

## **MICRO-START-UPS FINANCIAL CAPITAL AND SOCIO-ECONOMIC PERFORMANCE: IN A POOR FINANCIAL RESOURCE SETTING**

*Eijaz Ahmed Khan*

Khulna University, Bangladesh

*Mohammed Quaddus*

*Paull Weber*

*Louis Geneste*

Curtin University, Australia

### **ABSTRACT**

The micro-start-ups financial capital dimensions and its relationships are unique because it operates a business in a poor financial resource setting. However, micro-start-ups poor financial resource settings are not adequately explored into the literature. Therefore, drawing upon the resource-based view (RBV), the current paper attempts to examine the dimensions of financial capital with respect to a measurement model, and to test the direct and indirect relationships between financial capital dimensions and performance. Using a mixed method research design, at first, in the qualitative part, we obtained data from 14 cases via one-to-one personal interview: eight micro-start-ups, three NGOs, and three Local governments. Content analysis was applied to extract, classify, and cross examine of the data. In the quantitative part, a questionnaire was developed, and data were collected from 438 micro-start-ups. We analyzed the data by using the partial least square structural equation modeling (PLS-SEM). Results are well vibrated with the existing literature and establish a model and the hypothesis. The study used a field study data to produce new items and confirm existing items recognized by RBV in the literature review. This process also assessed the content validity of the items. After confirming the content validity, this study formally specifies the measurement model. The measurement model confirmed a valid scale for measuring sources of finance, capital structure and socio-economic performance in the context of micro-start-ups. The findings of this study showed that there is significant statistical evidence to support a positive relationship between sources of finance and capital structure, capital structure and socio-economic performance, and sources of finance and socio-economic performance. The study also observed that that capital structure plays a partial indirect effect in explaining the relationship between sources of finance and socio-economic performance. Policy makers and relevant agencies may design specific strategies to alleviate micro-start-ups financial resource difficulties. They may revisit the existing micro-credit programmes and evaluate the risk tolerance of small capital. They should develop a special package of capital structure for micro-start-ups. It might also be interesting to shed some additional light on the sources of finance, for example, specifically address whether financing from NGOs plays a vital role.

**JEL Classifications:** O19, F15, B28

**Keywords:** Resource-Based View, Micro-Start-Up, Sources of Finance, Capital Structure, Socio-Economic Performance

**Corresponding Author's Email Address:** [eijaz\\_2@yahoo.com](mailto:eijaz_2@yahoo.com)

### **INTRODUCTION**

Based on the resource-based view (RBV), resources are critical for every enterprise, especially for micro-start-ups in terms of funding and financial opportunities. The micro-start-ups sources of finance and capital structure are more critical because it runs business with a poor financial resource setting and determines the future success and

failure (Cassar, 2004; Davila, Foster, & Gupta, 2003). Several studies have shown that the micro-start-ups is limited by the lack of access to formal finance sources (e.g., Aga & Reilly, 2011; Akyüz, Akyüz, Serin, & Cindik, 2006). More specifically, it has difficulties raising capital from external sources (Hamilton & Fox, 1998). The reasons are the high information asymmetry and agency costs (Carpenter & Petersen, 2002). Therefore, they rely heavily on local lenders or the extended family. More clearly, their sources of finance are limited to their own savings or those of their families and friends or, where available, micro-firm moneylenders who usually charge rates of interest considerably higher than those charged in the other firm. Limited access to finance increases the micro-firms vulnerability, and margin of risk. Addressing the different financial resource difficulties of micro-start-ups, this study aims to answer the following questions. What are dimensions of financial capital with respect to a measurement model? And how these dimensions are associated with each other and contribute to performance?

Considering the RBV, studies on the financial capital dimension in the context of micro-start-up is limited. To date, no coherent financial capital dimension has been validated with respect to a measurement model. However, researchers give the importance of both theoretical and empirical considerations for validating appropriate measurement models. Wrong specification of measurement models have a significant impact on research result and may even mislead policy setting (Khan and Quaddus, 2015). Therefore, this paper has taken careful consideration in designing the right measurement model for micro-start-ups. Grounding on the RBV, financial capital dimensions positively influence on micro-start-ups performance. Although the relationship between financial capital and firm performance has been established in the context of SMEs and large enterprises, little has been done to study the influence of financial capital in micro-start-ups performance. However, using RBV, financial capital can be perceived based on different dimensions and examined their influence on firm performance. While the financial capital dimensions are the crucial factor influencing firm performance, there might have also been the indirect relationships, has not yet been investigated in the context of micro-start-ups. However, it is crucial to analyze the indirect relationships because, in reality, factors are not functioning in standalone mode rather they link consecutively. Therefore, examining the indirect and direct effects will facilitate the micro-firm owners and policy makers to understand the relationship of financial capital dimensions, and firm performance.

This study conducted mixed methods research design (Creswell & Clark, 2007), to investigate the research model. In the qualitative approach, we conducted a field study on 14 cases while the quantitative study was conducted by administering a survey on 438 micro-start-ups in Bangladesh.

## **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

RBV describes that sources of finance and/or access to finance are necessary in order to facilitate growth within a business (Kelliher & Reinl, 2009). This is essentially concerned with the sources from which a micro-start-ups with limited funds can access finances for their enterprise (Kickul, Liao, Gundry, & Iakovleva, 2010). RBV addresses that numerous options of financial sources can alleviate other areas of resource constraints and enhance performance. Micro-start-ups use several options for collecting finance such as personal or family member's savings, relatives or friends, known persons (e.g., colleagues and neighbors), institutional borrowing (e.g., NGOs, Banks), etc. At the initial stage of the business, micro-start-ups usually tend to rely upon their own sources and the pooled personal resources. In this stage, family

members are willing to loan, contribute, or share for the success of the business (Sirmon & Hitt, 2003). These sources of finance can help sustain the business during poor economic times (Sirmon & Hitt, 2003). Micro-start-ups also seek person-to-person lending from relatives, friends, and known persons. A study by Aga and Reilly (2011) highlights that many firms prefer these informal sources of finance because of the paucity of administrative procedures. Coleman (2007) argues that firms become more vulnerable if they are not able to raise capital from external sources. Thorne (1989) suggests that the entrepreneur's ability to collect capital outside the traditional sources of funds often identifies the entrepreneurial character of the new business owner. Therefore, institutional borrowing is an important contributor to micro-start-ups.

Findings from the field study demonstrated that many participants perceived that sources of finance predictors are the important predictors in determining the performance. In explaining the influence of sources of finance to performance, micro-firm (E), for example, stated: "We [Micro-firm] have started our business with my own personal savings. We [Micro-firm] have not taken out loans from anybody."

Consequently, the following hypothesis is proposed.

*H1: Sources of finance will positively influence the socio-economic performance of micro-start-ups.*

RBV suggests that different sources of finance for a firm are associated with different levels of benefits, time, procedures, risk, and costs (Kochhar, 1997). Therefore, sources of finance should be viewed as an antecedent to capital structure. This association also needs to consider because suppliers of finance are able to exert control over firms (Stearns, 1986). Capital sources of personal or family member's savings are less likely possess higher risk and cost of capital, and no procedural arrangements and time obligations. These sources are crucial for a firm's ability to secure the necessary amount of capital in the context of micro-start-ups (Shane, Locke, & Collins, 2003). On the other hand, other informal sources of finance such as relatives or friends, known persons might have holds a moderate level of risk, cost, time and procedure. For example, the capital structure of known person lending contains a lower rate of interest, less flexible time-frame to pay back loan, few procedural requirements for acquiring loan (Khan, 2013). Micro-start-ups also search loans from formal sources such as NGOs, micro-finance banks, etc. The capital structure of these formal sources is hard in terms of the higher cost of capital, tight time-frame, and longer procedural requirements (Khan, 2013).

Furthermore, based on the findings of the field study, all participants except J, K, M, and N agreed that sources of finance were a contributor to capital structure. For instance, Micro-firm (A) narrated that "I [Micro-firm] took a loan from a known person. I [Micro-firm] have paid an extra Tk. 200 as a cost of capital. I [Micro-firm] mean Tk. 1,200 per month."

Therefore, the following hypothesis is proposed:

*H2: Sources of finance will positively influence the capital structure of micro-start-ups.*

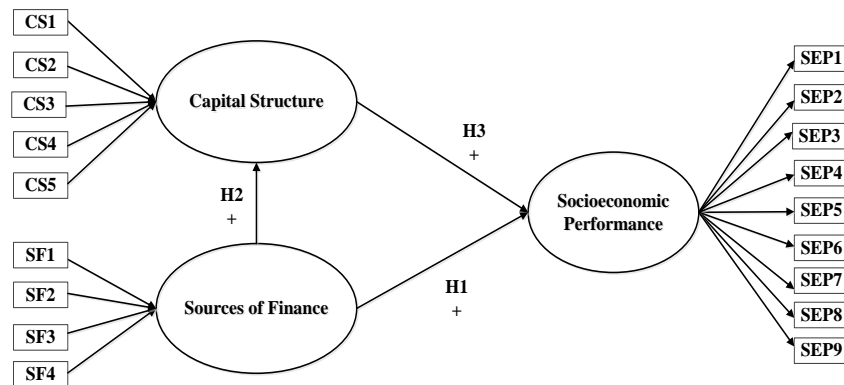
A firm's capital structure denotes to the mixture of its financial obligations. RBV has focused on capital structure as a vital resource in any firm's creation and growth. The amount of capital raised should be positively associated with venture survival and success. Cooper, Folta, Gimeno-Gascon, and Woo (1992) found that, of

eight prior studies that examined links between initial capital requirements and performance, six showed that sufficient capital was associated with better performance. Likewise, in a study of Jamaican micro-firms, Honig (1998) established that higher levels of capital improved the earnings of the firm. The empirical evidence investigating growth and financing linkages was inconclusive in the study by Michaelas, Chittenden, and Poutziouris (1999) who found future growth to be positively linked to leverage and long-term debt while Chittenden, Hall, and Hutchinson (1996) found mixed evidence. The field study also supported the findings of the literature review. For example, as Micro-firm (B) stated: “this business is very easy to run and needs less money [capital structure] to operate and start. We [Micro-firm] started a business, because of micro-capital”.

Accordingly, the following hypothesis is proposed:

*H3: Capital structure will positively influence the socio-economic performance of micro- start-ups.*

**FIGURE 1: THE HYPOTHESIZED MODEL**



Notes: SF – Sources of Finance, CS – Capital Structure, SEP – Socio-economic Performance

## RESEARCH METHODS

### QUALITATIVE

#### CASE SELECTION

The field study approached 14 cases: eight micro-start-ups, three NGOs, and three Local governments. By way of triangulation, purposeful sampling of NGOs and Local governments who are knowledgeable about local microentrepreneurs were interviewed as this approach “might yield better and more reliable data (Weiss, 1995).”

#### DATA COLLECTION AND ANALYSIS PROCEDURE

Data were obtained via one-to-one personal interview basis. The transcribed interviews were analyzed using the content analysis method. The content analysis technique is useful in exploratory research to examine the determinants of behavioral patterns (Miles and Huberman 1994). The inductive process starts with conducting, transcribing, and analyzing the interview transcripts, and then finished by using keywords to identify the emerging themes. The deductive process begins with labeling

and categorizing the keywords to determine the latent factors corresponding to constructs. Further, links were established among the factors and constructs followed by matching the factors and variables with literature.

**QUANTITATIVE**

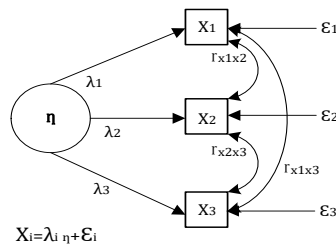
**INSTRUMENT SELECTION**

In order to produce an items pool for each factor, items were recognized from the literature; and finally, field study analysis was aligned with current scales to match factor definitions (MacKenzie et al., 2011). A pilot survey was done in preparation for this investigation covered capital structure, sources of finance, and performance of micro-start-ups. After the pilot survey, certain minor adjustments were made to the questionnaire, and carefully designed to extract accurate information. The micro-start-ups asked to point out 18 items that added to their present level of capital structure, sources of finance, and socio-economic performance using a 6-point Likert scales (1 = Strongly disagree; 6 = Strongly agree). Avoiding the central tendency error of respondents was the most important reason to use a six-point scale.

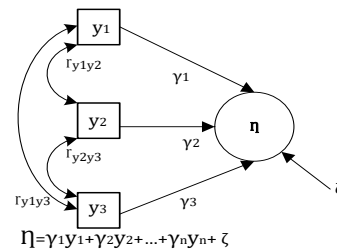
**MEASURES**

Sources of finance factor was measured with four items adapted from Abbasian and Yazdanfar (2012). Also, capital structure factor was measured with five items adapted from Sirmon and Hitt (2003). Socio-economic performance was measured by nine items adapted from Khan and Quaddus (2015). The decision to model a construct as either reflective or formative was made based on four major criteria suggested by Jarvis et al. (2003): (1) direction of causality from construct to items, (2) interchangeability of items, (3) covariation among items, and (4) nomological net of construct items (see Figure 2). Sources of finance and capital structure factor items were formative in nature, while performance items were reflective.

**FIGURE 2: THE REFLECTIVE VS FORMATIVE MODEL**



*Fig. 2a Reflective measurement model*  
 η: latent variable; λ: loading; x: reflective indicator; ε: measurement error on level of indicators; r: correlation between indicators



*Fig. 2b Formative measurement model*  
 η: latent variable; γ: weight; y: formative indicator; ζ: measurement error on level of the latent variable; r: correlation between indicators

**SAMPLE AND DATA COLLECTION PROCEDURE**

A total of 438 survey questionnaires were completed based on a simple random sample. This study used location intercept techniques to ensure good response rates in comparison with other methods (Malhotra, 2008). The response rate was 87%. As this was a study intended to measure effects and make generalizations about a population,

the size of the response rate compellingly exceeded the minimum threshold level (> 60%) for a face-to-face survey (Wholey et al., 2010).

### DATA ANALYSIS TECHNIQUE

PLS enables to estimate the best weights of each block of the measurement model and then estimate the path coefficients in the structural model (Chin and Newsted, 1999). PLS is more appropriate when the measurement items are not well established and are used within a new measurement context (Barclay et al., 1995). Moreover, the capability of handling formative as well as reflective indicators and constructs were one of the incentives to adopt PLS.

For analyzing the measurement properties of the factors, we conducted a confirmatory factor analysis (CFA). For the result of CFA, we assess the convergent validity and discriminant validity of the scales for reflective measurement model. The reflective items were tested for convergent validity by determining item reliability, composite reliability (CR) and average variance extracted (AVE) (see equation 1 and 2).

$$\rho_c = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + \sum \text{Var}(\epsilon_i)} \quad (1)$$

where;  $\lambda_i$  = the factor loading which represents simple correlation between the item and its construct, and  $\text{Var}(\epsilon_i) = 1 - \lambda_i^2$ , the unique/error variance.

$$AVE = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + \sum \text{Var}(\epsilon_i)} \quad (2)$$

where;  $\lambda_i$  factor loading; denotes the simple correlation between the item and its construct (item loading), and  $\text{Var}(\epsilon_i) = 1 - \lambda_i^2$  (the variance)

To establish discriminant validity, the square root of the AVE is compared to the inter-construct correlations. The cross-loadings for each item were explored and compared across all constructs and have been presented in the form of a cross-loading matrix. In addition, nomological validity also calculated. Formative model is assessed by the item level loadings\weights and their  $p$ -value, and multicollinearity statistics.

## RESULTS

### ASSESSMENT OF MEASUREMENT MODEL

Item reliability examines how well each item relates to its respective construct. Referring to Hair et al. (2011) argument, this research has found all the loadings achieved the significant (greater than 0.7) for socio-economic performance reflective constructs, as shown in Table 1. On the other hand, Hair et al. (2011) recommended that the relative importance of each indicator's weight be considered for the formative items along with the minimum critical  $t$ -value of 1.65. Accordingly, three items in the 'capital structure' construct failed to meet this criterion: CS2, CS3, and CS4. PLS was run again deleting these three items. This result confirmed that all items were sufficient to represent their respective formative constructs.

To examine multicollinearity, the variation inflation factor (VIF) scores for each item is calculated. The maximum level of VIF score should be below 05 (Hair et al. 2011). Therefore, all the formative items retained. The minimum value for internal consistency is specified as 0.7 (Nunnally & Bernstein, 1994). Socio-economic

performance construct meet criterion for a minimum value of 0.7. The AVE cut off values were above 0.5 (Fornell & Larcker, 1987) (see Table 1).

**TABLE 1: ASSESSMENT OF MEASUREMENT MODEL**

Constructs	Items	L	W	Lt-v	Wt-v	VIF	CR	AVE
Sources of Finance (SF)	SF1	0.916	0.862	20.436	13.163	1.038		
	SF2	0.464	0.169	3.819	1.177	2.380		
	SF3	0.518	0.192	4.692	1.434	2.573		
	SF4	0.233	0.141	2.039	1.149	1.137		
Capital Structure (CS)	CS1	0.715	0.726	4.962	4.922	1.000		
	<del>CS2</del>							
	<del>CS3</del>							
	<del>CS4</del>							
	CS5	0.688	0.699	4.118	4.533	1.000		
Socio-Economic Performance (SEP)	SEP1	0.741	0.109	15.587	8.491			
	SEP2	0.677	0.059	12.776	3.652			
	SEP3	0.719	0.113	19.293	8.087		0.932	0.605
	SEP4	0.693	0.078	15.412	6.351			
	SEP5	0.738	0.158	30.340	8.876			
	SEP6	0.803	0.144	37.106	15.508			
	SEP7	0.846	0.206	47.186	12.998			
	SEP8	0.867	0.192	67.441	13.832			
	SEP9	0.884	0.195	75.151	13.952			

Notes: L-Loadings, W-Weights, L t-v-Loadings t-value, W t-v- Weights t-value, VIF-Variation Inflation Factors, CR-Composite Reliability, AVE-Average Variance Extracted 0.05=1.645; 0.025=1.96; 0.01=2.32; 0.005=2.57 Significant \*p<0.05, \*\*p<0.01, \*\*\*p<0.005

**TABLE 2: ASSESSMENT OF MEASUREMENT MODEL**

Constructs	AVE SQRT			Items	Cross-loadings		
	SC	CS	SEP		SC	CS	SEP
SF	-			SC1	0.916	0.331	0.548
CS	0.316	-		SC2	0.464	0.167	0.278
SEP	0.622	0.367	0.778	SC3	0.518	0.156	0.326
				SC4	0.233	-0.195	0.281
				CS1	0.147	0.715	0.330
				CS5	0.299	0.688	0.182
R <sup>2</sup> for CS 0.100				SEP1	0.477	0.206	0.803
R <sup>2</sup> for SEP 0.419				SEP2	0.609	0.503	0.846
Q <sup>2</sup> for CS 0.043				SEP3	0.603	0.367	0.867
Q <sup>2</sup> for SEP 0.186				SEP4	0.589	0.444	0.884
				SEP5	0.367	0.131	0.741
				SEP6	0.222	-0.001	0.677
				SEP7	0.356	0.213	0.719
				SEP8	0.271	0.073	0.693
				SEP9	0.527	0.208	0.738

Notes: SF – Sources of Finance, CS – Capital Structure, SEP –Socio- economic Performance AVE - Average Variance Extracted

Discriminant validity is achieved when the square root of the AVE of a construct is larger than its correlation with other constructs (Barclay, Higgins, & Thompson, 1995). The socio-economic performance construct meets the criteria. In cross loading analysis, socio-economic performance items were meet the criteria (see Table 2).

### ASSESSMENT OF STRUCTURAL MODEL

The coefficient of determination  $R^2$ , path coefficient, and  $t$ -value of the hypothesized relationships were calculated to evaluate the significance of the relationship. The values of  $R^2$  range from 0 to 1 and it is recommended that the  $R^2$  should exceed 0.1 for the model to be considered good (Falk & Miller, 1992). Table 2 shows that the model explains 10% of the variance in capital structure and 42% of the variance in socio-economic performance. In addition to evaluating the magnitude of the  $R^2$  values as a criterion of predictive accuracy, this study also examined the predictive sample reuse technique or  $Q^2$ .

$$Q^2 = 1 - \frac{\sum_D E_D}{\sum_D O_D} \quad (3)$$

Where; E = the sum of squares of prediction error, O = the sum of squares error using the mean for prediction, D = omission distance

Using the blindfolding procedure with the omission distance of 7 (Hair et al., 2011), the study obtained a cross-validated redundancy  $Q^2$  of 0.043 for capital structure and 0.186 for socio-economic performance (see Table 2). All these values of  $Q^2$  were greater than zero ( $Q^2 > 0$ ), which was indicative of a highly predictive model (Chin, 2010). Also, the path coefficient values (0.316, 0.562, and 0.189) are positive, it indicates the positive impact of sources of finance and capital structure on socio-economic performance, and sources of finance on capital structure. The  $t$ -values are 4.271, 13.438 and 3.105 which are highly significant  $p < 0.005$  (see Table 3).

**TABLE 3: ASSESSMENT OF STRUCTURAL MODEL**

Hypothesis	Path coefficient	$t$ -Value
SF → CS	0.316	4.271
SF → SEP	0.562	13.438
CS → SEP	0.189	3.105

Notes: 0.05=1.645; 0.025=1.96; 0.01=2.32; 0.005=2.57 Significant \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.005$

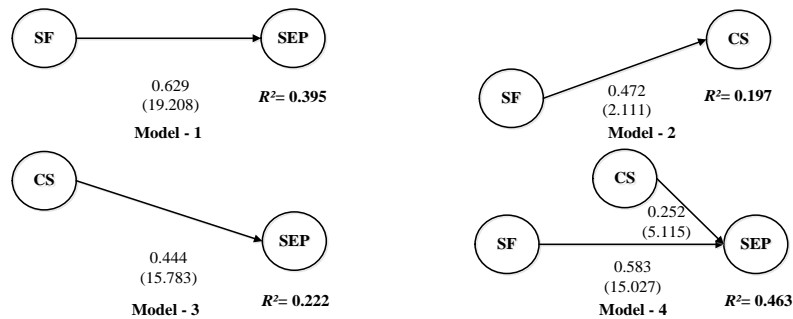
### ASSESSMENT OF INDIRECT EFFECT

To prove whether any indirect relationship exists and, if it exists, what type of indirect relationship it is, the researcher should estimate the relationship between the initial variable and criterion variable is no longer significant (in control of the mediating variable). As shown in Table 4, Model 4 illustrates a significant effect of capital structure on socio-economic performance ( $b_2 = 0.252$ ,  $t = 5.115$ ): the effects of sources of finance on socio-economic performance is also significant ( $c' = 0.583$ ,  $t = 15.027$ ). It is important to note that, although the effects of sources of finance on socio-economic performance is significant (in control of capital structure), the magnitude of the effect is reduced in comparison to the direct relationship between sources of finance and socio-economic performance ( $c = 0.629$ ,  $t = 19.208$ ). Thus, it is observed that capital structure plays a partial indirect role (Baron & Kenny, 1986) (see Figure 3).



**TABLE 4: ASSESSMENT OF INDIRECT EFFECT**

	Model 1	Model 2	Model 3	Model 4	Comments
<i>c</i> or <i>c'</i>	0.629 (19.208)			0.583 (15.027)	Partial mediation
<i>a</i>		0.472 (2.111)			
<i>b</i>			0.444 (15.783)	0.252 (5.115)	
<i>R</i> <sup>2</sup>	0.395	0.197	0.222	0.463	

**FIGURE 3: THE INDIRECT ROLE OF CAPITAL STRUCTURE**

Notes: SF – Sources of Finance, CS – Capital Structure, SEP – Socio-economic Performance

The significance of indirect effects is examined by the *z* statistic (Sobel, 1982).

$$Z = \frac{ab}{\sqrt{b^2 s_a^2 + a^2 s_b^2}} \quad (4)$$

Where, *a* = raw (unstandardized) regression coefficient for the association between IV and mediator. *s<sub>a</sub>* = standard error of *a*. *b* = raw coefficient for the association between the mediator and the DV (when the IV is also a predictor of the DV). *s<sub>b</sub>* = standard error of *b*

$$Z = \frac{0.472 \times 0.444}{\sqrt{(0.444)^2 \times (0.223)^2 + (0.472)^2 \times (0.028)^2 + (0.223)^2 \times (0.028)^2}} = 2.094$$

The results support the indirect effects of capital structure which implies that it has an indirect influence on socio-economic performance. The variance accounted for (VAF) value is used to estimate the ratio of the indirect effects.

$$\text{VAF} = \frac{0.472 \times 0.444}{0.472 \times 0.444 + 0.629} = 0.249$$

The VAF value indicates that 25% of the total effect of sources of finance on socio-economic performance is explained by indirect effects through capital structure.

## **DISCUSSIONS AND IMPLICATIONS**

At first, this study established a conceptual definition of sources of finance, capital structure, and socio-economic performance factors and their indicators via using the RBV and a literature review. Next, the study used a field study data to produce new items and confirm existing items recognized by RBV in the literature review. This process also assessed the content validity of the items. After confirming the content validity, this study formally specifies the measurement model. The measurement model confirmed that all the weights were significant in the sources of finance dimension. In the capital structure dimension, three items (CS2, CS3, and CS4) were not significant. Further, AVE and the CR values also meet the criteria and established the convergent validity of measurement models. Furthermore, good AVE Square root and cross loading values also confirmed the discriminant validity among the factors. Therefore, the findings confirmed a valid scale for measuring sources of finance, capital structure and socio-economic performance in the context of micro-start-ups.

### **RELATIONSHIP BETWEEN SOURCES OF FINANCE AND SOCIO-ECONOMIC PERFORMANCE**

In line with the first hypothesis, the result vibrates well with the existing literature and connecting with the RBV, showing that sources of finance of micro-start-ups may play a significant role in explaining socio-economic performance (Aga & Reilly, 2011; Coleman, 2007; Sirmon & Hitt, 2003; Thorne, 1989). The quantitative findings are also in alignment with the field study. In fact, there is a clear evidence that most micro-start-ups are curtailed by the poor of access to formal credit sources (e.g., formal retail banks), and this has been considered as a common challenge by RBV perspective. This challenge appears to be due to the micro-size of firms. Understanding this reality, many micro-start-ups financial institutions and NGOs are willing to finance a small amount of capital to the micro-start-up. Therefore, micro-credit through institution can contribute firm socio-economic performance. Further, most of the time, the informal sources of finance have become the last resort of micro-start-up because existing formal credit sources are charging higher interest rates. Policy maker and relevant agencies may design specific micro-start-ups based micro-credit institutions to ensure the availability of micro-credit for micro-start-ups. It might also be interesting to shed some additional light on the sources of finance, for example, specifically address whether financing from NGOs plays a vital role.

### **RELATIONSHIP BETWEEN SOURCES OF FINANCE AND CAPITAL STRUCTURE**

In line with the second hypothesis, the survey results show a significant relationship between sources of finance and capital structure. The result is fit with RBV perspective of past studies (Khan, 2013; Kochhar, 1997; Shane et al., 2003; Stearns, 1986), the field, and with the existing literature. In view of the fact that sources of finance are a reasonably balanced to determine capital structure. For example, acquires loans from personal or family member's savings, relatives, friends, colleagues, neighbors ensure the small amount of capital to start a business' and reduces the risk tolerance of capital. Another thing is that in the context of micro-start-ups, formal credits sources are likely to support initial capital requirements and moderates risk tolerance of capital. This results specifically imply that NGOs, and micro-start-ups financing institutions should offer available of a small amount of capital with lower risk tolerance. This study

recognized that studies on the relationship between sources of finance and capital structure for micro-start-ups in poor resource settings were limited and, hence, there is a need for further investigation.

### **RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND SOCIO-ECONOMIC PERFORMANCE**

The findings of this study showed that there is significant statistical evidence to support a positive relationship between capital structure and performance. This is supported by literature (Chittenden et al., 1996; Honig, 1998; Michaelas et al., 1999), and the field study. The explanation of accepting this hypothesis is that micro-start-ups are likely to need a small amount of capital to start the business and this initial amount of capital possesses lower risk tolerance of capital and this often plays a vital role in the socio-economic performance of micro-firm. Many entrepreneurs in poor resource settings prefer micro-business because it is easy to start with a small amount of capital. Policy makers and relevant agencies may revisit the existing micro-credit programmes and evaluate the risk tolerance of small capital. They should develop a special package of capital structure for micro-start-ups. However, in the measurement model specification, the present article found three important variables insignificant. Future research could investigate these variables with additional variables that might increase better understanding.

### **INDIRECT ROLE OF CAPITAL STRUCTURE**

In line with the indirect role of capital structure, it is observed that capital structure plays a partial indirect effect in explaining the relationship between sources of finance and socio-economic performance. Although it is quite difficult for this study to relate these findings to the few prior studies due to the fact that the establishment of this relationship was hardly conducted. Although capital structure would significantly play an indirect role, the direction of influence needs further investigation.

### **LIMITATIONS AND FUTURE DIRECTIONS**

In this study, a model was developed for a specific industry (i.e., micro-firm) in a specific country, that is, for Bangladesh which therefore may not be applicable in another country: however, it could be a milestone for undertaking such research in another developing country. Considering the findings of this research, researchers from other developing countries may develop a more country-specific model for a similar industry. Accordingly, this process might be helpful in increasing the generalizability of this model in different developing nations for the same or a similar industry. Further, Future research would benefit from longitudinal research designs.

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