation in foreign trade and investments, and overall economic development (Gennaioli et al., 2013; Guiso et al., 2009; Woolcock & Narayan, 2000). Small businesses that exhibit a high level of trust would most likely exchange information, and act as sureties for each other when bidding for financial services. Such a level of trust engenders the smooth facilitation of and returns on business transactions such as lending among SMEs, and cooperative tendencies that reduce incidences of financial contract default (Wu et al., 2014; Xu, 2020). A high level of trust could lead to mergers that will consolidate participating firms' bids for government and non-government financing. The feelings of civility in transactions, which exists among businesses high on trust, will reduce contentions capable of disintegrating small business clusters whose unified and synergistic ideologies/actions may be critical for attracting or accessing financial opportunities (Wu et al., 2014). Therefore, the financial behavior of SMEs will improve their involvement in financial activities, but only to the extent that such businesses trust each other.

Bonding could also moderate the relationship between financial behavior and inclusion. A high level of bonding will improve the level of honesty in the exchange of information among SMEs, which will enhance the veracity of their financial decisions towards inclusion. According to Cao et al. (2015), bonding influences firm leaders' innovative capabilities, proactiveness, and risk-taking tendencies as they relate with, and access financial services available to them through external stakeholders such as government, financial institutions, customers, suppliers, industrial players, and competitors. Thus,

high incidences of bonding will engender mutual respect, honor, and admiration among SMEs, which predisposes them to refer each other to opportunities that will improve their financial performance. Bongomin et al. (2016) found a mediating role of bonding in the relationship between financial literacy and financial inclusion, implying that through bonding, the amount of financial information available to businesses could empower them to execute financial strategies that enable them to continuously access financial services.

Cao et al. (2015) also suggested that a firm's access to the latest, exclusive, and low-priced information capable of improving innovativeness, financial savviness, and risk-taking ability, is to the extent that the firm is willing to bridge social interactions, especially when any other stakeholder parties contravene the social creed. The cost of bridging is high because it requires the sustenance and perpetuation of relationships; and if such costs are unchecked, they could blinker the firm into diminutive tendencies of isolation from the rest of the world. However, high levels of bridging expose entrepreneurs of SMEs to different ideas and viewpoints that would enable them to produce cost-efficient products, access more markets, receive external feedbacks, forecast market occurrences, and overcome inter-organizational intolerances likely to occur when cooperating with external stakeholders, or accessing financial services. SMEs high on bridging will exchange specific financial *modus operandi*, and leverage each other's capabilities for improved financial performance.

This study aims to establish the effect that financial literacy has on financial inclusion, and how that effect is moderated by the social capital variables of bridging, bonding, trust, and collective action. The following hypotheses were developed for the study:

H₁: There is a positive effect of financial behavior on financial inclusion.

H₂: There is a moderating influence of collective action on the effect of financial behavior on financial inclusion.

H₃: There is a moderating influence of trust on the effect of financial behavior on financial inclusion.

H₄: There is a moderating influence of bonding on the effect of financial behavior on financial inclusion.

H₅: There is a moderating influence of bridging on the effect of financial behavior on financial inclusion.

2. METHODOLOGY

This study adopted the use of survey design to collect and collate data that would provide objective measures for the scales needed to test the proposed hypothesis. Hierarchical moderated regression analysis was adopted for statistical analysis. The sample frame was drawn from business clusters within the sub-urban areas in South-Eastern Nigeria. The mapping of these sub-urban areas was carried out in collaboration with the assistance of the small and medium enterprise (SME) agency in the Enugu State. The State organized an "SME Hackathon" that attracted business owners/managers across South-Eastern Nigeria. These attendees had their businesses in urban and sub-urban areas, and 311 business owners attended this meeting. 30 minutes were given for the administration and collation of the questionnaire.

The instruments distributed measured the predictor variable – financial behavior using the scale developed by Atkinson and Messy (2012). The scale had four (4) question items, which sought to explain how well businesses manage their finances. A sample question item from the scale was "As a business, before we buy something, we carefully consider whether we can afford it". The question items were valid and their confirmatory factor loading shows the least item loaded at 0.837 while the highest factor loading was 0.889. The composite reliability for this scale was 0.884, above the standard 0.7. The scale on the outcome variable-financial inclusion was developed by Beck et al. (2008). The financial inclusion scale had fourteen (14) question items. An example of one of these question items is "The cost of making a trip to the financial institution is low". The scale measured the use of financial institutions as a construct for financial inclusion. The factor scores show a high validity. These scores had the least at 0.793 and the most at 0.921. The composite reliability for this

scale was 0.901. The moderators being social capital is a multidimensional construct developed by Bongomin et al. (2018a). The construct under social capital is collective action, bonding, trust, and bridging. These subscales have three (3) question items each. A sample question item measuring collective action is “Business owners/managers always share information with other members of the business community”, with factor loading ranging from 0.821 to 0.879. A sample question item that measures bonding was “Business owners/managers are always honest among themselves”. The factor loading ranged from 0.771 to 0.923. For the scale measuring trust, a sample item was “In this business community, people generally trust others in matters of lending and borrowing money”. The factor loadings ranged from 0.747 to 0.918. For the scale measuring bridging, a sample question item was “We always share our plan with others beyond our business community”. The factor loading ranged from 0.814 to 0.899. The composite reliabilities for these four constructs were 0.877, 0.819, 0.796, and 0.889 respectively. The study controlled for the scope of the firm, the literacy level of the owner-manager, and the size of the firm as these factors are considered to affect financial inclusion outcomes.

3. RESULTS

Table 1 shows the means, Cronbach’s alpha and zero-order correlations among the main variables in this study. Business scope was statistically positively

correlated to educational qualification ($r = 0.211, p < 0.1$), firm age ($r = 0.616, p < 0.05$), financial behavior ($r = 0.342, p < 0.1$), financial inclusion ($r = 0.244, p < 0.1$), and bridging ($r = 0.144, p < 0.1$), but not to collective action, bonding, and trust. Educational qualification was positively correlated to financial behavior ($r = 0.269, p < 0.05$), financial inclusion ($r = 0.194, p < 0.1$), and collective action ($r = 0.116, p < 0.1$). Financial behavior also statistically positively correlated with financial inclusion ($r = 0.469, p < 0.05$), collective action ($r = 0.239, p < 0.05$), bonding ($r = 0.114, p < 0.1$), and bridging ($r = 0.394, p < 0.05$). Bonding was statistically positively correlated with trust ($r = 0.514, p < 0.05$) and bridging ($r = 0.109, p < 0.1$). Finally, a statistically positive correlation was found to exist between trust and bridging ($r = 0.144, p < 0.1$)

H_1 proposed a statistically significant main effect of financial behavior on financial inclusion. Table 2 supports the hypothesis, with a statistically significant positive main effect of financial behavior on financial inclusion ($\beta_f = 0.162; t(304) = 1.503; p < 0.05$). H_2 tested the moderating influence of collective action on the effect of financial behavior on financial inclusion. Table 2 shows a statistically positive moderating influence of collective action on the effect on financial behavior on financial inclusion ($\beta_{fca} = 0.201; t(304) = 6.906; p < 0.05$). H_3 tested the moderating influence of trust on the effect of financial behavior on financial inclusion. Results show no statistically significant moderating influence of trust on the effect of financial behavior on financial inclusion ($\beta_{ft} = 0.014; t(304) =$

Table 1. Means, Cronbach’s alpha, and zero-order correlations

Study Variables	Mean	C.A	1	2	3	4	5	6	7	8	9
Business scope (1)	2.41	–	1								
Educational qualification (2)	2.83	–	0.211*	1							
Firm age(3)	–	–	0.616**	0.024	1						
Financial behavior (4)	16.5	0.884	0.342*	0.269**	0.083	1					
Financial inclusion(5)	47.63	0.901	0.244*	0.194*	0.144	0.469**	1				
Collective action(6)	9.42	0.877	0.113	0.116*	0.003	0.239**	0.193*	1			
Trust(7)	8.05	0.796	0.094	0.086	0.069	0.037	0.03	0.114	1		
Bonding(8)	8.13	0.819	0.002	0.073	0.027	0.114*	0.027	0.119	0.514**	1	
Bridging(9)	9.66	0.889	0.144*	0.099	0.077	0.169*	0.088	0.394**	0.109*	0.144*	1

Note: $N = 311$, * means $p < 0.1$, ** means $p < 0.05$, *** means $p < 0.01$.

Table 2. Results on the main and moderating effects

Variable category	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Controls										
Business scope	0.105*	0.119*	0.126**	0.118*	0.131*	0.1098	0.114*	0.157**	0.102*	0.119**
Educational qualification	0.265**	0.154*	0.188*	0.127*	0.017	0.009	0.256***	0.129**	0.189**	0.214*8
Firm age	0.095	0.187*	0.011	0.076	0.018	0.088	0.114*	0.013	0.011	0.140*
Financial behavior (predictor)		0.162**	0.149**	0.144**	0.185**	0.201**	0.158**	0.133**	0.148**	0.281**
Collective action			0.107*				0.117**			
Bond				0.003				0.027		
Trust					0.097				0.006	
Bridging						0.246**				0.219**
Financial behavior X Collective action							0.201**			
Financial behavior X Bond								0.032		
Financial behavior X Trust									0.014	
Financial behavior X Bridging										0.386**
Model Statistics:										
F-value	2.24	7.61*	8.39*	8.16*	8.07*	8.94*	9.58*	9.38*	9.35*	9.86*
R ²	0.12 ^a	0.19 ^b	0.26 ^c	0.15 ^d	0.18 ^e	0.25 ^f	0.31 ^g	0.20 ^h	0.22 ⁱ	0.37 ^j
ΔR ²	–	0.07 ^{b-a}	0.07 ^{c-b}	–0.04 ^{d-b}	–0.01 ^{e-b}	0.06 ^{f-b}	0.05 ^{g-c}	0.05 ^{h-d}	0.04 ^{i-e}	0.12 ^{j-f}

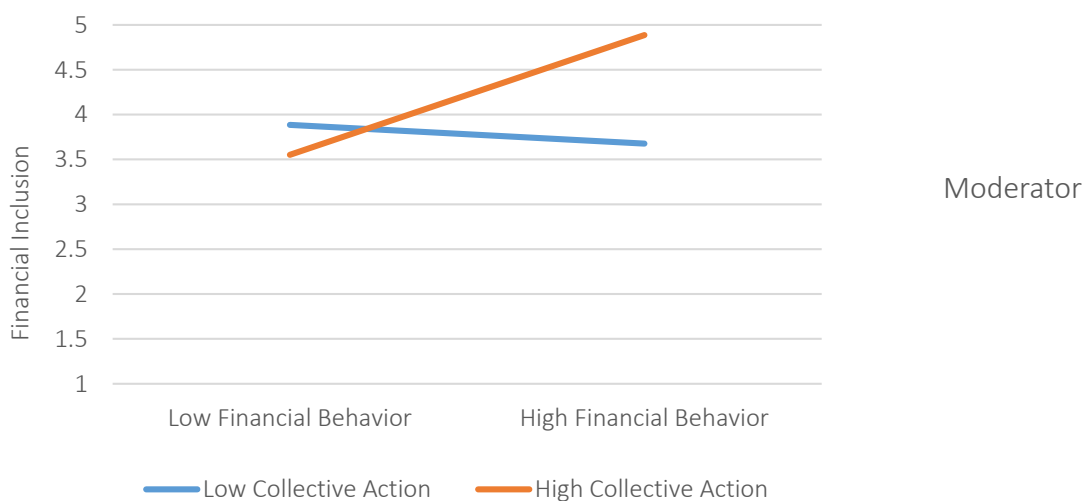
Note: Dependent variable: financial inclusion; n = 311; p < 0.1 = *; p < 0.05 = **; p < 0.01 = ***.

0.9609; p > 0.05). H₄ tested the moderating influence of bonding on the effect of financial behavior on financial inclusion. Results show no statistically significant moderating influence of bonding on the effect of financial behavior on financial inclusion (β_{fb} = 0.032; t (304) = 1.423; p > 0.05). H₅ tested the moderating influence of bridging on the effect of financial behavior on financial inclusion. Results show no statistically significant moderating influence of bonding on the effect of financial behavior on financial inclusion. Table 2 shows a

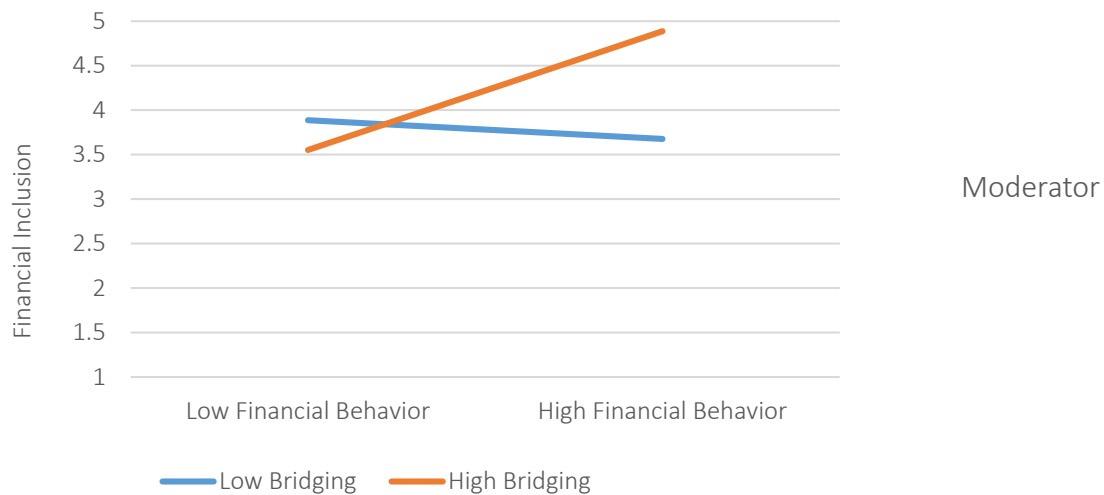
statistically significant positive moderating effect of bridging on the influence of financial behavior on financial inclusion (β_{br} = 0.201; t (304) = 6.906; p < 0.05).

4. DISCUSSION

Financial inclusion is viewed as the dependent variable and financial behavior as the independent variable. The summative values of financial behav-



Figures 1. Simple slope for the statistically significant moderating role of collective action



Figures 2. Simple slope for the statistically significant moderating role of bridging

ior were used as predictive values of financial inclusion. The result shows that there is a statistically positive main effect of financial behavior on financial inclusion ($\beta_f = 0.162$; $t(304) = 1.503$; $p < 0.05$). This implies that financial inclusion is improved as firms make financial-related decisions founded on adequate financial information. Grohmann et al. (2018) found that financial literacy affects those who have them in two main ways. First, it enhances the ability of individuals to acquire more assets than they already have. Thus, financial literacy exposes businesses to available savings and investment options usually beyond their purview. Second, financial literacy enhances informed borrowing and spending given that interest rates are well known. Information symmetry is a characteristic of a financially inclusive business environment (Fan & Zhang, 2017; Goel & Madan, 2019). It is only consequential that the more firms are aware of the opportunities available to them, the more they are likely to utilize them. Aboagye and Jung (2018) also found that financial satisfaction is positively influenced by positive behaviors and attitudes such as good spending habits, risk tolerance, and savings for retirements or emergencies. Beyond financial inclusion, good financial behaviors will improve the debt management abilities and the credit ratings of the firm.

H_2 tested the moderating influence of collective action on the effect of financial behavior on financial inclusion and found a statistically positive moderating influence ($\beta_{fca} = 0.201$; $t(304) = 6.906$; $p < 0.05$). This means that as a firm's social capital

increases, financial behaviors will improve financial inclusion. Bongomin et al. (2018b) studied the moderating role of social networks on the effect of mobile money on financial inclusion, and found a significant positive relationship between mobile money usage and financial inclusion, and between social networks and financial inclusion. A positive and significant moderating effect of social capital on the effect of mobile money usage on financial inclusion was found. Social capital, as actuated by collective action, is an avenue that affords firms within the same industry the opportunity to share financial information, learn from each other, and simultaneously take actions towards a collective financial goal. Although Bongomin et al. (2018a) and Bongomin et al. (2018b) investigated households in Uganda, the same results will hold for other microeconomic sectors of the economy, such as small and medium scale enterprises. Bongomin et al. (2016) also found that social capital also mediates the relationship between financial literacy and financial inclusion. Thus, financial information will yield more results for a firm based on its partnership and synergistic alliances with other SMEs within a region.

The study found no statistically significant moderating influence of bonding on the effect of financial behavior on financial inclusion ($\beta_{fb} = 0.032$; $t(304) = 1.423$; $p > 0.05$); as well as no statistically significant moderating effect of trust on the effect of financial behavior on financial inclusion ($\beta_{ft} = 0.014$; $t(304) = 0.9609$; $p > 0.05$). This implies social capital bonding and trust are not necessary

for financial behaviors founded on adequate financial information to enable firms to obtain financial services from formal and informal institutions when they are needed. This may be because, despite the presence of social capital evidenced through mutual understanding among firms, the notion of competition is still needed to drive firm performance (Garcés-Galdeano et al., 2017; OECD, 2001; Santoro et al., 2020). As such, collaborations with other firms play no role in determining firm access to credit facilities or insurance. However, Xu (2020) found trust to be a significant positive determinant of financial inclusion, and as a supplement for firms that exist in economic environments with weak formal and informal financial institutions. Cao et al. (2015) also found that the bonding behavior of CEOs, as depicted by their interpersonal relationships with organizational members from different departments of the firm, improves their entrepreneurial orientation up to a certain limit, after which there is a negative effect.

Finally, H_5 tested the moderating influence of bridging on the effect of financial behavior on financial inclusion. The result shows a statistically positive significant moderating effect of bridging on the influence of financial behavior on financial inclusion ($\beta_{br} = 0.201$; $t(304) = 6.906$; $p < 0.05$). Thus, when SMEs take advantage of their social capital and seek to sustain interactions and information sharing with other firms, then their ability to utilize financial information for effective decision-making will lead to financial inclusion. It was found that CEOs bridging social capital in the form of social interactions with external stakeholders and industry players improve entrepreneurial orientation, but only to the extent that the environment is stable (Heikkilä et al., 2016; Karlan, 2007). It is, therefore, possible, that in high FI environments, accompanied by relatively stable business regulations, the effect of bridging on entrepreneurial orientation is positively linear, whereas, in low FI environments, the effect is negatively linear.

CONCLUSION

The focus of this study was to investigate the moderating role of social capital – collective action, trust, bonding, and bridging on the financial behavior – financial inclusion effect. Besides a positive main effect, the moderating results were split – with the social capital measures of collective action and bridging having positive moderating effects, while bonding and trust were statistically insignificant. The difficulty in obtaining sub-urban data on the state of financial inclusion to qualify the findings was a limitation, but this dearth was a reason why this study was carried out, making it an original study. The study offers several suggestions, and aims to proffer possible solutions to present and potential challenges, which business entities with good financial behavior may likely be faced with, in choosing the social capital resources to deploy and improve on, and to strengthen its financial inclusion.

Since financial behavior improves financial inclusion, sub-urban business clusters with good financial behavior are more likely to entrust their financial affairs to financial institutions. Therefore, it is suggested that interventions geared towards improving the financial inclusion of a firm should rather be channeled towards encouraging and improving the financial behavior within the business entity. It has been established that businesses that have a good culture of managing resources would be keen to ensure that their financial affairs are being managed by a financial institution. Results also suggest that collective action and bridging improves the effect that financial behavior has on financial inclusion. This implies that collective action and bridging are objective tools that can be used by businesses to encourage financial inclusion. Collective action and bridging are social support tools that seek to improve the performance of business clusters without ignoring the social needs of other business partners and the business community at large.

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