Perception of Quality Culture in Small and Medium Enterprise

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Abstract – This research determines appropiate ways to assess a small and medium enterprise's current perception of quality culture. To accomplish this, a questionnaire was developed, based upon eight quality principles of International Standardization Organization (ISO). Two small and medium enterprises (SME's) were agreed to participate in this research. Result indicate that there are the differences in quality perception between two SME's especially for leadership, involvement of people, process approach, continual improvement, and mutually beneficial supplier relationships. We proposed 7 ways to build quality culture in SME's i.e. declare company values, training of quality culture awareness, focus on quality in every activity, controlling document, communicate with management and regulators, find the feedback, and build the foundation of quality culture.

Key Words – quality culture; SME's; International Standardization Organization.

1 Introduction

The Indonesia economy is basically characterized by availability of SME's that make up nearly 99.95 percent of the total number of enterprises. SME's give 57.9 percent contribution to Indonesia's GDP and 97.2 percent workers are employed in SME's sector. As a developing country, Indonesia has to create bigger effort to support SME's activities, including its interactions in global situation. Accordingly, the successful in supporting SME's is widely recognized as critical to long-term sustainable economic growth. In global situation, SME's is forced to be restructurized and reorganized in order to meet fluctuative customer wants, i.e. quality products, low price, and process flexibility. SME's are engaged in a subcontracting relationship as subcontractor of large enterprises. Subcontracting is one of the most important features of industrial network and industrial development. Further Perry and Pyatt (1995) and Koch (2011) state that a subcontracting relationship is a prime key to achieve the successful in the global competition.

In the relationship, large enterprise has proposed high quality standard to be fulfilled by SME's in order to achieve sustainability. What should SME's do?. It must create and maintain an awareness of quality, provide evidence of management leadership on quality, encourage self-development and empowerment, provide opportunities for employee participation to inspire action, and provide recognition and reward. In other hand, SME's should implement of quality culture as an essential way in achieving the quality standard that large enterprise asked. Sinclair and David (1992) believed that quality culture can promote, encourage, and maintain quality standard.

Quality culture is the way in which people work and carry out activities inside the organization, in which it is evident that everyone perceives total quality as the basis of their own activities, consequently developing organization. There are characteristics of quality culture as follows: shared corporate identity, satisfying/delighting employees, focus on learning process, long term view, proactive, staff as assets, maximum quality, staff participation, integration view, empowerment, trust and openness, democracy, co-operation, benchmarking against others, and motivation/incentive. Having a strong quality culture is an essential strategy in achieving the quality goals of an enterprise. Knowing the current quality culture helps management encourage employees to embrace the quality strategy and make it successful (Watson and Gryna, 2001; Palheta et al., 2019). Maull et al (2001) identified four views on culture in the organizational culture literature: as a learned entity, as a belief system, as strategy, and as mental programming (incorporating many elements of the previous three types). Besides that, according to Bendermacher et al (2017) quality culture regarded as organizational culture that share and commit to quality.

2 Concept of Quality Culture

The study approached concept of quality culture primarily from an International Standardization Organization (ISO) perspective. Eight dimensions were identified and researched for determining perception of quality culture. These dimensions are indicative of attributes which SME's agree should be present in their organization. This model defined by these dimensions is as follows:

a.   Customer focus - organizations should understand current and future customer needs, should meet customer requirements and strive to exceed customer expectations.

b.   Leadership - leaders establish unity of purpose and direction of the organization. They should create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives.

c.   Involvement of people - people at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization's benefit.

d.   Process approach - a desired result is achieved more efficiently when activities and related resources are managed as a process.

e.   System approach to management - identifying, understanding and managing interrelated processes as a system contributes to the organization's effectiveness and efficiency in achieving its objectives.

f.   Continual improvement - continual improvement of the organization's overall performance should be a permanent objective of the organization.

g.   Factual approach to decision making - effective decisions are based on the analysis of data and information. Decision making can be a complex process, and it always involves some uncertainty.

h.   Mutually beneficial supplier relationships - an organization and its suppliers are interdependent and a mutually beneficial relationship enhances the ability of both to create value.

3.   Research Metodology

3.1 Sample

Two SME's in Bandung, West Java area agreed to participate in this study - all of them from manufacturing sector. The consideration of choicing SME's as sample in this study based on criterias, namely: as subcontractor of large enterprise, produce a precision product, sertified by ISO, and sales per year above 1 billion. According to these criterias, we believe that SME's have implemented the quality culture in daily operation. Detail characteristic of these SME's as sample presented on the Tabel as follow.

Table 1. Characteristics of SME's

Characteristic	First SME	Second SME
Owner	Indonesian	Indonesian
Operation	Since 1997	Since 2002
Product and Service	Mechanical Spare Part, Plastic Mould and Component, Jig and Fixture, CAD Modelling, and Stamping Dies	Precision Equipment, Press Tools, Plastic Mold Injection, Jig and Fixture, Rubber Mould, Die Casting, and 3D Modelling
Production Facilities	Manual Machine and CNC Machine	Manual Machine and CNC Machine
Orientation	Subcontractor	Subcontractor
Production Strategy	Make to Order	Make to Order
Market	Domestic	Domestic
Number of Employee	24 People	17 People

3.2 Survey

We adopted the method that Watson and Gryna (2001) do when they studied about quality culture in small bussiness. We visited each company three times. In the first visit, we met director then presented the concept of quality culture and discussed why it's very important. We explained that we would assess the current quality culture. We also explained the eight dimensions of quality culture that we would ask during the second visit to all employees, including director. At the second visit, we conducted assess current perception of quality culture. We asked employees for its perception about how quality culture are addressed in the SME. Last, at third visit we presented the result of assessment and discussed what SME's should do to improve the implementation of quality culture.

Table 2. Sample Items for Quality Culture Assessment

Quality Culture	Sample Item
Customer Focus	Enterprise collect the customer complain extensivelly
Leadership	Management always give direction to employee in solving the enterprise problems.
Involvement of People	Every employee was given a chance to share their knowledge and experience in solving the enterprise problems.
Process Approach	Process improvement is continously evaluated and improved
System Approach to Management	System improvement is continously done based on evaluation and monitoring result
Continual Improvement	Enterprise give a reward and acknowledgment to employee who contribute significantly in quality improvement
Factual Approach to Decision Making	Data and information are easily accessed by everyone
Mutually Beneficial Supplier Relationships	Cooperation between enterprise and supplier is built to improve the quality of product and process

A questionnaire was develop to assess the perception of quality culture in SME's. A 5-point scale anchored by 1 = "strongly disagree" to 5 = "strongly agree"; a "netral" response choice is also included for those items. The questionnaire posted at our second visit were composed around the the eight dimensions of quality culture and we asked around 41 employees for its perception. A sampe survey item for each of the eight dimension is provided in Table 2.

3.3 Level of Perception

Mean scores for the employee samples were calculated for each of the eight dimensions of quality culture. A mean score for each of the eight dimension was calculated by summing response choice (i.e., 1,2,3,4, or 5) and then dividing that sum by total number of responses for each of the eight dimension. Therefore, mean scores for each dimension can range from 1.0 to 5.0, with higer scores indicating more favorable perceptions and lower scores indicating unfavorable perceptions.If we found the mean score from 1 to less than 3 indicating level of perception was relatively low, but if mean score from exactly 3 to 5 indicating level of perception was relatively high.

4. Result

Finding from the questionnaire survey are presented in this section. The first part of the section discusses general issues on quality culture perception, while the second part specifically describes the test of perception differencess between SME. The last part of the section explores the way to build quality culture in SME.

4.1 Quality Culture Perception in General

Table 3 provides descriptive statistic for SME's perception level of quality culture. In general the perception of quality culture is relatively high. Both of SME's had introduced gave a good perception to customer focus, involvement of people, process approach, continual improvement, and mutual beneficial suppier relationship, but for system approach to management and factual approach to decision making they gave a bad respons. Meanwhile for leadership dimesion, first SME gave a bad perception and second SME gave a good one. Statistically, Tabel 3 indicated the different perception value of all quality culture dimension between First SME and Second SME.

Table 3. Perception Level of Quality Culture

Quality Culture Dimensions	First SME			Second SME		
	Mean	Deviation Standard	Level	Mean	Deviation Standard	Level
Customer Focus	4.20	0.34	High	4.61	0.21	High
Leadership	2.41	0.17	Low	3.33	0.11	High
Involvement of People	3.71	0.23	High	4.60	0.21	High
Process Approach	3.73	0.21	High	3.46	0.23	High
System Approach to Management	2.52	0.10	Low	2.43	0.17	Low
Continual Improvement	3.61	0.17	High	3.42	0.14	High
Factual Approach to Decision Making	2.71	0.26	Low	2.59	0.05	Low

Mutually Beneficial Supplier Relationships	4.66	0.24	High	3.50	0.11	High
Average Overall	**3.32**	**0.22**	**High**	**3.49**	**0.15**	**High**

4.2 Differences of Quality Culture Perception

Based on Mann-Whitney U Test, we test the differences quality culture perception between first SME and second SME. If the value of Asymp. Sig, (2-tailed) less than 0.05 indicate there is a significant difference between two samples. Based on Table 4 we noticed that the significant difference of quality culture perceptions between two SME i.e. leadership, involvement of people, process approach, continual improvement, and mutually beneficial supplier relationships. Meanwhile, insignificant difference for customer focus, system approach to management, and factual approach to decision making.

Table 4. Significant Test of Quality Culture Perception

Quality Culture Dimensions	First SME			Second SME			Asymp. Sig. (2-tailed)*
	n	Mean	Deviation Standard	n	Mean	Deviation Standard	
Customer Focus	24	4.20	0.34	17	4.61	0.21	0.100
Leadership	24	2.41	0.17	17	3.33	0.11	0.009
Involvement of People	24	3.71	0.23	17	4.60	0.21	0.004
Process Approach	24	3.73	0.21	17	3.46	0.23	0.077
System Approach to Management	24	2.52	0.10	17	2.43	0.17	0.107
Continual Improvement	24	3.61	0.17	17	3.42	0.14	0.077
Factual Approach to Decision Making	24	2.71	0.26	17	2.59	0.05	0.384
Mutually Beneficial Supplier Relationships	24	4.66	0.24	17	3.50	0.11	0.004

* Mann-Whitney U Test

4.3 How to Build Quality Culture

Quality culture in the SME's genuinely care about the quality in their work, and make decisions based on achieving of best quality. It was so difficult to build quality culture, because depend on factors are awareness of people, management commitment, technological support, and so on. In this paper, we proposed 7 ways to creating best quality culture for SME:
1. Declare Company Values
2. Training of Quality Culture Awareness
3. Focus on Quality in Every Activities
4. Controlling Document
5. Communicate with Management and Regulators
6. Find the Feedback
7. Build the Foundation of Quality Culture

Conclusions

Based on this research, we find some conclusion deal with perception of quality culture in SME's, namely:
1. In general SME's as subcontractors for Industries have awarded the principle of quality culture because they must adapt the system of industries that focus on quality as daily principle In their work
2. Differences the perception of quality culture between SME's depend on leadership, size of SME, training programme, and readiness to change. We found that leadership as the most important thing to leverage the implementation of quality culture.

3.   Building quality culture in SME's need the effective way, not only develop system but also human factor. We found that human is central of successful implementation. Without awareness quality culture implementation just a dream.

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