

Financial resources, financial literacy and small firm growth: Does private organizations support matter?

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ABSTRACT

Studies on small firm growth in many countries focused on some specific factors, and no comprehensive research on this issue is available to draw the conclusion. Based on the concept of the theory of Resource Based View (RBV), a research framework is formulated in order to examine how resources like finance and financial literacy of the owner-manager affect financial and non-financial growth of small firms operating in Bangladesh. Data was collected through self-administered questionnaires from 407 owner-managers of small firms operating in three divisions of Bangladesh where most of the small businesses are concentrated. Using partial least squares analysis, the paper found that both finance and financial literacy have positive and statistically significant relation with small firm financial and non-financial growth. The paper also showed that private organizations support moderates the relationships between finance, financial literacy and small firm financial and non-financial growth. From the findings, it is evident that if small firms have better access to financial resources and can earn required financial literacy and at the same time get proper and adequate support from private organizations, they will contribute more to the economy by achieving their financial and non-financial growth.

Introduction

Research on small and medium enterprises' (SMEs) growth has gradually increased as they are considered to be the backbone of any economy and the engine for economic growth and employment generation (Li & Rama, 2015; Love & Roper, 2015). Small enterprises (SEs) play a significant role in the developing economy in terms of sustainable growth, employment creation, development of entrepreneurship, and contribution to export earnings (Mamun et al., 2013). In Bangladesh, the small firm sector occupies the highest position in terms of number among micro, small, medium, and large firms. According to the Bangladesh Bureau of Statistics [BBS] (2013), 10.66% of firms are micro, 88.07% are small, 0.73% are medium, and 0.54% are large firms among the total firms in Bangladesh. In terms of employment, among the categories, small firms rank highest with 58.25%, followed by large (30.59%), medium (6.23%), and micro (4.93%) (BBS, 2015). Therefore, it is evident that the contribution of small enterprises towards the economy is higher than the other business segments.

The Bangladesh economy is characterized by a large population, low per capita income, high level of unemployment and underemployment, mass poverty, and high income disparity (Mamun et al., 2013). At present (up to December, 2017), the total population of Bangladesh was more than 164 million, making it the eighth most populated country in the world (Worldometers, 2018). The current (up to November, 2017) per capita income of Bangladesh is \$1,610 (Dhaka Tribune, 2017). Bangladesh has maintained a remarkable track record on economic growth and development. The GDP growth rate in Bangladesh was 7.05% in 2016 and 6.55% in the year 2015 (Ieconomics, 2017). However, the real GDP growth in Bangladesh was 5.7% even during the world financial crisis (2007-2008). The unemployment rate of Bangladesh is 5%, underemployment rate is about 40%, and 31.51% of the total population is below the poverty line of which a large proportion lives in extreme poverty (World Fact Book, 2014). In these circumstances, higher growth of small enterprises may reduce poverty levels in Bangladesh to a moderate level by creating employment for skilled and unskilled manpower in this sector.

Unfortunately, the industrial sector in Bangladesh is not well developed mainly due to the lack of required capital and technological efficiency (Rana, 2014). At pres-

ent, the service sector produces more than half of the total production, the contribution of the industry sector is almost 30%, and the balance 20% of the GDP is produced in the agricultural sector (Rana, 2014). The industrial sector of Bangladesh has contributed significantly to the country's economy. During 2001-2011, the industrial sector of the country grew by 7.6% per annum on an average. The average growth of the service and agriculture sectors were 6.1% and 3.6%, respectively during the same period. In Bangladesh, the number of large and medium enterprises are few, but they can attract lenders easily by fulfilling the financial needs for growth. On the other hand, there are special institutions for developing micro enterprises.

Many definitions of SE exist. Since each country has its own way of defining SEs, the definitions found in the literature are heterogeneous in nature. Some countries define SEs in terms of their sales volume or number of employees; some are based on asset size; and some are considered in terms of capital size. In Bangladesh, the central bank (Bangladesh Bank), provided a circular (Bangladesh Bank, 2015) to update the definition of small enterprises for three sectors of manufacturing, trading and service sectors. All financial institutions adopted the definition. According to the Bangladesh Bank circular, a small manufacturing business would be a firm with total assets at cost, including installation of fixed asset and excluding land and building, from Tk. 5 million – 100 million and/or number of employees ranging from 25 to 99. A service concern would be a firm with total assets at cost, including installation of fixed asset and excluding land and building, from Tk. 0.5 million – 10 million and/or number of employees ranging from 10 to 49; and a trading concern would be a firm with total assets at cost, including installation of fixed asset and excluding land and building, from Tk. 0.5 million – 10 million and/or number of employees ranging from 6 to 10.

The main characteristics of a small firm in Bangladesh include: operated by a family or close group, owner of the firm is the day-to-day decision maker, mostly found in labour intensive businesses, the number of women entrepreneurs are very few, formal business records are rare, available information about a business may not be accurate and audited, technology usage is simple (Mamun et al., 2013). Despite the various problems of small firms, the researchers believe that the small firm sector is one of the best options in Bangladesh for increasing the growth rate of GDP, reducing poverty level, and generating more employment with a minimum level of investment (Begum & Abdin, 2015, Mamun et al., 2013).

This paper mainly aims to examine the impact of financial resources and financial literacy of owner-manager on the growth of small firms. A number of reasons motivate

this research. First, in Bangladesh, the contribution of small and medium enterprises sector to the GDP is 25% (ADB, 2015) which is lower than some other neighbouring countries. For example, 60% in China (Pandey, 2015), 40% in India (Weerakkody, 2015), 37% in Thailand (Rojanasuvan, 2014), 30% in Pakistan (Shahzad, 2014), more than 50% in Sri Lanka (Weerakkody, 2015), and 33.7% in Malaysia (“SMEs on track to contribute to GDP,” 2014). Second, in consideration of the contribution of small-scale industries to the national GDP, Bangladesh is not remarkable. According to Moazzem (2011), the share of small-scale industries in the GDP from 2008 to 2012 remains almost the same at only 5.2%. Third, the IMF (2011) report indicates that the performance of micro, small and medium enterprises (MSMEs) in Bangladesh were not outstanding in terms of revenue earnings, equipment use, capital-labour ratio, and growth of value added except for labour-productivity in some instances.

Fourth, in the last two decades, the growth of small firms in Bangladesh has been a horizontal expansion rather than changing in a pyramid (Moazzem, 2011). However, increasing the number of small firms does not necessarily mean that the sector is growing in terms of success and performance of production, revenue, employment, value addition among others are also important (Connolly et al., 2012). Fifth, most studies on business growth are based in developed countries and on small and medium-sized firms together. Thus, it is also important to examine the impact of growth factors separately for the small business sector in the context of developing countries. Throughout the last 50 years, very few studies have focused on the growth of small and medium enterprises in different perspectives (Gupta et al., 2013). Moreover, in consideration of small firms specifically, the literature on growth issues is limited and inconsistent (Andersson & Tell, 2009; Fadahunsi, 2012). This therefore creates the opportunity to conduct research on small firm growth.

The growth of a firm has been addressed from the theoretical and empirical perspectives in diverse fields of economics, finance, psychology, management, and others. Still, there is confusion as to why some small firms grow and others do not when they operate their activities in a similar situation (Anderson & Eshima, 2013; DeMartino et al., 2015; Eijdenberg et al., 2015; Wiklund & Shepherd, 2003). Since firms can grow in different ways (for example, through expansion of sales or asset size, increasing employment, and so on), a set of multidimensional factors affect their growth.

No comprehensive research on these factors is available to draw a conclusion. For example, scholarly evidence reveals the relationship of owner-managers' traits (Hansen & Hamilton, 2011; Mazzarol et al., 2009; Storey, 1994),

business characteristics and strategy (Blackburn et al., 2013; Lechner & Gudmundsson, 2014; Storey, 1994), human capital and institutional quality (Krasniqi & Mustafa, 2016), size and age of business (Blackburn et al., 2013; Coad & Tamvada, 2012; Gjini, 2014; Hamilton, 2012; Obeng et al., 2014), assets of a firm (Davidsson et al., 2006), growth motivation (Delmar & Wiklund, 2008; Eijdenberg et al., 2015), entrepreneur orientation (Lechner & Gudmundsson, 2014; Wiklund et al., 2009; Wolff et al., 2015), social capital (Stam et al., 2014), innovation (Audretsch et al., 2014; Boermans & Roelfsema, 2015), and internationalization (Boermans & Roelfsema, 2015) with small firm growth.

Despite growing research, the volume of studies on small firm growth is dominated by those concentrated on the institutional determinants of firm growth, rather than internal factors, for example, literacy or managerial capacities (Krasniqi & Mustafa, 2016). Besides, considering the small firm specifically, previous literature also lacks the nexus of finance and growth. In Bangladesh, like many other developing countries, small firms face severe constraints while financing their start-up, operations and growth. Their access to formal credit is not easy compared to medium and large enterprises (Zaman & Islam, 2011). Thus, this financing problem hinders the potential of future growth (Chowdhury & Ahmed, 2011; Islam et al., 2014; Khan et al., 2012; Mamun et al., 2013; Uddin & Bose, 2013). There is some evidence in Bangladesh on small and medium enterprise financing (Haider & Akhter, 2014; Islam et al., 2014; Uddin & Bose, 2013; Zaman & Islam, 2011). However, this previous research emphasized financing problems and shortcomings rather than the impact of finance on small firm growth.

Financial literacy, an important characteristic of owner-managers, enhances knowledge, skills, financial qualities and capabilities of owner-managers to manage other important resources especially financial resources effectively. Financial literacy enhances the strategic decision-making power of owner-managers to identify better financing sources in order to acquire low cost funds with better terms and conditions, which can also help to establish control over expenditure. Such strategic decisions ultimately make the firm more competitive and profitable. However, Chowdhury (2007) identified that the lack of financial knowledge among entrepreneurs in Bangladesh results in limited access to formal credit. In other research, Choudhury (2014) argued that the promotion of financial literacy among micro and small business owners in Bangladesh can remove the obstacles of access to finance and ensure sustainable sector growth. Moreover, some existing findings of the finance, financial literacy and growth nexus in both developed and developing countries are mixed and inconclusive (Mahmood et al., 2017). Accordingly, once there are conflicting

findings, the same study can be replicated to expand the boundary of knowledge (Li, 2010).

This research considers private organizational support as the moderating variable. Due to smallness, small firms all over the world face severe constraints in their growth and success. For the business start-up, small firms require various types of support from private supporting institutions. In Bangladesh, private organizations that provide support include: the commercial banks, non-bank financial institutions (NBFIs), National Association of Small and Cottage Industries of Bangladesh (NASCI), some business bodies like the Federation of Bangladesh Chambers of Commerce and Industry (FBCCI), the Bangladesh Women Chamber of Commerce and Industry (BWCCI), the Women Entrepreneur Association of Bangladesh (WEAB), the Micro Industries Development Assistance and Services (MIDAS), and the Jubo Unnoyan Adidaptar, business consulting organizations.. Since any kind of financial support is included under the 'finance' variable, non-financial support like information and training of the private organizations is considered here.

After reviewing a large number of studies, Delberg (2011) claimed that most SMEs in developing countries face problems in obtaining financial capital and many other non-financial obstacles and therefore suggests further research with public and private sector interventions. In addition, Botha (2014) argued that support services can largely solve the problems of limited access to finance, personal difficulties, and lack of proper training and guidance of SMEs. Therefore, this research considers private organizations' support as the moderating variable with the expectation that private organizations support will enhance the growth of small firms in Bangladesh.

Objective of the Research

This paper explores the impact of resources on the financial and non-financial growth of small firms operating in Bangladesh. The specific objectives of the paper are to:

- i. examine the relationship between financial resources, financial literacy of the owner-manager and small firm financial and non-financial growth; and
- ii. examine whether the support from private organizations enhance the relationships between financial resources, financial literacy of the owner-manager and small firm financial and non-financial growth.

Literature Review

Small Firm Growth

Growth of a firm follows a predetermined path (Churchill & Lewis, 1983; Greiner, 1972; Hanks et al., 1993; Kimberly, 1979). However, research shows that the growth of a firm is heterogeneous, mainly due to the intrusion of multiple internal and external factors (Aislabie, 1992; Phelps et al., 2007; Rutherford et al., 2003; Stubbart & Smalley, 1999). Thus, it can be said that the growth of small firm is not unidimensional rather it is a multidimensional phenomenon.

Many researchers considered the success or performance of small firm in both financial and non-financial ways. For example, Ahmad et al. (2011) considered both financial and non-financial aspects for measuring entrepreneur business performance. According to Hilmi et al. (2011), seven indicators may be used to measure firm performance: number of complaints, sales growth, return on investment, productivity, financial performance, customer satisfaction and employment satisfaction. Wijetunge and Pushpakumari (2014) advocated financial and non-financial measures to show the performance of SMEs.

Finance and Small Firm Growth

According to RBV, financial resources are the most significant resources for growth and performance of a small firm (Wiklund et al., 2009). These resources include the ability of the firm to generate internal funds and the capacity to borrow from external sources as well as other financing mechanisms that includes cash balances, supplier credit, advance receipts, venture capital, leasing, factoring, and others. Small firms are generally financed both from internal and external sources (Osei-Assibey, 2013). In order to foster economic growth and development, it is critical to ensure the profitability and growth of the small and medium enterprises sector and access to finance is the precondition for such growth (Abdulsaleh & Worthington, 2013). Beck et al. (2008) showed that financial development of a country has an excessively positive effect on small firms.

A large body of literature on different countries shows that there is a good association between finance and the growth or performance of small firms. Some studies highlight that the availability of finance is the prime factor for the success and growth of SMEs (Cook, 2001; Chittenden et al.,; Ou & Haynes, 2006). Mambula (2002) and Yazdanfar (2012) identified that the main barrier of growth for micro and small firms is the lack of finances. Many researchers concluded that financing constraints have negative influ-

ence on the firm growth (Ayyagari et al., 2008; Beck et al., 2005). Although multiple studies confirmed positive association between access to external finance and the growth of small firms, some others found that the relationship is inconsistent (Akoten et al., 2006; Johnson et al., 2000; McPherson & Rous, 2010; Yazdanfar, 2012). Moreover, there is evidence of a moderate effect (Coad, 2007) and also negative effects (Hardwick & Adams, 2002). These kinds of relationship may result in a large number of unexplained variations in terms of growth rate (Coad, 2007).

Financial Literacy of Owner-Manager and Small Firm Growth

Realizing the importance of financial literacy, many studies have been conducted from different perspectives. For example, Agarwal et al. (2015) focused on financial literacy and financial planning; Brown and Graf (2013) focused on retirement planning; Prast and van Soest (2016) considered retirement preparation; Deepak et al. (2015) emphasized on investors; Chinen and Endo (2014) highlighted on students; Beckmann (2013) focused on household savings; Zokaityte (2016) on consumer and retailers; Almenberg and Dreber (2015) considered stock market participation; and Hastings et al. (2013) on economic outcomes.

Many studies have been conducted on financial literacy and the growth of SMEs together in different contexts and found positive associations between the constructs (Bruhn & Zia, 2011; Christelis et al., 2010; Dahmen & Rodríguez, 2014; Drexler et al., 2014; Nyamboga et al., 2014; Siekei, Juma & Aquilars, 2013; Wise, 2013). However, empirical evidence on financial literacy of owner-manager and small firm growth nexus are limited with some exceptions (Lusimbo & Muturi, 2016). Although several studies found a positive association between financial literacy and small firm growth, Eresia-Eke and Raath (2013) confirmed the insignificant relationship between financial literacy of entrepreneurs and the growth of small, micro, and medium enterprises.

Private Organizations Support and Small Firm Growth

Small enterprises face many problems including inadequate managerial skills, limited access to information, support services, business development support, etc. (Cancino et al., 2015). To address such problems, private organizations play a very significant role for developing small enterprise sectors (Mamun et al., 2013). Scholars recognize that the support of the private sector can be used to improve small firm performance (Massey, 2003; Matlay et al., 2005). For example, Fouad (2013) found that most small firms suf-

fer from the shortage of proper knowledge and skills that result in poor performance. Zindiye et al.(2012) found that government and private organizations’ positive support influenced the performance of small and medium enterprises. Islam (2013) showed the significant positive association between business development services and small firm growth.

Private organizations’ support in terms of business training enhances the ability of entrepreneurs which subsequently increase the performance of firms (Du Plessis et al., 2010). Many researchers argue that more training should be given to small business entrepreneurs in order to have better success (Chandy & Narasimhan, 2011; Naqvi, 2011; Ojala & Heikkilä, 2011). Mashenene and Rumanyika (2014) found that inadequate business training highly affects the growth of small firms. Like training support, information support is another important factor for growth and performance of small firms. Hence, access to information is an important tool for entrepreneurs to make their business successful (Hernandez et al., 2012). Recently, Chowdhury et al. (2013) suggested that the owner-managers require training and skill development program from government and other supportive private organizations to facilitate their growth.

Research Model and Hypotheses

Resource Based View (Barney, 1991) theory considers the firm as the bundle of resources and argues that the resource firms directly and indirectly affect firm’s performance and growth by generating competitive advantages. The current research uses two important resources, financial resources and financial literacy of owner-manager, as the independent variables to find out their impact on the growth of small firms and considers the RBV approach. Figure 1

shows the research model. The model focuses on the direct relationship between resources and small firm growth and also uses private organizations’ support as the moderating variable with the expectation that it may enhance the positive relationship between resources and growth.

As financial resources are the fundamental requirements for the firm growth, the framework shows that there must be some association between financial resources and small firm financial and non-financial growth. If a firm is able to access financial resources, it may positively affect the financial and non-financial growth of the small firm. It is a common problem for small firms to have better access to the formal financial sector, and therefore, the lack of such resources hinders their normal business operations and growth (Mertzanis, 2017). Without adequate access to financial resources, the health of the firm is likely to be weak and its potential growth is jeopardised (Adomako et al., 2015). Therefore, keeping with this conservative wisdom, researchers have concluded that the relationship between access to financial resources and firm growth could be considered positive (Rahaman 2011; Storey 1994).

Empirically, it has been tested by different researchers in many countries to find out the association between finance and small firm growth (financial and non-financial). A vast majority of previous studies found that financial resources, both internal finance and external finance, and the growth (financial and non-financial) or performance of small and medium firms are significantly and positively correlated (Ahmed & Hamid, 2011; Ayyagari et al., 2008; Franco & Haase, 2010; Islam et al., 2014; Rahaman, 2011; Raravi et al., 2013; Yazdanfar, 2012). In Bangladesh, like in many other developing countries, small firms’ access to formal credit is not easy compared to medium and large enterprises. Thus, this financing problem hinders their normal

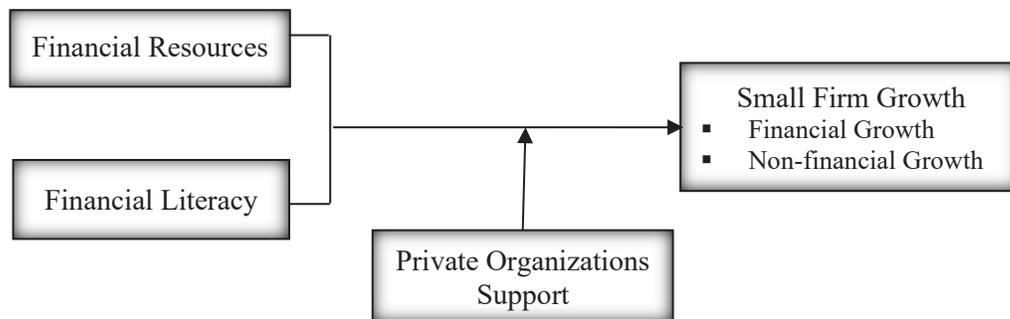


Figure 1. Research Model

business operations that subsequently hinders the potential of future growth (Chowdhury & Ahmed, 2011; Islam et al., 2014; Khan et al., 2012; Mamun et al., 2013; Uddin & Bose, 2013). Therefore, the paper expects that if small firms operating in Bangladesh can have better access to financial resources according to the business requirements, it will enhance their financial and non-financial growth and recommends the following hypothesis:

H1. There is a positive relationship between financial resources and small firm financial growth in Bangladesh.

H2. There is a positive relationship between financial resources and small firm non-financial growth in Bangladesh.

Financial literacy is one of the important characteristics of the owner-manager that enhances the knowledge, skills, financial qualities and the capabilities to effectively manage the other important resources, especially the financial resources. In order to manage the financial activities, proper investment and dealing with the external financial environment, financial literacy of the owner-manager is the precondition. The business environment is very complex and most owner-managers of small businesses face several problems while making important financial decisions in order to operate their businesses. In this regard, financially literate owner-managers can effectively manage the firm's financial resources and can end up with a better plan for the future expansion and growth of the business.

Financial literacy is a significant tool for managing business finance (Miller et al. 2009). On the other hand, a low level of financial literacy negatively affects the firm's growth (Nunoo & Andoh, 2011). Previous studies found that there is a positively strong relationship between financial literacy and firm growth (Bruhn & Zia, 2011; Lusardi & Mitchell, 2011; Siekei, 2013; Smith, McArdle & Willis, 2010; Yoong, 2011). However, there is also evidence that financial literacy has no impact on business outcomes (Karlan & Valdivia, 2010). Eresia-Eke and Raath (2013) also report an insignificant relationship between financial literacy of entrepreneurs and the growth of small, micro, and medium enterprises. Since, there is no standard format to measure financial literacy, scholars derive and explain their findings as per their measurement and context. Therefore, this research further examines such relationships in the context of Bangladesh and proposes the following hypotheses:

H3. The financial literacy of the owner-manager is posi-

tively related to the financial growth of small firms.

H4. The financial literacy of the owner-manager is positively related to the non-financial growth of small firms.

Due to their characteristics of smallness and the larger number of small firms, they deserve more help from the government as well as the private sector for developing themselves and subsequently to contribute to the economy. Therefore, in many countries, either developed or developing, private organizations play a pivotal role for developing the small firm sector. Many of the previous studies found that the growth or performance of micro, small and medium enterprises depend on the support they receive from private organizations (Botha, 2014; Islam, 2013; Zindiye et al., 2012; Fouad, 2013).

Some studies claim that private organizations' support through business training enhances the ability of entrepreneurs to operate businesses which subsequently increase their performance (Chandy & Narasimhan, 2011; Du Plessis et al., 2010; Naqvi, 2011). Other studies argue that private organizations' support in terms of access to information is one of the important factors for the growth or performance of small firms (Kamunge et al., 2014). Therefore, it is evident that for the growth and survival of small enterprises, private organizations play a very significant role. Such a notion motivates the use of private organizations' support as the moderating factor. Here, it assumes that if private organizations provide the required support to small firms, it will moderate the relationships between resources and small firm's financial and non-financial growth. Thus, the paper postulates the following hypotheses:

H5. Private organizations support significantly enhances the positive relationship between financial resources and small firm financial growth.

H6. Private organizations support significantly enhances the positive relationship between financial resources and small firm non-financial growth.

H7. Private organizations support significantly enhances the positive relationship between financial literacy and small firm financial growth.

H8. Private organizations support significantly enhances the positive relationship between financial literacy and small firm non-financial growth.

Method

Sample and Data Collection

Based on the research objectives and hypotheses, the current research adopts a quantitative method to examine the relationship as well as the moderating effect of an interacting term. Survey research design was employed, and a structured questionnaire was used as the research instrument. A cross-sectional analysis is done as data has been collected at a specific point in time. To collect data, an interview was conducted through a structured questionnaire among owners or managers where owners were absent from their business operation. The target populations of the study were the small businesses operating in three major divisions (where most small firms are concentrated) out of seven divisions (Dhaka, Rajshahi and Chittagong) of Bangladesh. The SME Foundation has identified 177 SME Clusters within 7 divisions in 51 districts (out of 64 districts) of Bangladesh. Among the 177 SME clusters, most small businesses (71%) are located in Dhaka (the capital city), Chittagong (the commercial hub) and Rajshahi divisions (Abdin, 2015). Therefore, the paper focused on these three broad areas for data collection, and data was collected from both the rural and urban areas to be able to generalize the results.

The Bangladesh Bureau of Statistics (BBS) (2013) published the total number of small enterprises (859,318) in Bangladesh, but the definite list of small enterprises, including their addresses, is absent. Hence, the paper considered a non-probabilistic sampling technique. Here the Krejcie and Morgan (1970) table is considered to determine total sample size. Out of the total number, 598,645 small businesses (70%) are located in three selected divisions. Hence, based on Krejcie and Morgan table, 384 small businesses were selected as the sample size. However, to reduce the sampling error and to minimize the non response rate, the total sample size was multiplied by two (Hair et al., 2008). Therefore, 768 questionnaires were administered.

The survey followed the drop off and pick up method to collect data. The whole survey process consisted of two or more visits to the premises of small firms in different locations within the study area. Out of 768 questionnaires, the researcher received 426 questionnaire within the survey time. From 426 questionnaires, researcher found 19 questionnaires unusable, and finally used 407 questionnaires for the analysis. The response rate of this survey was 55.47%.

Measures

To measure financial resources, the study considered both internal and external sources of finance, including

financial terms and conditions. Shariff and Peou (2008) conducted a study by using firm financing as independent variable to test its relationship with SME performance from the sample of Cambodia. The study adapted 11 items used by them and modified some items as per the contextual requirement. Two items were deleted and another two items were added from the study of Federico et al. (2012), according to expert opinions. The final list of items is shown in Appendix A. The study measured financial literacy by adapting 10 questions from different categories which were used in a previous study of Lusardi and Mitchell (2007) and evaluated with 10 marks (Appendix B).

To measure private organization support, two important dimensions, namely the information support and the training support, were considered. The first dimension, information support, was measured by four items that were adapted from Indarti and Langenberg (2004). The second dimension, training support, four items were adapted from Chen (2003) and Geringer et al. (2002). Appendix C shows the list of items. The dependent variable of the study is small firm growth which is measured both from the financial and non-financial growth perspectives. As shown in Appendix D, the four financial growth measures were adopted from Wickham (2006) and three non-financial growth measures was adopted from the previous study of Federico et al. (2012), Ahmad et al. (2011) and Arrighetti (1994). Respondents were asked to rank all the variables, except financial literacy, on a 5-point Likert scale, which ranges from 1=strongly disagree to 5=strongly agree.

Data Analysis

A cross sectional survey method is used that indicates all kinds of data were collected from a single respondent within a firm which may create the problem of common method bias (Podsakoff, MacKenzie et al., 2003). Hence, Harman's single factor test was performed to identify the potential problem. For this purpose, an un-rotated factor analysis was conducted for all measurement items that extracted factors with eigenvalues equal to one. The total five factors contribute 58.50% of the total variance. The first factor accounted for 21.559% of the variance which is lower than the recommended 50% threshold (Podsakoff et al., 2003). Therefore, it is concluded that the common method bias is not the major concern for this research.

Structural Equation Modeling (SEM) is used to test the research objectives, and to analyze the measurement and structural model (Ringle and Wende, 2005). There are two primary methods for estimating the relationships in a CB-SEM (covariance-based) and PLS-SEM (variance-based) approach. The goal of CB-SEM is

theory testing, theory confirmation and the comparison of alternative theories. PLS-SEM is used for the theory confirmation, theory development and most suited for proposition development by relationship between variable (Urbach & Ahlemann, 2010). Rather than focusing covariance (i.e., explanation of the relationships between items), PLS-SEM aims on maximizing variance (prediction) of the dependent variable that are explained by the independent variables (Haenlein & Kaplan, 2004) and therefore improves the predictive power.

PLS-SEM approach demands fewer requirements compared to CB-SEM and delivers consistent estimation results (Götz et al., 2010). As opposed to CB-SEM that can handle only the reflective data, PLS-SEM can go with both reflective and formative constructs even if it contains in one structural equation model. Moreover, PLS-SEM is regarded as a soft modeling method for its more relaxed assumptions which are required to fulfil as compared with CB-SEM (Hair et al., 2011). As the objective of this research is to explore the relationship among variables and predict key target constructs as well as to test the moderating effects, SmartPLS software has been used for achieving the research goal. The measurement model (validity and reliability) and structural model (testing the relationship among variables) are tested to finalize the outcome.

Measurement Model Evaluation

In this research, all measurement items of each variable are reflective, both theoretically and statistically. According to Hair et al. (2011), reflective measurement model should be evaluated through interpreting their reliability and validity. Therefore, the measurement model is assessed through convergent and discriminant validity (Chin, 2010). Convergent validity is assessed by using factor loadings, average variance extracted (AVE) and composite reliability (CR) (Hair et al., 2010). For items loading, the study considered minimum loading value of 0.6 as recommended by (Chin, 1998). All the loadings were more than 0.6. The cut-off value for AVE should at least 0.5 and higher that indicates a satisfactory convergent validity (Hair et al., 2014; Henseler et al., 2009). The convergent validity in terms of AVE shows the satisfactory result as all the constructs have more than 0.5 of minimum threshold. The study found CR higher than the recommended value of 0.7 (Hair et al., 2014) for all the constructs. Finally, it can be said that the measurement model satisfied all the requirements of convergent validity that is shown in Table 1 and Figure 2.

Fornell-Larcker criterion has been put forward in order to assess discriminant validity (Hair et al., 2013). According to Fornell and Larcker (1981) criterion, the correlations between constructs should be compared with the square root of the AVE for that constructs and all the diagonal value of the constructs must be greater than the corresponding

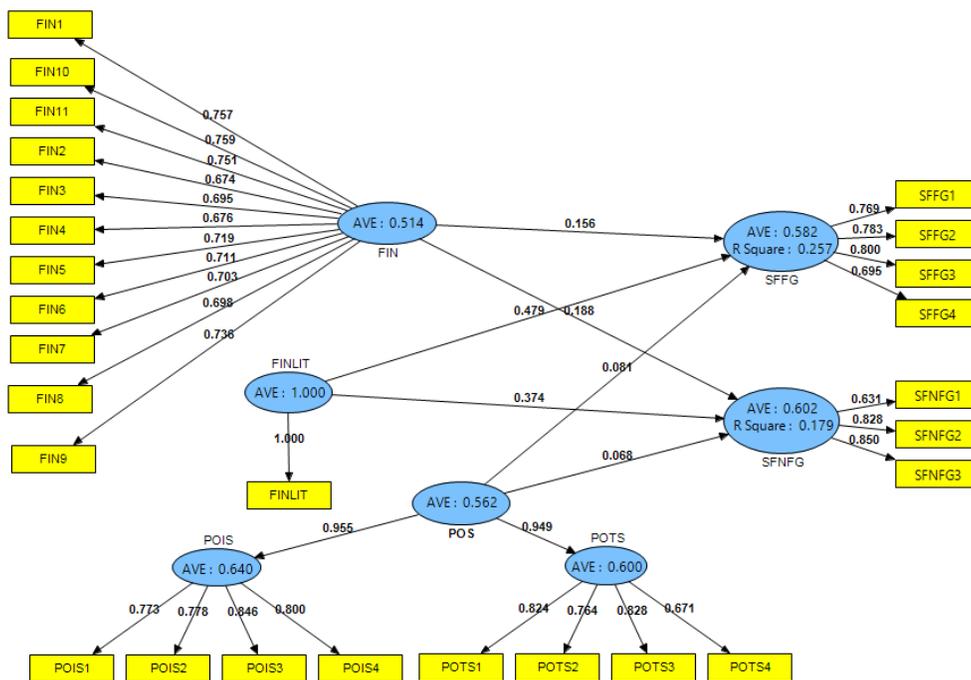


Figure 2. Measurement Model

Table 1
Convergent validity

First Order Construct	Higher Order Construct	Item Type	Item	Loadings	AVE	CR
Financial Resources		Reflective	FIN1	0.7444	0.514	0.921
			FIN2	0.7653		
			FIN3	0.6781		
			FIN4	0.762		
			FIN5	0.7473		
			FIN6	0.7663		
			FIN7	0.7393		
			FIN8	0.6644		
			FIN9	0.7491		
			FIN10	0.7451		
			FIN11	0.733		
Financial Literacy		Reflective	FINLIT	1	1	1
Private Organizations Information Support		Reflective	POIS1	0.7185	0.640	0.877
			POIS2	0.7141		
			POIS3	0.7771		
			POIS4	0.7445		
Private Organizations Training Support		Reflective	POTS1	0.7366	0.600	0.856
			POTS2	0.7334		
			POTS3	0.7702		
			POTS4	0.6149		
	Private Organization Support				0.906	0.951
Small Firm Financial Growth		Reflective	SFFG1	0.8878	0.582	0.847
			SFFG2	0.9943		
			SFFG3	0.8265		
			SFFG4	0.8098		
Small Firm Non-Financial Growth		Reflective	SFNFG1	0.7746	0.602	0.817
			SFNFG2	0.8577		
			SFNFG3	0.9121		

off-diagonal constructs (Chin, 2010). The results of the discriminant validity which is exhibited in Table 2 show that all the diagonal values of the constructs are greater than the corresponding off-diagonal constructs. Therefore, the results signify the adequate discriminant validity of the measurement model. In addition, the study also used cross loading, for assessing discriminant validity which suggests that the loading of each indicator should be higher compared to other cross loading to ascertain discriminant validity (Hair et al., 2013). The study found no item of its construct column that highly correlated with any other construct item.

Structural Model Evaluation

To assess the structural model, first of all, the coefficient of determination (R^2) is used, based on Chin (1998) and Cohen (1988), to measure the variance explained in the outcome variable, by the predictor variables. Then, the significance and relevance of the structural model is evaluated, based on the value of path coefficient, statistical t -values and standard error. To estimate the statistical significance of the path coefficient, 1000 re-sampling for bootstrapping procedure was used (Hayes, 2009). Beside the basic measures, the study also reported the predictive relevance (Q^2) and the effect size (f^2) as suggested by Hair et al. (2014) and Soto-Acosta, Popa, and Palacios-Marqués (2015).

Table 2
Discriminant validity of measurement model

	FIN	FINL	GS	SFFG	SFNFG
FIN	0.714				
FINL	0.032	Single item			
POS	-0.022	0.002	0.750		
SFFG	0.169	0.476	0.053	0.763	
SFNFG	0.191	0.373	0.049	0.625	0.776

Table 3
Structural model

Hypothesis	Relationship	Std Beta	Std Error	t-value	Decision	R^2	f^2	Q^2
H1	FIN -> SFFG	0.1566	0.027	5.863**	Supported		0.029	
H2	FIN -> SFNFG	0.1877	0.027	6.985**	Supported		0.041	
H3	FINLIT -> SFFG	0.4744	0.022	21.601**	Supported	0.251	0.290	0.139
H4	FINLIT -> SFNFG	0.3708	0.023	16.314**	Supported	0.174	0.150	0.068

** $p < 0.01$

FIN = Financial resources, FINL = Financial literacy, SFFG = Small firm financial growth, SFNFG = Small firm non-financial growth.

The R^2 is found to be 0.251 for financial growth and 0.174 for non-financial growth (Table 3); these are moderated as recommended by Cohen (1988). The values of these R^2 indicate that the 25.1% of the variance in financial growth and 17.4% of the variance in non-financial growth of small firms can be explained by the two independent variables (financial resources and financial literacy). The study found that both financial resources ($\beta = 0.156$, $p < 0.01$) and financial literacy ($\beta = 0.474$, $p < 0.01$) had significant positive relationship with financial growth of small firms. Therefore, hypotheses H1 and H3 were supported that are summarized in Table 3.

Table 3 also shows that all the independent variables such as financial resources ($\beta = 0.187$, $p < 0.01$) and financial literacy ($\beta = 0.370$, $p < 0.01$) were positively related with non-financial growth of small firms and are statistically significant. Thus, the results show that hypotheses H2 and H4 were statistically significant and supported.

As suggested by Hair et al. (2014), the study assessed effect size (f^2) to show the substantive significance. The statistical significance like a P value can only show whether an effect exists and does not reveal the size of the effect and thus in reporting and interpreting results, both the substantive significance (effect size) and statistical significance (P value) are essential (Sullivan & Feinn, 2012). Cohen (1988) provided the guideline for measuring the magnitude of the effect size and suggested that 0.02, 0.15 and 0.35 represent small, medium and large effect sizes respectively. According to this guideline, both of the relationships showed substantive impact (Table 3). However, financial resources showed small effect and financial literacy showed moderate effect with both financial and non-financial growth.

The study also logged on the predictive relevance (Q^2) that regarded an additional assessment of model fit (Duarte & Raposo, 2010). This assessment is performed by using the blindfolding procedure. According to Hair et al. (2014), the blindfolding procedure should apply only for endoge-

nous constructs that have a reflective measurement. For the blindfolding setting, the study used omission distance (OD) of seven as suggested by Hair et al. (2012). The value of Q^2 greater than zero (0) indicates that the model has predictive relevance for a specific endogenous construct whereas the value of Q^2 lower than zero denotes lack of predictive relevance (Hair et al., 2014). Thus, the results (Table 3) of Q^2 0.139 with financial growth and 0.068 with non-financial growth indicate that the model has sufficient predictive relevance.

Table 4

Moderating effect of private organizations support

Hypothesis	Interaction effect	Std. Beta	Std. Error	t-value	Decision
H5	FIN * POS -> SFFG	0.9675	0.1372	7.0503**	Supported
H6	FIN * POS -> SFNFG	0.7641	0.1512	5.0527**	Supported
H7	FINLIT * POS -> SFFG	0.4419	0.1036	4.2649**	Supported
H8	FINLIT * POS -> SFNFG	0.6466	0.0939	6.8878**	Supported

** $p < 0.01$

FIN = Financial resources, FINLIT = Financial literacy, POS = Private organizations support, SFFG = Small firm financial growth, SFNFG = Small firm non-financial growth.

the results of the moderating effect of private organizations support.

The interaction effect of private organizations' support with finance and financial growth ($\beta = 0.967$, $p < 0.01$) and financial literacy and financial growth ($\beta = 0.441$, $p < 0.01$), were statistically significant. Therefore, the hypotheses of H5 and H7 were supported. All the hypotheses assumed that the relationships between the independent and dependent variables would be higher when small firms receive private organizations' support. Appendix E shows the interaction effects. The graph of these interaction effects shows that private organization support is of minor importance when finance and financial literacy are low but it becomes more important with the increase of finance and financial literacy to generate small firm financial growth.

Besides, the interaction effect of private organizations' support with finance and non-financial growth ($\beta = 0.967$, $p < 0.01$) and financial literacy and non-financial growth ($\beta = 0.441$, $p < 0.01$), were also statistically significant. Therefore, the hypotheses of H6 and H8 were supported. Appendix E shows the interaction effects. The graph of these interaction effects shows that private organization's support is of minor importance when finance and financial literacy are low but it becomes more important with the increase of finance and financial literacy to generate small firm non-financial growth. Therefore, with high financial access and high level of financial literacy small firms can gener-

Moderating Effect

For the interaction effect of a moderator, the study used a product indicator approach as both the endogenous (small firm financial and non-financial growth) and moderator variables (private organizations support) are continuous variable. To test the significance of the interaction effect, the study used 1000 bootstrapping re-sampling. The overall results showed that the hypotheses for 4 (four) interaction effects of private organizations support with financial and non-financial growth were supported. Table 4 summaries

ate more financial and non-financial growth if they receive higher support from private organizations.

Discussion and Conclusion

This article examined the relationship between financial resources, financial literacy and small firm financial and non-financial growth through the structural model. As expected through hypotheses development, the findings showed a strong positive and statistically significant association between financial resources and small firm growth in terms of both financial and non-financial parameters in the context of Bangladesh. Many of the previous studies also confirmed similar relationships in different contexts with financial growth (Adomako et al., 2015; Coluzzi et al., 2012; Guariglia et al., 2008, 2011; Musso & Schiavo, 2008; Osei-Assibey, 2013; Yazdanfar, 2012) and non-financial growth (Brown et al., 2005, 2011; Rahaman, 2011). The findings indicate that when small firms are able to access an adequate amount of funds for their business, it positively influences their financial and non-financial growth. This result will help policy makers and other stakeholders for their policy initiatives to ensure small firms access to financial resources.

The findings of the research are supported by the statement of many scholars who state that finance is one of the major resources that leads to the growth or performance

of small and medium enterprises (Fraser et al., 2015; Shariff et al., 2010; Storey, 1994). It facilitates small firms entering the market, continue smooth operations, reduces the riskiness of firms, helps in innovation, and captures opportunities for future growth. With sufficient financial resources, firms become more capable of experimenting with innovation and pursuing new growth opportunities (Mercandetti et al., 2017). Therefore, it can be said that without sufficient access to finance, the staying power of the firm and its potential for growth is endangered.

The study also found a very strong positive relationship with financial literacy and small firm financial and non-financial growth in Bangladesh. The findings of this paper indicate that financial literacy is an important driver for generating financial and non-financial growth of small firms in Bangladesh. Many previous studies have also supported the aforesaid finding (Bruhn & Zia, 2011; Christelis et al., 2010; Dahmen & Rodríguez, 2014; Drexler et al., 2014; Nyamboga et al., 2014; Siekei et al., 2013; Wise, 2013).

Financial literacy allows owner-managers of small firms to acquire significant knowledge and skills to make timely and accurate financial decisions. These facilitate the required production, service creation or buying of stock. Financial literacy increases the strategic investment choice of firm to capture market opportunities to ensure financial and non-financial growth.

Also, private organization support is used as the moderating variable. As expected, the results reveal that private organizations' support in terms of information and training enhanced the positive relationships between finance and small firms financial and non-financial growth. For facilitating the growth or expansion, small firms need different information related to capital availability, financial products and services, cost of capital, terms and condition of lenders, re-financing and pre-financing schemes of government, documents needed and preparation, proper financial plan and others. Previous studies also acknowledge that access to information (Hernandez et al., 2012; Kamunge et al., 2014) and business training (Du Plessis et al., 2010) are the essential tools for the entrepreneurs to make the business successful.

Private organizations' support moderates the relationships between financial literacy and small firm financial and non-financial growth. The result revealed that with required financial literacy, if owner-managers of small firms receive sufficient information and training support from the private organizations, they can increase their financial and non-financial growth. The information and the training received from private organizations increase their technical and interpersonal abilities that facilitates to improve the product and service quality to increase sales and profitability, gain

customer satisfaction or extend market share. Access to information facilitates the ability of firms to grab opportunities for business start-up and success. From the finding, private organizations that are trying to provide support services must have some idea about the requirement of small firms and can offer relevant, accurate and need based services.

Limitations and Future Research

The paper followed the cross-sectional study rather than a longitudinal approach. The longitudinal approach provides a better position to draw causal conclusions. Therefore, the results may not be assumed to be in a similar fashion and consistent over time. The scope of the paper was limited to three broad divisions. Although most of the small firms are concentrated in these three divisions and the nature of small firms all over Bangladesh is the same, the characteristics of firms or their owner-managers in terms of financial resources accumulation, strategy adoption, financial literacy, and managerial capability may differ based on the location and region. Therefore, the generalization of the findings may be limited in a true sense for the whole country. In this research, only two important resources, finance and financial literacy are used which cannot generalize the impact of resources on small firm growth. Thus, more resources, both tangible and intangible, maybe included in a model to study in the future. Like private organizations, government and many NGOs also work for small business development. Therefore, further research can be done by using such variables as moderator. The paper considered only the growth of small business. Similar study can be done for micro or SME together to see the impact of finance and financial literacy on their growth.

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Appendix A
Items for measuring financial resources

Item Code	Items
FIN1	Start-up capital
FIN 2	Additional capital
FIN 3	Informal sources of finance
FIN 4	Accessed to commercial banks' loans including the refinancing scheme of government.
FIN 5	Alternative sources of finance (advances, deferred payments, second-hand equipment, leasing and factoring)
FIN 6	Banks require many conditions
FIN 7	Higher requirements of collateral
FIN 8	High interest rate
FIN 9	Financial institutions do not deal with SMEs
FIN 10	Use of financial report standard
FIN 11	Control over finance

Appendix B
Questions Category for Measuring Financial Literacy of Owner-Manager

No	Category	No	Category
1	Probability	6	Risk and return
2	Division	7	Stocks and bonds feature
3	Interest rate	8	Investment
4	Time value of money	9	Insurance
5	Risk diversification	10	Inflation

Appendix C
Items for Measuring Private Organizations Support

Dimension	Item Code	Items
Information Support	POIS 1	Information for marketing the products
	POIS 2	Information on capital sources
	POIS 3	Information on technologies
	POIS 4	Information on government rules and regulations
Training Support	POTS 1	Training support to improve technical abilities.
	POTS 2	Training support to improve interpersonal abilities.
	POTS 3	Training support to help understanding the business.
	POTS 4	Training support to enhance personal productivity.

Appendix D
Small Firm Financial and Non-financial Growth Measurement Indicators

Growth Dimensions	Item Code	Items
Financial Growth	SFFG 1	Sales volume
	SFFG 2	Profit volume
	SFFG 3	Total asset size
	SFFG 4	Capital position
Non-financial Growth	SFNFG 1	Employment
	SFNFG 2	Market size
	SFNFG 3	Satisfied customers

Appendix E Interaction Effects of Moderator (Private Organizations Support)

