A Review: Adoption Implementation of E-Procurement in Organization

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Abstract—**Electronic procurement or E-Procurement is a method for requisition for goods and services in organization throughout the internet. An E-Procurement is a part of the supply chain and its enables suppliers to sell their products and services. This study will identify factor influence the E-Procurement in an organization. Findings of this study demonstrate most organization agreed to the implementation of E-Procurement in their business transaction towards given a positive impact to the organization. E-Procurement as useful tool to improve their selling efficiency, simplify their selling process, increase their administrative saving, increase their job performance and job productivity and improve their management system. In another view of this study, it has been noticed that in the present business condition, clients are demanding for job performance and job productivity in their investment. The utilization of E-Procurement demonstrates that implementation of E-procurement in organization currently endeavoring to address the clients' needs.**

Keywords—*e-procurement; supply chain; TAM*

I. INTRODUCTION

THE development of advance technology has deeply changed the way on how businesses manage their organization and doing a business. Technology had become one of the most important elements which can help people in managing their lives especially in the business. Electronic procurement or E-Procurement is method of organization to requisitions of goods and services throughout the internet function. This research describes E-Procurement, pacifically to study the implementation of E-Procurement in organization.

Nowadays, technology is very important in every single thing. Everything becomes simpler and easier with technology compared to normal or traditional ways. Traditional ways are generally through one-to-one direct or by mobile call. It normally based on conversation and paper, which is frequently deal with officer's procurement that interaction with long-time companions or well-known suppliers and purchasing at fixed rates.

Some of problems had been observed using traditional ways. First of all, when the organization uses traditional procurement, it will take a long time for the company to settle any business matters. It requires a lot of steps to reach the final agreement. Through using E-Procurement, the company can save time in order to complete the task in everything that relate with online system.

Besides, traditional procurement also will affect organization bear a lot of cost because it will use a lot of things. For example, traditional procurement requires a lot usage of paper, the cost of petrol for transportation, cost of equipment for printing and others, and the labour in organization. All of these can be solved through the E-Procurement method.

Through an E-Procurement, all types of cost and the usage of labour can be saved.

E-Procurement is a part of the supply chain in processing to complete goods or services and to customer starting from raw material, packaging and distribution. The meaning of supply chain management itself refer to chains of information and finance as they move in the process which is started from suppliers/bidders transfer to producer, trader, retailer and finish to consumer in the market.

The procurement system which enables suppliers to sell their product and services. In other word, E-procurement system is software which is application package that give permission to user do an activity such as requisitioning, ordering, receiving, invoicing, authorizing, and paying amount for goods and services over the internet. The adoption of an E-procurement system is based on focused by existing procedure due to inefficiency, low inside compliance, low spends visibility, high transaction costs, and low control over organizational spend. A study by the [1] reported that after implementations of an E-procurement system, the result shows under management spending, increased by 35 percent, 48 percent shows improving transaction costs, 60 percent reduce time spend and 41 percent shows that E-procurement reduced 41 percent maverick spending. From the internal user or client point of view, an effective E-procurement system able to make life easier which is can perform quick ordering, speed up the satisfaction and broad range of choices [2].

In another view, according to study by [3] stated that Dato' Seri Abed Rahman Maidin, former president of the Malay Chamber of Commerce Malaysia, Malaysian government's E-Procurement system was implemented in 1990. All government ministry was implementing the method to dealing with their suppliers to supply goods or services to their department or section.

The study by [4] stated that even though the adoption of E-Procurement can give many benefits to the companies that apply it, unfortunately, not many of them are interested to implement it in their management. This scenario

may be reflecting to there is no awareness among them about the E-Procurement [5]. Other than that, some companies facing problems where their workers have a lack of skills and expertise in using E-Procurement systems [6].

II. IMPLEMENTATION OF E-PROCUREMENT

According to [7], state that adoption of E-Procurement in the practice of supply chain due to manual system of procurement in many companies due to confronted with many challenges like based on process of paper-bureaucratic, incompetence to track cost or justify cost companies are not able to know their purchasing activities in daily basis.

Then, [8] stated that most people believe that traditional procurement is too slow. They had been exploring three reasons due to aspect time consume of the development processes, the effect of cost uncertainty and build ability including fragmentation of organization interphases. This is because the nature of the environment, especially in construction phases had proved it and E-Procurement can decrease in cost and time had become the most beneficial aspects for the company.

Another study by [9] states that a five-star hotel in Nairobi City, Kenya also applying e-procurement where its able to reduce in-terms of employee required as well as material that normally used in traditional procurement.

E-Procurement or call as Business to Business network is an online system where organization connected directly to the suppliers in order to buying products and services at the lowest cost as possible [10]. E-Procurement is also one of the ranges of government measures to facilitate the process of purchasing goods online [3].

The business also can give more control, flexibility, automation and able to save time when manual transaction is turned into electronic [11].

Conducting to [12], E-Procurement allowed buyers to buy goods and services over the usage of internet services in various ways. For example, through online tendering, tenders for contracts are made through online

that enable the suppliers to participate. He said the benefits for the organization which adopt E-Procurement are more transparency, increase the efficiency process, decrease of cost, paperless environment, new supplier that discover procurement process. He also stated that procurement is not a local phenomenon but had become global sourcing for goods and services in business.

Besides, [13] had done into this study which is "The Relationship Between E-Procurement Adoption and Supply Chain Management Practice in Tea Firms" had found that E-Procurement acceptance definitely influence these aspects in term of relationship, information sharing, and partnership includes supply chain integration practice. In his recommendation to manufacturer who that producing tea should apply together in E-Procurement adoption and supply chain management practice to improve performance of supply chain.

In addition, the journal of "Effects of E-Procurement on the Efficiency of Supply Chain Management in Five Star Hotels in Nairobi City, Kenya" which is written by [10]. The objectives are to explore how cost efficiency be able to influence effectiveness in supply chain management, the transparency of E-Procurement and time efficiency carried E-Procurement practices in five-star hotels in Nairobi City Country. Based on this study, stated that the cases of fraud in five-star hotels in Nairobi City in Kenya have been reduced due to the transparency of E-Procurement that make it become easier to be managed. The uses of E-Procurement also become more efficient and easier to manage since most of the proper documents had been produced important information and data storage had become faster and easier to obtained. The recommendation that has been advised to any organization that intent to have competitive advantage must accept E-Procurement to guarantee their supply chain are faster and effective.

Other than that, [11] had prepared a study titled as "The Impact of E-Procurement on the Improvement of an Organization." Their objectives are to ascertain the effect of E-Procurement on the enhancement of

an organizational operational, find out the information flow as far as E-Procurement is concern and find out the challenges that are faced by the organization that employ that E-Procurement. Based on their study findings, E-Procurement had not got the attention in most organizations. But, in Ghana only Coca Cola company that have applied it. So, that company have greatly impact on purchasing matters in their organization like in reducing lead the time; reduce the cost, payment through electronic (e-Payment) and the selection among suppliers in case they want to make the order. The reason why not many companies had use E-Procurement because the management are fear of information attack such as the system had been hijacked. They had recommended that E-Procurement system should be one of the parts in decision making to obtain the information from other organization. Other than that, the managers should adopt the most appropriate technology in the organization to achieve their objective and goals.

Plus, Corina Pop Sitar had study about "E-Procurement: The Future of Purchasing Management." The objective for her study is to outline the significant role of the E-Procurement for the upcoming of purchasing management. Based on her result, E-Procurement can solve the problems that been faced when using traditional procurement such as make the flow of process faster, providing information and improve the collaboration and also the relationship.

From this study, the acceptance of implementation of E-procurement in organization also based on Technology Acceptance Model (TAM Model). There are five factors which are influence the adoption of E-Procurement in organization which are Perceive Usefulness, Perceive Ease of Use, Attitude, Behavior Intention, and Intention to use E-Procurement. TAM model is referring in order user acceptance and adopt the technology. Based on this model, these five factors affect user's decision in order to adoption of new technology whereby notably:

- Perceived usefulness (PU) – According to Fred Davis as "the degree of trust towards particular system will improve his or her job performance".

- Perceived ease-of-use (PEOU) – Fred Davis state as "the degree of trust from a person by using a particular system would be free from their effort" [14].
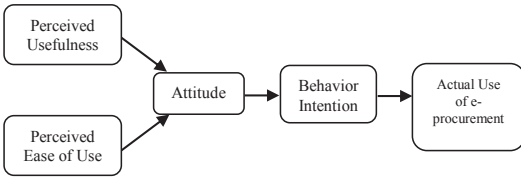

Fig. 1: Research framework of TAM Model [14]

III. CONCLUSION

In conclusion of this study, most organization agree that E-Procurement is useful to improve their selling efficiency, simplify their selling process, increase their administrative saving, increase their job performance and job productivity and improve their management system. In other point of view for this study, it has been noted that in nowadays business situation, clients are demanding to better value on their investment. Besides, through implementation of E-Procurement have useful and give positive impact that can be obtained by the organizations. This supported findings by [15] had conducted a study about "Successful Use of E-Procurement in Supply Chains", European and North American companies used and introduce E-Procurement solution as well as these systems enhance the procurement function. Besides, E-Procurement is useful to improve their selling efficiency, simplify their selling process, increase their administrative saving, increase their job performance and job productivity and improve their management system. Implementation of E-Procurement in organization prove that its very useful enough to their users. The use of E-Procurement shows that the organization who was apply the E-procurement trying to meet the clients' needs and enhance their performance. This clearly shows the effective use of E-Procurement will impact to the prosperity performance of the organization. In the future research, researcher may view and focus on how implementation E-procurement among SME organization.

This supported findings by [16] Khu Say Eei, Wahidah Husain and Norlia Mustaffa had observed in their study about "Survey on Benefits and Barriers of E-Procurement: Malaysian SMEs Perspective", E-Procurement system is not fully accepted by SMEs in Malaysia. Besides, the surveys had found there are many of obstacles towards implementation of E-Procurement in SMEs. Plus, they do not adopt ICT skills in managing SMEs even ICT in one of the important tools in order to enhance the efficiency the SMEs organization in terms of communication, business process, cost reduction and flow of time.

REFERENCES

[1] Castro L, Castro L, Wamba SF. An Inside Look at RFID Technology. J Technol Manag Innov [Internet]. 2007 Mar 15;2(1):128–41.

[2] Johnson PF (2014). McGraw-Hill Higher Education. Purch supply Manag. 2014;

[3] Sitti Aminah B. Factors that influence the use of e-procurement in manufacturing SMEs at Northern Region [Internet]. Universiti Utara Malaysia; 2014.

[4] Bendoly E, Schoenherr T. ERP system and implementation-process benefits. Int J Oper Prod Manag [Internet]. 2005 Apr;25(4):304–19.

[5] Teo TSH, Lin S, Lai K. Adopters and non-adopters of e-procurement in Singapore: An empirical study. Omega [Internet]. 2009 Oct 1;37(5):972–87.

[6] Durst S, Wilhelm S. Knowledge management and succession planning in SMEs. Schiuma G, editor. J Knowl Manag [Internet]. 2012 Jul 13;16(4):637–49.

[7] Bunker BB, Alban B. The handbook of large group methods : creating systemic change in organizations and communities [Internet]. Jossey-Bass; 2006. 451 p.

[8] Kong A, Gray J. Traditional Procurement is too Slow. Constr Econ Build [Internet]. 2012 Nov 20;6(1):51–62.

[9] Barngetuny DC, Kimutai G. Effects of E-Procurement on Supply Chain Management Performance in Elgero-Marakwet Country. Int Acad J Procure Supply Chain Manag [Internet]. 2015;1(5):99–120.

[10] Otieno N, Iravo M. Effects of e-procurement on the efficiency of supply chain management in five star hotels in Nairobi city, Kenya. Int J Curr Bus Soc Sci [Internet]. 2014;1(2):271–88.

[11] Makafui R. Agbovi DA. The Impact of E-Procurement on the Improvement of an Organization. World Wide J Multidiscip Res Dev. 2015;5:1–9.

[12] Andreson J, Dana N, Hepfer B, King'ori E, Oketch J, Wojnar D, et al. Infant Feeding Buddies: A Strategy to Support Safe Infant Feeding for HIV-Positive Mothers. J Hum Lact [Internet]. 2013 Feb;29(1):90–3.

[13] Ng'eno V, Chirchir EK, Chepkwony J. Relationship between E-Procurement adoption and supply chain management practices in tea firms. Int J Manag Stud Reasearch [Internet]. 2015;25–33.

[14] Davis FD. Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Q [Internet]. 1989 Sep;13(3):319.

[15] Puschmann T, Alt R. Successful use of e-procurement in supply chains. Soliman KS, editor. Supply Chain Manag An Int J [Internet]. 2005 Apr;10(2):122–33.

[16] Eei KS, Husain W, Mustaffa N. Survey on Benefits and Barriers of E-Procurement: Malaysian SMEs Perspective. Int J Adv Sci Eng Inf Technol [Internet]. 2012;2(6):424.