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# Does Microcredit Increase Household Wellbeing? Empirical Evidence from Ghana

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## **Abstract**

### **Aim of the Study**

The wellbeing of a microfinance borrower's household is one of the topical issues being highlighted as a result of the current commercialization of the microfinance sector. Drawing on the institutional theory, the study examines the impact of microcredit on borrowers' household wellbeing in Ghana. This study aims at investigating the impact of five key major microcredit variables namely; loan amount, loan cost, loan repayment flexibility, loan accessibility as well as loan usage on borrowers' household wellbeing in Ghana.

### **Methodology**

This study adopted the Smart Partial Least Square Structural Equation Modelling tool (PLS-SEM) in measuring the impact of microcredit on SME borrowers' household wellbeing. Deploying the stratified random technique, 455 SMEs in Ghana constituted the study's primary data source. Microcredit (MC) and SME borrowers' household wellbeing (BHW) were both measured on the five-point Likert scale ranging from strongly disagree (1) to strongly agree (5) while

### **Contribution**

The study established the critical role of microcredit factors such as loan repayment flexibility, flexibility in loan access, and loan usage in the promotion of the wellbeing of SME borrowers' households (Omondi & Jagongo, 2018). These factors are statistically significant in explaining the SME borrowers' household well-being. Nonetheless, the adequacy of the loan amount and loan cost is statistically insignificant. Further, the indirect effect of gender as a moderator between loan accessibility and SME borrowers' households is insignificant.

### **Implications for Policy**

Sustained deployment of microcredit to SMEs instigates their survivability and productivity levels which triggers improvements in the wellbeing of their household. Therefore, institutions such as

the Central Bank of Ghana should regulate the microfinance sector to promote the wellbeing of clients in their attempt to access microcredit from MFIS. This will reduce the numerous voids to promote a seamless deployment of microcredit to the SME sector (North, 1990).

### **Implications for Practice**

Sustained microcredit investments in the SME sector portend huge positive outcomes including tremendous improvement in the wellbeing of the SME borrower's household and the entire economies in developing countries (Toindepi, 2016). Consequently, increased deployment of microcredit to SMEs to instigate their survivability and eventually improve their productivity levels and the wellbeing of their household is imperative (Roy & Mohanty, 2020). It must be emphasised as well the invaluable roles of state institutions in promoting the required conducive environments for the sustenance of the SME sector as regards the institutional structures to reduce the numerous voids and facilitate a seamless deployment of microcredit to the SME sector (North, 1990).

**Keywords-** Borrower's household wellbeing, MCIs, microcredit, Ghana, Small and medium enterprises.

## **1. Introduction**

The concept of wellbeing has assumed a topical narrative among policymakers, scholars, and entrepreneurs in the contemporary environment. This development stems from the case that the sustenance of wellbeing in the turbulent global economy in recent times depends largely on firm development (Bongomin, Munene, Ntayi, and Malinga, 2018). Secondly, the current attention on wellbeing is its capacity to sustain people's adaptability to varying events in their ecologies, preparedness for risk occurrence, and capacity to revive and resuscitate businesses in periods of shocks and failures (Akgün and Keskin, 2014). Available literature suggests that the quality of wellbeing is improved by the delivery of microcredit to SMEs to engage in economic activities. This development implies that SMEs need to be continuously provided with microcredit which is adequate in amount, flexible to repay and at a lower cost, and easily accessible and efficiently utilised. Microcredit is the extension of small credits to the unemployed, vulnerable entrepreneurs and others engulfed in poverty that is considered unbankable as they lack suitable collateral, stable employment, and a credit history that can easily be verified such that they are unable to meet even the most basic qualifications in accessing traditional credit (Wellalage and Locke, 2017).

The concept of wellbeing relates to a wider narrative of multidimensional phenomena, that hinges on an appreciation of the needs of the residents to actively engage and thrive in a contextual society (Alkire and Foster, 2011). There is no universally accepted definition of wellbeing in the literature (Brown and Westaway, 2011). This study adopts the definition of the Wellbeing in Developing Countries Research Group, which defines wellbeing as 'a state of being with others, which arises where human needs are met, where one can act meaningfully to pursue one's goals and where one can enjoy a satisfactory quality of life' (Gough and McGregor, 2007). In a related vein, well-being refers to the overall quality of a person's experience and functioning (Warr, 2013). Wellbeing is now understood not simply as a positive emotion, but, rather, as thriving across multiple domains of life (Diener et al., 2018). Wellbeing is critical in the context of SME borrowers' households because it directly impacts business performance at various dimensional including sales,

profitability, employment generation, and loan usage (Rambe and Makhalemele (2015). Boarini et al. (2014), established three major dimensions of wellbeing. These are objective, subjective and relational wellbeing. However, a codified theory of wellbeing has emerged from wider disciplines such as psychology, economics, philosophy, and currently, the natural sciences (Schleicher et al., 2017). Objective wellbeing relates to the material conditions of the people, usually encompassing wealth indicators of poverty (Mcgregor and Sumner, 2010). Subjective wellbeing on the other hand relates to self-evaluation of the state of the people (Vanhoutte, 2015). One of the most widely researched conceptualizations of wellbeing is subjective wellbeing.

Explicitly, the role of SMEs in the economic development of all nations worldwide cannot be over emphasised. In the context of Ghana, for instance, 46% of all households are engaged in some form of SME business activity in the non-formal sectors including hospitality and food processing, agriculture, retail trade and small-scale mining amongst others (Ghana Statistical Service, 2010). Further, the SME sector generates close to 58% of jobs in Ghana (Amoako and Matlay, 2015). Indeed, the case for SME development and performance has thus instigated critical research in the study of entrepreneurship (Chin and Nor, 2016). The dominance of defective formal credit markets as well as the astronomical interest rates charged by local moneylenders demotivates the vulnerable who are eager to start or expand a business. Access to credit is generally noted as one of the biggest hurdles to SME growth in developing countries (Quartey et al., 2017).

Many scholars have instigated research attention on SME borrowers' household wellbeing in the light of the rigidities associated with consumer taste and preferences, inconsistencies in the regulatory structures as well as uncertainties in technological advancements (Akgün and Keskin, 2014). These interventions are crucially important at the level of SMEs where there are unbridled deficiencies and inefficiencies associated with the availability and reliability of funding sources and entrepreneurial skills and competencies (Ghosh and Vinod, 2017). Extant literature suggests that the unavailability of credit for SMEs in most developing countries including Ghana accounts for the high extinction rate of SMEs. Although a considerable number of studies have been done on the significance of microcredit to the SME sector which instigates the borrowers' household wellbeing, it is unclear as to how the sufficiency of their capital and methodology of delivery of the microcredit can be developed into a robust institutional structure (Barney, 1991). This study is structured to examine the extent to which microcredit delivered to SME owners has positively impacted the wellbeing of their households through their business engagements which subsequently results in a decent standard of living through the development of resilient SMEs.

The institutional theory as deployed in this study intends to underlie an integrative approach to wellbeing maximization in Ghana. Therefore, the roles of institutions are critical for the maximisation of SME borrowers' household wellbeing. However, it is important to highlight that the influence of institutions on how microcredit is delivered to promote the well-being of SME borrowers' households can either be inhibited or enhanced through regulations and policy directions (Amsi et al., 2017). Many institutional voids are evident in the process of delivering microcredit to SME borrowers. Indeed, the budget allocation by state actors to these institutions has always been woefully inadequate such that the level of complexity of the voids within these key institutions cannot be overstated. Thus the theory represents a crucial diagnostic vehicle in identifying these inadequacies and deep-seated voids in the institution's structure. It is illuminating to opine that the theory enhances clarity, accountability and above all objectivity which are critical to the improvement of the SME sector in Ghana (North, 1990; Williamson, 2000).

This study has advanced three main contributions to literature. First, the study has advanced a theoretical contribution to the institutional theory as it focuses on the delivery of microcredit to particularly vulnerable SMEs in the context of Ghana characterised by weak institutions which influence the design and delivery of microcredit with a direct focus on microcredit elements which include the loan amount, loan cost, loan repayment flexibility, loan accessibility, and loan usage. Second, this study aims at advancing the literature on wellbeing with a direct focus on the need to structure microcredit to develop resilient SMEs, which unfortunately is deficient in research attention in developing countries (Wishart, 2018). Available literature documents that SMEs in developing countries are particularly extinct because they are starved of the needed credit (Bunyaminu and Bashiru, 2013). It, therefore, needs to be emphasised that the appreciation of the sources and strategies in advancing SME borrowers' household wellbeing through microcredit is crucial since it has a direct influence on the individual business performance which is the direct source of the wellbeing (Fehling et al., 2013). Lastly, a considerable number of studies on credit and wellbeing outcomes have been conducted in the context of developed countries (De Mendoca and Baca, 2018). A major concern is that just a handful of studies have examined the current microcredit dynamics and its impact on SME borrowers' household wellbeing in developing countries including Ghana. This is the gap that this study seeks to address. Importantly, the deepening of the understanding of microcredit in Ghana and its capacity as a determinant predictive power of SME borrowers' household wellbeing is the foremost contribution of this study.

This study is organized into seven sections encompassing an introduction. The background to the study is underscored in section 2 while section 3 highlights the theoretical framework in addition to the various hypotheses undergirding the study. The context and methodology for the study are presented in section 4 while section 5 and 6 presents and discusses the results respectively. Section 7 presents the conclusions of the study.

### Model specification for SME borrowers' household wellbeing

The undergirding empirical model for this study is stated as follows:

$$BHW_{it} = \beta_0 + \beta_1 LA_{it} + \beta_2 LOC_{it} + \beta_3 LRP_{it} + \beta_4 LOA_{it} + \mu_{it} \dots \dots \dots Eq. 1$$

$$BHW_{it} = \beta_0 + \beta_k \sum_{k=1}^{n=455} X_k + \mu_{it} \dots \dots \dots Eq. 2$$

- Where  $BHW_{it}$  denotes borrower household wellbeing
- $LA_{it}$  denotes loan amount
- $LOC_{it}$  denotes loan cost
- $LRP_{it}$  denotes loan repayment flexibility
- $LAC_{it}$  denotes loan accessibility
- $LOU_{it}$  denotes loan usage

The empirical model is then modified to accommodate one mediating variable: Gender (G).

$$BHW_{it} = \beta_0 + \beta_1 LA_{it} + \beta_2 LOC_{it} + \beta_3 LRP_{it} + \beta_4 LOA_{it} + G_{it} + \mu_{it} \dots \dots \dots Eq. 3$$

**2. Background**

**2.1 The Concept of Wellbeing of Individuals**

Wellbeing improvement has assumed a key goal of global and sustainable development policy (UNDP (United Nations Development Programme), 2015). As a result of its broad coverage, the term lacks a simple definition coupled with the fact the term has been further compounded by the different meanings ascribed by scholars from economics, health sciences, and social science backgrounds based on their interest in the subject. The concept of wellbeing, when applied in the context of individuals refers to the experience of health, happiness, and prosperity which includes having a healthy mental state, excellent life satisfaction, a logical understanding of life’s meaning and purpose, and significant competency in stress management (Davis, 2019). Essentially, personal wellbeing refers to life satisfaction based on individuals’ perception of their health, happiness, and sense of purpose (Adler, 2017). Researchers have consistently recognized wellbeing improvement as a critical element in the socio-economic development of individuals (Fink et al., 2017) because improved wellbeing of residents in an environment has a significant impact on the economic development and productivity of nations. From the perspective of the individual, the wellbeing of an individual fosters productive life and the capacity to endure setbacks and move forward to achieve life’s purpose. It is pertinent to note that the entrepreneurial approach to wellbeing holds the view that the concept of wellbeing is a continuous process that is associated with business engagement to ensure satisfactory productivity with its attendant improvement in the lives of the entrepreneur himself and his entire household (Diener et al., 2018).

**2.2 Wellbeing in the Context of SMEs**

Globally, the SME sector is observed to consistently play critical roles in the socio-economic development of nations. SMEs are seen by various organisations as important engines of innovation and economic growth as well as the conduit for reaching out to the excluded segments of society, especially women (Tesfaye, 2016). Further, SMEs are noted to play essential roles in generating income and employment for millions of people and in creating new jobs globally (Hajilee et al., 2017). It is estimated that in the OECD economies, SMEs account for over 95% of firms, 60-70% of employment, 55% of GDP and generate the lion’s share of new employment (Sullivan-Taylor and Branicki, 2011). In the case of developing economies, the situation is not very different. For instance, SMEs virtually dominate the Ghanaian economy. It is estimated that about 3,200,000, representing 46% of all households in Ghana, operate some form of non-farm enterprises with women operating 72% of these businesses (Ghana Statistical Service, 2010). Similarly, SMEs account for 92% of businesses and provide 85% of all manufacturing jobs and contribute 70% to Ghana’s gross domestic product (Agyapong, 2010; Amoako and Matlay, 2015). In a related vein, SMEs are noted to constitute 90 per cent of the cumulate registered businesses coupled with the fact that 46% of all households are estimated to operate businesses in the SME sector (Agyapong, 2010; Ghana Statistical Service, 2010).

Indeed, entrepreneurs’ wellbeing is of great concern to society as the costs relating to negative wellbeing are enormous. For instance, poor mental health is observed to cost the global economy US\$6 trillion by 2030 (Trautmann et al., 2016). Further, entrepreneurs including SMEs are noted to become less innovative, persistent, and productive when confronted with negative wellbeing

(Stephan, 2018), resulting in poor economic output as well as the creation of insignificant employment avenues. More so, it is estimated that the number of jobs at risk could be huge amid negative well-being. For example, small businesses, which are typically entrepreneur-led, employ 60.6 million people in the US (Small Business Administration, 2020) and 91 million in the European Union (Eurostat, 2018). Therefore, the consequences of negative wellbeing especially in industrialised economies could be dire. The revolution in the debate on the concept of SME owners and their household wellbeing among researchers, entrepreneurs and other stakeholders including policymakers, has originated due to the fact that the wellbeing of the citizenry is hinged on the sustenance of productive and economic activities (Demirguc-Kunt and Klapper, 2012).

### ***2.3 Borrower's Household Wellbeing in the Context of SMEs in Ghana***

Anecdotal evidence in the literature suggests that the microfinance sector in Ghana has evolved and flourished over the years into its current state. This development has arguably been attributed to successive governments' various financial programmes and policies since independence to grow the SME sector (Addae-Korankye, 2012). Most notably, microfinance institutions experienced tremendous growth and outreach in the 1980s as a result of the liberalisation policy and relaxed regulatory regimes implemented by the government (Steel & Andah, 2003; Osei-Boateng and Ampratwum, 2011). It is, therefore, illuminating to note that the above initiatives culminated in the proliferation of MC-funded activities all over the regions of Ghana. Several MFIs and a dedicated Government of Ghana (GoG) programme emerged. MC has thus become vital in supporting the growth strategies of SMEs in Ghana (Addae-Korankye, 2012; Dzansi and Atiase, 2014). It is quite reasonable to argue that a cumulatively increased provision of microcredit to SMEs helps them to generate enough revenues to be able to improve the diet of their households. Relatedly, food consumption patterns impact family health and productivity (Emran et al., 2009) and the quality of human capital has been observed to influence the social and economic fortunes of small business enterprises in the long-term in Ghana (Banerjee, 2013). Similarly, it has been contended that an improvement in formal education is a relevant explanatory variable in measuring improvements in individual living standards and achievements of the human capital of nations including Ghana (Annim et al., 2011). Many empirical studies in Ghana contend that access to microcredit by SMEs has a positive influence on borrower's household capacity to rent or buy their own houses (Nanor, 2008; Adjei & Arun, 2009) and access to household assets of high value (Echarin, 2011; Ismail, 2014). A study of women enterprises in Ghana reinforces earlier findings that a significant relationship exists between microcredit access and ownership of household chattels (Worku, 2016; Amsi, Ngare, Imo and Gachie, 2017).

### ***2.4 Microcredit Financing and Borrower's Household Wellbeing Nexus***

An avalanche of research evidence suggests that there exists a correlation between microcredit and the quality of borrowers' household wellbeing (Harper et al., 2021). Undoubtedly, the quality of borrowers' household wellbeing is largely determined by the level of availability and accessibility of microcredit that is allocated to SMEs. Despite the availability of other variables that impact borrowers' household wellbeing, available data demonstrate that there is a relationship between microcredit and borrowers' household wellbeing (Das, 2012) Even though a couple of studies have criticised the potency of microcredit to reduce poverty and thus improve borrowers' household wellbeing, it has been common practice to tout borrowers' household wellbeing not only as a benchmark for comparing countries' social strata or entire economic and social systems but also as a critical indicator of the general wellbeing of the population (Shepherd et al., 2015). Invariably,

a country's economic ranking is reflected in its business owners' and their household wellbeing (Davis 2019). Similarly, there is a direct buoyancy effect on the economy if the citizens' households' wellbeing improves as a result of the availability of funding for SMEs, particularly in the context of Sub Sahara Africa (Evans and Stoddart, 2017; Ngangue and Manfred, 2015). It is imperative to note that the inclusive sustainable development paradigm reckoned that if borrowers' household wellbeing improves because of the delivery of microcredit, economic growth will spur. It is, therefore, critical to examine borrowers' household wellbeing as a proxy for the quality of SME financing and value for money in the economic and social development landscape.

### **3. Theory and Hypotheses Development:**

#### ***3.1 Promoting Wellbeing Through the Institutional Theory (IT) Approach***

Extant evidence asserts that various environmental factors affect the way entrepreneurs behave and exploit entrepreneurial opportunities (North, 1990). Institutions play a crucial role in the development of the financial sector of every country. One of the common lenses through which various researchers account for the environmental influences on entrepreneurial activities and access to important resources that entrepreneurs need is the institutional theory (Bruton et al., 2009; Su et al., 2016). The institutional theory also highlights institutional voids in a country whereby institutions that are responsible for the growth of SMEs and the provision of the required resources such as financial capital is considered either weak or unavailable, particularly in developing countries (Sutter et al., 2013). In the perspective of North (1990), once the institutional framework of a country is created, it establishes the incentive system, defines property rights, access to financial resources, access to markets, standards of production and safety standards, and many other regulatory mechanisms that affect the operation of SMEs. The case of Ghana is not different. According to Shughart and Thomas (2014), MFIs can experience a top-down imposition of rules where state institutions attempt to exert pressure for conformity to rules and policy guidelines. For instance, the introduction of the licensing requirement for MFIs in 2011 saw the exit of many MFIs hence their inability to serve the financially excluded (Bank of Ghana, 2015). In most cases, some of these regulations may not work in the interest of the financially excluded in their bid to engage in income-generating activities.

Wilson and Martin (2015) as well noted that factors such as access to technology, frequent political changes, high population growth, corruption, and high taxation could influence MFIs and their ability to provide credit to SMEs effectively (Alajaty, 2017). These obstacles and their associated excessive business restrictions hinder the effectiveness of the financial system in Ghana, and this affects access to resources and the growth of SMEs (Shirokova and Tsukanova, 2013). It is, therefore, important for public policy to be directed toward SME development and general entrepreneurship development both at the national level and local levels by providing the right support and resources in anticipation of expansion and job creation (Nielsen, 2016; Palamida et al., 2017). Since microcredit is an enabler of entrepreneurial activities among SMEs in Ghana, this study postulates that there is a positive relationship between microcredit provided by MFIs and owner household wellbeing growth among SMEs. The hypotheses are therefore presented below.

##### ***3.1.1 Loan Amount and Borrower's Household Wellbeing Among SMEs***

SMEs experience under-financing difficulties that inhibit their ability to expand their operations which prevents them from expansion and engaging more employees (Islam et al., 2015). It has

also been argued that due to the high attrition rate of SMEs in developing countries, lenders do not extend the amount of loan which is needed to drive the SME businesses adequately (Dahl and Sorenson, 2012; Donou-Adonsoua and Sylwester, 2016). Consequently, most SMEs borrow from multiple sources due to the inadequacy of the loans received from their principal institutions (Baklouti and Abdelfettah, 2013). Similarly, financial institutions in Ghana usually cite inadequate borrower identification, poor attitude toward credit, and poor loan recovery mechanisms as reasons for denying SMEs of adequate loans for business expansion purposes (Kwakyi, 2012). Loan adequacy for SMEs in Ghana has been an issue of great concern for the growth of the sector. However, due to the risky nature and the poor survival rate of SMEs in Ghana, most financial institutions are hesitant to offer loans that could adequately meet their financial and expansion needs. However, Ayayi (2012) suggests that financial institutions should use pro-poor credit risk management methods such as the provision of managerial training, regular loan monitoring, and group lending to manage such risks associated with SMEs. These strategies could provide some level of cushion and confidence to financial institutions to extend the needed credit to SMEs. Based on the above discussion and evidence in the literature, the study hypothesised as follows:

*H1: Loan amount (LA) is positively related to the borrower's household wellbeing in Ghana.*

### ***3.1.2 The Cost of Credit and Borrower's Household Wellbeing among SMEs***

Comparatively, SMEs face more financial constraints since they usually have insufficient equity to boost their operations (Hoque et al. 2016). These researchers further argue that small firms finance more than 50% of their operations through expensive lines of credit that might harm their profitability. Therefore, the cost of credit is regarded as one of the important factors militating against the smooth operation of SMEs in Africa (Fatoki and Odeyemi, 2010). Indeed, the cost of credit is considered one of the most important factors that negatively affect the operation and profitability of SMEs and the promotion of an inclusive financial system in Ghana (Egyir, 2010). Indications from the World Competitive Index reports and the various surveys conducted by the Ghana Association of Industries show that the cost of credit has persistently been high and this has been considered the main obstacle to investment and economic growth (Kwakyi, 2012). This high cost of borrowing is attributed to the competitive borrowing by the central government and other structural inefficiencies in the banking industry. SME owners in Ghana, therefore, borrow at a high cost, which increases their operational costs and in effect affects their profitability (Abor & Quartey, 2010). In developing entrepreneurial opportunities as part of the attempts to stimulate the economy to generate more income and employment in Ghana. Further, commercial banks and other MFIs need to be regulated by the Central Bank of Ghana in such a way that the cost of credit does not undermine the growth of SMEs in their attempt to instigate economic growth. Based on the above discussion and the evidence in the literature, the study hypothesised as follows:

*H2: Loan cost (LC) is negatively related to borrowers' household wellbeing in Ghana.*

### ***3.1.3 The Flexibility of Loan Repayment and Borrower's Household Wellbeing among SMEs***



The evidence in the literature contends that the lack of flexibility in loan product design is one of the most important issues affecting financial inclusiveness in developing countries (Adomako et al., 2015). SMEs, especially the start-ups that have access to microcredit with flexible loan repayment conditions perform better in revenue generation, job creation and other outcomes compared to those without (Duan et al., 2009). It is, however, important to underscore that it is generally expensive, particularly, for new and young SMEs to access bank credit as a result of information asymmetry challenges and prohibitive credit terms (Osano and Languitane, 2016). When the loans are eventually accessed through various frustrations, the lack of flexibility of loan repayment terms is highlighted as a critical limitation to SMEs' growth and expansion to promote consumption smoothing which is a key factor of borrower household wellbeing improvement in Ghana. Unarguably, the structuring of MC to SMEs in Ghana appears to have been skewed against them which eventually results in repayment difficulties. Consequently, it is expected that MFIs would design appropriate financial products that meet the unique expectations of SMEs in connection with interest rates, repayment schedules, loan administration and even the loan approval process (Meyer, 2002). Therefore, the study argues for the urgent need for a holistic effort at reducing the above limitations by all stakeholders. This intervention could promote a better appreciation of the crucial role of the SME sector and the utmost repositioning of the SMEs through adequate financing with friendlier repayment options. This development has the potential to positively impact borrowers' household well-being (Armendariz and Labie, 2011). Based on the above discussion and the evidence in the literature, the study hypothesised as follows:

***H3: The flexibility of loan repayment (FLR) method is positively related to borrowers' household wellbeing in Ghana.***

### ***3.1.4 Loan Accessibility and Borrower's household Wellbeing among SMEs***

Prior research revealed that flexible access to microcredit improves borrower's standard of living by ensuring a consistent income that results in beneficiary households accelerating their consumption of non-durable and durable products that invokes further reinvestments of microenterprises leading to a significant reduction in their poverty levels (Haag & Henschel, 2016). Conversely, flexible access to timely and adequate credit from the formal and informal financial sectors remains a challenge to SME owners in Ghana (Laetitia et al., 2015) thus limiting them from engaging in profitable income-generating activities with a wellbeing outcome at both the enterprise and household levels (Naegels et al., 2017). It is equally important to note that the literature is replete with enormous strategies that could be deployed to counter the fears of MFIs in granting loans to the SME sector. Amongst them is the adoption of pro-poor credit risk management methods such as group lending, the provision of entrepreneurial training and regular loan monitoring (Kaicer and Aboulaich, 2014) to manage the risks associated with SMEs, as well as the use of lending technologies critical to ensuring easy access to adequate finance for businesses, including SMEs (Berger and Black, 2011; Motta and Sharma, 2019). To counter the challenge of accessibility to funding by SMEs in Ghana, Kwakyi (2012) notes that a direct governmental initiative that fosters the creation of a special-purpose funding vehicle exclusively to support SMEs to grow should be instituted. This development has a greater chance of promoting borrower wellbeing maximisation. The study, therefore, argues that creating the enabling environments in terms of easy access to MC for SMEs, particularly to younger firms at flexible terms could positively impact the borrowers' household wellbeing, which facilitates general

economic growth (Adomako et al., 2015). Based on the above discussions and findings from the literature, the below hypothesis is proposed:

***H4: Loan accessibility is positively related to borrowers' household wellbeing in Ghana.***

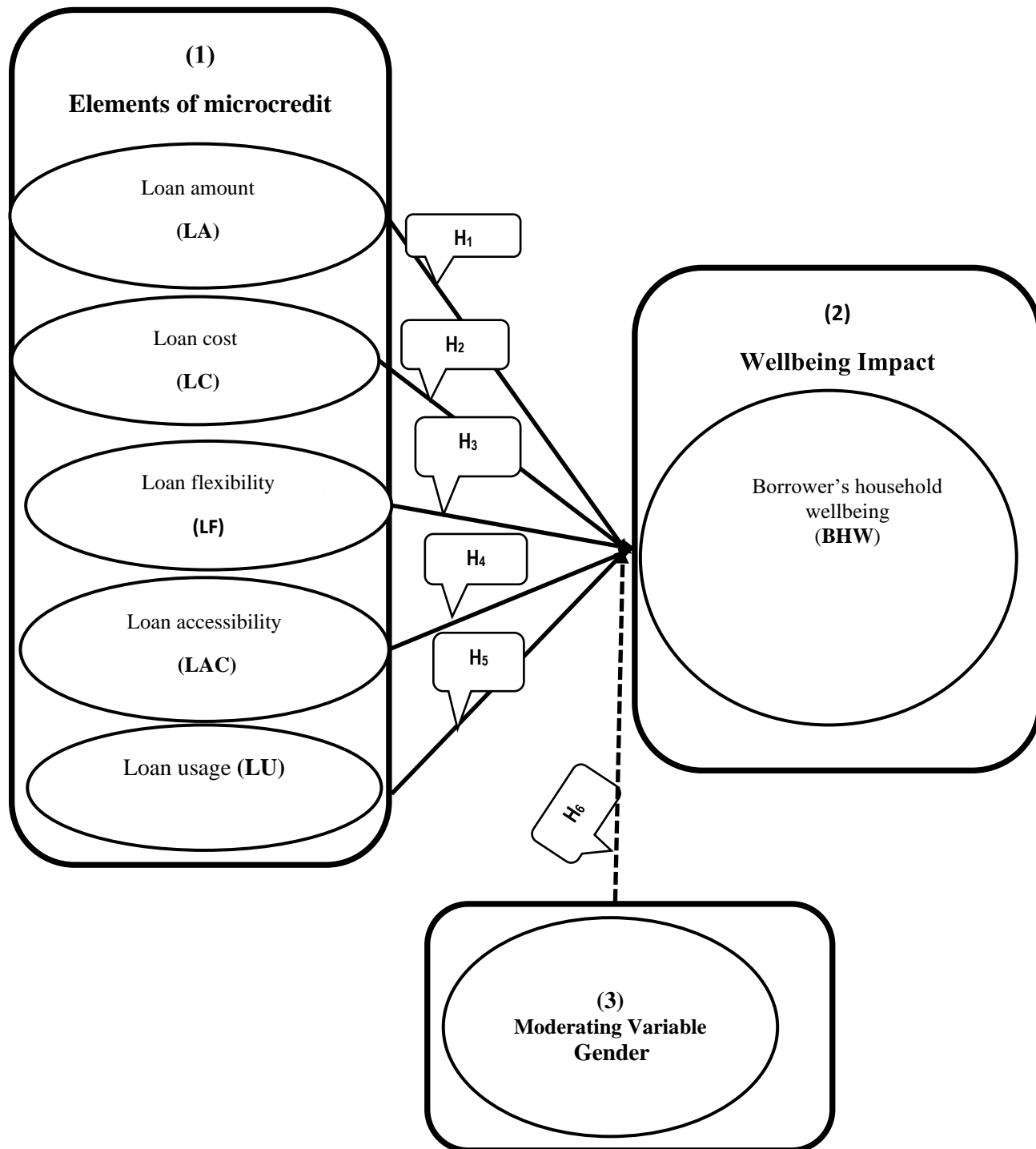
***H5: Gender positively moderates the relationship between loan accessibility and borrowers' household wellbeing in Ghana.***

### ***3.1.5 Loan Usage and Borrowers' Household Wellbeing in Ghana.***

In essence, when the SMEs that are largely vulnerable obtain loans and invest them in productive economic activities such as expansion, diversification or creation of new business lines, it enhances their productivity and reduces costs resulting in the improvement in the wellbeing of their households (Rooyen et al., 2012). It is imperative to emphasise that the frequency of access to bigger loan sizes by SMEs also promotes experience in the utilization of loans and efficient management of businesses with resultant superior business performance (Bashar and Rashid, 2012). Similarly, sustained savings accumulated over time facilitates consumption smoothing of physical goods as well as social services which goes a long way to lessen their vulnerability to income and consumption shocks (Bashar and Rashid, 2012; Imai et al., 2010). In sharp contrast, SME clients who are generally vulnerable in developing countries can only access small loans as a result of the small size of their businesses coupled with their low levels of skills, education and business experience which potentially inhibit their capacity to make critical and sound decisions of the credit accessed from MFIs. Consonant with the theory of interest, these vulnerable SMEs are unable to invest these loans in activities which generate lower net operating incomes than their loan instalments, and thus militate against their ability to make more income from sales which can be reinvested in more economic assets and savings. Consequently, meeting scheduled loan instalment repayment implies a fall in consumption and asset formation. More so, SME loan repayments in developing countries are largely sourced from borrowings with prohibitive terms that ensnare them in a vicious cycle of debt (Chavan and Ramakumar 2002), thus pushing them profoundly into the quagmire of abject poverty (Ishengoma and Mbwilo, 2009). Invariably, weekly loan repayment associated with the group loans sourced from borrowing could justify the negative correlation between the loan tenor and business income and the borrower's household well-being (Nanor, 2008). Based on the above discussions and findings from the literature, the below hypothesis is proposed:

***H6: Loan usage is positively related to borrowers' household wellbeing in Ghana.***

Based on the above discussions and findings from the literature and the critical role of microcredit to SMEs, the below conceptual framework is proposed in line with the hypotheses enumerated above hypothesis is proposed:



**Figure 1 The hypothesised framework for the impact of microcredit on borrowers' household wellbeing in Ghana.**

## **4. Research Context and Method**

### ***4.1 Sample and Data Sources***

This study adopted a case study design with a survey of five years ranging between 2015–2020 and collected data from a total of 455 out of 632 SME managers and owners selected from a total population of 2800 sampled in December 2020. These SME managers and owners are currently with their MFIs and have been consistent microcredit beneficiaries for at least three years and are actively engaged in the dominant SME sectors including general trading, food joints and restaurant, general services, education, and transport and distribution amongst others. The study identified four strata (4 sub-metros) from which the respondents were selected using a stratified random sampling technique (Lapko and Lapko, 2014). From the 632 paper-based questionnaires executed in the data collection process on the measurement items and the constructs on microcredit and borrower's household wellbeing, 455 were correctly completed and recovered, and thus generated a response rate of 71.993 per cent. It must be noted that the commitment of the SME leaders, otherwise christened as market queens and kings as well as the leaders of the SMEs in the various strata in influencing their colleagues to cooperate with the data collection contributed to the high response rate achieved.

The first set of data measures five independent variables namely loan amount (LA), loan cost (LOC), loan repayment flexibility (LRF), loan accessibility (LAC), and loan usage (LU). The second set of data measures one dependent variable namely SME borrower's household wellbeing. Finally, the third set of data measures individual-specific characteristics of the 455 participants used as moderating variable namely gender (G). Microcredit is measured in terms of adequacy of the loan amount, and cost of loan acquisition in terms of charges, while loan flexibility is measured on the basis of the terms of the loan in relation to ease of loan repayment schedule, amount, and accessibility of payment location. Loan accessibility is measured on the basis of adequate and reliable loan information, timely approval, and loan documentation amongst others. Borrower's household wellbeing is measured in terms of balanced nutrition, decent accommodation, affordability of basic education, accessibility to water and sanitation as well as the acquisition of household assets.

Demographic and firm-specific characteristics have also been measured. The demographic item considered most important to this study is the gender of the SME managers and owners. From a business profile perspective, the category of businesses measured trading, construction, manufacturing, education, and transport and distribution among others. More so, the age of business was also measured.

**Table I: SMEs sampled profile**

<b>Age of SME owner</b>	<b>Frequency</b>	<b>percent</b>
Male	211	46.4
Female	244	53.6
Total	455	100

<b>Category of business</b>	<b>Frequency</b>	<b>percent</b>
General services	69	15.2
Trading	386	84.8
Total	455	100

<b>Age of business</b>	<b>Frequency</b>	<b>percent</b>
11-15	87	19.1
More than 15	368	80.9
Total	455	100

## **4.2 Constructs and Measures**

### **4.2.1 Dependent Variable**

The dependent variable which is the SME borrower's household wellbeing is employed to measure the basic standards of living outcomes of developing as well as developed countries. For example, according to the 2014 Ghana Living Standard Survey, almost all the peripheral districts in Ghana have a higher incidence of poverty above the national average of 24.2% (Adjasi and Osei, 2007). Therefore, this measure has been adopted consistently in many studies to measure the standards of living of a country (Boateng and Boateng, 2014; Agbola, Acupan and Mahmood, 2017) which situates this study in the context of other similar studies. Specifically, nine (items) were measured comprising affordability of an adequate balanced diet, affordability of quality healthcare, affordability of decent rental or owned accommodation, affordability of clean water and sanitation, affordability of household chattels and short to medium-term investments and durable assets, and less dependence on spouses as well as affordability of contribution towards social events amongst others. These items were measured to test whether the microcredit delivered by the MFIs over the five years has improved the SME borrower's household wellbeing in the above-identified indicators. The above metrics were assessed on a five (5) point Linkert scale rated on strongly disagree (1) and strongly agree (5).

### **4.2.2 Independent Variables**

The independent variables are based on five (5) selected proxies used to assess microcredit which includes loan amount(LA), loan cost (LC), loan repayment flexibility (LRF), loan accessibility (LAC), and loan usage (LU). The measure of the status of SMEs and the wellbeing of their households estimates in SSA are generated by the various global indexes based on multi-dimensional frameworks. These frameworks consistently track the quality and extent of microcredit delivery to SMEs in various countries to generate comprehensive data on

microenterprise finance to guide evidence-based policymaking. Similar studies including Atiase and Dzansi (2014), Kersten et al, (2017), and Quartey et al. (2017) have used similar variables. These variables form part of the elements of microcredit assessments globally adopted to measure the performance of MFIs and their impact on SME borrowers' household wellbeing. First, the loan amount was assessed using five (5) items namely sufficiency of the loan amount, SME borrower satisfaction of the loan amount received, a significant reduction in loan amount granted, sizeable loan amount granted than requested, and non-consideration of the size of business in loan amount approved and granted. Second, the loan cost was also measured on five (5) items representing affordability of loan interest charged, bearable processing fees, reasonability of loan deposit as collateral, affordability of physical loan collaterals as well as reasonability of loan processing costs. Third, loan accessibility has equally been assessed on five (5) items detailing the adequacy of information on available lending MFIs and their locations, the flexibility of loan application processes, accessibility of loan documentation, flexible channels of communication, and timely approval of loan requests. More so, loan repayment flexibility has also been assessed on five (5) items including enjoyment of grace period, the flexibility of repayment schedule, affordability of repayment amount and convenience of loan duration, as well as low-cost accessibility of repayment location. Lastly, loan usage was also measured on five (5) items representing purchases of raw materials, purchases of fixed assets, payment of rent, payment of employee salaries, and the payment of other debts.

#### **4.2.3 Description of Moderating Variable**

The study adopted the gender of the 455 participants as a moderating factor of the loan accessibility variable that influences borrowers' household well-being. Invariably, gender is included in the model because females are more dominant in the SME sector and directly have the potential to influence SME borrowers' household wellbeing in Ghana. For instance, D'espallier et al. (2011) posited that 73% of microcredit clients are females, and thus improved access to microcredit empowers women by creating avenues for employment with its resultant improvement in the wellbeing of their households (Addai, 2017). Based on these developments, it is expected that an increase in borrowers' household wellbeing can be achieved through flexible access to quality microcredit financing by women in Ghana (Chowdhury and Chowdhury (2011). The SMEs were categorised into male (1) and female (2).

**Table 1: Variable Definition**

<b>Variable</b>	<b>Variable Specification</b>	<b>Description</b>	<b>Measurement Scale</b>
Borrower's Household Wellbeing (BHW)	Dependent Variable	The availability of basic and decent necessities of life	Linkert scale: completely disagree to completely agree
Loan Amount	Independent Variable	The availability of adequate loan sizes	Linkert scale: completely disagree to completely agree
Loan Cost	Independent Variable	The charges associated with accessing the loan	Linkert scale: completely false to completely true

Loan Flexibility	Independent Variable	The ease and conditions of loan access	Linkert scale: completely disagree to completely agree
Loan Accessibility	Independent Variable	The willingness of MFIs to grant loans and incidental costs of access	Linkert scale: completely disagree to completely agree
Loan Usage	Independent Variable	The use to which the approved amount was put	Linkert scale: completely disagree to completely agree

## 5 Data Analysis and Results

The Smart Partial Least Square 3 Structural Equation Modelling (PLS-SEM) software was deployed by the study to test the ability of the structural model proposed to predict and test the various hypotheses. Invariably, complex cause-effect relationships are better simplified and explained in contemporary management studies (Hair, Sarstedt, Pieper, and Ringle, 2012) by the Smart Partial Least Square 3 Structural Equation Modelling (PLS-SEM) software. Specifically, structural factors were solely measured for model fit and PLS algorithm indicators. To ensure the quality robustness of the study, many tests including algorithms and bootstrapping were conducted to examine the model fit, composite, construct, convergent (AVE) and discriminant validities, Cronbach alpha test of measurement reliability, latent variable correlations, collinearity diagnostics and the coefficient determination ( $R^2$ ) and factor loadings. The study similarly tested the hypotheses formulated by conducting a path analysis.

### 5.1 Descriptive Statistics and Correlations

Table I below depicts the descriptive statistics illustrating the sample's mean, skewness, kurtosis, standard deviation as well as median. A careful analysis of the statistics suggests a normal standard distribution with zero (0) mean values coupled with a standard deviation of 1, thus highlighting an acceptable central tendency associated with normality. A critical anal of the data suggests that the data is neither positively nor negatively skewed as the values fall within 2.0 and -2.0. Similarly, wellbeing obtained the highest kurtosis of 0.792 while the lowest kurtosis was recorded by loan amount with a value of -0.545 which fall within the normal boundaries and thus demonstrates the non-existence of outliers in the distribution of the values (Hair et al., 2019). thus demonstrating no contribution to borrowers' household well-being in Ghana. The indication is that the dependent variable shows an acceptable central tendency by the minimum and maximum values observed. A critical observation of the skewness of the data depicts that the data is neither positively nor negatively skewed with a range between 1.510 and -0.622. More so, the results show that the variable with the highest kurtosis is loan usage (1.510) while gender (-0.545) obtained the lowest kurtosis which indicates that all the variables lie within normal boundaries with no outliers (non-normality) in the distribution (Hair, Sarstedt, Pieper, and Ringle, 2012).

**Table II: Descriptive Statistics**

	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness	Number of Observations Used
<b>GENDER</b>	.000	.930	-1.075	.930	1.000	-1.987	-.146	455.000
<b>LACCESS</b>	.000	.118	-3.034	1.764	1.000	.079	-.622	455.000
<b>LAMOUNT</b>	.000	.179	-2.743	2.097	1.000	-.545	-.465	455.000
<b>LCOST</b>	.000	.145	-2.399	1.825	1.000	-.353	-.476	455.000
<b>LFLEX</b>	.000	.298	-2.534	1.570	1.000	-.363	-.564	455.000
<b>LUSAGE</b>	.000	-.385	-.793	3.205	1.000	1.562	1.510	455.000
<b>WELLBEING</b>	.000	.246	-2.916	1.468	1.000	.792	-.869	455.000

Table III below illustrates the results of the correlation analysis that depicts that the dependent variable (SME borrower's household wellbeing) positively correlates with loan accessibility ( $r=0.551$ ), loan amount ( $r=0.183$ ), loan cost ( $r=0.504$ ), loan flexibility ( $r=0.533$ ) and loan use ( $r=0.355$ ) but correlates negatively with gender ( $r=-0.036$ ). More so, intercorrelations were exhibited within the independent variables. Loan flexibility, for instance, correlates positively with loan accessibility ( $r=0.754$ ), loan amount ( $r=0.145$ ) and loan cost ( $r=0.816$ ) but correlates negatively with gender. Similarly, loan usage has a positive correlation with loan accessibility ( $r = 0.372$ ), loan ( $r = 0.189$ ), loan cost ( $r = 0.370$ ) and loan flexibility ( $r = 0.311$ ) but negatively correlates with gender. Lastly, loan amount positively correlates positively with loan accessibility ( $r = 0.137$ ) but correlates negatively with gender while loan cost has a positive correlation with loan accessibility ( $r = 0.770$ ) but correlates negatively with gender.

**Table III: Latent Variable Correlations**

	GENDER	LACCESS	LAMOUNT	LCOST	LFLEX	LUSAGE	WELLBEING
<b>GENDER</b>	1.000						
<b>LACCESS</b>	-.092	1.000					
<b>LAMOUNT</b>	-.066	.137	1.000				
<b>LCOST</b>	-.085	.770	.134	1.000			
<b>LFLEX</b>	-.053	.754	.145	.816	1.000		
<b>LUSAGE</b>	-.140	.372	.189	.370	.311	1.000	
<b>WELLBEING</b>	-.036	.511	.183	.504	.533	.355	1.000

### Reliability and Validity Measurement Model

The model used to assess the relationship between the constructs and their indicators refers to the measurement model. Various tests were executed to examine the reliability, validity and fitness of the model. These include the Cronbach alpha test, discriminant validity, composite reliability, average variance extracted (AVE) and RhoA amongst others.



## Model Reliability

The study executed the composite factor analysis (CFA) to assess the internal consistency of the model of measurement. Indications with low factor loadings (<0.6), indicating internal inconsistency had to be removed (Gefen and Straub, 2005). It is important to indicate that all the factor loadings have met the standard rating of 0.70 Cronbach alpha test internal consistency or reliability as depicted in Table VI. Similarly, an assessment of the composite reliability suggests that all the latent constructs had met the threshold of 0.70 as demonstrated in Table VI. Similarly, the divergent and discriminant validity tests were conducted to test the validity of the model. The average variance extracted (AVE) was employed to assess convergent validity which has an acceptable threshold of 0.50 (Hair et al, 2019). The results in Table IV demonstrate that all the constructs have convergent validity.

## Discriminant Validity

An assessment of the structural model was equally executed by four main discriminant validity tests, which include Variance Inflation Factor (VIF), cross-loadings, Fornell-Larcker Criterion, and Heterotrait-Monotrait Ratio (HTMT). The results of the cross-loadings show that all the variables have loaded satisfactorily such that the entire factor loadings are higher than the cross-loading thus suggesting the existence of discriminant validity. Further, the HTMT values observed indicate that they fell below the standard maximum 0.85 thresholds, thus exhibiting discriminant validity of the model (Benitez et al., 2020). More so, the results show the entire VIF values falling below the recommended threshold of 5 demonstrating the non-existence of multicollinearity challenges. Lastly, a model obtains discriminant validity when the latent variables' square root of the AVE is higher than the inter-construct correlations (Fornell and Larcker, 1981). The results of the Fornell-Larcker Criterion amply demonstrate this phenomenon in Table IV below.

**Table IV Construct Reliability and Validity**

	<b>Cronbach's Alpha</b>	<b>RhoA</b>	<b>Composite Reliability</b>	<b>Average Variance Extracted (AVE)</b>	<b>P-values</b>
<b>GENDER</b>	1.000	1.000	1.000	1.000	.432
<b>WELLBEING</b>	.936	.954	.947	.671	
<b>LACCESS</b>	.736	.783	.819	.480	.018
<b>LAMOUNT</b>	-1.125	-.172	.232	.223	.122
<b>LCOST</b>	.821	.879	.867	.540	.328
<b>LFLEX</b>	.812	.873	.866	.584	.000
<b>LUSAGE</b>	-.145	.462	.431	.264	0.00

**Table V: Discriminant Validity Test by Cross Loadings**

	<b>GENDER</b>	<b>LACCESS</b>	<b>LAMOUNT</b>	<b>LCOST</b>	<b>LFLEX</b>	<b>LUSAGE</b>
<b>LACCESS2</b>	-.127	.790	.194	.660	.627	.418
<b>LACCESS3</b>	-.068	.648	.050	.459	.484	.060
<b>LACCESS4</b>	-.014	.781	.120	.607	.570	.344
<b>LACCESS5</b>	-.005	.496	.003	.394	.465	-.102
<b>LACCESS1</b>	-.061	.710	.017	.493	.468	.318
<b>LAMOUNT1</b>	-.057	-.170	.012	-.223	-.280	.347
<b>LAMOUNT2</b>	.077	.199	.037	.238	.300	-.347
<b>LAMOUNT3</b>	-.096	-.035	.466	-.080	-.155	.400
<b>LAMOUNT4</b>	.051	.120	-.322	.117	.139	-.221
<b>LAMOUNT5</b>	-.059	.081	.891	.077	.104	.177
<b>LCOST1</b>	-.017	.363	-.024	.494	.505	-.105
<b>LCOST2</b>	-.148	.666	.180	.790	.589	.506
<b>LCOST3</b>	-.023	.665	.091	.885	.733	.257
<b>LCOST4</b>	-.013	.303	-.112	.373	.372	-.280
<b>LCOST5</b>	-.106	.664	.179	.828	.623	.461
<b>LCOST6</b>	-.040	.623	.091	.873	.733	.282
<b>LFELX1</b>	.104	.177	-.270	.234	.302	-.296
<b>LFLEX2</b>	-.020	.563	.086	.647	.826	.127
<b>LFLEX3</b>	-.076	.692	.105	.799	.890	.336
<b>LFLEX4</b>	-.021	.639	.130	.667	.886	.235
<b>LFLEX5</b>	-.058	.632	.175	.613	.754	.335
<b>LUSAGE1</b>	.088	.038	-.018	.049	.043	-.091
<b>LUSAGE2</b>	-.100	.060	-.108	.046	.044	.094
<b>LUSAGE3</b>	-.092	.365	.188	.387	.296	.863
<b>LUSAGE4</b>	-.138	.200	.170	.175	.171	.744
<b>LUSAGE5</b>	.055	.090	-.147	.069	.113	.059
<b>WELLB1</b>	-.044	.459	.153	.495	.504	.373
<b>WELLB2</b>	-.026	.462	.122	.460	.469	.359
<b>WELLB3</b>	-.024	.387	.182	.383	.464	.172
<b>WELLB4</b>	-.044	.435	.112	.427	.459	.287
<b>WELLB5</b>	-.002	.488	.205	.480	.499	.303
<b>WELLB6</b>	.032	.356	.169	.330	.391	.176
<b>WELLB7</b>	-.060	.107	.055	.113	.140	.063
<b>WELLB8</b>	-.085	.456	.139	.410	.463	.327
<b>WELLB9</b>	-.033	.456	.177	.455	.409	.402
<b>GENDER</b>	1.000	-.092	-.066	-.085	-.053	-.140

<b>GENDER * LACCESS2</b>	.019	.072	-.020	.111	.051	.011
<b>GENDER * LACCESS3</b>	.010	-.021	-.087	.002	-.004	-.069
<b>GENDER * LACCESS4</b>	.002	.057	.011	.120	.116	.025
<b>GENDER * LACCESS5</b>	.001	.035	-.074	.046	.051	.039
<b>GENDER * LACCESS1</b>	.009	.033	-.032	.062	.038	-.015
<b>LFLEX</b>	-.053	.754	.145	.816	1.000	
<b>LUSAGE</b>	-.140	.372	.189	.370	.311	1.000
<b>WELLBEING</b>	-.036	.511	.183	.504	.533	.355

**Table VI: Discriminant Validity Test by Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio**

	VIF	Fornell-Larcker criterion							Heterotrait-Monotrait Ratio (HTMT)						
		GENDER	LACCESS	LAMOUNT	LCOST	LFLEX	LUSAGE	WELLBEING	GENDER	LACCESS	LAMOUNT	LCOST	LFLEX	LUSAGE	WELLBEING
<b>GENDER</b>	<b>1.025</b>	1.000													
<b>LACCESS</b>	<b>2.851</b>	-.092	.693						<b>.091</b>						
<b>LAMOUNT</b>	<b>1.057</b>	-.066	.137	.472					<b>.104</b>	<b>.401</b>					
<b>LCOST</b>	3.667	-.085	.770	.134	.735				<b>.088</b>	<b>.977</b>	<b>.520</b>				
<b>LFLEX</b>	3.408	-.053	.754	.145	.816	.764			<b>.082</b>	<b>.950</b>	<b>.521</b>	<b>.993</b>			
<b>LUSAGE</b>	<b>1.013</b>	-.140	.372	.189	.370	.311	.513		<b>.270</b>	<b>.518</b>	<b>.681</b>	<b>.581</b>	<b>.539</b>		
<b>WELLBEING</b>	-	-.036	.511	.183	.504	.533	.355	.819	<b>.049</b>	<b>.559</b>	<b>.168</b>	<b>.528</b>	<b>.548</b>	<b>.424</b>	.819
<b>SRMR</b>	0.151														
<b>Chi-Square</b>	5120.087														
<b>NFI</b>	0.558														

**Path analysis of the structural model**

In appreciating the type of relationship existing amongst the structural model, the direct and indirect (moderated) effects were assessed with the path analysis as depicted in Table VI. The components of this table are the t-statistics, the model fit indicators, path coefficients, standard deviations, the R<sup>2</sup> and p-values. Further, the structural (inner model), as well as the measurement model (outer model), are pictorially depicted in the figure below illustrating the correlations between the explanatory constructs and the outcome variables and that of the explanatory constructs and their indicators (GENDER, LACCESS, LAMOUNT, LCOST, LFLEX, LUSAGE, WELLBEING). A careful observation of the results indicates a strong fit with a Standardized Root Mean Square Residual (SRMR) of 0.151, slightly above the threshold of 0.08. Nonetheless, the chi-square (5120.087) also falls below the standard threshold of 0.05 significance, thus suggesting a strong model fit for predicting SME borrowers’ household wellbeing (Alavi et al., 2020).

## Path Analysis of the Impact of Microcredit on Borrower's Household Wellbeing

	Hypotheses	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
LAMOUNT -> WELLBEING	H1	.075	.084	.049	1.549	.122
LCOST -> WELLBEING	H2	.068	.072	.070	.978	.328
LFLEX -> WELLBEING	H3	.286	.284	.067	4.276	.000
LACCESS -> WELLBEING	H4	.172	.173	.073	2.379	.018
GENDER -> WELLBEING	H5	.029	.029	.037	.785	.432
LUSAGE -> WELLBEING	H6	.164	.168	.039	4.155	.000
Predictive power of the model		R <sup>2</sup>	Adjusted R <sup>2</sup>	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
GENDER		0.349	0.339	.037	.785	.432
WELLBEING		-.040	-.049	.063	.645	.519

The path analysis in Table VII below indicates that loan flexibility, loan usage and loan accessibility and SME borrower household wellbeing (LFLEX →WELLBEING  $p = 0.000$ ,  $\beta = 0.286$ ), and (LUSAGE → WELLBEING  $p = 0.000$ ,  $\beta = 0.164$ ) and LACCESS →WELLBEING  $p = 0.018$ ,  $\beta = 0.172$ , are statistically significant at 1 per cent. Therefore, a unit increase in loan payment flexibility loan usage and loan accessibility would increase SME borrower household wellbeing by 28.6 per cent, 16.4 per cent and 17.2 per cent respectively. Thus, H3, H4, and H6 are supported. More so, H1, H2 and H5 were to evaluate whether loan amount and loan cost has a significant impact on borrowers' household wellbeing. The findings show that loan amount (LAMOUNT →WELLBEING  $p = 0.122$ ,  $\beta = 0.075$ ), (LCOST → WELLBEING  $p = 0.328$ ,  $\beta = 0.068$ ) GENDER → WELLBEING  $p = 0.432$ ,  $\beta = 0.029$ ) and SME borrower household is statistically insignificantly. This study has found no indication of a significant contribution of the loan cost, loan amount, and gender to borrowers' household well-being in Ghana. Therefore, hypotheses H1, H2 and H5 are rejected.

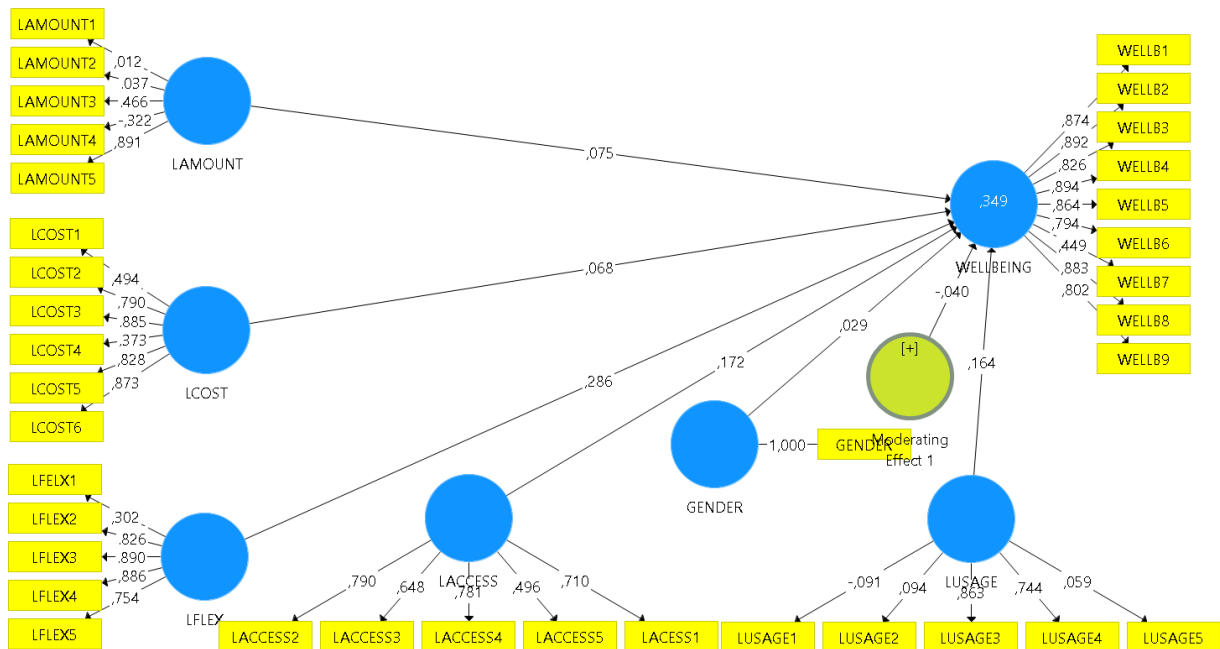
### Moderation Analysis and Structural Model's Predictive Power.

Invariably, the moderating role of gender between loan accessibility and SME borrowers' household wellbeing (indirect effect), as depicted in Table VII demonstrates that gender is not statistically significant (GENDER → WELLBEING  $p = 0.432$ ,  $\beta = 0.029$ ). The result inferred that there is no moderation. H5 is, therefore, rejected. Further, a significant measure of the total fitness and the predictive power of the structural model is determined by the R<sup>2</sup> and the adjusted <sup>2</sup> values. As observed in Table VIII, the R<sup>2</sup> (0.349) and its adjusted <sup>2</sup> value (0.339) strongly establish the

fact that the structural model illustrates the variance in SME borrower’s household wellbeing by 34.9 per cent.

**Table VIII: Moderating Analysis**

Hypothesis	Specific Indirect effects		
	Coefficient	t-values	p-values
H5: GENDER → WELLBEING	-.040	.645	.519



**Fig II: The Structural Model for the Impact of Microcredit on SME Borrower’s Household Wellbeing**

## 6. Discussion

Foremost, *HI* sets out to examine the relationship between the loan amount and SME borrowers’ household wellbeing in Ghana. The result established that loan amount (LAMOUNT → WELLBEING  $p = 0.122$ ,  $\beta = 0.075$ ) is statistically insignificant in explaining SME borrowers’ household wellbeing. This finding is consistent with Atmanja et al. (2016) who established a negative relationship between microloan and SME performance in terms of profit

with its negative impact on SME owners' household wellbeing. These researchers attributed this finding to possibly low level of entrepreneurial skills of micro-entrepreneurs whose engagement in economic activities is largely propelled by necessity as opposed to opportunity identification and thorough analysis. They further guessed that poor SWOT analysis (strength, weaknesses, opportunities, and threats) results in engagement in economic activities that lead to the flooding of the market with existing consumer products and services where supply exceeds demand with an attendant glut leading to lower prices and sometimes spoilage and significant losses (Bateman and Chang, 2012).

Similarly, the result is consistent with the position of other studies that argued that, as a result of the high attrition rate of SMEs in developing countries, lenders are hesitant in advancing bigger loan amounts needed to positively drive the SME's performance and impact their wellbeing (Åstebro, Herz, Nanda, and Weber, 2014; Dahl and Sorenson, 2012). More so, since alternate financing opportunities are relatively non-existent, SMEs simply have no choice but to accept whatever loan amounts have granted them by the few MFIs who are willing to accommodate their funding needs. More so, the result is inconsistent with Atiase et al (2019) who asserted that adequate loan amounts positively impact SME growth resulting in improved wellbeing of the owner's household. It is expected that the MFIs and other stakeholders will rather focus on the improvement in basic managerial and selling education which promotes efficient management of whatever loan amounts are accessed by SMEs in their operations to enhance modest profitability and expansion with its resultant improvement in the wellbeing of their households.

Secondly, *H2* evaluates the negative correlation between loan cost and SME borrowers' household well-being.

The result indicates that loan cost is insignificant in predicting SME borrowers' household wellbeing ( $LCOST \rightarrow WELLBEING$   $p = 0.328$ ,  $\beta = 0.068$ ). The findings further suggest that loan cost has no impact on SME borrowers' household well-being in Ghana. The above result is, however, inconsistent with documented evidence that microcredit in Ghana is expensive and affects the SME's ability to generate more sales, improve their profitability and create more employment which could result in improved borrowers' household wellbeing (Jahiruddin et al., 2011). The findings in the study further invalidate the proposition that the cost of credit negatively affects sales and profitability of SMEs and the promotion of an inclusive financial system (Kwakyi, 2012). Credit cost in Ghana comprises high transaction costs which are further broken down into exceptionally high transportation costs and time spent on following up on the loan application, the interest, and processing fees which ultimately increases the cost of access to credit (Rokhim et al., 2016). The above finding could be attributed to the low level of financial education of the vast majority of SME customers who are highly ignorant of the costs embedded in loan pricing (Kersten et al., 2017). Indeed, Ghanaian small business owners appear to be interested in only the monthly combined principal and interest as opposed to a thorough analysis of loan conditions that financially enlightened SMEs subject to loan approval documentation. Indeed, it has been observed that the number of financially literate SME owners is few in the SME space in Ghana. The result, therefore, implies that SMEs in Ghana does not need any special initiatives to build entrepreneurial opportunities to generate increased sales and profits through access to affordable and bearable credit with adequate support systems as postulated by (Ghosh and Tassel, 2013). Similarly, the results imply that the current cost of lending to SMEs should not be varied by the adoption of any innovative mechanisms such as the improvement in lending infrastructure and relationship banking (Shirokova and Tsukanova, 2013). The expectation is that the

deployment of programmes that combine finance, particularly grants, and effective policy and institutional support specifically in business training of vulnerable SMEs to develop basic skills in analysing the implications of expensive debt financing options which would go a long way to reduce their extinction that is largely attributed to losses culminating in loan default which eventually exacerbate their households' wellbeing (Bandiera et al., 2013).

Thirdly, designing and deploying flexible loan products for vulnerable SMEs promotes improved performance leading to improved borrower household wellbeing. The third hypothesis (*H3*) in connection with the loan repayment flexibility is statistically significant in predicting and explaining SME borrowers' household wellbeing. From the study results, loan repayment flexibility correlates positively with borrower household wellbeing (LFLEX →WELLBEING  $p = 0.000$ ,  $\beta = 0.286$ ), and is statistically significant at a 1% level. Thus, a unit increase in the level of loan repayment flexibility increases borrowers' household wellbeing by 28.6%. The result is consistent with the position of Armendariz and Labie (2011) that the structuring of loan repayment terms is characterised by intense repayment flexibility could impact the sales and profitability of SMEs with the resultant impact on their household wellbeing. Consistent with the above result, Meyer (2002:351) argues that deploying standardised loan products with a 'one-size fits all' loan terms and conditions could increase the prevalence of the high risk of funding vulnerable SMEs. This development has the propensity to adversely affect their growth and expansion potentials thus militating against consumption smoothening by their households which thus worsens their wellbeing. Therefore, creating suitable financial products in line with the peculiar needs of SMEs regarding interest rates, repayment schedules, and administering of loans coupled with the loan approval processes need to be consistently revised (Meyer, 2002). Reflecting the study's context, indeed, loan product flexibility has the propensity to increase microcredit patronage and thus reduce the huge dropout rates from microfinance programmes. Therefore, the expectation is that flexible loan products and repayment terms and conditions could be offered to SMEs by commercial banks and other financial institutions particularly MFIs operating in Ghana to boost their active and effective participation in economic growth and development processes that translate into improved household wellbeing.

Fourthly, the hypothesis regarding loan accessibility is statistically significant in explaining borrowers' household wellbeing (LACCESS →WELLBEING  $p = 0.018$ ,  $\beta = 0.172$ ). The finding is not surprising so far as the delivery of microcredit to SMEs in Ghana is concerned. The results imply that an efficient and effective financial system that supplies swift and flexible access to financial resources facilitates economic growth and development that trigger increased production, employment generation, as well as improved consumption smoothening which translates in the wellbeing of SME borrowers, particularly in Ghana and other poor countries where access to credit is significantly limited (Andrianova et al., 2008). On the other hand, the result is in sharp contrast with Zarook et al. (2013) who opined that there was no significant impact of access to credit on financial performance and by extension borrowers' household wellbeing in Libya's SMEs. These authors attributed other factors including social, demographic, as well as political factors to accessing credit but not on the basis of improved sales and profitability to flexible loan accessibility. Similarly, cognisance of the urgent need for reforms in bridging the financial access gap among SMEs, Kwakyi (2012) indeed argued quite strongly for direct government intervention in the establishment of a special fund purposely to support SME's growth with the resultant positive impact on poverty reduction. The anticipated effect is improved consumption of both durable and non-durable products which thus culminate in improved borrowers' household wellbeing (Banerjee, 2013, Chin and Nor, 2016; Kersten et al., 2017). Thus, it is expected that



institutional reforms could be instituted that could make loan access to SMEs quite flexible and timely which can facilitate timely investments in productive sectors.

Lastly, in connection with loan usage, the finding suggests that loan usage is statistically significant in explaining the SME borrowers' household wellbeing (LUSAGE  $\rightarrow$  WELLBEING  $p=0.000$ ,  $\beta=0.164$ ). This result is to be expected in the assessment of the delivery of microcredit and wellbeing narratives in Ghana. The usage of the microcredit accessed by the SMEs is of essence to delivering improved household wellbeing of the SME borrower. The finding is consistent with the proposition of Rooyen et al. (2012) that the investment of loans in productive economic activities, for instance, product expansion, diversification, or the creation of an entirely new business line promotes higher productivity and cost reduction which positively impact borrowers' household consumption smoothening and wellbeing. It can be gainsaid that when sizeable loans are frequently advanced to SMEs, it engenders experience in the usage of the loans which facilitates the efficient and strategic investment and management of businesses with its resultant superior business performance (Bashar and Rashid, 2012) that culminates in improved borrowers' household wellbeing. Similarly, the same authors and other researchers highlight that savings made over time that are reinvested in the business with efficient management trigger consumption smoothening in terms of tangible goods coupled with social services that reduce their vulnerability to income and consumption shocks (Imai et al., 2010). Therefore, to invoke a profound improvement in the wellbeing of the SME borrowers' households, it is expected that these borrowers are equipped with superior skills in loan usage which can promote the sustainability of their businesses and hence the household wellbeing.

## **Conclusion**

Although documentary evidence suggests the huge impact of microcredit on the SME sector generally, the link between microcredit delivery and SME borrower's household wellbeing has not been scholarly researched adequately in Sub Sahara Africa and specifically in Ghana (Amakom and Amagwu, 2020). Therefore, the context of this research is apt for the study of the linkage between SMEs and borrowers' household well-being narrative. This study demonstrates that loans delivered to SMEs could only engender improved SME borrowers' household wellbeing provided they are essentially structured to make their repayment flexible, easily accessible in terms of approval and disbursement requirements, and more importantly invested in economically productive ventures whose returns are much reasonable (Quraisy, Hamzah and Razak, 2017). The adequacy of the loan amount and loan cost has absolutely been rejected by this study as inhibiting factors to improving borrowers' household wellbeing in Ghana. It is reasonable to argue, therefore, that issues of accessibility, flexibility in repayment, and loan usage are more critical to the wellbeing of the SME borrower's household than the loan amount and cost. Explicitly, engendering institutionalized enabler in terms of loan access and training in financial literacy have higher propensities to impact SME borrower's household wellbeing.

### *Contribution to Knowledge*

Firstly, leveraging on insights from the domain of wellbeing (Diener et al., 2018; Warr, 2013) and the special context of SME development in developing countries (Baron, 2010), such as Ghana, the study advanced to the entrepreneurship research a robust framework that conceptualises the linkage between microcredit and wellbeing components. This framework could create new

opportunities for theory building by advancing an organised pathway to theorize about microcredit and SME outcomes relating to borrower's household wellbeing while admitting the complexity of SME borrower's household wellbeing as being initiated by scholars in recent reviews on wellbeing in general (Torrès and Thurik, 2019). Further, the evidence adduced in this study noted comparatively less attention to the critical constructs, microcredit, and the gender narrative that was noted in the literature to assure a vigorous improvement in the SME borrower's household wellbeing in the context of developing countries. This study, therefore, advances one of the nascent attempts at developing and testing an integrated model that links microcredit to SME borrower's household wellbeing through the moderating role of gender. Similarly, the study advances the literature on the insignificance of loan amount and loan cost as critical microcredit factors that promote SME borrower's household wellbeing.

#### *Research Implications for Policy and Practice*

This current study has implications for policy and practice. Firstly, relevant stakeholder institutions including the government, the private sector as well as donor funding agencies ought to realign their interventions to reinforce the gradual and persistent introduction of flexible loan repayment conditions which has the propensity to improve borrowers' household wellbeing in Ghana. Similarly, as it is reckoned that loan accessibility remained a daunting task for the vulnerable SMEs in Ghana, there is an urgent need to restructure and simplify loan structuring to make it more accessible through institutional support to meet a wider coverage of SMEs who face working capital challenges in Ghana. Further, a critical improvement in the usage of the microcredit accessed by SMEs in productive economic sectors through basic education and training in the rudiments of business development and strategic planning could improve sales and profit levels which would ultimately trigger consumption smoothening with its attendant improvement in the wellbeing of their households (Murshid, 2018).

#### *Research Limitations*

A few limitations to this study are noted. First, the generalisation of the findings to the entire SME space in Ghana could be inhibited as the study was conducted in a single region out of the 16 regions of Ghana. A better appreciation of the impact of microcredit factors on SME borrowers' household wellbeing would have been elicited should cross-sectional research be conducted. Nonetheless, the sample used in this study is considerably large enough to justify the generalisation of this study to entire SME performance and borrower household wellbeing in Ghana albeit with some caution. However, the validity and reliability of the research result is not significantly compromised. The second limitation is that the study suffers from the benefits of qualitative data that could corroborate or augment the results of this study. The adoption of the mixed technique could otherwise have complemented the robustness of the outcome of this study.

#### *Recommendations for Future Research*

This study proffers additional discernments on the wellbeing dimension associated with the financing of SMEs in Ghana. Therefore, future research could be directed at investigating the impact of external and donor-funded schemes on SME borrowers' household wellbeing in Ghana by focusing on a specific sector of the Ghanaian economy. The aim is to link external and donor-funded working capital to the wellbeing of SME household borrowers within particular sectors of the Ghanaian economy. Further, the future adoption of the mixed method could facilitate the

triangulation of study results of this nature to procure robust findings. Similarly, future cross-country studies could be extended to cover the entire West African sub-region.

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