

MANAGERIAL COMPETENCIES AND SMALL BUSINESS GROWTH: EMPIRICAL EVIDENCE FROM MICROFINANCE PARTICIPANTS

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Abstract

A large number of studies have been conducted on small business performance. However, potential influence of managerial competencies on small business growth, particularly among microfinance participants is hardly existent. In fulfilling the literature gap, this study provides some insight into the relationship between managerial competencies and small business growth. Using data collected from microfinance participants in Kelantan and Terengganu and applying the Structural Equation Modelling approach, this study found that all the managerial competency dimensions – technical, generic and conceptual skills – had positive and significant impacts on small business growth. While consolidating the theories that managerial competencies explain business growth, this study has several limitations. Future studies should delve into, through qualitative research, why managerial skills are significant for small business growth. Sampling should also include small businesses in other parts of Malaysia, instead of Kelantan and Terengganu.

Keywords: *Small business, growth, management competencies, generic skills, technical skills, conceptual skills, microfinance.*

Introduction

Small and Medium Enterprises (SMEs) are key drivers to economic growth and development worldwide (Chelliah & Sulaiman, 2011). In fact, the sector accounted for more than 80 per cent of economic growth in most countries in the world. SMEs contributed over 90 per cent to total enterprises in most developed and developing countries; 99 per cent of total enterprises in the European Union (Blackburn & Jarvis, 2010); 98 per cent of all the United States' businesses (US Small

Business Administration, 2013) and 99.9 per cent of all businesses in the United Kingdom (Schans, 2012).

In Malaysia, SMEs accounted for 97.3 per cent of the total number of establishments. More importantly, the contribution of SMEs to Gross Domestic Product (GDP) increased from 29.4 per cent in 2005 to 32.5 per cent in 2011. It provides a significant contribution to the local people by offering employment opportunities, especially to the poor group and the underprivileged. In the recent period, the share of SMEs in employment increased further to 60 per cent (SME Annual Report, 2012).

Due the importance of SMEs, a large number of scholarly work has been conducted on the contribution and performance of the sector. Therefore, studies on factors contributing to a firm's success (Gill & Biger, 2012), determinants of business growth (see Yasuda, 2005; Yang & Huang, 2005) and barriers to business growth across countries (Okpara & Wynn, 2007) are common. Some researchers reminded that an increase in the number of small businesses is followed by an increasing rate in business failure (Akande, 2011). Tushabonwe-Kazooba (2006) revealed that poor record keeping and the lack of experience and skills in basic business management are the major contributors to small business failures.

Nevertheless, a large number of previous literature on small entrepreneurship and business overlooked many crucial factors that may influence business growth (Rosman & Mohd Rosli, 2013). There are only a limited number of studies on the influence of managerial competencies on small business growth, especially in Malaysia. Hence, this paper aims to examine the relationship between managerial competencies and small business growth.

Literature Review and Hypotheses Development

A large number of studies has been carried out on small business success (Simpson, Tuck, & Bellamy, 2004). Unfortunately, significant progress has not been made, largely due to researchers not taking into account the many problems and factors specific to small business research (Beaver, 2002) probably due to different characteristics, objectives and qualities across industries in small businesses (Gadenne, 1998). Perren (1999) argues that the contributing factors to business success depend on entrepreneurial characteristics and traits. D'Cruz and Rugman (1992) assert that the ability to design, produce,

and market products or services superior to their close rivals would determine the level of the firms' competitiveness. Likewise, Kaplan and Warren (2007) also argue that innovation is no more a luxury, but a necessity for a firm. Therefore, many empirical studies were conducted to examine the relationship between this strategic factor and firm performance (see Bakar & Ahmad, 2010).

Changes in the global market in the recent period have drawn much attention to the concept of competency and skill. In the business area, Peterson and Van Fleet (2004) contend that many management scholars and practitioners believe that the managers should master a mix of basic skills in order to perform their roles effectively in business. Moreover, managers cannot effectively plan, direct, control, or assess work activities without these basic skills (O'Neal, 1985). In these views, however, there is no further explanation by prior researchers as to what types of fundamental skills should be possessed by the managers.

Basically, the terms of skills, expertise, acumen, competency (Smith & Morse, 2005), qualities and/or values (Rudmann, 2008) are used interchangeably in the literature. Skill is a quality of performance which depends not only on individual natural ability, but also on training, practice and experience (Adeyemo, 2009). In entrepreneurship, in order to ensure a superior performance, a firm must develop and practise a unique set of skills ahead of its competitors (Barney, 1991; Mahoney, 1995). Many previous literature argue that it is necessary for owners or managers in small-scale businesses to possess appropriate skills and ability before running the businesses (Okpara & Wynn, 2007).

Accordingly, business competencies are also related to the characteristics of the entrepreneurs themselves (Guzmán-Cuevas, Cáceres-Carrasco, & Riberio-Soriano, 2009), such as education, work experience as well as motivation (Santos & Bode, 2012). Today, in order to succeed and sustain in the global competitive market, an entrepreneur needs to possess various types of entrepreneurial and managerial skills (Akande, 2011). Unfortunately, studies on the relationship between managerial competencies and small business growth are rather scarce. Inspired by the model developed by Katz (1955), this study adopted his managerial skill model as determinants of small business growth. The set of managerial competencies studied were technical, generic (also known as human skills), and conceptual skills.

Technical skill is knowledge about and the proficiency in a specific type of work or activity. It includes competencies in a specialized area, analytical ability, and the ability to use appropriate tools and techniques (Katz, 1955). To Botha, Nieman and Vuuren (2006), technical skills can be defined as knowledge or techniques to attain certain goals. Many studies identify the relationship between technical skills and business growth. For instance, a study by Chandler and Jansen (1992) found that technical or functional competencies were positively related to firm growth, besides the ability to recognise opportunities, political competency, drive venture through to fruition and human competency. Moreover, managers and employees are advised to possess a wide variety of technical workplace skills to allow them work with advanced technologies (Combs, Liu, Hall, & Ketchen, 2006). Thus, the first hypothesis is:

H1: *Technical skills are significantly related to small business growth.*

Generic skills (also known as interpersonal/human/soft skills) can be defined as the specific ability or competency derived from individual knowledge and practice in doing a task (Abu Mansor, Ahmad, Din, Hanissah, & Mohd Noor, 1999). In simple words human skill is knowledge and ability to work with people or known as people skills (Katz, 1955). Various studies found that generic skills are one of the critical skills needed by business operators. A study by Ibrahim and Goodwin (1986) found that interpersonal skills is a factor contributing to the success of a small business. Likewise, interpersonal workplace skills and competencies are important to entrepreneurs that allow them to function optimally in today's high performing organisations (Combs et al., 2006). A study by Rahman, Mokhtar, Yassin, & Hamzah (2011) identified the development of generic skills in Malaysia. From the 145 pieces of data collected, the results showed that the respondents' generic skills are moderately high and the researchers suggested that the entrepreneurs should further acquire generic skills because these skills help individuals to perform effectively in their workplace and later contribute to the firm. Given the importance of generic skills in business growth, a hypothesis can be stated as follows:

H2: *Generic skills are positively related to small business growth.*

Generally, according to Katz (1955), conceptual skills involve the ability to work with ideas and concepts. They are central to creating a vision and strategic plan of the firm. Furthermore, they can be defined as the ability of managers to see the organisation as a whole

and solve problems from a systemic point of view. Moreover, conceptual skills are required by managers more than technical or interpersonal skills. Likewise, they also involve the ability to analyse a situation and distinguish between causes and effects (see Jones & George, 2008). Unfortunately, literature pertaining to the evaluation of specific conceptual skills is still limited, more so in the context of Malaysia. The study by Al-Madhoun and Analoui (2003) found that for senior managers to be effective, analytical and conceptual skills are required. Hence, this study aimed to focus on the specific conceptual skills of managers as a need to business growth. Consequently, the relationship between conceptual skills and business performance can be formulated as:

H3: *Conceptual skills are significantly related to small business growth.*

Methodology

Samples

This study adopted a purposive sampling method, where the samples were obtained from a specific group of people, who could provide the desired information, either because they are the only ones who have it, or conform to some criteria set by the study (Sekaran, 2003). To be qualified as potential respondents, small businesses were selected when they met the following criteria; the firm must have not more than 75 full-time employees; it must have been in operation for at least three years and above; the respondent must be the owner or manager of the firm; and a participant of a microfinance programme.

A total of 300 self-administered questionnaires were distributed to the identified respondents. However, after about four months of the data collection exercise, 238 (79.3 per cent response rate) questionnaires were considered to be legitimate and met the required criteria for this research. The sample size of 238 was sufficient according to Roscoe's (1975) rule of thumb (30 to 500 samples) and met the Structural Equation Model (SEM) requirement (150-400 samples) as suggested by Hair, Anderson, Tahtam, and Black (2006).

A summary of the 238 samples in this study is shown in Table 1. It shows that most of the respondents were female (87.8 per cent). The majority of the participants were aged between 41 to 50 years old (45.4 per cent). In terms of the educational level, over half of the

respondents had attended secondary school (78.5 per cent) and had experience of between 5 to 10 years (70.6 per cent) in business. As expected, a majority of the respondents was involved in the services sector (88.2 per cent) in line with Malaysian statistics (SME Annual Report, 2012).

Table 1

Profile of the Samples

Variables	Frequency (n=238)	Per cent (100.0)
Gender		
Male	29	12.2
Female	209	87.8
Age		
21–30 years old	25	10.5
31–40 years old	49	20.6
41–50 years old	108	45.4
51–60 years old	54	22.7
Above 60 years old	2	0.8
Education		
Primary school	25	10.5
Secondary school	187	78.5
Tertiary education	18	7.6
Others	8	3.4
Business Activities		
Services	210	88.2
Manufacturing	9	3.8
Construction	13	5.5
Agricultural	6	2.5
Experience		
Less than 5 years	35	14.7
5–10 years	168	70.6
More than 10 years	35	14.7

Source. Based on the sample survey.

Measurement

The dependent variable for this study was small business growth, represented by nine items, namely market share, sales, profitability, growth, productivity, product quality, number of employees and overall performance; adapted from previous studies (examples, Voola,

& O’Cass, 2010; Ar & Baki, 2011). All the items for business growth were measured by a seven-point scale, ranging from “significantly lower” (1) to “significantly higher” (7).

The independent variables for this study were management competencies, which were divided into a three-category typology of skills, namely technical, generic and conceptual skills. All the items were measured by a seven-point scale, ranging from 1 (= “strongly disagree”) to 7 (= “strongly agree”). Technical skills consisted of five items, which were: ability to design quality products, ability to provide business documentation, taking advantage of technology, ability to design user-friendly products and ability to design products that meet market requirements, adapted from Botha et al. (2006), Bailey and Mitchell (2007) and Goles, Hawk, and Kaiser (2008). Likewise, generic skills were represented by five items, such as dividing the right task to the worker, problem solving, giving and receiving constructive criticism, oral communication as well as the ability to do multiple tasks at one time. The items were modified from Petridou and Charalambos (2001) and Rahman et al. (2011). Conceptual skills also comprised five items, i.e. ability to grab every business opportunity, ability to face any risk, ability to identify business opportunity, ability to maintain a good relationship with partners, ability to find business opportunities (e.g. new markets and customers) and ability to think of a strategic plan consistent with the firm’s goal. Most items were modified from Ahmad, Ramayah, Wilson, & Kummerow (2011) and Botha et al. (2006).

In order to avoid distortion of the data analysis and the problems with result interpretation, the two control variables that, according to the prior literature, could present higher effects on the firm’s performance were firm’s size and age. Firm size was measured by the number of employees and firm’s age was represented by the number of years since the establishment of the firm (Pelham, 2000; Wijewardena & Cooray, 1995).

Measurement Model: Confirmatory Factor Analysis

Following Anderson and Gerbing (1988) as well as Prajogo (2007), a two-step process was employed in this study to separate the measurement model from the structural model. According to

Montoya-Weiss and Calantone (1994), the measurement model for unidimensionality, validity and reliability could be conducted after the Confirmatory Factor Analysis (CFA) is performed. The establishment of scale unidimensionality starts by checking the factorial structure of each construct. Following Mueller and Hancock (2006), the items with a low factor loading (< 0.50 for a news developed model, < 0.60 for an existing model) should be deleted first; and the data should be re-calculated again until the goodness-of-fit value is achieved. Hair et al. (2006) and Holmes-Smith (2006) suggested that the goodness-of-fit should consider at least one index from absolute fit, incremental fit and parsimonious fit as shown in Table 2.

Table 2

Index Category and the Level of Acceptance for Every Index

Category	Name of Index (Label)	Level of Acceptance
1. Absolute fit	Chi-square (X^2)	$P > 0.05$
	Root Mean Square Error of Approximation (RMSEA)	Range 0.05–0.10 acceptable
	Goodness of Fit Index (GFI)	≥ 0.90
2. Incremental fit	Adjusted Goodness of Fit Index (AGFI)	≥ 0.90
	Comparative Fit Index (CFI)	≥ 0.90
	Tucker Lewis Index (TLI)	≥ 0.90
	Normed Fit Index (NFI)	≥ 0.90
3. Parsimonious fit	Chisq/df (X^2/df)	≥ 5.0

Source. Adapted from Hair et al. (2006).

Several actions or options have to be taken achieve a better model fit when the data faces an unfit situation as mentioned by Hair et al. (2006). They are: (a) path estimate – dropping the low loading by rule of thumb where loadings should be at least at 0.50 and ideally 0.70 or higher, (b) standardized residuals – detecting a potentially

unacceptable degree of error in the same construct and re-creating covariance arrow between those two items, (c) modification indices – dropping the items that show high modification indices, and (d) specification search – an empirical trial-and-error approach by using model diagnostics to suggest changes in the model.

In the unidimensionality process, this study dropped five items in the model in order to achieve model fitness. This resulted in; $\chi^2 = 550.758$; $df = 146$, $\chi^2/df = 4.855$; $NFI = 0.916$, $TLI = 0.914$; $CFI = 0.932$; $RMSEA = 0.097$, which met the model fitness requirement ($\chi^2 = > 0.05$; $\chi^2/df = < 5.0$; $NFI = \geq 0.90$; $TLI = \geq 0.90$; $CFI = \geq 0.90$; $RMSEA = 0.05$ to 0.10). Finally, 12 items out of 18 items were retained and used for the next analysis.

According to Hair et al. (2006), after a measurement model fit (CFA) was achieved and before proceeding with a structural model, it is necessary to determine the construct validity and reliability of the model. Firstly, convergent validity can be achieved when all items in a measurement model are statistically significant verified by Average Variance Extracted (AVE) ($AVE \geq 0.50$). Hence, all the constructs in the model satisfied the convergent validity test since the AVE value ranged from 0.853 to 0.939. Secondly, in order to examine discriminant validity, the study adopted the method suggested by previous studies (see Hair et al., 2006), where the AVE should be greater than the squared correlation estimate (r^2). The test in this study indicated that all the constructs fulfilled the discriminant validity requirement ($AVE \geq r^2$). Thirdly, internal reliability was tested by using Cronbach's Alpha value, where the value should be higher or equal to 0.70 to meet internal reliability rules (Sekaran, 2003). All the constructs for the study were higher than 0.70 (range 0.957 to 0.984) thus achieving internal reliability. Lastly, construct reliability (CR) can be tested by following the rule of thumb of CR ($CR \geq 0.60$) (Hair et al., 2006). The CR value for the constructs in this study was found to range from 0.958 to 0.984, meeting construct reliability.

Findings

The means, standard deviations, and correlations are depicted in Table 3. Generally, most of the firms were in the industry for more than ten years (mean age = 13.85), but their size was very small (mean firm

size, 2.84). For the purpose of analysis, scales 1 to 3 were regarded as low level, scale 4 as moderate, and scales 5 to 7 as high. Judging from the mean values of technical skills (mean = 5.92), generic skills (mean = 5.90), and conceptual skills (mean = 6.08), a large portion of the respondents surpassed the high scale level of all variables. Probably due to the high level of managerial competencies, the growth of the small business (mean = 5.92) was high, too. The standard deviation is a measure of how spread out the numbers are. It shows the variation or dispersion for the study is between 1.00 and 1.12 from the mean.

The correlation coefficients which describe the significance and strength of relationship among the constructs are wellreflected in Table 3. As illustrated in this table, the correlations for the independent variables ranged between 0.519 and 0.759. The value of the correlations between the independent variables indicates no problem with multicollinearity, since it does not exceed 0.80 (Kennedy, 2003). This suggests that the multicollinearity assumption is not violated in this study (Kennedy, 2003; Pallant, 2007).

Table 3

Descriptive Statistics of Variables and Correlations

Variables	Mean	SD	1	2	3	4	5
1. Business age	13.85	9.29	1.000				
2. Business size	2.84	2.82	0.282**	1.000			
3. Technical skills	5.92	1.02	-0.069	-0.134*	1.000		
4. Generic skills	5.90	1.12	-0.129*	-0.110	0.742**	1.000	
5. Conceptual skills	6.08	1.00	-0.110	-0.010	0.694**	0.759**	1.000
6. Business growth	5.92	1.05	-0.181**	-0.191**	0.519**	0.577**	0.518**

Source. Based on the sample survey.

Notes. Correlation test used Pearson correlation, ** Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed).

After conducting the CFA and fitting the selected indices, all the variables in the measurement model were transformed to the structural model, where all the covariance arrows were replaced by one-way arrows, indicating the causal relationship among the variables. This resulted in: $X^2 = 611.520$; $df = 176$; $X^2/df = 4.906$; $NFI = 0.907$; $TLI = 0.904$; $CFI = 0.917$; $RMSEA = 0.082$. For clarity purpose, the model was redrawn as depicted in Figure 1 and Table 4.

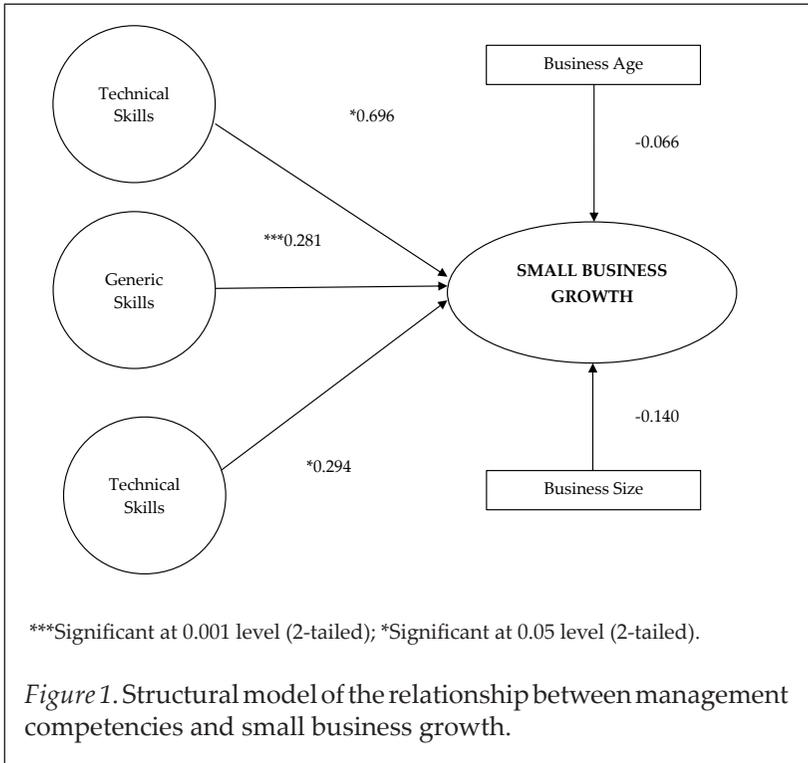


Table 4

SEM Results of the Structural Paths

Path	S.E.	C.R.	P	Result
Small business growth <--- Technical skills	0.696	1.837	0.046	Supported
Small business growth <--- Generic skills	0.281	3.229	0.001	Supported
Small business growth <--- Conceptual skills	0.294	2.049	0.040	Supported

(continued)

Path			S.E.	C.R.	P	Result
Small business growth	<---	Age	-0.066	-1.507	0.132	Not supported
Small business growth	<---	Size	-0.140	-1.598	.110	Not supported

Source. The output is based on the Structural Model.

Referring to Figure 1 and Table 4, Hypothesis 1 was supported where technical skills were significantly related to small business growth ($r = 0.696$, $p = 0.05$). In other words, the regression weight for technical skills in the prediction of small business growth was significantly different from zero at the 0.05 level (two-tailed). Likewise, the study found that Hypothesis 2 was supported where generic skills did translate on the growth of small business ($r = 0.281$, $p = 0.001$), indicating the regression weight for generic skills in the prediction of small business growth was significantly different from zero at the 0.001 level (two-tailed). Similarly, Hypothesis 3 was also fully supported by the study, when conceptual skills were significantly related to small business growth ($r = 0.294$, $p = 0.05$). This indicated that the regression weight for conceptual skills in the prediction of small business growth was significantly different from zero at the 0.05 level (two-tailed).

Conversely, all the control variables were not significantly related to small business growth. Contradicting numerous previous studies (examples, Pelham, 2000; Wijewardena & Cooray, 1995), age and size of the firm did not influence small business growth. Although, a large firm is believed to show more growth compared to small business (Birley & Westhead, 1990), this is not evident in this study. Since all the samples were the owners of small businesses, the growth variation was quite similar. More than half of the firms in this study were up to ten years old, which may explain why the variation in this factor did not significantly change business growth. As reminded by Dyke, Fischer, and Reuber (1992), experience does not guarantee the existing competency and expertise of an entrepreneur related to the need of the present business.

Discussion

The aim of this study is to identify the relationship between managerial competencies (technical, generic and conceptual skills)

and small business growth. As argued by Okpara and Wynn (2007), for the success of small-scale enterprises, the owners themselves must possess appropriate skills and ability before running a business. Consistently, the Resources-Based View (RBV) explains that valuable resources and capabilities available are the sources of effective business growth (Barney, 1991; Mahoney, 1995). Moreover, Thompson (2001) argues that external factors relating to skill affect the overall firm's performance. They have been identified as a specific group of competencies relevant to the exercise of development of small and new businesses (Nuthall, 2006). Hence, Terry (2005) contends that entrepreneurs should acquire their own basic skills before they are able to start, develop and manage their own business.

Generally, this study confirms that managerial competencies among the entrepreneurs play a crucial role in small business growth as argued by Man, Thomas, Theresa, and Chan (2002). Consistent with numerous prior findings (examples, Petridou, & Charalambos, 2001; Bailey & Mitchell, 2007), technical skills are needed by a business owner, which contribute to the growth of small business. The findings of this study support a study by Rahman et al. (2011), which showed that generic skills helped individuals to perform effectively, and they directly contributed to a firm's growth. Generic skills are important because they help learners to be more reflective and self-directed (Hager, Holland, & Beckett, 2002).

This study also found that conceptual skills of the entrepreneur are important in contributing to business growth in line with numerous studies specifically in developing countries (see Benzing, Chu, & Bove, 2005; Chu, Benzing, & McGee, 2007). Some scholars cautioned that skill is typically driven by aspirations to achieve superior performance and business success (Spencer & Spencer, 1993). Prior to that, Huck and McEwen (1991), found that the most important competency areas are management, planning and budgeting as well as marketing and selling. Specific competencies identified within those areas are maintaining financial records, possessing human relations skills and establishing goals and objectives.

Conclusion

This study examined the relationship between managerial competencies and small business growth. By using a self-administered questionnaire, 238 samples were collected from small business owners. The structural equation modelling confirmed that managerial

competencies, namely technical, generic and conceptual skills had significant influences on small business growth. It consolidates theories that managerial competencies explained business growth.

Despite its contributions, this study also has several limitations and drawbacks. It is limited to closed-ended questions, where responses were fixed to a set of predetermined questions. The respondents were not given the opportunity to provide additional input and comments. Thus, future research should modify the questions by adopting a mixed format, enabling the respondents to furnish additional input and comments. The research was limited to Kelantan and Terengganu only. A broader geographic sampling to include more large urban and rural areas would better reflect the national profile. Future research may be strengthened by using a sample comprising a more diverse set of businesses.

Another approach could be to conduct a longitudinal nationwide study to identify the factors that hinder small business growth. Future research should collect data on a longitudinal basis to help draw causal inferences and validate the findings of this study. In terms of competencies construct, this study focused and adapted the managerial competencies model proposed by Robert Katz (1955) which consist of three core skills such as technical, generic and conceptual skills, while there are many more entrepreneurial. Future researchers could extend this study by examining and adding more components and variables associated with managerial competencies relevant to small business owners.

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Appendix

Measurement of the variables (Label) (AVE) (CR) (Cronbach’s Alpha)

Business Growth (SBG) (0.876) (0.958) (0.956)

Compared to main competitors, indicate your level of business performance in the last 3 years. (1 = Significantly Lower..... 4 = Unchanged..... 7 = Significantly Higher)

- Sales (BG1)
- Market share (BG2)
- Customer satisfaction (BG3)-Deleted
- Product quality(BG4)-Deleted
- Profitability (BG5)
- Production levels (BG6)
- Number of employees (BG7)
- Productivity (output per labour) (BG8)
- The overall performance (organizational and market) (BG9)

Management Competencies

Indicate the level of agreement on ALL statements below:

(1 = Strongly Disagree 4 = Medium..... 7 = Strongly Agree)

Technical skills (TS) 0.859) (0.960) (0.959)

My participation in the microfinance programme has improved my technical skills in:

- Marketing the quality products (T1)
- Providing documentation/business reports/accounts (T2)-Deleted
- Using the latest technology (T4)
- Marketing the product with new ideas (T3)
- Designing the product that meets market/customer requirement (T5)

Generic skills (GS) (0.939) (0.984) (0.984)

- My participation in the microfinance programme has improved my generic skills in:
- Dividing the right task to the worker (G1)
- Solving the problem (G2) – Deleted
- Giving and receiving constructive criticism (G3)
- Oral communication (G4)
- Doing multiple tasks at one time (G5)

My participation in the microfinance programme has improved my conceptual skills in:

Conceptual skills (CS) (0.853) (0.958) (0.956)

- Grabbing business opportunity (C1)
- Risking propensity (C2)- Deleted
- Maintaining a good relationship (C3)
- Opportunity identification
- Strategic planning (C4)

Notes: All values in parentheses are values after deleted items.

