

Perceived Organizational Support As A Determinant Of Health Information Systems Implementation

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Abstract

Most of health information systems are mandatory information systems, which are information systems that the user is required to implement the system. Besides intention, perceived organizational support is as a determinant for an acceptance of the user toward mandatory health information system. According to the result of literature review, it was known that perceived organizational support could be measured by various indicators, such as: top management encouragement, management support, peers, & supervisor's support, communication with co-worker, help desk, allocation of resources, reward, incentive, and training and education. However, it was suggested that the implementation of health information systems and factors of organizational support became important attention.

Key words: Health Information System, Intention, Perceived Organizational Support

I. INTRODUCTION

Health information system was defined as a coherent set of information about either sick people or healthy people that was used for specific purpose, such as medical treatment, precaution, medical research, health evaluation, and medical management and financial system (Council of Europe, 1996). A health information system was not the only one, however, it was part of health system. In addition, an effective health information system provided information support for the process of decision-making for all parts. The information systems should be utilized as an effective tool for management (Lippeveld, et al., 2000). The health information system was one of six "building block" of health systems, which were 1) service delivery, 2) medical products, vaccines, and technologies, 3) health workforce, 4) health system financing, 5) health information system, and 6) leadership and governance (WHO, 2010). Nugroho (2016) explained that most of health information systems were mandatory information systems. The mandatory information system was an information system which the user of it was required to implement the system. Furthermore, it was different from voluntary information system, which the user of it implemented the system voluntarily. Afterwards, it was reported that perceived organizational support was main determinant or the most influential factor toward the implementation of information system of "Maternal and Child Health" at Ngawi District, East Java Province, Indonesia. Meanwhile, the intention was as a second determinant in implementation of the system. Davis, et al. (1989); explained that the implementation of technology information by user (including the implementation of health information system) was an acceptance form of the technology. The implementation of this technology was commonly known as "actual system use (AU). Therefore, if Davis's statement, et al. (1989) was combined with the result of conducted research by Nugroho (2016), it could be stated that the acceptance of mandatory health information system was influenced more by perceived organizational support rather than intention. This condition needed to be studied further through further researches, whether it was on the setting of other health information systems or not. However, this perceived organizational support also became main determinant for the acceptance of health information system by the user.

II. PERCEIVED ORGANIZATIONAL SUPPORT

A. Organizational Support Theory

Organizational support theory was developed for the first time by Eisenberger, et al. (1986). This theory explained organizational commitments to fulfill economic needs and employees' emotion based on social exchange concept and principles appreciation. According to this theory, the concern of organization toward the employee was important because this was the reason of why the employees worked and dedicated themselves for the organization. If the organizational commitment was given, the employees would show the commitment to the organization. By this basic understanding, Rensis Likert stated that leader and employee in an organization should construct a "mutual support relationship", regarding with the needs of "self-fulfillment men". For every organization, if the employees felt a support and care from their leader toward the job and employee's values, they would respond the leader's decision positively. In contrary, if they did not feel the support and care from their leader or even they lost their dignity and their individual value due to it, they would respond the leader's decision negatively.

Research about organizational support was started with observation that if the manager noticed employees' commitment toward the organization, the employee would notice the organizational commitment toward them. For the employee, organization was a source of socio-emotional needs, such as respect and caring needs, tangible benefit (salary, incentive, and health insurance). If this was considered important by the organization, this matter would also help in fulfilling employees' needs of acceptance, self-respect, and affiliation. Positive appreciation by the organization also gave an indication that the increase of effort would be noted and respected. Therefore, it would emerge active interest from the employees toward the organization (Eisenberger, et al., 1986).

Wu (2008), stated that organizational support theory had offered many new implications for field of human resource management which meant:

1. Creating "sense of obligation" from the employees in order to help the organization in reaching the goal,
2. Increasing "employees' expectation" toward an interest and appreciation from the leader,
3. Increasing "emotional commitment" from the employees toward the organization, and strengthened "organizations' cohesion and employees' stability"
4. Helping in reaching the organization's goal.

B. Definition of Perceived Organizational Support

Perceived organizational support was one concept of organizational support theory. According to the theory, in order to fulfill socio-emotional needs and to study the advantage of the increase of work effort, the employees would form a common feeling of how far the organization respected their contribution and care of their prosperity. Therefore, perceived organizational support was defined as employees' common feeling about how far the organization respected their contribution and care of their prosperity. Perceived organizational support had been proved to have positive influence toward employees' performance and prosperity (Eisenberger, et al., 1986).

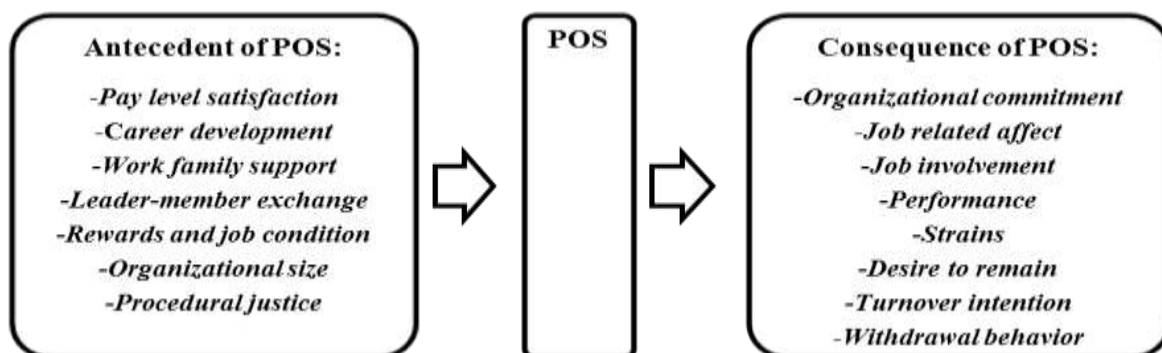
According to Rhoades and Eisenberger (2002), there were three factors that influenced perceived organizational support. They were:

1. **Fairness of treatment.** It was a factor that the employee would always notice of how a leader behaved and treated the employees because these things were a reflection from organizational support.
2. **Supervisor support.** It was a factor that was needed a supervisor who was able to give "understanding and praise" toward employees' contribution.
3. **I** It was a factor that there were appreciation and working condition which supported to indicate whether there was good organizational support or not.

The third factors above would give advantages for the employees, such as: they could increase job satisfaction, create positive feeling, and decrease stress. In addition, the third factors also gave advantages for the organization, such as: increasing commitment and employees' performance.

C. Antecedent and consequence factor of perceived organizational support

Krishnan & Mary (2012) had identified seven main antecedents of perceived organizational support. They were: pay level satisfaction, career development opportunities, work family support, leader-member exchange, organizational rewards and job condition, organizational size, and procedural justice (figure 1), which each of them were explained as followed:



Note: POS = Perceived Organizational Support

Figure 1. Antecedents and Consequence Factor of Perceived Organizational Support
 (Source: Krishnan & Mary, 2012)

1. *Pay level satisfaction*

Proper reward showed that the organization respected employees' contribution. Hence, this factor was main dimension for perceived organizational support. In addition, this proper reward was an investment of the organization for the employees and it was interpreted by the employees as an indication that they had obtained appreciation and recognition from the organization. Therefore, if the reward that was given was proper, the employees would feel that the organization had provided great support to them.

2. *Career development opportunities*

Not only in order to fulfill physiological needs, but the employees also wanted to expand their potency in organization, wanted to satisfy their needs of their own growth and self-actualization. Therefore, if the employees were given a chance for self-development, they would convince more that the organization had given really support for them.

3. *Work family support*

Perceived organizational support was also related with organizational action in order to strengthen a belief that the organization would sympathize and give a help when the employees were facing stress situation either in work place or in their house. However, this thing would help in fulfilling needs of emotional support and interpersonal relation. If the organization gave support in high kinship, the employees would notice more toward the organization.

4. *Leader-member exchange/ LMX*

Supervisor was organizational agent in guiding reward policy and in evaluating employees' contribution toward the organization. Whereas, the reward policy and the recognition of contribution were key words for increasing perceived organizational support. Accepted manner by the employees from their supervisor would form employees' perception of how great the support was given by the organization. Thus, it was believed that leader-member exchange level correlated positively with perceived organizational support.

5. *Organizational rewards and job condition*

Various appreciations and work condition had been studied, which was about the effect of them toward perceived organizational support, such as recognition, reward, promotion, job security, autonomy, stressor role, and training. According to organizational support theory, a chance for having appreciation was for communicating positive assessment for employees' contribution. Hence, it would give contribution for perceived organizational support.

6. *Organizational size*

Generally, in a big organization, the employees felt underappreciated due to very formal policy and procedure, hence, this condition could decrease the flexibility in fulfilling employees' individual needs. Of course, this could influence negatively toward perceived organizational support.

7. *Procedural justice*

Procedural justice referred to the notion of justice in the process of resolving the conflict and resource allocation. According to Eisenberger, et al., (1986), perceived organizational support was influenced by various aspects in handling the employees by the organization and in turn, it would influence employees' interpretation that was about the motif which was the organization's basis in handling it.

Krishnan & Mary (2012) had identified eight consequence factors of perceived organizational support, which were: organizational commitment, job related affect, job involvement, performance, strains, desire to remain, turnover intention, and withdrawal behavior (Figure 1), with the explanation below:

1. *Organizational commitment*

According to organizational support theory, perceived organizational support could develop organizational commitment that was creating obligation for the employees in order to always care to the organization, and the employees would respond it with the commitment of loyalty. In this case, the organizational action, which showed an interest to the employees, could increase employees' commitment toward the organization.

2. *Job related affect*

Perceived organizational support influenced to effective reaction of the employees toward their job, including job satisfaction and positive mood. Job satisfaction referred to whole employees' attitude toward

their job. Perceived organizational support should be able to increase job satisfaction by fulfilling employees' socio-emotional needs, increasing the reward of employees' performance, and providing a help for employees if it was needed. Perceived organizational support could make the employees feel competent and proper, thus, it could increase positive mood. The positive mood involved emotional condition in general without certain object. However, mood had been proposed as an affectivity component that was influenced by environment.

3. *Job involvement*

Job involvement referred to identification toward certain job and interest in doing the job. In this case, perceived competence had been proved, regarding an interest to certain job. Through the increase of perceived competence, perceived organizational support could increase employees' interest to their job.

4. *Performance*

Perceived organizational support could increase the performance from the standard job and behavior that benefited for the organization that exceeded employees' responsibility. For example: helping fellow employees, protecting the organization from the risks, providing constructive suggestion, and learning some knowledge and skills which were useful for the organization.

5. *Strains*

Perceived organizational support was expected to be able to decrease unpleasant psychological and psychosomatic reaction, which was "strain", toward the stressor. Moreover, the way was by providing material help and emotional support to the employees when they faced high demands in their work place.

6. *Desire to remain*

It had been researched about the correlation between perceived organizational support and employees' desire to unite with the organization. This was appraised from the employees' tendency for leaving the organization if they were offered higher salary, offered more the professional freedom or status, and friendly co-workers. A willing to unite with the organization had to be differentiated with unpleasant perception in an organization due to high cost to leave it.

7. *Turnover intention*

Social exchange theory and organizational support theory showed that the employees who had support from the organization tended to respond positively to the organization. In this case, one of important ways to respond the special treatment from the organization was through continued participation which meant that the employees were still continuing the status as part of the organization.

8. *Withdrawal behavior*

Withdrawal behavior was reducing active participants of the employees in an organization. The correlation between perceived organizational support and intention to leave had been appraised in order to understand the withdrawal behavior such as lateness, absence, and changing the job. Retention of membership, high attendance, and punctuality were the employees' way to respond the organizational support. Perceived organizational support also could increase affective organizational commitment, hence, it could reduce withdrawal behavior.

D. *Perceived organizational support in the implementation of information system*

The implementation of information system was one of the manifestations of organizational program. Thus, organizational support in this context pointed to the given support by the organization to the employees, particularly regarding the implementation of information system. In this condition, the support was given to the employees who had been playing the role as a user of the information system. Moreover, it had been stated above that there were some main dimensions from the perceived organizational support. They were: fairness of treatment, supervisor's support, and rewards and work conditions (Rhoades dan Eisenberger, 2002). In the context of information system, the supervisor's support could be encouragement from the supervisors directly and the management of the system. Reward could be giving the incentives and many others. Meanwhile, work condition could be manifested by the availability of a conducive environment in order to learn the systems, such as: informational support (operational assistance), instrumental support (help in problem solving) and effective communication (Lee, et al., 2010).

E. Integration of perceived organizational support in an acceptance model of information system

Based on previous researches, perceived organizational support had been utilized in developing Technology Acceptance Model (TAM) (Figure 2). Brief explanation from each integration paths of perceived organizational support into the TAM was provided in Table 1.

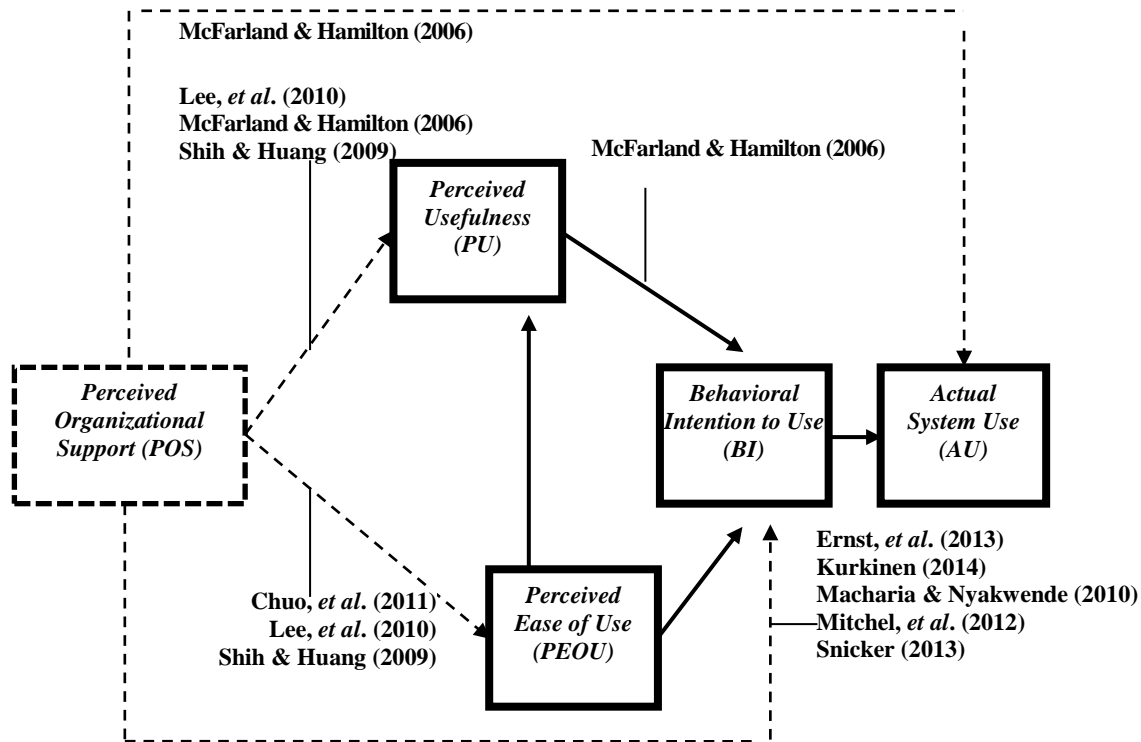


Figure 2. Perceived Organizational Support in Acceptance Model of Information System

Table 1. Integration paths of Perceived Organizational Support into TAM

Path	Source	Notes
POS → PEOU	Shih & Huang (2009)	The acceptance of ERP system technology
	Lee, et al. (2010)	The acceptance of ERP system technology
	Chuo, et al. (2011)	The acceptance of e-learning technology
POS → PU	Mc Farland & Hamilton (2006)	The acceptance of IT-based technology
	Shih & Huang (2009)	The acceptance of ERP system technology
	Lee, et al. (2010)	The acceptance of ERP system technology
POS → BI	Mitchel, et al. (2012)	The acceptance of information system of IT-based in organization
	Macharia & Nyakwende (2010)	The acceptance of LMS technology for learning
	Snicker (2013)	The acceptance of TAP technology
	Ernst, et al. (2013)	The acceptance of social network site
	Kurkinen (2014)	The acceptance of mobile system technology
POS → AU	Mc Farland & Hamilton (2006)	The acceptance of technology in profit organization

If it was compared with the consequence of perceived organizational support in general as what we had explained above (organizational commitment, job related affect, job involvement, performance, strains, desire to remain, turnover intention, withdrawal behavior), it could be obtained some similarities such as in table 2 below:

Table 2. List of Similarities among General Consequences of POS in the Context of the Acceptance of Information System

General Consequence of POS	Consequence of POS IN The Acceptance of Technology	Similarities
-	<i>Perceived ease of use</i>	-
-	<i>Perceived usefulness</i>	-
<i>Strains, job related affect</i>	<i>Perceived enjoyment</i>	Affective Reaction (feeling) toward the job
<i>Organizational commitment</i>	<i>Behavioral intention to use</i>	Contained conative sphere, which was a plan to act voluntarily
<i>Job involvement, performance</i>	<i>Actual system use</i>	An action which was doing job in work place
<i>Desire to remain</i>	-	-
<i>Turnover intention</i>	-	-
<i>Withdrawal behavior</i>	-	-

Indicator of perceived organizational support in the context of the acceptance of information system

Table 3. Indicator of Perceived Organizational Support in the Context of the Implementation of Information Technology based on Literature Review

No.	Indicator of Perceived Organizational Support	Source
1	<i>Top management encouragement/ management support/ peers & supervisor support</i>	Igbaria & Ivarii (1995, Lee, <i>et al.</i> (2010)
2	<i>Communication with co-worker</i>	Lee, <i>et al.</i> (2010)
3	<i>Help desk</i>	Nayakkara & Whiddett (2005), Lee, <i>et al.</i> (2010)
4	<i>Allocation of resources</i>	Igbaria & Ivarii (1995)
5	<i>Reward, incentive</i>	Nayakkara & Whiddett (2005)
6	<i>Training and education</i>	Nayakkara & Whiddett (2005), Lee, <i>et al.</i> (2010)

According to literature review on the result of previous research, perceived organizational support could be measured by utilizing various indicators as in Table 3. If it was compared by the dimensions of organizational support based on Rhoades & Eisenberger (2002), the first indicator above was identical with the supervisor's support. Meanwhile, the second, third, and fourth indicator was identical with work environmental condition. The fifth indicator was identical with the reward and sixth indicator was exactly part of personal characteristic from the user, thus, it was not a dimension of perceived organizational support.

III. CONCLUSION AND SUGGESTION

Based on literature review above, it was concluded that perceived organizational support was a determinant for the acceptance of mandatory information system which still needed to be studied further in various settings of the implementation of mandatory information system. Furthermore, it was suggested that in the implementation of health information system, factors of organizational support became the important attention because most of health information system was mandatory information system.

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