

Voluntary behavior, knowledge sharing and quality management system implementation in pharmaceutical industry: a preliminary study

by Oktaviani, Ginting, And Sunardi

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Abstract: The implementation of quality management system requires voluntary motivation from each organization's member to achieve organizational perfection. In practice, quality management system implementations were often based on customer demand as a business to business requirement. Certified companies are often no better than firms that do not yet have quality management system certifications. This study aims to develop and confirm the model of effective quality management system implementation by using internal motive factors, such as voluntary behavior, prosocial behavior, perceived employability, and trust. By conducting a survey to a leading Indonesian pharmaceutical firm, 49 respondents reveal that perceived employability and trust have significant effect to form voluntary behavior amongst employees. Voluntary behavior has shown the ability to foster effective quality management system implementation, and the effect could be more promising through the existence of knowledge sharing practice.

Keywords: voluntary behavior; perceived employability; trust; knowledge sharing; quality management system.

1. Introduction

The survival of organizations depends on how the organizations are able to acquire, bind, and generate feelings of enthusiasm for every stakeholder, especially the customers (Weckenmann et al., 2015). To win the hearts of customers, organizations should not only focus on how to produce quality products (Gellynck et al., 2012) or how to change the potential value of the product to meet customer demands (Chen et al., 2016) but on how the organization is able to integrate cross functional units such as manufacturing, marketing, engineering and others (Wollin and Perry, 2004), so that each function has the ability to perform at its best to achieve organizational sustainability. In this case, many organizations decide to adopt quality management systems to help them integrating various functions within organizations to achieve organizational objectives. By implementing certain quality management system, organizations should be able to improve product quality by reducing the defect rate on the product (Su et al., 2008; Fons, 2011; Kafetzopoulos, 2015), reducing costs incurred for product quality (Su et al., 2008; Fons, 2011), and create customer satisfaction (Wollin and Perry, 2004; Su et al., 2008; Kafetzopoulos, 2015).

Nevertheless, quality problems may arise during the implementation, maintenance, and improvement of the quality management system (Nebl and Schroeder, 2011; Rogala, 2016). In other words, effective quality management systems implementation is required to ensure that the current management system can achieve a certain level of quality with optimum investments. In addition, effective quality management systems implementations have helped many organizations to manage the communication and permanent coordination during work process (Fons, 2011) and to improve the financial performance (Sampaio et al., 2011).

An effective quality management system needs to start with a curiosity about what strategies should be used to improve productivity and reduce operational costs (Palmborg and Garvare, 2006). The implementation of quality management system should be based on internal motive that focuses on the sustainability of the organization (Sampaio et al., 2011). However, the found phenomenon revealed that many organizations tend to focus on how to acquire certifications. There are two common motivations in obtaining quality management systems certifications: internal motive, to achieve improvement in organization, and external motive, related to promotion and marketing, customer insistence, market share improvement and others (Sampaio et al., 2011). In this case,

certified organizations were often no better than firms that do not yet have quality management systems certifications.

Further, to achieve sustainability improvement within the organization, employees should be seen as the main actors of the process, instead of just being a resource. This is related to skills and knowledge owned by employees, which are the main capital within any organizations. Most employees bring their skills and knowledge in a particular field that leads them to participate in any interactions among fellow employees, which allow them to share their skills and knowledge to improving the quality of life as well as the quality of their work (Sunardi et al., 2015). It is suggested that the knowledge sharing process has the possibility to improve the effectiveness of quality management systems implementation. Two research questions could be derived from the above discussions. First, how is the model of quality management system implementation developed with voluntary behaviour factors? Second, does the model work on the actual situation?

2. Literature Review

In the previous literatures, several factors have been identified to affecting the quality management systems implementations, such as mutual trust (Weckenmann et al., 2015; Conti, 2010), commitment (Weckenmann et al., 2015; Su et al., 2008; Palmberg and Garvare, 2006; Mochtar et al., 2013; Svensson, 2006), creativity (Weckenmann et al., 2015; Boys and Wilcock, 2014), responsibilities (Fons, 2011; Panuwatwanich and Nguyen, 2017), coordination (Fons, 2011; Palmberg and Garvare, 2006; Conti, 2010; Svensson, 2006), and motivation (Conti, 2010; Mochtar et al., 2013; Boys and Wilcock, 2014). Previous studies also indicated leadership as a prominent enabler to quality management system implementation (Weckenmann et al., 2015; Palmberg and Garvare, 2006; Conti, 2010; Svensson, 2006; Boys and Wilcock, 2014; Panuwatwanich and Nguyen, 2017; Elshaer and Augustyn, 2016; Xiaofen, 2013). However, sustainable success on quality depends on the contribution of all employees. The main subject of quality management is the socio-cultural system that focuses on the employees and their relationships so as to generate intelligent and creative employees (Conti, 2010). Problem arises when some organizations are still not aware that quality is the responsibility of every employee and still employ the believed that quality is the responsibility of quality department (Xiaofen, 2013). Quality should be managed, so that the organization can function effectively since the activities of an organization are interrelated and interdependent (Boys and Wilcock, 2014).

One clause within quality management standard, ISO 9001 for example, recommends a voluntary approach to every aspect of quality management system implementation. Several literatures identified that voluntary behaviour became an important factor to affecting the successful of quality management systems implementation (Weckenmann et al., 2015, Conti, 2010). Two types of voluntary acts from employees were identified during the quality management system implementations: employees who offer assistance and employees who never try to do more than their work obligations (Bandura and Lyons, 2012). In addition to offering assistance, sharing information, improving communication, and working together on organizational tasks were also examples of voluntary behaviour during the implementation of quality management systems (Ayoko, 2016). In this case, the main idea of voluntary behaviour is when an employee has the desire to act without expecting any rewards, especially in term of economic benefits (Bandura et al., 2014). External rewards such as bonuses or incentives reduce one's motivation while helping others (Choi and Moon, 2016).

Further, quality management systems have shown positive impacts to the process of R&D by processing, sharing, changing, and utilizing the knowledge management into new product designs (Su et al., 2008). Previous studies indicated the involvement of knowledge management in relation with quality management system (Fons, 2011; Xiaofen, 2013). The difficulties in the implementation of quality management system lies on the lack of understanding of the real purpose of quality management will only have an economic impact or profit for the organization (Fons, 2011).

Further, many organizations strive to advance the quality management system at all business levels by providing training, consulting and knowledge sharing on quality management, as well as techniques and tools among employees (Xiaofen, 2013). Nevertheless, when providing quality management training to employees, some employees were found to be less motivated. In contrast, motivated employees seem to having features such as flexible, innovative, willingness to share knowledge and skills, sorting jobs based on organization goals, customer-focused, and respond quickly to dynamic business needs (Boys and Wilcock, 2014). In other words, motivation become an important aspect of any effective quality management systems implementation.

To improve the ability to generate value requires a willingness to share and to build shared knowledge amongst employees. To improve the motivation to obtain knowledge and to recreate knowledge needs a cooperative environment (Conti, 2010), so that it can help each employee to know and understand the relationships amongst employees within the organizations and help employees to perform effective knowledge transfer and knowledge sharing during the implementations (Palmberg and Garvare, 2006; Boys and Wilcock, 2014; Xiaofen, 2013). Although knowledge transfer and knowledge sharing have different concept one to another, both are believed to be the key to knowledge dissemination process within any program implementations (Tangaraja et al., 2016). Thus, the role of knowledge management in this research will be focused on knowledge sharing.

2.1. Perceived employability and prosocial Behaviour

Perceived employability can be defined as a person's perception of his chances of gaining and retaining work (Vanhercke et al., 2014). Perceived employability sometimes is argued as a personal resource that can improve employees to being nice (Cuyper et al., 2014). Perceived employability is also related to life satisfaction and self-rated health (Kinnunen et al., 2011). Perceived employability in many cases could provide job security amongst employees. Employees with job security have the opportunity to develop their voluntary behaviour from time to time (Cuyper et al., 2014). Voluntary behaviour with perceived employability might increase better performance during job exhaustion and psychological symptoms (Kinnunen et al., 2011). The discussions lead to the following hypotheses:

- H1A: Perceived employability has a significant positive effect on voluntary behaviour.

Further, voluntary behaviour sometimes could be influenced by prosocial behaviour (Bandura and Lyons, 2012). Prosocial behaviour can be understood as a desire to reduce negative feeling (e.g. displeasure and dissatisfaction) when employees are trying to help others and attempting to be accepted by other employees (Irwin, 2009; Zabielske et al., 2015). In some cases, perceived employability helps employees to help other employees to form prosocial behaviour amongst themselves (Choi and Moon, 2016). The following hypotheses can be inferred from the discussions:

- H1B: Perceived employability has a positive significant influence on prosocial behaviour.

Prosocial behaviour can also be acknowledged as an external motivation with the aim of providing benefits to others. Prosocial behaviour encourages employees to complete their work and decides to exert their efforts (Zabielske et al., 2015). The condition may lead other employees to act the same. In this case, a person's prosocial behaviour can be a good indicator of organizational sustainability since prosocial behaviour is connected to one's kindness and cooperation within an environment, and help the environment to act the same (Waring et al., 2016; Cuadrado and Tabernero, 2015). The following hypotheses can be developed:

- H2: Prosocial behaviour has a significant positive effect on voluntary behaviour.

2.2. Trust

Trust can be interpreted as a social orientation to be accepted by others and group members. Trust is seen as a less intelligent way of socializing, but one can use trust to work together in a group relationship, and to control interactions with other group members and strangers and when their social relationships are weak (Zabielske et al., 2015). Organizational environment with trust becomes the basis of one's belief in working together. Employees who believe in his/her environment will be more confident when others act cooperatively because they believe in the rules and consequences (Andriani and Sabatini, 2015; Ibrahim and Heng, 2017).

In manufacturing context, trust and cooperation could lessen the effort to manage suppliers' relations (Weckenmann et al., 2015). Trust is important when working together because trust is based on emotions between individuals by expressing mutual care amongst them (Ayoko, 2016; Ibrahim and Heng, 2017). By building trust among employees, they will contribute to sharing their skills voluntarily (Andriani and Sabatini, 2015; Teng and Song, 2011). In addition, trust also plays an important role to creating prosocial behaviour amongst employees (Irwin, 2009; Cuadrado and Tabernero, 2015; Andriani and Sabatini, 2015). Trust and prosocial behaviour were also being seen as important implications by many policy makers (Cuadrado and Tabernero, 2015; Andriani and Sabatini, 2015). The following hypothesis can be derived:

- H3A: Trust has a significant positive effect on voluntary behaviour.
- H3B: Trust has a positive significant influence on prosocial behaviour.

2.3. Voluntary behaviour and QMS

Applying voluntary attitude is positively related to work quality and quantity, financial success and customer service excellence (Bandura and Lyons, 2012). Voluntary is also able to increase one's sense of responsibility, refresh connections among fellow employees, and become an element that facilitates learning and development related to skills and performance (Perigo, 2010). Voluntary behaviour could develop organizational functions by increasing the productivity of managers and employees, as well as communicating and cooperating among employees (Bandura et al., 2014). Further, voluntary participations could improve the overall performance in an organization (Choi and Moon, 2016). The following hypotheses can be derived based on previous experience:

- H4: Voluntary behaviour has a positive significant influence on the implementation of effective quality management system.

2.4. Voluntary behaviour, knowledge sharing, and effective QMS implementation

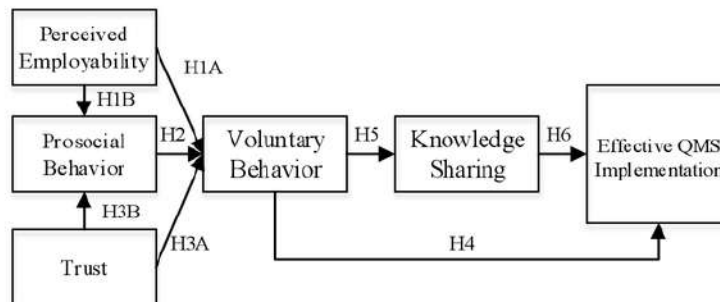
In regard to knowledge, knowledge sharing practice has gained continuous attention in recent years. The problem with sharing knowledge is that not everyone is willing to share in all conditions without any rewards (Anand and Walsh, 2016). When employees have the desire to share, the employees can solve problems and cooperate efficiently. In this case, it can be seen the existence of interconnection between knowledge sharing with voluntary behaviour. Knowledge sharing, when done in voluntary manner, will also receive other knowledge in return (Teng and Song, 2011). A person who has initiative in sharing knowledge is seen as important asset to the success of himself and the organization (Anand and Walsh, 2016; Zhang and Jiang, 2015).

Frequent knowledge sharing practices within the organizations can be a stimulus for voluntary knowledge sharing (Teng and Song, 2011). It is important for organizations to increase employees' interest in knowledge sharing. Employees' interest can be leveraged by providing an understanding of how to encourage knowledge sharing among themselves (Almeida et al., 2016). Effective knowledge sharing can be seen by how the process of communication and information flow is established amongst employees. The following hypothesis can be derived:

- H5: Voluntary behaviour has a significant positive effect on knowledge sharing.
- H6: Knowledge sharing plays a significant positive role as moderator between voluntary behaviour and effective quality management system implementation.

Figure 1 represents the theoretical framework of the voluntary behaviour, knowledge sharing, and how they affect the effective implementation of QMS.

Figure 1. Theoretical framework



3. Methods

To prevent ambiguity, variables within the theoretical framework are described as follow:

- Perceived employability: a person's belief in his ability to execute and accomplish his tasks so that he is worthy of being employed (Vanhercke et al., 2014; Kinnunen et al., 2011).
- Prosocial behaviour is the attitude of someone who has the desire to help others with the aim of providing benefits for others, as well as an interaction to be accepted by others or the environment (Irwin, 2009; Zabielske et al., 2015).

- Trust is a way of socializing someone's existence, based on emotions directed at others so as to increase the effectiveness of the work (Cuadrado and Taberero, 2015).
- Voluntary behaviour is the attitude with the desire to do everything without coercion or request or reward (Bandura et al., 2014).
- Knowledge sharing is one of knowledge management process which is done by sharing knowledge, either one way or two way, which is done on individual level (Tangaraja et al., 2016).
- Effective quality management system is a state when a quality management system objectives are achieved well, shown by the capability of management team to arranging communication and coordination within various management functions (Weckenmann et al., 2015; Fons, 2011).

3.1. Subject of study

This study will focus on employees who involve in quality management system implementation. Employees with more than two years of experience with QMS implementation were selected as potential subjects. Sixty sets of questionnaires were distributed to the firm. The returned questionnaires accounted were 49 (response rate at 81.7%). Table 1 summarizes the demography of respondents. Data were obtained by using purposive sampling. Samples are set to have a minimum of two years of work experience at the same firm, and involve with day to day quality management process.

Table 1. Demography of respondents

Gender	Male	29
	Female	20
Education	Production technique vocational study	33
	Chemical analyst vocational study	6
	General high school	5
	Three-years diploma	3
	Bachelor's	2
	Master's	0
Department	Quality control	9
	Production	40
Age (years)	≤ 20	3
	21-30	41
	31-40	1
	> 40	4

Data were gathered through cross sectional survey. The questionnaire employed a 4 level Likert scale (1: Strongly disagree, 2: Disagree, 3: Agree, 4: Strongly Agree) with the aim of avoiding hesitant answers from respondents. Questionnaires were developed based on latent and manifest variables as summarized in Table 2.

Table 2. Latent and manifest variables

Latent	Manifest
Trust	Integrity; Consistency; Expertise; Communication;
Perceived employability	Perceived skills; Networks; Experience; Personal traits; Knowledge;
Prosocial behavior	Motive; Situation
Voluntary behavior	Loyalty; Cooperativeness; Participation;
Knowledge sharing	Norm; Attitude; Intention
Effective QMS implementation	Employee management; Quality data and reporting; Process management

3.2. Data processing

Data were processed using SEM (Structural Equation Modelling) technique by performing validity and reliability test using SPSS and confirming hypothesis with bootstrapping on Smart-PLS software. SEM is particularly suitable for ensuring hypothesis in model testing by measuring latent variables and testing for causal relationships amongst variables. In addition, SEM is able to assist researchers in making good interpretations and directing researchers in making decisions (Awang et al., 2015). SEM consists of two types: Variance Based Structural Equation Modelling (VB-SEM) and Covariance Based Structural Equation Modelling (CB-SEM). This study employs VB-SEM, also known as Partial Least Square (PLS) (Esposito, 2009).

PLS was chosen based on the assumption that the study does not refer to only one data distribution (i.e. normal distribution). In addition, PLS is known for its ability to handle small sample quantities (Wong, 2013). The use of PLS can be done by sampling 30 to 100 respondents while CB-SEM requires at least 100 respondents (Awang et al., 2015).

4. Hypothesis Testing

In the bootstrapping results obtained value of T value, P value as in Table 3 to state the results of the significance of the hypothesis. The result of significance of hypothesis is determined by value of T value and P value. T value states that the coefficients are divided by the standard error in bootstrapping (Hair et al., 2013), whereas P values state the corresponding significance level or probability level (Garson, 2016). The resulting T value should be greater than T table at 1.681 (DF = 43, sig. = 0.05, one tailed test), while the P value should less than significance level at 0.05, for the hypothesis to be accepted.

The hypothesis in H1B and H2 show that both the T values at 0.411 and 0.758 are less than 1.681, while the P values were at 0.340 and 0.224, greater than significance level at 0.05. Thus, the hypothesis are rejected. In similar interpretation, the hypothesis H1A, H3A, H3B, H4, and H5 are accepted.

Hypotheses H6 has different treatment because of its mediating role, so it cannot be concluded directly with the T value and P value (Hair et al., 2013). First, the P value between voluntary behaviour and effective quality management system was measured using the previous procedure. If the result is significant, then re-involve the knowledge sharing on the structural model and re-test the significance of the voluntary behaviour with knowledge sharing, and then the knowledge sharing with effective quality management system implementation, through P value. If the results are both significant, then the second result coefficient path is multiplied as indirect effect of knowledge sharing.

Table 3. Hypothesis testing results

	Hypotheses statements	T-values	P-values	Results
H1A	Perceived employability → voluntary behavior.	1.961	0.025	Significant
H1B	Perceived employability → prosocial behavior.	0.411	0.340	Not-significant
H2	Prosocial → voluntary behavior	0.758	0.224	Not- significant
H3A	Trust → voluntary behavior.	4.875	0.000	Significant
H3B	Trust → prosocial behavior.	2.056	0.020	Significant
H4	Voluntary behavior → effective quality management system implementation	3.005	0.000	Significant
H5	Voluntary behavior → knowledge sharing.	8.660	0.001	Significant
H6	Knowledge sharing → effective quality management system implementation.	1.902	0.029	Significant

Second, calculate the VAF (Variance Accounted For). VAF is often employed to validate the correctness of a proposed model. In this case, if the VAF result is less than 20% then knowledge sharing is declared not to act as a mediator between voluntary behaviour and effective quality management system implementation.

In the first step, P value is measured at 0.000 (<0.05). In the second step, P value between the voluntary behaviour and knowledge sharing is measured at 0.000 (<0.05), and the P value between the knowledge sharing and effective quality management system implementation is at 0.029 (<0.05), so that both are significant. Furthermore, the VAF is at 0.344 or equal to 66.184%, so knowledge sharing can be confirmed to be the mediator between voluntary behaviour and effective quality management system implementation. The VAF value of 66.184% indicates the partial mediation category, while full mediation category would be achieved when the VAF score is above 80% (Hair et al., 2013). Table 3 summarizes the hypothesis testing results.

5. Discussion

Concurrent with data analysis, researchers conducted two interview sessions with an expert in quality management system practice within pharmaceutical industry. Interviews were conducted as one important source of evidence on case study method, as most of case studies examine human interaction and relationships (Yin, 2009). Expert selection is based on the length of work with a minimum of 10 years in the field (Kuhlmann and Ardichvili, 2015) and the level of career achieved (Gibbins-Klein, 2009). In this study, expert role becomes very crucial to compare the findings from top management perspective. In this case, an expert from a leading pharmaceutical organization outside the subject of study helps to deeper understand the findings. The expert has worked for 18 years in the field of quality management and had served as Head of Quality Management Department in several pharmaceutical companies, with pharmacy education background and pharmacist profession. Expert was asked to comment on the theoretical model.

5.1. Perceived employability and voluntary behaviour

According to the expert, in support of the creation of voluntary behaviour, perceived employability at staff level is still hard to find. This is caused by the competency of the employees in most of pharmaceutical industry in this country. Since most of the employees come from high school level background, they are not in the capacity to make complex decision without any supervisions. However, educational background of employees is also enough to establish the occurrence of voluntary behaviour. In quality management practice, employees with education background that suits his/her job would help them to build their voluntary behaviour.

Expert opinion on this context was examined. In this study, most of respondents have been working in accordance with their educational background. For example, 100% employees within the quality control department, were graduated from chemical analyst program (6 staffs from technical vocational study, 2 supervisors from three years diploma program, and 1 manager from bachelor's program). In similar, 87.5% employees within the production department, were graduated from production technique vocational study (33 staffs), three years diploma program in industrial engineering (1 supervisor), and bachelor of industrial engineering (1 manager).

The expert opinion helps to further understand the importance of educational background to form perceived employability. By understanding their nature of work, employees will be more aware of the surrounding work become experts in their field. In this case, employees with perceived employability may support voluntary behaviour as part of increased skills and knowledge, and become trusted member in their networks.

5.2. Trust and voluntary behaviour

In the findings, trust positively affects the forming of employees' voluntary behaviour. However, expert believes that building trust at the staff level in voluntary behaviour is quite difficult. Trust may exists when each employee shows his/her consistency in performance, and builds extensive communication during decision makings. This condition should build employee's expertise and the others would consider him/her as a trustworthy person. In this case, the findings from the survey and the interviews support each other.

5.3. Perceived employability and prosocial behaviour

The expert believes that many times, when someone is eager to provide assistance to others, the recipients tend to have suspicious mind that this assistance has other motives. In other words, most employees believe that "there is no free lunch". The helper's believe sometime misunderstood by the helped ones. Interestingly, this argument supports the finding from the survey. Thus, the findings show that perceived employability has no positive effect on prosocial behaviour.

5.4. Prosocial behaviour and voluntary behaviour

Prosocial behaviour is still considered difficult to be consistently applied in every day's activity. Expert believes that this is due to the lack of staff-level eagerness in performing their work voluntarily, without any rewards. Thus the findings on H2 is in accordance with the interview result by stating that prosocial behaviour does not significantly affect the voluntary behaviour.

5.5. Trust and prosocial behaviour

The findings suggest that employee confidence can affect prosocial behaviour and is expressed by obtaining significant results. This is evidenced by the expert's answer. In order to be effective to assisting other employees in their works, each employee should gain the trust from other employees. Further, when an employee is consistent with his/her acts, he/she would be able to influence others.

5.6. Voluntary behaviour and effective QMS implementation

The expert believes that the concept of voluntary behaviour is somewhat abstract and informal. Employees would reach the level of voluntary when they show high level of cooperativeness during team work, and many times, they volunteer as auditors, pilot team and trainees during QMS implementation. However, the expert argues that voluntary behaviour would only take effect to employees with longer experience. The expert believes that voluntary concept is informal and unknown to all other employees or supervisors/managers. The expert assumes that employees who have reached the voluntary level usually show minimum deviation and efforts while doing their works.

In regards with this study, the 'loyalty', as one of the manifest of voluntary behaviour', discusses about the availability of employees to work overtime when needed, and their availability to helping others during work process to maintain smooth workflow. On the other hand, 'cooperativeness' discusses about the relationship amongst employees and how this relationships help them to cooperate during team works. The 'participation' discusses the involvement of employees in a discussion or teamwork and provide ideas or suggestions in the work process.

In this case, based on the findings from survey, as well as the analysis from expert, the subject of study have shown to be able to work with voluntary concept, and this voluntary behaviour have been impacting on the implementation of effective quality management system.

5.7. Voluntary behaviour and knowledge sharing

Expert argues that knowledge sharing mostly occurs at the staff level, and mostly in interactions with the supervisors or managers in formal ways (e.g. formal briefings and meetings). Knowledge sharing mostly discusses about work related topics, and sometimes on personal matters. Expert believes that knowledge sharing activities help employees to solve problems faster, especially in dealing with complex problems.

However, this study indicates that knowledge sharing can be affected by voluntary behaviour, and in this context, is often not between staffs and supervisors or managers. Mostly, knowledge sharing activities are conducted informally, even outside the regular working hours. In other words, voluntary behaviour is able to influence the implementation of knowledge sharing amongst the employees.

5.8. Knowledge sharing as mediator between voluntary behaviour and effective QMS implementation

Expert argues that in most organizations, to be effectively implemented, any QMS should employ team coordination, work process improvement, and standardization. These attributes can only be instigated through consistent knowledge sharing activities amongst

all job levels within the organizations. In other words, expert believes, based on his experience, that knowledge sharing is mandatory if effective QMS implementation want to be achieved.

The survey shows that voluntary behaviour may directly affect the implementation of effective quality management system ($t=3.005$). Interestingly, voluntary behaviour is proven to significantly affecting the knowledge sharing attitude amongst employees ($t=8.660$). By encouraging voluntary behaviour, knowledge sharing may affect positively towards effective quality management system implementation ($t=1.902$). In this case, based on expert experience and survey, knowledge sharing becomes an important factor during the implementation of QMS.

6. Conclusion

The study shows that voluntary behaviour has the ability to foster an effective quality management system implementation, directly or and through knowledge sharing activities. Interestingly, the effect of voluntary behaviour to knowledge sharing activities within the organization is considered mandatory. In other words, the existence of knowledge sharing activities demand voluntary perspective of employees. This relationship affects the role of knowledge sharing as an enabler to foster an effective QMS implementation.

This study also finds that 'trust' amongst employees and managers becomes the most dominant condition within the organization that affected most the forming of voluntary behaviour. The other crucial factor is 'perceived employability' of employees, which describes their self-confidence as skilful and knowledgeable assets.

This study supports the previous findings (Sampaio et al., 2011) which proves that internal motive is able to influence the implementation of effective quality management system. In addition, this study is able to contextually confirm the important role of knowledge sharing practice in the implementation of effective quality management system.

This research can provide suggestions for leaders to encourage work environments so that employees can work voluntarily. In addition to improving voluntary, it is also necessary to improve knowledge sharing environment. Further, the study implies that synergistic and openness among employees are necessary factors. This facts support previous argument by Stadnicka and Sakano (2017) which believe that work improvement requires this environment to be effective. This findings is also in support with a previous one conducted in Denmark (Lilleoere and Hansen, 2011).

Further, this study finds that although 'prosocial behaviour' positively affects the forming of voluntary behaviour, the stimulation is somewhat minor.

Other important findings during the expert interview, include the possible factors that might influence voluntary behaviour, such as: initiative, awareness, leadership among employees, and employee education background. In future studies, these factors could be involved in relation with the implementation of an effective quality management system.

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