Tactful Management Research Journal
ISSN :2319-7943
Impact Factor : 2.1632 (UIF)
Vol. 3 | Issue. 4 | Jan 2015
Available online at www.lsrj.in

ENTREPRENEURIAL OBSTACLES OF QUALITY MANAGEMENT IN MICRO, SMALL AND MEDIUM ENTERPRISES: AN EMPIRICAL STUDY WITH FACTOR ANALYSIS

Rajkumar

Extension Lecturer Deptt. Of Economics , I.G. Govt. P.G. College Tohana, Fatehabad, Haryana, India.

Abstract:- The main focus of this research study is to examine the implementation barriers in micro, small and medium enterprises in implementing total quality management. The study employed a qualitative methodology involving 150 questionnaires that were validated and structured, consisted of 30 items identifying implementation barriers of total quality management faced by the entrepreneurs of micro, small and medium enterprises. Using convenience sampling techniques, we distributed the questionnaires to targeted entrepreneurs of small and medium enterprises of north India including state Haryana, Delhi NCR region and Himachal Pradesh. Conducted in SPSS version 16 using reliability of questionnaire has been checked, and factor analysis to explore the barriers in implementation of total quality management under dimensionality. This analysis shows that most significant barriers to implement total quality management are worker management, supply chain management, lack of financial resources and inadequate production management system in these enterprises. To meet these challenges the entrepreneurs of small and medium enterprises and quality managers, and professionals should develop a positive outlook to implement different principles of total quality management to overcome these obstacles. The study explores that entrepreneurial leadership is most significant obstacles in these business enterprises.

Keywords: Quality Management system, SMEs, Production Management, Industrial Development, Key Indicator.

INTRODUCTION

Industrial development is key indicator of economic growth and development in developing or developed economy. Industrial development creates employment and job opportunities for local and migrated population. The process of entrepreneurship development also depends on continuous growth of small and medium enterprise in developing economies if facilities and assistance programs provided by the local government in sufficient way. But like in developing country of India these enterprises are facing a number of obstacles regarding production efficiency, supply chain management, skilled labour and availability of financial resources, entrepreneurship development and training programs for young generation who are strong foundation for any society and country. Implementation of total quality management is most significant problem confronted by these industries in India. Government of any state is continuing trying for current scheme of quality up gradation in small and medium enterprises. The scheme allows for expenses purchasing equipments required for testing, research and development for quality up gradation, and consultancy fees. The assistance finance also provided by the government to the entrepreneurs of small and medium enterprises for achieving ISO 9000 and ISO 14000. Quality management is a comprehensive and structured approach in organizational management which seeks to improve the quality of products and services through continuous improvement.

OBJECTIVE OF THE STUDY

To examine the obstacles faced by the entrepreneurs of micro, small and medium enterprises in

implementation of total quality management in their enterprises.

To identify the main factors which are obstacles in implementation of total quality management in micro, small and medium enterprises.

RESEARCH METHODOLOGY

The main focus of this study is to identify the implementation obstacles of total quality management in micro, small and medium enterprises in north India which are faced by the entrepreneurs of small and medium enterprises. To achieve the objective of purposed study the data has been collected by questionnaire method which are distributed to the entrepreneurs of micro, small and medium enterprises established units in rural and urban areas. All the obstacles have been measured on five point likert scale from to a great extent to not at all. For data reduction the factor analysis technique has been used and with help of this technique validity and reliability of the questionnaire and every factor checked. The value of the cronbach alfa is .910 and KMO test for sampling adequacy also performed which is .705 shows that factor analysis is suitable for data analysis and consistency in data. (Given table 1)

Table: 1 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.705	Cronbach Alfa Value
Bartlettteast of Sphercity	Approx.Chi squ.	3714.149	.910
	df.	435	
	Sig.	.000	

Source: Primary Data

Validity of every factor also has been performed to assess the consistency in labeled problem.

Scope of the study

Data have been collected through structured questionnaire which was based on available literature and published sources. These data collected from three states of north India which is considered the hub of small and medium enterprises i.e. District Sirmaur situated in Himachal Pradesh near Haryana state region with and near connected Ambala District, teh. Narayangarh. Second state was Delhi NCR region and third was the Haryana state in which included urban and rural units of micro, small and medium enterprises.

LITERATURE REVIEW

Abdulrahman (2014) the study found that lack of understanding about the TQM concept was also major factor which affects the implementation of total quality management. Another potential barrier to TQM implementation is lack of motivation and second-most important barrier to TQM is frequent turnover of employee. High employee turnover rate generally indicate that companies are selecting the wrong employees, not providing a motivating work environment, or losing the best employees to other organizations that offer better conditions. Top management commitment in the promotion of total quality management implementation is also significant obstacle. Manish et al. (2014) concluded that effective implementation of total quality management reduce poor quality of work, errors, inspections, rework, repairs, customer refunds, and other costs to find and correct mistakes, thus productivity of an organization increase. The study suggested that for survival in modern competition of business environment world every business organization has to implement total quality management for continuous improvement.

Rmezani & Gharleghi (2013) have concluded that many factors affects the implementation of total quality management i.e. management commitment, role of quality department, training and education, employee involvement, quality policy of the organization, adequate relationship with suppliers and quality culture.

Agbola (2013) the study examine that small and medium enterprises in Ghana face the different kinds of problems related to quality management implementation and results of study also indicates that managers with tertiary who are aware of total quality management are more likely to employ new technology, develop a quality policy and leadership commitment to implement total quality management in these enterprises.

Raghunath & Jayathirtha (2013) found in their study barriers for implementation of six sigma by small and

medium enterprises that leadership is crucial factor for failure of six sigma implementation related to total quality management in these enterprises. Others barriers of implementation of six sigma are lack of knowledge, insufficient exposure and wrong understanding of the six sigma philosophy. The study concluded that leadership in small business organizations play an important role in implementation of total quality management and six sigma deployment in small and medium enterprises for success of business organization should remove above barriers.

Ruby (2013) has reported in their study that managers who having proper understanding and awareness of total quality management are more capable to employ new technology development of quality policy and more leadership competency in implementation of total quality management in manufacturing industries in Ghana.

Goodwell (2013) has found in their study that these were the implementation problems of total quality management in small and medium manufacturing enterprises i.e. growth of quality culture, weak team building efforts, employee training, empowerment, and quality leadership significant problem in implementation of total quality management.

Salman et al. (2011) have found that these were implementation obstacles in textiles industries i.e. lack of human resources, lack of involvement form non-production functions, achieve too much in a short time. The study revealed there are two major problems generally faced by most small and medium enterprises in implementation of total quality management the first is financial and the second is general resource constraints such as time, manpower, technical and managerial expertise. Obviously, the entrepreneurs of small and medium enterprises cannot afford this approach on account of its adverse affect on their resource availability in business organization.

Loushine et al. (2010) the study had observed that lack of skilled workers, lack of effective team work and union environment are the main barriers of total quality management implementation in construction industries.

Peter et al. (2010) have concluded in their study barriers and benefits of quality management in the construction industries that lack of skilled workers, lack of effective teams and team building skills, union environment, awarding of contracts to the lowest bidder are the implementation problems in the construction industries.

Kureshi et al. (2009) have concluded in their research that lower employee motivation, lower empowerment to managers and employee, lack of resource commitment to quality management, lack of the awareness of potential effectiveness of quality management techniques and misreporting by respondents were the implementation obstacles for total quality management.

Ashish et al.(2009) reported in their research study that all types of business enterprises are facing marketing problems, but these problems are more severe in case of small scale units i.e. lack of knowledge, adequate funds and lack of experience, and competition from large scale industries. On account of scarcity of resources the entrepreneurs of small and medium enterprises almost have to use inferior technology. Because of it their products are not standardized for international marketing. The obsolete technology used by the entrepreneurs of small and medium enterprises produce low quality of products. Other obstacles are faced by the entrepreneurs of these enterprises like lack of marketing knowledge, lack of sales promotion, weak bargaining power, better quality of product and credit sale facilities.

Hilma & Mohd (2006) in their analysis revealed that one of the highest barriers in implementing total quality management is resistance to change. It becomes serious problem when employees cannot commit themselves with process and is not approved by them. That's why management of the organization should great effort to develop the cooperative and good quality culture in the organization.

Data Analysis

Table: 2 Rotated component matrix

Name of the problems	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6	Factor7
Variable X_1	.355	-.151	.113	.230	.497	.007	.052
Variable X_2	.151	-.132	.142	.767	.096	.083	-.011
Variable X_3	.260	-.027	.572	.120	.390	.001	.275
Variable X_4	.465	-.036	.195	.350	.001	.177	.142
Variable X_5	.178	.281	.795	-.088	-.086	.102	.148
Variable X_6	.030	.159	.837	.169	.073	.018	.024
Variable X_7	.192	.293	.666	-.003	-.077	.122	.313
Variable X_8	.322	.080	.136	.592	.349	-.263	.284
Variable X_9	-.060	-.044	.392	.436	.439	.266	-.123
Variable X_{10}	.000	.170	.028	.754	.018	.112	.034
Variable X_{11}	.287	.080	-.002	.238	-.026	.076	.812
Variable X_{12}	.133	.058	.269	.034	.082	.330	.810
Variable X_{13}	.238	.209	.325	-.064	.168	.203	.757
Variable X_{14}	.836	.031	-.064	-.066	-.064	.074	.229
Variable X_{15}	.852	.139	.055	.057	.161	.137	.153
Variable X_{16}	.620	.004	.123	.213	.234	.416	.207
Variable X_{17}	.744	.024	-.021	.373	.075	.374	.045
Variable X_{18}	.266	.751	.256	-.037	.078	.048	.038
Variable X_{19}	.138	.124	-.074	.649	.233	-.006	.227
Variable X_{20}	-.069	.848	.073	.225	-.024	.067	.193
Variable X_{21}	.011	.631	.030	-.037	-.262	.462	.348
Variable X_{22}	-.055	.805	.391	.020	.151	.072	-.022
Variable X_{23}	-.060	.313	-.193	.448	.621	.151	.153
Variable X_{24}	.000	-.273	-.258	.431	.643	.161	.111
Variable X_{25}	.330	.102	-.328	.095	.348	.478	.321
Variable X_{26}	.244	-.017	.089	.133	.134	.677	.276
Variable X_{27}	.419	.122	.073	-.019	-.110	.749	.190
Variable X_{28}	.067	.426	.120	.175	.398	.556	.060
Variable X_{29}	.112	.470	.447	.032	.247	.593	.000
Variable X_{30}	.079	.184	.172	-.009	.877	.055	-.011

Source: Primary Data

Table: 3 Factor matrix

Name of the problem	Factor loading	Eigen value	variance	Reliability construct
Employee and worker management				
Lack of creative employees	**.465**	**3.605**	**12.018**	**.861**
Lack of creative team work	**.836**			
Lack of local skilled workers	**.852**			
Lack of experienced employees	**.620**			
Lack of motivated employees and workers	**.744**			
Market mechanism in globalization				
Lack of access to global market	**.751**	**3.452**	**11.508**	**.841**
Problem of changing in global market	**.848**			
Ineffective marketing strategy	**.631**			
Lack of identification of new markets	**.805**			
Customer management				
Lack of customer survey	**.572**	**3.248**	**10.826**	**.827**
Lack of promotional networking	**.795**			
Lack of assessment of demand and expectations of customers	**.837**			
Lack of product benchmarking	**.666**			

Production management				
Lack of production capacity	**.767**	**3.099**	**10.328**	**.751**
Lack of infrastructural facilities for TQM	**.592**			
Lack of special incentives for quality management	**.754**			
Lack of quality raw materials	**.649**			
Financial management				
Lack of adequate financial facilities	**.497**	**2.958**	**9.860**	**.784**
Lack of TQM initiatives	**.439**			
Lack of compensation management	**.621**			
High cost implementation of TQM	**.643**			
Lack of government assistance	**.877**			
Supply chain management				
Lack of planning with suppliers	**.478**	**2.895**	**9.649**	**.828**
Lack of supply chain management	**.677**			
Problems of distances from suppliers	**.749**			
Lack of qualified suppliers	**.556**			
Lack of timely and adequate supply of raw material	**.593**			
Quality entrepreneurial leadership				
Lack of competency	**.812**	**2.805**	**9.349**	**.886**
Lack of quality leadership	**.810**			
Lack of awareness about TQM culture	**.757**			

Source: Primary Data

EMPLOYEE AND WORKER MANAGEMENT

The first factor designated as employee and worker management as loaded five variables named lack of creative employees, lack of creative team work, lack of local skilled workers, lack of experienced employees and lack of motivated employees and workers. This factor has eigen value 3.605 and explained variance 12.018 percent. The factor disclosed that availability of experienced employees and workers impeding obstacle in the implementation of total quality management in small and medium enterprises.

MARKET MECHANISM IN GLOBALIZATION

The second factor labeled as lack of market mechanism in globalized economy under tough competition in liberal economy. The factor has eigen value 3.45 and explained variance 11.508. Issues regarding implementation problems of total quality management in small and medium enterprises are lack of access to global market, lack of identification of new markets by the entrepreneurs of small and medium enterprises in changing business environment in globalized world economy.

CUSTOMER MANAGEMENT

Customer management is entrepreneurial obstacles in implementation of total quality management in Indian small and medium enterprises. Explained variance is 10.826 by this factor and eigen value 3.248 which shows that lack of customer survey, lack of promotional networking, lack of product benchmarking are significant obstacles in these enterprises.

PRODUCTION MANAGEMENT

Another obstacles as impeding factor in implementation of total quality management in small and medium enterprises is production management which not timely and adequately done by the entrepreneurs of these enterprises. The explains the 10.328 variance under factor analysis and eigen value is more than 1, i.e. 3.099. Loaded variables as a labeled factor in this as lack of quality raw material, lack of production capacity etc.

FINANCIAL MANAGEMENT

The fifth factor designed as financial management including obstacles in implementation of total quality management in these enterprises i.e. lack of adequate financial facilities, lack of compensation management, lack of government assistance for entrepreneurs of small and medium enterprises to implement total quality management approach. The variance explained is 9.860 and eigen value 2.958.

SUPPLY CHAIN MANAGEMENT

This factor is most significant problems to implement total quality management in micro, small and medium enterprises. The factor has eigen value 2.895 and explains the variance 9.649. Lack of qualified suppliers, lack of proper planning with suppliers, lack of timely and adequate supply of raw material for continuous production process are the significant problems in small and medium enterprises for TQM approach.

QUALITY ENTREPRENEURIAL LEADERSHIP

The last factor has been designated as quality entrepreneurial leadership in implementation of total quality management in small and medium enterprises and explained variance by this factor is 9.349 and eigen value is 2.805. The problems are included under heading factor are lack of competency to implement total quality management, lack of leadership and lack of awareness about TQM approach and methods.

CONCLUSION

The research study concluded that in small and medium enterprises entrepreneurs are facing large number of implementation related obstacles such as customer management, supply chain management, production management, lack of financial resources to implement TQM and quality leadership etc. Although the modern era is technology based but till now the entrepreneurs of small and medium enterprises are unaware the modern approach of total quality management, they have not proper understanding about statistical approach and quality assurance

related to quality management practices. Foregoing analysis suggest that implementation of total quality management is significant problem in these enterprises then government should provide proper training for entrepreneurs of small and medium enterprises. Professional and business schools which are providing entrepreneurial education should give proper training in the field and related principles of total quality management.

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Rajkumar
Extension Lecturer Deptt. Of Economics , I.G. Govt. P.G. College Tohana, Fatehabad, Haryana, India.