

## **Entrepreneurs Perception towards Technology Change:**

### **A Study in Small and Medium Sized Enterprises (SMEs) in Ampara District**

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#### **ABSTRACT**

*Small and Medium scale Enterprises play an important role in the economy of a country. The environment of an organization is significantly undergoing continuous, rapid changes that have far reaching effects on organizations and their management strategies. The significance of the study is especially to business organization in small and medium sector businesses. This research focuses on two aspects: The organizational change option - Structure, Technology, Physical setting and the people in which the innovations in technology as the most powerful change agent that create a big challenge for SMEs and the importance of innovations in technology in small businesses that need more and more innovative techniques in order to expand Small and Medium scale Industry (SMI) sector. Mainly agricultural sector such as paddy production, crop production, livestock, milk and egg production meat production are found in this district and Fishing also is another source of income in the coastal area of Ampara districts. 11,156 commercial places such as retail shops, restaurants, textile and footwear, dispensary and Pharmacy, wood and iron furniture, building material and paints jewelry liquor shops In which 48.69 % were as retail shops. 4507 businesses found in manufacturing industry in which 43% Food, beverage and tobacco, 16.7 % wood production and furniture, 15.9% textile, wearing apparel and leather. Existence and growth in small and medium business sector is the most important thing in order to maintain their survival in the industry. So, this research aims to study the entrepreneurs' perception towards technology change and the association of between coping with technology change and the business growth in the small and medium business sector among a sample of 180 small and medium sized entrepreneurs in Ampara District of Sri Lanka using a simple random sampling. According to the findings, it is proved that there is a significant strong positive relationship between the perception towards coping with technology change and business growth in small and medium business sector. Accordingly, 53.4% of the variance in business growth in small business sector after coping with technology change programs was significantly explained by coping with change in this study, still leaves 46.6% unexplained. So, further research might be necessary to explain more of the variance in business growth after coping with change. Thus, the findings might be immense value to Small & Medium Scale Enterprises (SMEs) in developing countries, such as Sri Lanka, as much research has not been conducted in this regard.*

**Key words: Technology, Coping with Change, Entrepreneurs' perception, SMEs.**

## Introduction

Technological change is a constant phenomenon in contemporary organizations. How to prepare entrepreneurs for technology change has increasingly become an issue to SMEs. SMEs play an important role in the economy of a country. The environment of an organization is significantly undergoing continuous, rapid changes that have far reaching effects on organizations and their management strategies.

The only constant and omnipresent happening is that of change, as change occurs everywhere and all the time (French & Bell, 1995). No one has the ability to resist change and remain the same once change occurred. Everything is subject to change. Change will occur in organizations and for whatever reason, organizations need to change in order to survive and to be effective in the ever-changing technological environment (Durmaz, 2007).

It creates in the processing of technology have dramatic implications in the overall productivity of the organizations. However many entrepreneurs in developing countries such as Sri Lanka still seem dissatisfied with the available information and they are reluctant to accept the change so that they may leave the organization in due course. Existence and growth of small businesses in SMI sector is the most important thing in order to maintain their survival in the industry.

Technology can be classified into three types: (1) product, (2) process, and (3) management (Osman-Gani, 1996). Product technologies are when ideas are incorporated in to a concrete object. Process technologies are the sequential steps used to produce a product or deliver a service. Management technologies are the actions taken to optimize resources to achieve business goals (Osman-Gani, 1991). It has been

suggested that the greatest impact of technology has been on the nature of work and the abilities of employees to meet the new requirements (Osman-Gani & Jacobs, 2005). Responding to information and communication technology change places a greater pressure on the strategic activities of small businesses in Sri Lanka. So, this research aims to study the entrepreneurs' perception towards technology change and the association of between coping with change and the business growth in the small and medium businesses sector.

The research problem focused here is "lack of willingness to cope with information technology change. That is 'to what extend the entrepreneurs cope with technology change'". Accordingly the research question was "Do entrepreneurs in SMEs cope with changes in technology? Hence, the aim of this investigation is to study empirically the relationship of the business growth in the small businesses and coping with change.

## Significance of the study

This research has less effort in the field of organizational change and small and medium sized business management. The research issue when addressed properly and data might bring in an answer to the question of "Do entrepreneurs in SMEs cope with changes in technology?" If the results of the statistical analysis enable the acceptance of the hypothesis, the findings might be of immense value for the small business sector intending to implement planned changes mainly regarding technology.

Although the variables used in the conceptual frame work are highly qualitative ones, an effort is taken to analyze the data in a quantitative form. This will add greater objectivity to the findings rather than depending totally on qualitative factors. Accordingly, the findings

might be of immense value to organizations in developing countries, such as Sri Lanka, as much research has not been conducted in this regard.

### **Small and medium sized Businesses in Ampara District**

Sri Lanka is primarily an agricultural country in which Ampara district consists of multi ethnic people such as Sinhalese, Tamils, Muslims, and Burghars. Ampara District consists of 20 Divisional Secretariats with the total population of 668,170, That is 3.2% district population in Sri Lanka. Over 90% of the populations in this district live in rural sector.

Mainly agricultural sector such as paddy production, crop production, livestock, milk and egg production meat production are found in this district and Fishing also is another source of income in the coastal area of Ampara districts. 11,156 commercial places such as retail shops, restaurants, textile and footwear, dispensary and Pharmacy, wood and iron furniture, building material and paints jewelry liquor shops In which 48.69 % were as retail shops. 4507 businesses found in manufacturing industry in which 43% Food, beverage and tobacco, 16.7 % wood production and furniture, 15.9% textile, wearing apparel and leather (Statistical Handbook- Ampara district, 2011).

### **Methodology**

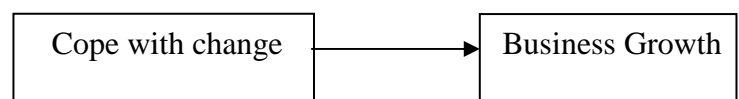
This research was an explanatory study. The investigation of the study was the cross sectional correlation examination. The study design was the survey method using questionnaire as the research tool and unit of analysis was done with the individuals.

For this research the SMEs are referred as business entities which have below 50 employees working in the organizations. The

sample size of this study was 180 entrepreneurs from SMEs were selected in Ampara district. The sample was selected using random sampling method with the following primary business sectors, namely manufacturing, wholesale and retail businesses, Finance, service, and construction. The SPSS 18.0 student version statistical software has been used to analyze the data. And the correlation and regression analysis were done mainly to test the hypothesis.

### **Research Framework**

Organizational change is a dynamic and often chaotic process that may be characterized by a multitude of events occurring simultaneously (Schraeder, 2004). Models are valuable when used as planning instruments to guide organizational change initiatives. Entrepreneurs' perceptions are important, as employers and change managers are able to determine whether attitudes are negative or positive and therefore the necessary measures to accept change in a positive direction. The model developed for the present study includes the constructs related to the perception towards coping with technology change and business growth. Thus, the conceptual model for this research is as follows;



Hence, the following hypothesis was developed.

H1: Coping with change in technology is positively related to business growth

### **Measures**

This study is intended to examine the hypothesized relationship between coping with technology change as independent variable and business growth as dependent variable.

### Measuring Coping with technology change

Coping with technology change has been operationalized as the degree to which an entrepreneur in SMEs copes to technology change. That is, to what extent an entrepreneur in SMEs has a desire to cope with the technology change. Hence, the perception on coping with change is a highly qualitative aspect, which has been taken in to a scale to analyze quantitatively. The overall attitude on coping is evaluated by a self developed scale under the following dimensions.

1. **Receptivity to change:** precursor to receptivity to change and therefore will influence the level receptivity to change
2. **Readiness for change:** will determine whether entrepreneurs in SMI sector resist or accept the technology change initiatives.
3. **Trust in management:** refers to the extent to which an entrepreneur may feel that trust in management and employees on all aspects.
4. **Training for organizational change:** refers to the extent to which an entrepreneur feels that the availability for training for the intended change.
5. **Change confidence:** refers to the extent to which an entrepreneur may have confident on him/her to cope with the change.
6. **Need for change:** refers to the extent to which an entrepreneur may feel that the need for change
7. **Personal valence:** refers to the extent to which an entrepreneur may feel that they will or will not benefit from the intended technology change process.

8. **Organizational valence:** refers to the extent to which the organizations will or will not benefit from the intended change process.

Thus, 30 question items were developed to measure the 08 dimensions of this variable on a five point scale that varies from strongly disagree to strongly agree.

### Measuring Business Growth

Business growth being the dependent variable is measured by a self developed scale consisting of three items on a five point scale.

1. Sales growth
2. Profit growth
3. Perceived existence or survival for number of years

### Reliability Analysis of the Questionnaire

The questionnaires were originally developed by the researcher for this particular study. A reliability analysis was done to check the inter item consistency reliability. The Cronbach's Alpha was measured. Accordingly, the Cronbach's alpha reliability coefficients of the independent and dependent variables were obtained. Accordingly, the alpha value for business growth is 0.805 and for coping with change is 0.856 which showed a good reliability. Also the reliability coefficients of the dimension of coping with change were obtained as follows:

Receptivity to change	-	0.752
Readiness for change	-	0.770
Trust in management	-	0.708
Training for organizational change	-	0.856
Change confidence	-	0.751
Need for change	-	0.619

Personal valence - 0.697  
 Organizational valence - 0.816

All constructs display good internal consistency.

Observing the correlations of independent variable-coping with IT change with the dependent variable- business growth, there is a strong positive correlation of ( $r = 0.832$ ,  $p = 0.000$ ) and significant at 0.01 level.

**Correlation of coping with ICT change with Business Growth**

**Correlations**

		Coping_with_change	Business.Growth
Coping_with_change	Pearson Correlation	1	.632**
	Sig. (2-tailed)		.000
	N	180	180
Business_growth	Pearson Correlation	.632**	1
	Sig. (2-tailed)	.000	
	N	180	180

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Mean time, the correlation between the dimensions of coping with change with the business growth derived as follows; where  $p = 0.000$  and significant at 0.01 level.

Receptivity to change - 0.488  
 Readiness for change - 0.771  
 Trust in management - 0.727  
 Communication of organizational change- 0.421  
 Training for organizational change - 0.623  
 Change confidence - 0.602  
 Need for change - 0.613  
 Personal valence - 0.614  
 Organizational valence - 0.514

The attitude towards readiness for change and trust in management have strong positive correlation with the business growth of the

entrepreneurs in SMEs while the Training for organizational change, Change confidence, Need for change, Personal valence, organizational valence showed a moderate correlation with business growth of the entrepreneurs small business sector. Receptivity to change and communication of organizational change have weak positive correlation with business growth.

**Regression**

The overall model explains the fit for the research.  $R^2$  in the table given below shows this aspect. This coefficient is a measure of how well the regression equation fits the data. Here, we have the  $R^2$  is 0.534 hence, the regression equation apparently have a perfect fit with the data. So, we can predict our dependent variable (intention to stay) with the independent variable

(coping with ICT change). Here,  $P = 0.000 < 0.05$ . So the model is significant and model exists.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.632 <sup>a</sup>	.534	.532	.23203

a. Predictors: (Constant), Coping\_with\_change

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.561	.122		6.210	.000
	Coping_with_change	1.107	.043	.723	34.827	.000

a. Dependent Variable: Business\_Growth

At first, if we consider the constant variable in the equation. Its values;  $P = 0.000 < 0.05$ , hence, significant to model. Coping with change is considered;  $P = 0.000 < 0.05$ , hence, it is significant to the model and explain the dependent variable.

**Hypotheses Testing**

The most common policy in statistical hypothesis testing is to establish a significance level, denoted by  $\alpha$ , and to reject  $H_0$  when the  $p$  – value falls below it. When this policy is followed, one can be sure that the maximum probability of the type I error is  $\alpha$  (*Policy: when P-value is less than  $\alpha$ , reject  $H_0$*  ) Here, the hypotheses are tested at 5% confidence level ( $\alpha = 0.05$ ).  $P$  values are denoted ‘Sig.’ in the below Table.

The following table shows the rejection and acceptance of the hypothesis.

Variable	Hypothesis	P – Value	$\alpha = 5\%$	$H_0$	$H_A$
Coping with change	$H_0, H_1$	0.000	0.05	Reject	Accept

(Source: Survey Data)

The  $p$  value is for variable coping with change is 0.000, hence, the null hypothesis is rejected and the alternative hypothesis is accepted as the  $P$  value  $< \alpha$ . This means there is a positive relationship between coping with change and business growth. Also the result in correlation table (Correlation coefficient = 0.632;  $p=0.000$ ) support this hypothesis. Thus, the attitude of the employees towards coping with change is a predictor of the business growth of the entrepreneurs in SMI sector.

## Conclusion and Recommendation

Change has become a normal occurrence within organizations in everywhere. Organizations continually embark on programmes of organizational change (Vakla & Nikolau, 2005). In a competitive global economy, organizations are forced to stay abreast with technological changes in order to survive. The small and medium scale enterprises are no exception as global changes will ultimately result in local changes. The change taking place is affected by the rapid advancement in technology and convergence of computing, communication and information (Visagie, 2010) therefore only organizations that are ready for these changes will survive. Technology innovations in organizations is to a large extent sustainable by its own institutional forces, irrespective of contribution to the process of organizational change (Chrisanthi, A, 2000).

The researchers developed a conceptual model that shows the association between entrepreneurs' business growth in SMEs and their perception towards technology change.

The attitude towards readiness for change and trust in management have strong positive correlation with the business growth of the entrepreneurs in SMEs while the Training for organizational change, Change confidence, Need for change, Personal valence, organizational valence showed a moderate correlation with business growth of the entrepreneurs small business sector. Receptivity to change and communication of organizational change have weak positive correlation with business growth.

Training will have to be provided by the business development supporting institutions on an ongoing basis in order to empower entrepreneurs in SMEs for the intended

technology change as training for change may minimize the entrepreneurs' fear and feeling of uncertainty.

According to the findings, it is proved that there is a significant strong positive relationship between the perception towards coping with technology change and business growth in small and medium business sector. Accordingly, 53.4% of the variance in business growth in small business sector after coping with technology change programs was significantly explained by coping with change in this study, still leaves 46.6% unexplained. So, further research might be necessary to explain more of the variance in business growth after coping with change.

It is suggested that the SMEs implementing technology change should take into account the findings of the present study and attempt to address the issue entrepreneurs willingness to accept the change as a consequence of the change process are counteracted with sufficient support. By doing this most of the businesses will find rapid growth and survive for a long future.

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