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# Formal property titles or more? Perspectives from Ghana's financial institutions

Daniel Domeher[*], Eric Yeboah[#] and Florence Ellis[±]

[*] KNUST, School of Business, Department of Accounting and Finance, Ghana
Corresponding author, email: danieldomeher@gmail.com

[#]KNUST, Department of Land Economy, Ghana

Email: eryckyeboah@yahoo.com

[±]KNUST, School of Business, Department of Human Resources & Organization Development, Ghana

Email: florenceyellis@yahoo.co.uk

## Abstract

The dead capital thesis of de Soto has raised a lot of debate on the relationship between formal property titles and access to credit. Various authors have argued that overconcentration of policy efforts on providing formal property titles could be overly simplistic. The argument has largely been made along the logic espoused in the 'dead capital theses'. However, more than a formal title is required to access credit from formal financial institutions by small businesses. The aim of this paper is to examine the critical factors inhibiting credit access by SMEs and assess the relative importance of formal titles amongst the other factors responsible for the financing gap. Surveys were conducted amongst officials of various financial institutions using structured questionnaires. The data was analysed using factor analysis. The results show that formal lenders perceive the absence of formal property titles to be a factor inhibiting SMEs credit access albeit the exact effect is very marginal relative to other factors.

**Keywords:** Access to credit; Dead capital; Financial institutions; Formal property title; SMEs.

## 1. Introduction

Africa's development remains a paradox. The continent is rich in diverse resources and has vast supply of arable land. Yet the continent ranks high on almost all global poverty indicators. An estimated 30 out of the 54 (55.6%) African countries are part of the 50 poorest countries globally, and about a third of its 1.1 billion people live on less than $1.25 a day (Human Development Index, 2014). As a dominantly agrarian continent, land remains a critical asset in poverty reduction. However, a considerable proportion of land in Africa is not covered by formal titles. As at 2003, the influential World Bank's economist, Klaus Deininger estimated that about 90 percent of land in Africa is not documented. More recent estimates indicate that this situation has not witnessed any material improvement (UN-Habitat, 2015). From the perspective of international development organisations such as the World Bank (2003; 2006) and neoliberal policy advocates such as Hernando de Soto (1989; 2000), this acute dearth of formal land title is a major cause of Africa's underdevelopment. According to Boone (2017), land titling in Africa is a tool to legally empower the poor and secure their access to land-based resources. By extension, titling is seen as a poverty reduction tool. Obeng-Odoom (2013) thus observes that the role of secure property rights in poverty reduction and societal progress has been at the forefront of liberal philosophy and political economic thought since the eighteenth century. Obeng-Odoom and Stilwell (2013) however note that the reductionist interpretation of secure property rights that has over-concentrated on expensive land titling programmes has yielded little.

In what has now become known as the 'dead capital thesis', de Soto (2000) forcefully argues that land in Africa and other developing countries is embedded with considerable wealth, yet these lands are not covered by formal titles. Therefore, this wealth cannot be leveraged to access credit from banks and other financial institutions by small and medium scale enterprises (SMEs). As a result, these entities are often left with inadequate resources to invest, create jobs, reduce poverty, and ultimately enhance living standards. De Soto (2000) summarizes this as follows:

> 'Because the rights to these possessions are not adequately documented, these assets cannot readily be turned into capital, cannot be traded outside of the narrow local circles…. and cannot be used as collateral for a loan' (De Soto, 2000: 6).

Abdualai and Owusu-Ansah (2014) strongly disagree with anything that seems to suggest that the solution to the problem of access to formal credit

markets and poverty in developing countries lies in the mere provision of formal property titles.

In his 'dead capital thesis', de Soto (2000) posits that, the difference between the developed and the developing nations is the ability of the developed nations to create capital from their assets; unlike the developing countries. Again, de Soto (2000) argues that every parcel of land and building is represented by a property document in the developed world. The result of this according to de Soto (2000) is the high level of development in the West, whilst the third world remains largely undercapitalized and underdeveloped.

The 'dead capital thesis' has been embraced with all enthusiasm by the developing world and their international development partners such as the World Bank. For example, the World Bank's World Development Report (2006) argues that titling 'has potentially large benefits' (p. 165). Olutupe, Ngwoke and Akinlabi (2017) seem to agree with this assertion as they observe that SMEs lack of formal titles deprives them of the right to use their property as collateral to access credit. Following from this logic, the Ghana Land Administration Project for example sought to undertake 'titling and registration of 300,000 parcels of urban land" to individuals. In addition, it sought to acquire at least 80 allodial titles' as part of efforts to reduce poverty (World Bank, 2003, p. 3). The 'dead capital thesis' has in effect become the basis for policy decision.

In the era of globalization and market liberalization, the private sector is increasingly being seen as a key player in reducing poverty and expediting economic development. Therefore, providing the enabling environment for the private sector to thrive is often seen as one major tool to break entrenched poverty. Ayyagari, Beck, and Demirgüc-Kunt (2003) estimate that small businesses in the private sector account for over 60% of GDP and over 70% of total employment. This shows that majority of households on the continent are largely engaged in peasant farming or small businesses. Therefore, policies that will support the growth of the sector will have far reaching positive consequences in the fight against poverty. Nonetheless, small businesses remain severely challenged. According to Salisu (2006), the challenges limiting the growth of small businesses include: the unfriendly nature of the business environment; the complex tariff and non-tariff barriers impeding access to important export markets; and the lack of management, marketing skill and capacity to compete. Whilst acknowledging the existence of these barriers, it is argued that a much bigger concern to these businesses remains the problem of access to finance (Domeher, 2012a). In the

estimation of Beck, Demirgüc-Kunt, and Maksimovic (2006), the lack of credit reduces the growth rate of small businesses by 10 percent.

Collateral based lending is predominant in Africa with real property often seen as a more suitable form of security. Landed property is preferred because it is immobile and often appreciate in value over time. However, the absence of secure titles to real property could undermine this attribute of real property. Indeed, a number of studies have investigated various aspects of this argument with mixed conclusions. There are those that have concluded that no clear relationship exists between formal titles and access to credit (Brown, Dimitrova, Ehrenberg, Heyes, Kusek, Marchesi, Orozco, Smith, and Ernesto, 2006; Carter and Olinto, 2003; Galeana, 2004; Gilbert, 2002; Petracco and Pender, 2009; Place and Migot-Adholla, 1998). Other studies (Boucher, Guirkinger, and Trivelli, 2005; Feder, Onchan, and Chalamwong, 1988) have however made conclusions in favour of the dead capital thesis that, formal property titles impacts positively on credit access. Domeher, Abdulai and Yeboah (2016) investigated the dynamics between universal banks and microfinance institutions with regard to the relationship between formal titles and credit access. They concluded that, though this relationship may exist, it depends on the kind of formal lender under consideration. So far the argument has mainly been limited to whether or not the possession of formal titles improves access to credit. Even the studies that have established this relationship fall short of examining the extent to which the possession of titles could promote access to credit. In other words, there are several factors that may inhibit access to credit by businesses. If formal titles can improve access to credit, then it is critical for policy purposes, to establish how important these titles are vis-a-vis the other factors.

It is in this regard that Deininger (2003) argues the overconcentration of policy efforts to register titles to land, based on the 'dead capital thesis' is overly simplistic. This is because, more than a formal property title is required to access credit from formal financial institutions. Hence, the questions which arise from the above discourse are: what are the other critical factors explaining the existence of the financing gap amongst SMEs? How critical are these factors relative to the absence of secure property titles in creating the SME financing gap? Answers to these questions may, or may not provide a justification for the wide spread and huge expenditure on land titling programs across the developing world. This could also highlight other potentially critical barriers to credit access requiring more urgent policy attention. Unfortunately, these issues are largely unexplored by empirical research in Ghana. The aim of this paper

therefore, is to examine lenders' perceptions on the critical factors inhibiting credit access and the relative importance of these factors. The paper thus seeks to contribute to the existing literature on the subject matter in Ghana by first identifying the range of factors explaining SMEs failure to secure formal loans and secondly, examining the relative importance of these factors. The rest of the paper is organized as follows: section two provides background information on formal property and SME credit in Ghana; section three and four examines the theoretical and empirical literature; in section five the research design adopted for the study is explained; whilst the findings and conclusions are outlined in sections six and seven respectively.

## 2. The Ghanaian context: Formal property and SME credit

SMEs play a very central role in promoting economic development in Ghana. Abor and Quartey (2010) observed that they act as consumers of industrial output to further stimulate growth of other sectors. In addition to their role as prolific creators of jobs, they are seen as the beginning of larger businesses as well as the fuel for the overall economic engine (Abor and Biepke, 2006). In Ghana, 85% of manufacturing related employment comes from SMEs; they contribute 70% to GDP; constitute 92% of all businesses; and they also make up 80% of the private sector (Abor and Quartey, 2010). About 90% of businesses registered at the registrar general's department are SMEs and 90% of the private sector consists of small businesses (Mensah, 2004). However, SMEs are continually besieged by several challenges which constrain their overall development, critical amongst which is access to credit. Even though Abor and Quartey (2010) established that a significant number of SMEs are failing as a result of reasons other than the lack of funding, some studies in Ghana have identified access to funds as a key constraint to growth. For instance, about 66% of all microenterprise loan applications in Ghana are most likely to be turned down (Aryeetey, 1998). Abor and Biekpe (2006) noted that about 90% of SMEs consider access to credit as the main barrier to new investments. Again, most small businesses fail in their first year due to lack of financial support. The success rate for firms applying for bank loans is almost 70% for large firms as against 45% for small-scale enterprises and 34% for microenterprises. In Ghana, it is estimated that 79% and 83% of micro and small scale enterprises respectively face credit constraints (Aryeetey, 1998).

Even though there may be some more fundamental reasons for a business failing to start or progress, the lack of funds is often the most immediate reason

(Abor and Quartey, 2010). As aptly observed in Ghana by Abor and Biepke (2006), access to credit by small businesses remains a big challenge despite the introduction of several intervention schemes. Given their contributions to economic growth, it is important to ask why there exist this financing constraints amongst Ghanaian SMEs. Whilst bankers attribute the existence of this financing gap to the lack of viable or profitable projects, business owners attribute it to the lack of collateral (Aryeetey, 1998). In Africa, Aryeetey, Hettige, Nissanke, and Steel (1997) and Atieno (2001) put the blame on the high fragmentation of the credit markets into informal and formal segments. An estimated 51% of all firms refused credit in Africa is as a result of insufficient collateral; and 19% of people who do not apply for credit in Africa do so because of the high collateral requirements (Fleisig, 2006). It has been argued that the collateral problem stems from the lack of formal property titles, which renders the otherwise valuable property unacceptable for collateral purposes (de Soto, 2000). The absence of formal property titles is thus seen as a major barrier to credit access for small businesses in developing countries like Ghana. Irrespective of the argument often put up in support of the credit effects of formal property rights, Deininger and Goyal (2009) report that related empirical studies are few, outdated or non-existent in some instances. The above arguments have led to a number of studies into the relationship between formal property rights and access to credit. In Ghana a number of studies have been conducted on this subject matter most of which tend not to agree that formal property improves credit access. It appears that only Besley (1995) found cases in Ghana where the possession of formal titles facilitated credit access and investment in agricultural lands.

Narh, Lambini, Sabbi, Pham and Nguyen (2016) investigated the implications of land reforms for credit access and agricultural investment in Ghana. The study points to obvious doubts on the relationship between formal property and credit access and argues that formal property rights do not necessarily lead to greater access to credit. In a comparative study of universal banks and microfinance Institutions (MFIs) in Ghana, Domeher, Abdulai, and Yeboah (2016) found that whether or not formal titles will influence access to credit depends on the kind of financial institution under consideration. It was further observed that though lenders perceived formal property titles as important, the possession of same did not guarantee access to credit, neither did it guarantee improved loan conditions. In other studies conducted much earlier, Hammond (2008) observed that formal property rights make an insignificant beneficial contribution to credit access in Ghana whilst Migot-Adholla, Hazell, Blarel, and Place (1991) did not find

evidence of a significant improvement in credit access as a result of formal titles. Majority of the studies in Ghana tend to focus on the demand side. It appears that the only studies that considered the supply side is the pilot study by Abdulai and Hammond (2010) and Domeher, Abdulai, and Yeboah (2016). It is important to give the supply side studies equal attention since the decision to grant credit or not will depend greatly on the lenders internal policies and practices.

Furthermore, studies on this subject in Ghana tend to look at the impact of formal property on credit access in isolation without considering the argument within the context of other critical factors that could impact credit access. This is required to be able to assess the margin of impact created by formal titles relative to the other factors so as to influence the debate that will engender a proportionate policy response. Narh *et al*. (2016) conclude that in discussing the issue of improved access to credit, other factors may have to be considered as factors such as access to markets and education were found to be important in improving credit access in Ghana. Domeher, Abdulai, and Yeboah (2016) also conclude that there are other critical factors apart from formal titles responsible for explaining the financing gap experienced by small businesses. They thus, recommend that studies be conducted to unearth these factors and examine their relative importance. It is in this light that this paper seeks to contribute to the debate on the subject matter in Ghana.

## 3. Theoretical review

The presence of information asymmetry in the credit markets around Africa and other developing countries imply that collateral will be an indispensable part of SME loan contracts. However, the ability to provide collateral is constrained by the high level of poverty and lack of assets (Besley, 1994). De Soto (2000) argues further that the problem of providing collateral is not limited to lack of assets per se, but the absence of formal titles over the land owned. Even the poor possess valuable assets in the developing world he argues. Land without a doubt is a highly desirable collateral asset and given the fact that a large proportion of the average household's asset portfolio is made up of land, some are forced to believe in de Soto's (2000) arguments. For instance, de Soto (2000) estimates that in Haiti, the sum of all the assets (mainly real estate) of the poor is 150 times more than the total foreign investment the country received since its independence in 1804 (de Soto, 2000: 30-31). Provided titles to land are issued in such context, such documentary proof of land ownership will facilitate access to credit. This will in turn become a catalyst to 'unleash' the 'dead capital'

which is embedded in land in order to expedite economic development and reduce poverty. In effect, titling land in developing economies is the panacea to economic development.

The lack of formal property titles according to de Soto (2000) is thus to blame for the difficulty in accessing credit. Even though the poor possess valuable landed property that could enhance their access to credit, such properties are said to be defective due to the absence of formal property titles over them. He argues that property ownership in developing countries cannot be traced or validated and that no legal protection or enforcement of property rights exists. As a result, such property cannot be easily converted into money (either through sale or mortgage). Describing property in the developing world as dead capital, de Soto (2000) observes that landed property performs simple functions such as farming and shelter in the developing world, where as in the developed world this role is extended to the creation of capital for the enhancement of productivity through its use as collateral. For instance, in the United States, mortgage is said to be the most important source of funding for start-up businesses.

Over 50% of the total housing stock in Sub-Saharan Africa, 45% in East Asia and 25% in Latin America have no formal titles over them (Deininger, 2003). Indeed, recent estimates indicate that, 70% of all lands globally are not covered by formal titles and other forms of recognized documentation (UN-Habitat 2015). This lack of broad coverage of titling is supposedly, the 'defect' that does not permit the use of landed property as collateral for credit to finance business or investment activities. It takes the institution of formal property rights to fix the capital potential of property in that, a formal property rights system lays down the code of best practice regarding the use and transfer of assets. This makes room for recording and storing the economic features of assets into a system which is then embodied in a title and thus allows for a validation of the existence of assets as well as the associated transactions required to discover the hidden capital in them (de Soto, 2000). Securing property rights (via titling) it is believed, will increase the certainty that land rights will be recognized; provide a secure basis for acquiring and disposing land rights; increase security and promote mortgage markets; provide security for land owners, lenders and traders, secure investments; unify land markets; improve access to formal credit; reducing poverty and promoting economic development (Payne, Durand-Lasserve, and Rakodi, 2009; UN-ECE, 2005).

The availability of ownership information in the land register reduces information asymmetry on property ownership and also the transaction costs

in terms of time and other resources spent verifying land ownership data. This speeds up land related transactions by eliminating or drastically reducing any uncertainties and disputes surrounding land ownership. By promoting land market activities and facilitating land sales as argued above, registration may enhance the desirable qualities of collateral. This is because, if lenders are convinced that they will not be able to sell the land being offered as collateral, they may not accept it, and this could potentially hinder credit access. Property registration therefore by implication reduces the problem of lack of collateral which is perceived to be the main factor responsible for the limited access to credit (Berger, 1989; de Soto, 2000; Kakuru, 2008; Pearce, Davis, Onumah, and Butterworth; 2004). Property registration also provides lenders with the assurance that a given borrower has at least the legal right to mortgage a given property, and that there will be no disputes whenever foreclosure becomes necessary. Foreclosure is further made easy by the earlier argument that, registration facilitates the operation of land markets, and this is particularly important because banks may not grant investment credit where active land markets are absent (Barrows and Roth, 1990).

An important feature of a good collateral asset is the value of the underlying asset. It has been argued that, securing property rights in the developing world will cause an appreciation in property values. Land values could appreciate by about 25% or higher upon registration because of enhanced tenure security (Brown et al., 2006). Others also estimate that the market value of land appreciates by at least 20 to 60% upon registration (Durand-Lasserve and Payne, 2006). With the high degree of land fragmentation in the continent, a rise in land values could increase their collateral value and possibly enhance the chance of obtaining credit. The combined implications of the above arguments are that securing property rights in the developing world will render landed property more suited for use as collateral, allow lenders to make credit more easily available to businesses and households with such properties, reduce the cost of the credit granted and also enhance the other terms of the credit contract (e.g. loan amount and maturity period) for the benefit of the borrowers.

## 4. Empirical literature

The aftermath of the de Soto's (2000) 'dead capital thesis' has witnessed a flurry of critical literature, which examine the veracity or otherwise of the linkages between titling, access to credit. Such studies have largely yielded mixed results and inconclusive outcomes regarding the role of titling in ensuring access to

formal credit and economic development. While some studies have established a significant positive relation between secure property titles and credit access (Feder *et al*., 1988; Boucher *et al*., 2005), several other studies across the developing world found that either no relation at all exist between the two or the established impact on credit access was found to be insignificant (Brown *et al*., 2006; Carter and Olinto, 2003; Galeana, 2004; Gilbert, 2000; Place and Migot-Adholla, 1998; Mighot-Adholla *et al*., 1991; Petracco and Pender, 2009). The causes of credit constraint among small businesses in the developing world have been established to be wide ranging. Aryeetey (1998) found that, bankers and business owners have different explanations for the existing credit constraints. Whilst bankers attribute the problem to the lack of viable or profitable projects, business owners attribute it to the lack of collateral.

With empirical evidence from Africa, Aryeetey *et al*. (1997) and Atieno (2001) also attribute the problem to the high fragmentation of the credit markets into informal and formal segments, where each segments of the market focuses on meeting the credit requirements of specific groups of potential borrowers. The consequence is that there are some potential borrowers from one segment of the market (informal sector) who need specific kinds of credit not provided by the sector and at the same time are considered unqualified for formal sector credit. Information asymmetries, lack of collateral and high transaction cost have also been identified as the factors responsible for the SME credit constraint (Bester, 1985; Stiglitz and Weiss, 1981; Hoff and Stiglitz, 1990; Pearce *et al.*, 2004; Beck, 2007; Beck *et al*., 2006c). At the other end of the spectrum, the absence of secure property titles has been identified as the reason why SMEs are credit constrained (De Soto, 2000; Deninger, 2003; Llanto, 2007).

Contrary to the argument that the absence of secure registered property titles hinders access to credit by making property lose its collateral value, Dower and Potamites (2005) found that landed property can be used as collateral even if it is not formally registered because people are able to use informal documents to demonstrate ownership. In support of this finding, de Laiglesia (2004) establishes that 68% of the private banks in his study required secure registered land titles whilst 6.7% accept unregistered properties as collateral. Reporting findings of a study in Bogota, Gilbert (2000) noted that the most serious problem faced by formal lenders is not the absence of registered property titles. This reinforces the findings of Brown et al. (2006) that even in cases where secure property titles are a precondition for securing credit, it is often not sufficient to trigger credit supply. Evidence from Peru indicates that loan applicants with registered

property titles on condition of receiving a loan, faced interest rates that were on average 9 percentage points lower than applicants with untitled property. Also Place and Migot-Adholla (1998) investigated the impact of registered property titles on loan size, interest rates and loan maturities and found that:

> "…concerning loan maturities, the mean number of months for repayment of loans was 19.6 on land-secured loans and 24.8 for others. As for loan amounts, the mean size of land secured loans was 10,146 shillings as compared to 8,753 shillings for others. Neither of the results was statistically significant and thus no evidence was found to show that secure titles significantly alter the terms of formal credit" (Place and Migot-Adholla, 1998: 368).

Migot-Adholla *et al*. (1991) found that the possession of secure registered titles did not increase loan maturities for the sampled households. Deininger (2003) in his argument linking secure titles to credit access acknowledged the role of other important factors such as borrower's repayment ability. He found that the credit effect of secure property titles depends on the individual wealth of borrowers. Brown *et al*. (2006) further confirm this finding in their study that the main reason why people may be denied credit is the low borrower repayment capacity and not the absence of secure property titles. Amongst all studies in Peru, Brown *et al*. (2006) established that none found a direct causal link between secure registered titles and credit access. Gilbert (2002) established that the formal lending decision is based on the ability of the borrower to demonstrate that they have a regular income sources and in some instances, proven track record of satisfactory loan repayment history. Unsurprisingly his study in Bogata established that the possession of secure titles to property either made very little or no difference to formal credit availability. In the case of Argentina, Durand-Lasserve and Payne (2006) found that no significant changes in credit access occurred after the introduction of secure property tiles. Field and Torero (2004) noted that providing secure property titles does not automatically make collateral based lending viable for majority of formal sector credit applicants. Subsequently Dower and Potamites (2005) concluded for the study in Indonesia that the possession of secure registered property titles is not the most important factor determining credit supply.

## 5. Research design

Research methodology involves the entire processes and procedures which are involved in collecting, analyzing and interpreting data (Cresswell, 2003). This study examined the issue of property titling and access to credit using the

quantitative methodology and survey strategy of enquiry. The study covered the main financial institutions involved in lending to SMEs (Universal banks and Savings & Loans Institutions and Rural Banks) operational in the Ashanti Region of Ghana in 2012/2013. The Ashanti region is one of the ten administrative regions in Ghana. The choice of this region was based on the fact that it is one of the biggest commercial centers with several active Financial Institutions. The Ashanti region is in the middle belt and its population reflect a good blend of the north-south characteristics. It is the most populated region in the country according to the 2010 census (Ghana Statistical Services, 2012). Furthermore, it was one of the only two regions (Greater Accra and Ashanti regions) in the country covered by functional land title registration. Of the two regions, the Ashanti region was chosen for convenience given the researchers' knowledge of the region.

The participating financial institutions were identified based on information provided by the Bank of Ghana (BOG) on the institutions licensed to operate at the time. The information from the BOG (2012) indicates a total of about 22 universal banks, six savings and loans institutions; and 25 rural banks were fully operational in the Region at the time of the research. The number of institutions selected to participate in the study involved all the 22 Universal Banks, all the six Savings & Loans Institutions and 20 Rural Banks. This brings to 48, the total number of financial institutions that participated in the study. In all the financial institutions selected, the key informants were the Credit officers, Loans managers and Branch managers. Though lending practices are largely governed by the institutional policies and not likely to differ based on the official involved, the study none-the-less involved the above categories of respondents at each institution to check for consistency/ reliability of the responses obtained. For 12 of the 22 banks, the researcher visited 2 branches each. For the remaining 10 banks only one branch each was visited due to proximity issues. At each of these branches visited a maximum of 3 questionnaires were distributed to the relevant officials (in some cases fewer than 3 questionnaires were distributed depending on the availability of the official to participate in the survey). In the case of the 20 rural banks selected the researchers visited one branch each (since they tend to have very limited branch network and are often sited in rural areas). A maximum of 3 questionnaires were distributed at each branch visited. Two branches each of the 6 savings and loans institutions were also visited and at each branch a maximum of 3 questionnaires were also distributed.

Clusters of these banks and savings and loans companies could be found at various key locations in the Kumasi Metropolis namely: The Central Business District-Bantama area, Ahodwo-Atonsu area, Suame-Magazine area, the Asafo-Amakom area and the Ejisu-KNUST area. Therefore, apart from the rural banks, the other participating institutions were selected from these areas. One hundred (100) questionnaires were distributed to the target officials in the universal banks. Another 100 questionnaires were also distributed to the rural banks and savings and Loans institutions together classified in the study as MFIs. Thus a total of 200 questionnaires were distributed to officials who were available and willing to participate in the survey across the various institutions. The researchers visited various branches of these institutions and approached the relevant categories of Bank Officials with the questionnaire. Those who expressed interest were subsequently allowed some days to complete the questionnaire and the researchers returned on an agreed future date to pick up the completed questionnaires. In all a response rate of 54% was achieved.

A structured questionnaire was designed to capture respondents' opinions on the reasons why SME loan applications are turned down by the lending institutions. Fourteen (14) different reasons why SMEs are denied formal credit were identified from the literature (see Table 1). This reduced the possible biases in the selection of the variables. The questionnaire composed of various statements reflecting these 14 variables (see attached questionnaire). Respondents were asked to rank these variables in order of importance on a 14-point scale (where variables with mean ranks of 12 and above are classified as critical important; 9-11 are classified as very important; 6-8 are important; 3-5 are least important and finally those with mean ranks less than 3 are classified as unimportant).

Critically important factors were defined as those that will always compel lenders to turn down credit applications; the very important factors are those that will mostly (but not always) cause lenders to deny SMEs credit; the important factors are those that sometimes cause lenders to turn down credit application; the least important factors on the other hand are the factors that rarely cause lenders to turn down SME loan application and finally, the unimportant factors are defined as those that do not influence lenders' decision on whether to lend or not. The data collected was analyzed using factor analysis to explore the interrelationship amongst the fourteen factors to enable the researchers reduce these 14 items into fewer underlying factors/components (Field 2008). The relative importance of each factor was determined using the total proportion

of the variance explained by each factor. The results and discussions are presented below.

The consent of management was sought at the selected branches of the Institutions that participated. Respondents were provided adequate information on the purpose of the study and asked to indicate their consent by ticking the appropriate box on the questionnaire before proceeding to answer the questions. Confidentiality issues were appropriately taken care of. All respondents were given assurance that whatever information they gave would be treated with the highest degree of confidentiality. The questionnaire was thus designed to reinforce this by ensuring that it did not include any identifying information such as name of the bank and name of respondent.

## 6. Empirical findings and discussions

### *6.1. Respondent characteristics and descriptives*

In total, 200 questionnaires were distributed to the relevant officials of the various lending institutions of which108 successfully completed and returned, representing a response rate of 54%. An overwhelming majority of the respondents in in the survey (64.8%) were males. The median age of respondents was 30-45years (48%). A little more than half of the sample (53%) was made up of respondents from universal banks (UBs), 22% were from rural banks (RBs) and the rest from savings and loans companies (SLCs). The number of years a participant had spent with the current employer was used as a proxy for the level of familiarity with the institution's policies on the subject matter, whilst the number of years the position has been held was used as a measure of the level of experience. Only 31.5% of these respondents have been with their current institutions for less than five years compared to 68.5% who have been at their current institution for at least five years. Table 1 below provides the descriptive statistics on the 14 variables explaining why lenders may turn down an SME credit request.

The mean ranks shown in Table 1 below indicate that lenders attach different levels of importance to the 14 variables explaining their decision not to grant SMEs request for funding. Whilst some of these variables (such as: the perceived unprofitability of the venture, history of default in past loan repayment, high vulnerability of the business, and inability to generate sufficient cash inflows by the business) were rated critically important (*mean >12*), others were considered to be unimportant (*mean < 3*) in influencing lenders' decision not to offer the needed credit to SMEs (high transaction cost; and bank's preference to lend to sectors other than that of the business seeking the funding).

Table 1: Descriptive Statistics

| Reasons for turning down SME loan applications | N | Min | Max | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Past Default In loan repayment (PDEF) | 108 | 6 | 14 | 12.56 | 1.584 |
| Poor cash flows (PCASH) | 108 | 10 | 14 | 13.09 | 1.046 |
| Low profitability of venture (LPROF) | 108 | 11 | 14 | 12.90 | 1.067 |
| High vulnerability (HVUL) | 108 | 6 | 14 | 12.81 | 1.572 |
| Lack of property to be used as collateral (LACPROP) | 108 | 7 | 13 | 10.78 | 1.390 |
| Lack of guarantor for the facility (LACGA) | 108 | 7 | 13 | 9.82 | 1.723 |
| Lack of/inadequate equity (INEQ) | 108 | 2 | 13 | 7.20 | 2.402 |
| Lack of business records (LACREC) | 108 | 4 | 11 | 7.81 | 1.721 |
| Weak banker-customer relationship (WBCR) | 108 | 4 | 11 | 7.55 | 1.654 |
| Lack of required documents (LRECDOC) | 108 | 3 | 11 | 6.64 | 1.660 |
| Lack experience in running business (LACEXP) | 108 | 1 | 12 | 6.06 | 2.509 |
| Lack of formal property title (LACTI) | 108 | 1 | 7 | 3.74 | 1.561 |
| Bank's preferred sector (BPS) | 108 | 1 | 12 | 2.02 | 2.011 |
| High transaction cost (HTC) | 108 | 1 | 8 | 2.34 | 1.395 |

The inability of a business to generate sufficient cash or proof that a business is sufficiently profitable, the inability to meet past repayment obligations, and the high level susceptibility of SMEs to unforeseen future event are the top four critically important reasons explaining lenders decision not to grant credit to small businesses. Should the lender have the slightest doubt regarding any of these four critical reasons, the chances of rejecting the application increase considerably. From Table 1 however, it is clear that the high transaction cost of lending to SMEs and the kind of business to be financed by such credit are unimportant to lenders when it comes to deciding whether to lend or not. This appears to contradict the argument that link the SME finance gap to the existence of high transactions cost (Beck *et al*., 2006c). Indeed one of the central arguments of the 'dead capital thesis' is that formalizing property ownership reduces the transaction cost on landed property which then lowers lenders' transaction cost when dealing with businesses (de Soto, 2000). This outcome is however not surprising because cost only becomes a problem for lenders if they are unable to pass it on to borrowers through higher interest rates and other

charges. Even though in reality the transaction cost of lending to SMEs may be high, the sampled lenders in this study were of the opinion that the mere virtue of this fact would not lead to businesses been denied credit. This is because Ghanaian lenders in practice pass on such cost to borrowers either through 'cost of transaction charges' or upwardly adjusted interest rates. This may partially explain the very high lending rates prevalent in the country. It should be pointed out that cost could affect the demand for and actual use of credit as such facilities become unaffordable to businesses. Thus even though lenders may be willing to lend to SMEs, these businesses may be self-rationed due to the high cost of credit which is a consequence of the high transaction cost of lending to them.

The dead capital thesis of de Soto (2000) renewed the long standing capitalist inspired logic which attributes the lack of access to credit, high level of poverty and underdevelopment in the developing countries to the absence of secure property titles. The mass provision of secure titles has become top priority of most governments as part of the strategies to enhance access to credit by SME's in order to reduce poverty and ensure rapid economic development. The result shown in Table 1 indicate that even though lenders have rated the absence of formal property titles as an important reason for turning down SME loan applications, there are other far more important factors. Indeed, using the mean ranks, the absence of secure titles was rated 12th out of the list of 14 reasons indicating that there are 11 other more important factors that explain lenders decision not to grant loans to SMEs. This confirms the assertion that there are more critical variables responsible for the SME financing gap (Domeher *et al*., 2016; Narh *et al*., 2016). This thus gives the impression that the solution to the SME financing problem cannot come from policies geared towards formalizing property rights.

Based on the ratings in Table 1, factor analysis was conducted to explore the interrelationship amongst these variables and to explore the latent/underlying components/factors that explain the decision of lenders not to grant credit to SMEs and also explore the extent to which such lender decisions are influenced by each of these latent factors. To do this, the two variables which were rated as unimportant in Table 1 (*with mean ranks* < *3*) were eliminated from the list. A third variable (weak lender-borrower relationship – which explains the length of time a client has been known to the lender) was also eliminated from the list as it could not be classified under any of the extracted components in the preliminary test conducted. The remaining 11 variables were used in the conduct of the factor analysis.

*6.2. Validation of the factor model*

To determine whether or not the data set is suitable for the conduct of factor analysis, the KMO and Bartlett's test were conducted (see Table 2 below). The KMO test of sampling adequacy was greater than 0.5 which means the sample size is adequate for factor analysis (Field, 2000). Since factor analysis looks for clusters within a set of variables that measure similar things, the Bartlett's test is used to determine whether or not these variables are reasonably correlated, that is to say whether clusters exist amongst the variables or not. The Bartlett's test was significant (at $p < 0.001$; see Table 2). The correlation matrix in Table 3 below further confirms that certain clusters of variables are significantly correlated to permit the use of factor analysis in extracting the latent factors in the data set. Furthermore, multicollinearity was tested by looking at the determinant of the R-matrix. The determinant of the R-matrix was 0.002 (greater than 0.00001) which indicates that no serious problem of multicollinearity existed (Field, 2000).The data set was thus considered fit for the conduct of factor analysis.

Table 2: KMO and Bartlett's Test

| | | |
|---|---|---|
| **Kaiser-Meyer-Olkin Measure of Sampling Adequacy** | | .579 |
| **Bartlett's Test of Sphericity** | Appox Chi-Square | 664.859 |
| | df | 55 |
| | Sig. | .000 |

Table 3: Correlation Matrix

| | LACPROP | PDEF | PCASH | LPROF | LACREC | LRECDOC | LACGA | LACTI | HVUL | LACEXP | INEQ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Correlation** | | | | | | | | | | | |
| LACPROP | 1.000 | | | | | | | | | | |
| PDEF | -.011 | 1.000 | | | | | | | | | |
| PCASH | -.109 | -.016 | 1.000 | | | | | | | | |
| LPROF | -.030 | -.045 | .904 | 1.000 | | | | | | | |
| LACREC | .210 | -.072 | .007 | .032 | 1.000 | | | | | | |
| LRECDOC | .323 | .066 | -.141 | -.092 | .280 | 1.000 | | | | | |
| LACGA | .855 | .074 | -.086 | -.031 | .151 | .235 | 1.000 | | | | |
| LACTI | .496 | .127 | -.069 | .000 | .384 | .656 | .334 | 1.000 | | | |
| HVUL | .045 | .826 | .019 | -.008 | -.065 | .122 | -.033 | .182 | 1.000 | | |
| LACEXP | .335 | -.172 | .052 | .089 | .127 | .108 | .302 | .360 | -.167 | 1.000 | |
| INEQ | .219 | -.097 | .124 | .158 | .039 | .071 | .261 | .332 | -.122 | .712 | 1.000 |
| **Sig (1-tailed)** | | | | | | | | | | | |
| LACPROP | . | .456 | .031 | .378 | .015 | .000 | .000 | .000 | .322 | .000 | .011 |
| PDEF | .456 | - | .434 | .322 | .229 | .248 | .224 | .095 | .000 | .038 | .160 |
| PCASH | .130 | .434 | - | .000 | .473 | .072 | .187 | .240 | .423 | .298 | .101 |
| LPROF | .378 | .322 | .000 | - | .371 | .172 | .374 | .500 | .467 | .179 | .051 |
| LACREC | .015 | .229 | .473 | .371 | - | .002 | .060 | .000 | .253 | .096 | .343 |
| LRECDOC | .000 | .248 | .072 | .172 | .002 | - | .007 | .000 | .104 | .133 | .233 |
| LACGA | .000 | .224 | .187 | .374 | .060 | .007 | - | .000 | .366 | .001 | .003 |
| LACTI | .000 | .095 | .240 | .500 | .000 | .000 | .000 | - | .030 | .000 | .000 |
| HVUL | .322 | .000 | .423 | .467 | .253 | .104 | .366 | .030 | - | .042 | .104 |
| LACEXP | .000 | .038 | .298 | .179 | .096 | .133 | .001 | .000 | .042 | - | .000 |
| INEQ | .011 | .160 | .101 | .051 | .343 | .233 | .003 | .000 | .104 | .000 | - |

a.Determinant = .002

*6.3. The factor model*

The number of factors to be extracted was not determined a priori, but was allowed to emerge from the data using the Kaiser's criteria. This criterion is based on the use of eigenvalues which represent the variation in the outcome explained by each factor. Eigenvalues of 1 and above represent a significant amount of variation (Field, 2000). Hence factor analysis extracts all the factors with eigenvalues of 1 and above. Table 4 shows that a total of five clusters of the various variables referred to as factors/components were extracted from the 11 variables through the principal component analysis method of extraction and varimax rotation.

The factor loading for each variable is also indicated in Table 4 below the component number. The factor loading indicates how important each variable is to a given factor. For a sample size of about 100, factor loadings above 0.512 are considered significant (Field, 2000). This shows that the variables in Table 4 are significantly correlated with the components under which they have been classified. The five factors were given names by looking at the main issue that each set of variables describe. An examination of the variables under each component suggests that component one represents poor financial capability of the business; component 2 represents high default risk; component 3 represents lack of collateral; component 4 represents high level of informality amongst SMEs; and component 5 represents the nature of the business (whether it is a start-up or an already established business).

The Cronbach's alpha reported for each component measures the reliability of the constructs in the model, that is to say, the measurement scale reflects consistently the construct that it intends to measure; a minimum of 0.6 is deemed acceptable (Hair, Black, Babin, Anderson, and Tatham 2006). Hence the constructs and the model as a whole can be said to be reliable.

TABLE 4: ROTATED COMPONENT MATRIX[a]

| | Components | | | | |
|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** |
| **Component 1** | | | | | |
| **Poor financial strength (Repayment Ability)** | | | | | |
| **Cronbach's Alpha = .948** | | | | | |
| LPROF | .971 | | | | |
| PCASH | .970 | | | | |
| **Component 2** | | | | | |
| **High Default risk** | | | | | |
| **Cronbach's Alpa = .903** | | | | | |
| HVUL | | .945 | | | |
| PDEF | | .942 | | | |
| **Component 3** | | | | | |
| **Lack of collateral** | | | | | |
| **Cronbach's alpha = .918** | | | | | |
| LACGA | | | .947 | | |
| LACPROP | | | .920 | | |
| **Component 4** | | | | | |
| **High level of informality** | | | | | |
| **Cronbach's alpha = .677** | | | | | |
| LREQDOC (personal IDs, proof of address, bank statements etc.) | | | | .793 | |
| LACTITLE | | | | .765 | |
| LACREC | | | | .741 | |
| **Component 5** | | | | | |
| **Nature of business (start-ups)** | | | | | |
| **Cronbach's alpha = .830** | | | | | |
| INEQ | | | | | .918 |
| LACEXP | | | | | .881 |

### *6.4. Predictive power of the factor model*

The determination of the overall explanatory power of the factor model was done using the eigenvalues for each factor which shows the variance explained by that factor. This information is displayed in Table 5 below. The relative importance of each of the 5 factors extracted in Table 4 is shown in Table 5

below. The five factors together accounted for a combined total 85% of the variance in the model. In other words, 85% of the cases of unsuccessful SME loan applications were perceived by lenders to be attributable to the five factors extracted in Table 4 above.

Table 5: Total Variance Explained

| Component | Initial eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotated Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of variance | Cumulative % | Total | % of variance | Cumulative % | Total | % of variance | Cumulative % |
| 1 | 3.036 | 27.599 | 27.599 | 3.036 | 27.599 | 27.599 | 1.923 | 17.485 | 17.485 |
| 2 | 2.139 | 19.448 | 47.047 | 2.139 | 19.448 | 47.047 | 1.896 | 17.235 | 34.720 |
| 3 | 1.871 | 17.009 | 64.055 | 1.871 | 17.009 | 64.055 | 1.883 | 17.122 | 51.842 |
| 4 | 1.223 | 11.121 | 75.176 | 1.223 | 11.121 | 75.176 | 1.854 | 16.852 | 68.694 |
| 5 | 1.096 | 9.966 | 85.142 | 1.096 | 9.966 | 85.142 | 1.809 | 16.448 | 85.142 |
| 6 | .704 | 6.404 | 91.546 | | | | | | |
| 7 | .288 | 2.619 | 94.165 | | | | | | |
| 8 | .272 | 2.471 | 96.637 | | | | | | |
| 9 | .167 | 1.517 | 98.154 | | | | | | |
| 10 | .114 | 1.036 | 99.189 | | | | | | |
| 11 | .089 | .811 | 100.000 | | | | | | |

*6.5. Discussion and implication of findings*

The factor model shows that, the five main factors influencing lenders decision to reject SME loan applications are of varying degrees of importance. The most important reason why SMEs are denied credit per this study is the poor financial capabilities (reflected by the net cash flow into the business and overall profitability of the business) they exhibit. This factor alone accounts for the largest proportion (about 27.6%) of the total explained variance. Indeed, a business that is not sufficiently profitable will be unable to generate sufficient cash to repay any credit advanced. A business that is profitable but unable to generate sufficient cash is most likely not going to be able to fulfill its payment obligations falling due. Since lenders are interested in getting the funds advanced repaid within an agreed period, any indications of a poor financial health will affect the assessed ability to repay on the part of the borrower. This will ultimately lead to a decision

not to grant the needed credit. The financial strength of the business is thus amore critical determinant of lenders decision to grant or not to grant credit to SMEs than the mere absence of formal property titles.

This thus confirms the finding of Brown *et al*. (2006) that the main reason why small businesses are denied credit is the low borrower repayment ability, and not the absence of registered property titles. The above is also consistent with the results of a similar study in Bogota, which established that formal lending decisions is based on the ability of borrowers to demonstrate a strong financial capability (evidenced by regular predictable source of income/cash inflows) and that the possession of registered property titles made very little difference to formal credit availability (Gilbert, 2002). This finding provides important lessons at the micro level for SMEs. Small businesses must take basic investment appraisal more seriously to ensure that projects into which they invest their funds are sustainably profitable. Such businesses should be able to demonstrate how profitable their businesses are through their business plans which communicate critical business information to financial institutions. In a related study in Zimbabwe it emerged that Banks require SMEs to show their capital budgets so that they can assess their financial planning and credit worthiness. About 83% of these SMEs however did not keep capital budgets at all. This shows that SMEs take financing decisions on a whim (Matamanda and Chidoko, 2017).

In addition, SME owners most of whom do not pass their funds through the formal sector financial institutions always find it difficult to provide formal lender with the requisite evidence of sufficient cash inflows to secure credit. It is in this vein that Bondinuba (2012) established in a survey of SMEs that 48% considered the existing communication gap between financial institutions and small businesses as a major barrier to credit access in Ghana. Most of the SMEs may be profitable and highly liquid but their inability to communicate this effectively to lenders could cause them problems accessing funding. A change in such an attitude will enhance the image of small businesses (in terms of loan repayment ability) and could make it easier for them to secure formal credit.

The factor model shows that the second most important factor explaining lenders' decision not to grant SMEs credit is the high default risk (responsible for 19.4% of total variations) associated with lending to such businesses. Lenders generally considered SMEs to be very susceptible to unforeseen future events such that they could be looking very good today and tomorrow they are gone. The fact that these businesses are often inseparable from the individual owner

means that personal problems encountered by the owner also affect the very survival of the business. Furthermore, the SMEs that are denied credit mostly tend to have a poor credit history. The failure to fulfill past payment obligations by SMEs thus emerged to have a devastating effect on any attempts to obtain credit in the future. These factors work together to raise the risk profile of SMEs and make lenders skeptical in advancing credit to the sector. Even when lenders do decide to lend, they do so by charging exorbitant rates to compensate for the associated risk which is perceived to be high. This makes credit unaffordable and create a demand side barrier to credit access as SMEs become very reluctant to borrow at such unaffordable rates.

Third in the order of importance is the lack of collateral (contributing about 17% of the variance) required by lenders as part of the conditions for lending to most SMEs. The inability to provide collateral reduces the probability of success for businesses applying for credit because of high level of risk perceived to be inherent in SMEs. The provision of collateral provides the lenders with a safety net when lending to SMEs such that the absence of such a safety net reduces the willingness to lend creating a financing gap. This model thus confirms that, though collateral is important in the lending process, there are other more important prerequisites that must be met before credit is granted. Collateral is thus a last resort and the mere fact that one possesses collateral is not a guarantee that they will be granted the credit they require. According to Matamanda and Chidoko, (2017) 67% of the banks surveyed viewed the lack of collateral as the major obstructing them from accessing credit.

Next in order of importance is the high level of informality in the operations of SMEs (this component is responsible for 11% of the total variance). Informality includes the inability of SMEs to keep proper books of accounts; inability to provide certain required formal documents such as bank statements, proof of address and personal IDs; as well as the inability to provide formal proof of property ownership in the form of formal titles to property. This model thus confirms that the absence of formal property titles could be a hindrance to credit access from the supply side of the market. However, the model also clearly shows that though the absence of formal property titles may be an important barrier to credit access together with two other variables shown in component four (see Table 4 above), it accounts for only 11% of the total variance of 85% explained by the entire model. Hence, property titles though important do not constitute a major supply-side barrier to credit access where it is absent. This is in conformity with the findings of a demand-side study by Domeher *et al*. (2014)

which established that only 4% of all constrained loan applicants attributed their failure to obtain credit needed to their inability to provide formal property titles. Indeed, Durand-Lasserve and Payne (2006) after reviewing several cases concluded that there is no evidence that the provision of formal property titles significantly increases access to formal credit. These findings reinforce the argument by Brown *et al*. (2006) that though formal property titles may be a necessary condition for using the property as collateral for a loan, it is by no means a sufficient one to guarantee credit access. How then do the findings of this paper fit into the key theory on the relationship between formal property titles and credit access – 'Dead capital thesis' of de Soto (2000)?

To the extent that this paper has established the absence of formal property titles to be a hindrance to credit access, one is tempted to conclude there is some level of confirmation of the 'dead capital thesis'. On the other hand, a second scrutiny of de Soto's (2000) argument reveals a very extreme view of the role formal property titles could play in the overall economic development process. De Soto (2000) presents formal property titles as if it were the major reason businesses are unable to obtain credit in the developing world. On the contrary this study shows that at best the absence of formal property titles may become a barrier to credit access only in a few instances (11% of cases). This paper has thus shown that there are other more critical factors constraining credit access. The policy implication of this at the macro-level is that implementing property titling programs in Ghana as a major policy instrument for tackling the access to credit problem of SMEs as per the recommendations of the dead capital thesis will be missing the point greatly. As far as this study is concerned, the provision of formal property titles nationwide will do very little in solving SMEs problem of access to finance. To be able to comprehensively tackle the problem of financing for businesses, all stakeholders must understand the solution does not lie in just formalizing property titles. Efforts must be made to identify the range of constraint factors as identified in this study. Furthermore, the scarce resources of the state must be allocated with priority given to addressing the major internal bottlenecks in the SME financing activity. As far as this this is concerned, the provision of formal titles will not constitute a major solution to the problem of credit access. This position is also supported by other studies cited earlier.

## 7. Summary and conclusion

The argument linking the provision of formal property titles to enhanced access to credit has gained prominence over the years. Governments across the developing world with the support of the World Bank have implemented various

programs to formalize property titles as a result of the popularly acclaimed dead capital thesis. The results of such programs as per empirical studies in the past have largely pointed to either a lack of or an insignificant impact of formal titles on credit access. A few studies have however established some amount of impact. In Ghana, no known study had investigated the factors hindering credit access and their relative importance with special focus on formal property titles. This paper sought to fill in this gap.

First, the paper concludes that indeed there are a number of factors responsible for the SME financing constraint. These factors however, are of different levels of importance as they influence lending decisions to different extents. The most critical barrier to credit access was found to be the weak financial strength exhibited by these businesses. This was followed by high level of risk associated with lending to SMEs and the lack of acceptable collateral. Second, the paper concludes that the lack of property titles does not constitute a major supply side barrier to credit access in most cases. Hence providing everyone with formal property titles may address the problem of credit access by only 11%. What this means is that the solution to the credit access problem does not lie in the mere mass provision of property titles. There are several other micro factors identified from this study which when given the necessary attention will greatly enhance credit access. The mass provision of formal titles with the main aim of enhancing credit access would thus only achieve very marginal impact.

Third, it is recommended that governments and NGOs working with the SME sector should channel some effort into helping small businesses overcome the major barriers to credit access. This can be done by helping to train such businesses to build their capacity in areas of basic investment appraisal skills and preparation of business plans, and proper book keeping. Also, educating them on the need to be integrated into the formal financial system by passing all monies through a bank account. The National Board for Small Scale Industries could be restructured and resourced to provide the above. These and several others could help provide lenders with a good picture of cash flow patterns, liquidity and profitability of such businesses. This will allow lenders to more accurately estimate repayment ability and reduce the perceived level of risk often associated with small businesses.

Fourth, this paper has contributed to the literature by establishing the relative importance of the various factors constraining credit access by SMEs which allows for a determination of the margin of impact created by the various factors. This will permit researchers, policy makers, and other stakeholders to properly

reassess the proposed nexus between formal property and credit access. This should influence a policy rethink and lead to actions that can significantly improve credit access for SMEs rather than narrowly focusing on formalizing property rights. Finally, though the findings of this study are important, the robustness have not been tested against alternative measures and estimations. Furthermore, the sample is quiet limited which also limits the generalizability of the results. The results thus must be used with reasonable caution. It is recommended that future studies should consider expanding the sample. Such studies should also consider checking for endogeneities and robustness of the findings.

## Biographical Notes

**Daniel Domeher** is currently a Lecturer in Banking and Finance at the KNUST School of Business. He obtained his PhD in Real Estate Finance from the Liverpool John Moores University, UK. Daniel also holds an MA in Banking and Finance from Sheffield Hallam University, UK and a BA degree in Economics and Geography from the KNUST, Ghana. His research interest includes the following: SME Financing, Real Estate Financing in the Developing World, Property Rights Economics, and Financial innovations, Risk Management amongst others. He has published in journals and conferences of international repute. He can be contacted through, ddomeher.cass@knust.edu.gh, or danielddomeher@gmail.com

**Eric Yeboah** holds a PhD (Land Management) from the University of Liverpool, United Kingdom and a Bachelor's Degree in Land Economy from the Kwame Nkrumah University of Science and Technology, Kumasi - Ghana, where he is presently working as a Lecturer and Coordinator of Postgraduate Studies. He is a Researcher with strong interest in Land Governance, particularly the interface and complex linkages between customary law, large scale land based investments, gender equality, urbanisation and informal settlements. He has published in several reputed Journals and has also presented papers at many international conferences. Eric regularly consults for several multi-national organisations such as the International Fund for Agricultural Development (IFAD), USAID, the World Bank and the Bill and Melinda Gate Foundation among others. He serves as a reviewer to a host of journals and he is currently working as the Guest Editor for the journal, *African Review of Economics and Finance*.

**Florence Ellis** is a lecturer at the Department of Human Resource and Organisational Development at the KNUST School of Business. She holds a PhD in Business Studies from Swansea University, Wales, (UK) and a BA (Hons)

degree in Sociology and Law from Kwame Nkrumah University of Science and Technology (KNUST). Her research interests include organisational studies, organisational behaviour, organisational leadership, and human resource management. She is currently involved in research work on various aspects of teams and organisational related issues in SMEs in Ghana.

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