Determinants of entrepreneurial small and medium enterprises performance with the interaction effect of commercial loans

Muhammad Asif Khan
School of Management, Huazhong University of Science and Technology, Wuhan, China

Asima Siddique
Department of Management Science, COMSATS University Islamabad, Islamabad, Pakistan

Zahid Sarwar
School of Business Administration, Dongbei University of Finance and Economics, Dalian, China

Le Thi Minh Huong
School of Economics, Huazhong University of Science and Technology, Wuhan, China, and

Qaiser Nadeem
Institute of Business and Management Science, University of Agriculture Peshawar, Peshawar, Pakistan

Abstract

Purpose – The purpose of this study is to investigate the interaction effect of commercial loans in between trade Credit, retain earning, and entrepreneurial small and medium enterprises (SMEs) performance.

Design/methodology/approach – In this research, the cross-sectional research design was used, and data were collected from 362 SMEs located in Pakistan by using a questionnaire. Correlation and regression analysis was adopted to establish the interaction effect of commercial loans in between trade credits, retain earning and entrepreneurial SMEs performance.

Findings – The results demonstrated that commercial loans, trade credit and retain earning have a positive relationship with entrepreneurial SMEs performance. The findings also confirmed the interaction effect of commercial loans in between retain earnings, trade credit and entrepreneurial SMEs performance.

Originality/value – The study examined the association and interaction effect of commercial loans in between retain earnings, trade credit and SMEs performance in the emerging state (Pakistan). So, this is the

first time to study the relationship between these variables, which highly contributes to entrepreneurial SMEs literature.

Introduction

Entrepreneurial small- and medium-sized enterprises (SMEs) plays a vital role in economies all over the world, especially in both developing and emerging economies. In developing economies, the formal entrepreneurial SMEs contribute up to 60% to total employment and 40% of total gross domestic product, and this percentage would be more if it took informal SMEs into account. The report also guesses that about 600 million workforces will enter work in the next 15 years in Asia and Africa. It also predicts that four out of five new jobs are anticipated to be created by entrepreneurial SMEs. The study proposes that there are roughly 400 million microenterprises and SMEs in developing economies. This predication shows the importance of SMEs in developing and emerging economies because of such significance governments of different countries foreseeing to strengthen the SMEs and make them more prosperous.

Regardless of the steps taken by the government to boosts the entrepreneurial SMEs growth, Dalberg Global Development Advisors report stated that SMEs role in private sector development is often unrecognized. The report defines SMEs development and growth in emerging countries stuck regularly by attaining financial capital for their growth. They also debate that the local monetary system does not supply the requirements of SMEs, which reduces economic growth. There is space for government interferences to close the gap between financial needs and to play their contributing role to boost the SMEs performance. Most entrepreneurial SMEs are informal, so due to this issue, they will not be competent to get benefit from infrastructure and regulatory support given to them. There is also a dispute of advancing terms and conditions due to lack of borrower information keeps banks away from advancing to SMEs. Entrepreneurial SMEs growth and development are mostly affected by the absence of the SMEs lending market, and as the outcome, it affects the economic growth of emerging economies negatively (Bouri *et al.*, 2011).

Pakistan is also an emerging country, so the role of entrepreneurial SMEs is not more different from other emerging countries. This sector has a great ability to develop and have the competency to make Pakistan, a regional financial hub. It provides more investment chances in the private sector. In Pakistan, small and medium enterprises development authority (SMEDA) looks after the matters of entrepreneurial SMEs, and they stated that 99% of business units in Pakistan are entrepreneurial SMEs, and their contribution is 40% to total gross domestic product (GDP). The globalization has improved access of firms to international markets, resulting in rapid growth and development. The major obstacles in the growth and development of entrepreneurial SMEs are a limited source of financing (Karadag, 2015). Studies concluded that banks are giving more facilities and advances to large firms as compared to small firms, which raises the financial deficit in small firms; about 70% of the application was rejected by commercial banks within one year. The interest rate associated with commercial loans is also the main hurdle for entrepreneurial SMEs, and entrepreneurial SMEs are not willing to take advances from banks. Farinha and Félix (2015) established that banks with lower interest rates

had received more requests for loans as compared to high interest rates for SMEs. Studies disclosed that high rate of interest discourages SMEs to get credits from banks and other financial institution because the cost of advances are high and has a negative impact upon SMEs performance (Hernández-Cánovas and Koëter-Kant, 2011). So keeping in view the financial obstacles, the Government of Pakistan is giving more incentive to SMEs such as low interest rate loans, less provision for loans, subsidies, less rule and regulation for business, and taking every step to promote SMEs business in Pakistan.

It is crucial to examine the factors of entrepreneurial SMEs performance. Despite such a massive investigation on SMEs growth, there is no agreement on the features that increase the SMEs performance. Studies investigated the SMEs performance across the different settings, factors, from developing state to least developed state and used various techniques, i.e. Wang (2016). However, studies on SMEs performance exclusively emphases more on advanced countries, i.e. Rosenbusch *et al.* (2011). However, most studies focus on one or a few particular variables as determinants of entrepreneurial SMEs performance. Regardless of a wide range of studies on SMEs, an exploration of the literature shows a gap in previous studies on entrepreneurial SMEs performance.

The principal objective of this investigation is to develop an evidence-based understanding of the root causes that drive the entrepreneurial SMEs growth in Pakistan so that policymakers can have a better hold on how to develop SMEs. The study focus on the relationship between trade credit (TC), retain earning (RE) and small and medium performance with the interaction effect of commercial loans (CL).

Literature review and hypothesis development

Various financial factors that influence the growth and development of SMEs in less developed countries have seen in the literature. This segment will deliver brief literature on various financial factors.

Finance in small and medium enterprises

Finance is the main obstacle facing entrepreneurial SMEs, and it can have a substantial impact on their growth. SMEs do not need and characteristically are not compulsory to have comprehensive monetary records and are classified as being informative cloudy. As a result, entrepreneurial SMEs are believed to be riskier as compared to large organizations and tend to face high extra interest and high-security requirements from advancing institutions. Based on the world enterprise survey database covering 119 emerging countries, Wang (2016) stated that access to finance is the most crucial constraint that reduces growth, especially for large development firms. This phenomenon is constant with a broader study, which concludes that access to finance is the main obstacle for SMEs (Beck and Demirguc-Kunt, 2006). Wang (2016) stated that SMEs with a good relationship with the government appear to have less financing complications. Quartey *et al.* (2017) found that the presence of SMEs financing programs in West African countries, numerous of which can be traced back to 1960. These plans were designed to accomplish their financial requests, and it is not necessary that these SMEs have excellent performance. Kersten *et al.* (2017) found that in less developed countries that SMEs financing programs have a substantial positive influence upon SMEs performance. Beck and Demirguc-Kunt (2006) found that the subsidies to improve SMEs access to finance might be unproductive, especially in fragile SMEs, which is dominant in emerging states,

advance better advancing policy and plans such as leasing and credit scoring are better substitutes for traditional debt funding in the nonexistence of developed financing institutions. So, it is not only the access to finance but also the nature of financial matters in entrepreneurial SMEs performance, particularly in rising and emerging countries.

Pecking order theory dictates the classified orders of financing decisions of the firms (Matias and Serrasqueiro, 2017). Mwarari and Ngugi (2013) stated that the order of preference in Pecking order theory is internal, debt and equity financing. Small firms go for the internal source of financing, but this depends upon the firm internal capacity to meet its demands at the early stages (Proença *et al.*, 2014). Trade off theory is a technique used to maintain a balance between merits and demerits debt financing. The optimal capital structure could be achieved through a balance between financial distress and tax benefits (Modigliani and Miller, 1963). So, firms managers will decide when and how to use debt financing. Relationship lending theory which shows that lending institutions have different setting such as legal, judicial and social and tax systems. SMEs can get lending from an institution that relies on soft information to grant them loans. Berger and Udell (2006) stressed the relationship of firms with the lending manager of financial institutions would help to get lending. Kankam-Kwarteng *et al.* (2019) stated that there is a positive association between low cost policy and firm performance. While bank loans, credits are the critical factors reflecting the credit activities of the firms (Ravi, 2019). There is a direct relationship between capital structures on firm performance (Lee and Lee, 2014).

Impact of trade credit on small and medium enterprises performance
There are various factors why large firms prolong trade credit to support other small firms to avoid fiscal distress. First, the liquid firm is inspired to sustain sales and growth. Cunat (2007) stated that a good relationship is to be the most significant determinant of trade credit extension. Suppliers can provide security and assurance to financially weak buyers against liquidity stock that could threaten their performance and survival, and likely to offer and provide surplus credit to buyers if they think extra future sale, mainly from a long-term relationship. While suppliers of goods and services have the skill to control and cut off future supplies, account receivables can be used as surety for bank credit (Burkart and Ellingsen, 2004). Ng *et al.* (1999) stated that suppliers often have reasonable access to finance and relative advantage in passing it on trade credit. Long *et al.* (1993) stated that the practice of trade credit allows for product proof, and warranty and facility of trade credit can be used to measure buyer default risk by screening mechanism.

Trade credit in japan accounted for 22.67% of debt funding by non-financial firms, non-real estate for profitable SMEs firms (Taketa and Udell, 2007). Ejermo and Xiao (2014) stated that those SMEs that used trade-credit expended their business and operation faster in developing economies where the monetary institution is not much developed. The studies support the significant role of trade credit as a substitute for bank loans, especially for SMEs in financial deficit (Molina and Preve, 2012). Love *et al.* (2007) concluded that trade credit increased instantaneously for a short period soon after the financial disaster in the 1990s in developing and emerging markets, i.e. Southeast Asia and Mexico, supporting the view that most susceptible firms benefited when bank advances is controlled. Suppliers can help their customers through trade financing when they face temporary liquidity shock. Gupta *et al.* (2015) examined the relationship between TC and SMEs performance, so we extend the work of them. The previous studies scrutinized the role of trade credit in controlling financial stress, and they have not observed the direct impact of trade credit on SMEs performance and growth. So we suppose that:

H1. Trade credit has a positive effect on SMEs performance.

Commercial banks loans impact upon small and medium enterprises performance
Munyuny (2013) stated that commercial loan financing is the funds borrowed from banks, private individuals, microfinance institutions and other lenders to support SMEs operations. The funds are borrowed under special terms and conditions of the lender, and the payback amount includes the original amount plus interest rate. CL financing is measured by fund usage, the sustainability of the fund and the repayment period. Al-Rawashdeh (2011) studied the role of commercial banks in financing SMEs and identifying the main obstacle faced by a commercial bank in obtaining funds. The study confirms that bank financing is playing a vital role in SMEs performance and lack of financial information of SMEs is the main obstacle for banks to grant them loans.

The studies showed that bank financing has a positive impact on SMEs performance (Bassey *et al.*, 2014). Bank financing has a positive impact on various macroeconomic variables of growth (Ayuba and Zubairu, 2015). Ubesie *et al.* (2017) determine the effect of banks' credit on SMEs growth. The finding showed that bank credit has no significant impact on SMEs growth, while in the case of the private sector, it has a significant impact on SMEs growth. The results also indicate that the bank interest rate has a severe effect on SMEs growth. Commercial financing played a significant role in development of SMEs and stated that the government should help SMEs through commercial loan financing. On the other side, studies showed that new and young firms are more susceptible to having access to bank finance because of their information is not available; also the younger firms have a low value of assets worth, and because of it they cannot get the bank finance quickly (Ferri and Murro, 2015). Kirschenmann (2016) concluded that new firms are more likely to have credit limited as they did not receive a loan from banks previously. As the outcome, it is tough for the banks to evaluate the loan reimbursement history. So we suppose that:

H2. Commercial loans have a positive effect on SMEs performance.

Retain earning impact upon small and medium enterprises performance
Researchers have established the association between retain earning and SMEs performance (Wang, 2013). Financial managers tend to used retain earnings as compared to banks financing loans (Frank and Goyal, 2005). Wang (2013) stated that the majority of Chinese SMEs heavily rely on retain earning as compared to other sources of external financing; as a result of this, the usage of bank loans is dropped to a large extent in Chinese SMEs firms. Ejermo and Xiao (2014) concluded that the use of ploughed resources prevented SMEs firms from being undervalued; hence, the finance manager's option for this kind of funding. After the first phase of growth, most of the firms than goes for retaining the source of funding as compared to personal saving. Agbozo and Yeboah (2012) stated that most of the firms use to retain earning for the operation of SMEs growth, and it is significant for the growth of SMEs firms. The majority of new and young firms heavily rely on upon retain earnings to finance their investment and develop their operations because they were young and had not qualified and fulfilled the requirement for an external source of financing. Retain earning plays a significant and positive role in the growth and development of SMEs. Keep in mind the above studies of various researchers we suppose that:

H3. Retain earning a positive effect on the performance of SMEs.

Research design
This research followed the cross-sectional research design that allows the researcher to collect a considerable amount of data within a short period. Quantitative research data were collected from different SMEs located in Khyber Pakhtunkhwa Pakistan to test the effect of CL, RE, TC on the performance of SMEs.

Population and sample size
SMEs definition varies across different countries. Agyei-Mensah (2010) given the most common definition of SMEs which includes total numbers of employees working in SMEs, total annual sales and the total worth of SMEs. So, SMEs in this research are acknowledged by the State Bank of Pakistan. A random sampling technique was used for data collection from SMEs. So, the sample size of 362 was used in data analysis.

Data collection
The data was collected from respondents by using a questionnaire survey. The Likert scale questionnaire was used in data collection because of its transparency, ease and widely used by the researcher in social science research (DeVellis, 2016). The data collection process was carried within a specific period. The Likert scale questionnaire values range from 1 to 5 (1 = strongly disagree, 5 = strongly agree). The total number of items for commercial loans, trade credit and retain earning is 10, while for firm performance, the total number of items is 8 (Manini *et al.*, 2016).

Data analysis
The collected data was then transferred into statistical package for the social sciences database for analysis purposes. The data screening was done to check errors occurring from incorrect data entry, missing data, manipulation of data or any outliers (Field, 2005). Correlation analysis is done to establish the relationship between variables. Besides, this regression is used to establish the association between commercial loans, retain earning, trade credit and firm performance.

Reliability
Reliability means that how much assessing instrument is reliable, and it will give a similar outcome repeatedly with time. Cronbach (1951) have provided the coefficient to measure the reliability of instruments known as the Cronbach coefficient. The Cronbach coefficient of the questionnaire was 0.81, which means that questionnaire is 81% reliable.

Findings
The total number of the respondent in the survey was 362. Table 1 shows that the female response was 59 and male respondents were 303, showing male dominancy in the SMEs sector. Table 1 shows that most of the respondents having more than 14 years of education. The outcome of the education demographic shows that most educated people are associated with the SME business. Out of 362, the respondents having 14 years of education were 265 and less than 14 years of education were 97. The table shows that 212 respondents were single and remaining were married, so it concluded that nowadays, young blood is working in this sector and showing that SMEs are providing a new opening to young ones. The survival of new SMEs is challenging in this competitive environment. The table shows the firm age of SMEs that, as how many years it is associated with SMEs business. The results show that the majority of SME firms have less than five years of business age, and only 120

firms having more than five years of business, so it shows that the government is promoting SMEs business in the country. Table 1 shows that SMEs were run by the owner of the firms and few were operated by the managers. So, owners and investors are showing more interest in the SMEs business, which is an excellent sign for the development and growth of the emerging economies.

Descriptive statistics
Table 2 shows the descriptive statistics of the sample size. In below table shows that SMEs performance is taken as a dependent variable and RE, TC and CL are considered as independent variables. The outcomes showed that the mean value for commercial loans is 3.68. Furthermore, its maximum, minimum and standard deviation values are 4.50, 1.30 and 0.46, respectively. The table displayed that the mean value for retain earning is 3.76, and its maximum and standard value are 5.60 and 0.66, respectively.

Similarly, the standard deviation for trade credit is 0.54, and its minimum and the maximum value is 1.50 and 4.60. The table shows that the mean value for trade credit is 3.71. The mean value for SMEs performance is 3.91. The minimum, maximum and standard deviation value is 4.88, 175 and 0.60 correspondingly. The outcome shows among all variables; the mean value is highest for SMEs performance and lowest for CL. Likewise, the standard deviation is highest for RE and lowest for commercial loans among variables. The maximum among variables is for RE that is 5.60 and lowest for CL that is 4.50.

Correlation matrix
The correlation matrix shows that all the variables are positively and significantly associated with one another. Table 3 shows that the correlation between CL and RE is 0.48,

Variables	Category	Frequency
Gender	Male	303
	female	59
Marital status	Single	212
	Married	150
Education	<than 14 years of schooling	97
	>than 14 years of schooling	265
Firm age	<than five years	120
	>than five years	242
Respondent	Owners	223
	Managers	139

Table 1.
Demographic
statistics

Variables	Commercial loans	Retain earning	Trade credit	SMEs performance
Mean	3.68	3.76	3.71	3.91
Maximum	4.50	5.60	4.60	4.88
Minimum	1.30	1.30	1.50	1.75
Standard deviation	0.46	0.66	0.54	0.60
Observations	362	362	362	362

Table 2.
Descriptive statistic
of sample size

which means that they are associated with one another by 48%. The association between CL and TC is 0.70** which stated that they are positively and significantly correlated with one another. Table 3 shows that the correlation between CL and SME's performance is 0.594**. So, they will affect one another by 59%. The association of RE to TC and SMEs are 0.417** and 0.402**, so it shows that they will affect each other by 41% and 40%, respectively, similarly, Table 3 shows that SMEs are positively and significantly correlated to TC by 0.726**, so they have impact upon one another by seventy-two percent.

Regression analysis
Table 4 shows the regression analysis of independent variables upon the dependent variable. The independent variable in the model is SMEs, while independent variables are RE, TC and CL. In Table 4, Model (2) CL acts like mediating between the independent variable and the dependent variable. The R^2 value for Model 1 is 0.46, which means that model has 46% of explanatory power. In Model 1, both the variables are positively and significantly associated with SMEs performance. The R^2 value for Model 2 is 54%, which shows that SMEs are explained 54% by independent variables. In Model 2, all the independent variables are positively associated with dependent variables. In Table 4, the R^2 values move upward from 0.46 to 0.54, which shows that CL is playing a mediating role between SMEs and retain earnings and trade credit. In Model 1 of Table 4, the beta value for RE is 0.10, and the significance

Variables	Commercial loans	Retain earning	Trade Credit	SMEs performance
Commercial loans	1			
Retain earning	0.484**	1		
Trade credit	0.706**	0.417**	1	
SMEs performance	0.594**	0.402**	0.726**	1

Table 3. Correlation analysis

Note: **p = <0.05

	Unstandardized coefficients			
	B	Standard error	*t*-value	Significant value
Model 1				
Constant	0.729	0.163	4.478	0.000
RE	0.108	0.036	3.043	0.003
TC	0.746	0.044	17.150	0.000
Model 2 constant	0.54	0.17	3.06	0.00
RE	0.08	0.03	2.20	0.02
TC	0.66	0.05	11.80	0.00
CL	0.16	0.67	2.44	0.01

Model 1; Model 2
R^2 = 0.469; R^2 = 0.547
Adjusted R^2 = 0.462; Adjusted R^2 = 0.543
Sig. *F* change = 0.000; Sig. *F* change = 0.015

Table 4. Regression analysis

level is 0.00, which shows that RE is positively associated with SMEs, and any change in RE will bring a 10% change in SMEs.

Similarly, the beta value for TC is 0.74, and the significance level is 0.00, which shows TC is also strongly associated with SMEs. Outcomes show that TC will affect SMEs by 74% if any change occurred in TC. Model 2 shows that all the independent variables are positively and strongly associated with dependent variables. The value of beta for RE in Model 2 is 0.08, and the sig. value is 0.02, which shows it brings changes in 8% if some variation occurs in RE. In Table 4, Model 2 shows that beta value for TC and CL is 0.66 and 0.16, so they affect SMEs by 66% and 16%, respectively. The R^2 value moves upward from 0.46 to 0.54, which shows that the mediating variable CL is played its mediating role in between SMEs and TC and RE because of its increases the SMEs performance.

Results and discussion

This study gives the logical view of the leading financial factors that affect the performance of entrepreneurial SMEs in Pakistan. The variables taken in this study was based on previous studies conducted by various researchers and can be used and tested in emerging country such as Pakistan. The main aim of this study is to test the significant role of commercial loans, retain earning and trade credit on the performance of entrepreneurial SMEs in Pakistan. The study tests the mediating role of CL in between entrepreneurial SMEs performance and independent variables. The results showed that there were more male respondents as compared to women, which shows male dominance in this sector. The results also revealed that more young and educated people are associated with SMEs, so it is confirmed that entrepreneurial SMEs provide a new opening to youth, and this will help in the development of entrepreneurial SMEs. The results revealed that the majority of SMEs were run by their owners because it can be easily manageable, so most SMEs were controlled by the actual owner of the firms. As various studies confirm that SMEs are essential for the development of the country, so the government must pay more attention to this sector, and the result of the firm age confirms that the majority of SMEs are newly established. The government is now paying attention to this sector. Table 3 showed that the correlation between trade credit and firm performance is highest, and the correlation between retain earnings and firm performance is lowest, so firm performance is more varies with the change in trade credit.

The regression model shows that all the variables are positively and significantly associated with entrepreneurial SMEs performance. In Table 4, Model 1 shows the association between independent variables and firm performance. In Table 4, Model 2, the independent variables (RE, TC and CL) are regressed over firm performance. The R^2 of regression Model 2 shows that model having 54% of explaining power. Comparing both models, the R^2 value jumped from 46% to 54%, which showed that CL acted as mediating between entrepreneurial SMEs performance and TC, RE. The results showed that there is a positive and significant relationship between trade credit and firms performance ($\beta = 0.66$, $p = 0.00$). So, the result support that trade credit have a positive impact upon firms performance so the highly established firms should provide trade credit facility to lower and newly established SMEs. With the help of trade credit, the young firms will be able to compete in a challenging environment as the start of SMEs because, at this stage, due to lack of financial information, the lending firms are not willing to grant them advances easily. The outcomes of these studies are supported by Gupta *et al.* (2015).

The outcome also revealed that the relationship between retain earning is positive and significant ($\beta = 0.08$, $p = 0.02$). So, the outcomes support the hypothesis that retains earning has a positive effect on SMEs performance. Retain earning is very useful for the expansion of business because it does not have any cost to pay as compared to bank loans. The outcome of the result is similar to the conclusion of Wang (2013) stated that SMEs performance is positively affected by retain earnings. The finding confirmed that the relationship between the commercial loan and firm performance is positive ($\beta = 0.16$, $p = 0.01$). So, it supported the hypothesis that commercial loans favorable and mediating role between SMEs performance and TC, RE. The result is supported by previous studies that commercial loans have a positive and significant impact on firm performance (Al-Rawashdeh, 2011).

Conclusion

The findings of the study revealed that all the independent variables have a positive and robust association with entrepreneurial SMEs performance. The results also confirmed that CL is played a mediating role between entrepreneurial SMEs performance, TC and RE. The results showed that TC has a positive effect on SMEs performance, so it supports *H1*. Firms with sound financial positions should encourage to provide trade credit facilities to newly established firms because it complicated for new firms to enter the new market. Trade credit will provide some relief to new SMEs because it is challenging to obtain funds from an external source because of the lack of financial information. So, supplier's trade credit helps the young entrepreneurial SMEs in their business. The results also showed that retain earning are positive association with entrepreneurial SMEs performance, so it supports *H3* that retain earning has a positive and significant impact upon entrepreneurial SMEs performance. The manager or owner of the firm decides this that how much amount should be declared a dividend, and the remaining amount should be kept as retain earning because this retain earning will be used in future investment and operation of the business. So, decision regarding retaining amount as necessary and manager or owner must consider the merits and demerits of retain earning a decision.

Furthermore, the finding shows that commercial loans and firm performance are strongly related, and this is in agreement with the *H2* of the study. So it concluded that CL increases the entrepreneurial SMEs performance, so the Government of Pakistan should provide loans to entrepreneurial SMEs at low markup rates so that every firm can take advantage of these advances. The rules and regulations for granting advances should be lenient so that every firm can apply. The government should order the banking system to provide the best loan facilities to SMEs, low collateral requirements so that for SMEs, it is easy to obtain advances from banks and other financial institutions because these loans will increase entrepreneurial SMEs performance (Phaho and Pouris, 2008). Results also revealed that commercial loans play a mediating role between SMEs performance and TC, RE because it boosts the entrepreneurial SMEs performance.

Data is gathered from the only province of Pakistan, Khyber Pakhtunkhwa. Non-financial factors will be helpful in future research. The future study can be done in other parts of the world to check that these determinants are essential in the performance of SMEs. Comparative analysis of different entrepreneurship in different regions will help understand the role of different variables in the entrepreneurial performance.

References

Agbozo, E. and Yeboah, E.O. (2012), "Exploring the financial gap for small and medium-sized enterprises (SMEs) in Ghana: a case study of Ghana".

Agyei-Mensah, B.K. (2010), "Financial management practices of small firms in Ghana: an empirical study' African", *Journal of Business Management*, Vol. 5 No. 10, pp. 3781-3793.

Al-Rawashdeh, S.T. (2011), "The effect of small-scale industry on local development case study: Karak Governorate", *Canadian Social Science, Vol 7*, No. 6, pp. 264-271.

Ayuba, B. and Zubairu, M. (2015), "Impact of banking sector credit on the growth of small and medium enterprises (SME's) in Nigeria", *constraints*, Vol. 15.

Bassey, N.E., Asinya, F.A. and Amba, E.A.A. (2014), "Bank lending, macro-policy variables and the growth of small scale industries in Nigeria", *International Journal of Business and Social Science*, Vol. 5 No. 9, p. 1.

Beck, T. and Demirguc-Kunt, A. (2006), "Small and medium-size enterprises: access to finance as a growth constraint", *Journal of Banking and Finance*, Vol. 30 No. 11, pp. 2931-2943.

Berger, A.N. and Udell, G.F. (2006), "A more complete conceptual framework for SME finance", *Journal of Banking and Finance*, Vol. 30 No. 11, pp. 2945-2966.

Bouri, A., Breij, M., Diop, M., Kempner, R., Klinger, B. and Stevenson, K. (2011), "Report on support to SMEs in developing countries through financial intermediaries", *Dalberg*, Vol. 35, pp. 392-416.

Burkart, M. and Ellingsen, T. (2004), "In-kind finance: a theory of trade credit", *American Economic Review*, Vol. 94 No. 3, pp. 569-590.

Cronbach, L.J. (1951), "Coefficient alpha and the internal structure of tests", *Psychometrika*, Vol. 16 No. 3, pp. 297-334.

Cunat, V. (2007), "Trade credit: suppliers as debt collectors and insurance providers", *The Review of Financial Studies*, Vol. 20 No. 2, pp. 491-527.

DeVellis, R.F. (2016), *Scale Development: Theory and Applications*, Vol. 26, Sage.

Ejermo, O. and Xiao, J. (2014), "Entrepreneurship and survival over the business cycle: how do new technology-based firms differ?", *Small Business Economics*, Vol. 43 No. 2, pp. 411-426.

Farinha, L. and Félix, S. (2015), "Credit rationing for Portuguese SMEs", *Finance Research Letters*, Vol. 14, pp. 167-177.

Ferri, G. and Murro, P. (2015), "Do firm–bank 'odd couples' exacerbate credit rationing?", *Journal of Financial Intermediation*, Vol. 24 No. 2, pp. 231-251.

Field, A. (2005), "Discovering statistics using SPSS", *Thousand Oaks*, CA.

Frank, M. and Goyal, V. (2005), "Trade-off and pecking order theories of debt", *The Handbook of Empirical Corporate Finance'*, Elsevier Science. pp. 135-202.

Gupta, J., Gregoriou, A. and Healy, J. (2015), "Forecasting bankruptcy for SMEs using hazard function: to what extent does size matter?", *Review of Quantitative Finance and Accounting*, Vol. 45 No. 4, pp. 845-869.

Hernández-Cánovas, G. and Koëter-Kant, J. (2011), "SME financing in Europe: cross-country determinants of bank loan maturity", *International Small Business Journal: Researching Entrepreneurship*, Vol. 29 No. 5, pp. 489-507.

Kankam-Kwarteng, C., Osman, B. and Donkor, J. (2019), "Innovative low-cost strategy and firm performance of restaurants", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 13 No. 3, pp. 266-281.

Karadag, H. (2015), "The role and challenges of small and medium-sized enterprises (SMEs) in emerging economies: an analysis from turkey", *Business and Management Studies*, Vol. 1 No. 2, pp. 179-188.

Kersten, R., *et al.* (2017), "Small firms, large impact? A systematic review of the SME finance literature", *World Development*, Vol. 97, pp. 330-348.

Kirschenmann, K. (2016), "Credit rationing in small firm-bank relationships", *Journal of Financial Intermediation*, Vol. 26, pp. 68-99.

Lee, Y. and Lee, S. (2014), "Interaction effects between ownership concentration and leverage on firm performance", *Management Review: An International Journal*, Vol. 9 No. 1, pp. 70-106.

Long, M.S., Malitz, I.B. and Ravid, S.A. (1993), "Trade credit, quality guarantees, and product marketability", *Financial Management*, Vol. 22 No. 4, pp. 117-127.

Love, I., Preve, L. and Sarria-Allende, V. (2007), "Trade credit and bank credit: evidence from the recent financial crises", *Journal of Financial Economics*, Vol. 83, pp. 453-469.

Manini, M.M., *et al.* (2016), "Effect of business financing on the performance of small and medium enterprises in Lurambi sub-county, Kenya", *European Journal of Business and Management*, Vol. 8 No. 2, pp. 1-21.

Matias, F. and Serrasqueiro, Z. (2017), "Are there reliable determinant factors of capital structure decisions? Empirical study of SMEs in different regions of Portugal", *Research in International Business and Finance*, Vol. 40, pp. 19-33.

Modigliani, F. and Miller, M.H. (1963), "Corporate income taxes and the cost of capital: a correction", *The American Economic Review. JSTOR*, Vol. 53 No. 3, pp. 433-443.

Molina, C.A. and Preve, L.A. (2012), "An empirical analysis of the effect of financial distress on trade credit", *Financial Management*, Vol. 41 No. 1, pp. 187-205.

Munyuny, T.C. (2013), "Effect of debt financing on financial performance of small and medium size enterprises in Eldoret town (2010-2012) (Doctoral dissertation)".

Mwarari, M.M. and Ngugi, P.K. (2013), "Factors influencing listing of Kenyan SMEs in the securities market for capital raising opportunities", *European Journal of Management Sciences and Economics*, Vol. 1 No. 2, pp. 99-115.

Ng, C.K., Smith, J.K. and Smith, R.L. (1999), "Evidence on the determinants of credit terms used in interfirm trade", *The Journal of Finance*, Vol. 54 No. 3, pp. 1109-1129.

Phaho, D. and Pouris, A. (2008), "Impact of technology diffusion on the innovation capacity and competitiveness of automobile components SMEs in South Africa", *Management Review: An International Journal, Vol.3*, No. 2, pp. 61-92.

Proença, P., Laureano, R.M.S. and Laureano, L.M.S. (2014), "Determinants of capital structure and the 2008 financial crisis: evidence from Portuguese SMEs", *Procedia - Social and Behavioral Sciences*, Vol. 150 No. 1, pp. 182-191.

Quartey, P., *et al.* (2017), "Financing the growth of SMEs in Africa: what are the contraints to SME financing within ECOWAS?", *Review of Development Finance*, Vol. 7 No. 1, pp. 18-28.

Ravi, H. (2019), "Challenges or survival instinct of Tibetan entrepreneurs", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 13 No. 2, pp. 203-213.

Rosenbusch, N., Brinckmann, J. and Bausch, A. (2011), "Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs", *Journal of Business Venturing*, Vol. 26 No. 4, pp. 441-457.

Taketa, K. and Udell, G.F. (2007), "Lending channels and financial shocks: the case of small and medium-sized enterprise trade credit and the Japanese banking crisis", *Monetary and Economic Studies. Institute for Monetary and Economic Studies, Bank of Japan*, Vol. 25 No. 2, pp. 1-44.

Ubesie, M.C., Onuaguluchi, I.F. and Mbah, A.M. (2017), "Effect of deposit money banks credit on small and medium-scale enterprises growth in Nigeria", *International Journal of Finance and Accounting*, Vol. 6 No. 5, pp. 117-132.

Wang, X. (2013), *The Impact of Microfinance on the Development of Small and Medium Enterprises: The Case of Taizhou, China, The Johns Hopkins University, Baltimore, MD*, pp. 1-24.

Wang, Y. (2016), "What are the biggest obstacles to growth of SMEs in developing countries? An empirical evidence from an enterprise survey", *Borsa Istanbul Review. Elsevier*, Vol. 16 No. 3, pp. 167-176.

Corresponding author
Muhammad Asif Khan can be contacted at: asif_marwat1439@yahoo.com