

FACTOR AFFECTING PERCEIVED USEFULNESS IN FOOD AND BEVERAGE TECHNOLOGY: 4 AND 5 STARS HOTEL IN KUALA LUMPUR, MALAYSIA

Muhamad Syahir bin Muhamad Stamam¹, (Mohd Naim bin Ahamad², Eti Farah binti Cpt. Zainudin³, Abdul Rahman Redha bin Ahmad Rashidi⁴)

9 Jalan Teknologi, Taman Sains Selangor, PJU 5,
Kota Damansara, 47810 Petaling Jaya,
Selangor, Malaysia

¹*muhdsyahir@segi.edu.my*

²*mohdnaim@segi.edu.my*

³*etifarah@segi.edu.my*

⁴*abdulrahman@segi.edu.my*

ABSTRACT

Technology is defined as a tool or machine that helps to fulfill task to become easier. Indeed, the worldwide used of technology has been accepted as one of the factors which help the hotel employees to fulfill their tasks efficiently and productively. Despite of its universal benefits to the development of the hotel industry, the acceptance of hotel employees towards the usage of technology is still uncertain and imprecise. This study is conducted to investigate what are the external factors that influence to the employees' acceptance on the usage of technology in hotel daily operations. At this intensity, the employees were required to express their experiences in using the technology application installed within the operations of their hotel institution. In addition, this study is focusing on Point of Sales (POS) System used in the hotel coffee house operation. The sample population of this study was among the front liners who are working at the coffee house operation. Questionnaires were distributed to 31 four and five stars rated hotels located in Kuala Lumpur. A series of analyses looking at the mean score, multicollinearity, frequencies, and standard deviation through descriptive and parametric statistic were undertaken. Overall, some useful information was obtained. Technology Acceptance Model (TAM) shown that there are two mediating effects that will influence the relationship between external variable and individual acceptance towards the system use. Results reveal that, task fit is an external variable that will affect the acceptance of a user towards technology. Moreover, based on the data gathered, it proves that task fit will lead to the perceived usefulness of technology.

Keywords: Technology, Perceived Usefulness, Perceived Ease of Use, TAM, and Technology Acceptance.

1. INTRODUCTION

Wally and Amin (1994) defined technology as a tool or machine that helps to fulfill tasks easier and simpler. Thus, it can be seen that the applications of technology has been widely used in almost every sector in the world. As mentioned by Jensen (2004), technology has developed significantly over the past decade. In line with that, the application of technology has given much benefit in term of communication, networking and database technology. It clearly defined that huge volumes of information can be accessed and controlled by using the technology.

Moreover, through technology huge volume of data can be accessed and send securely, received instantaneously and stored efficiently (Jensen 2004). In relation with that notion, Devarpanah (2001) mentioned that technology is necessary in any organization since it is important for rapid business development and most of business environment required technology in order to improve their business operation.

Fine (1998), also highlighted that technology system can assists the organization by improving staffskills; minimize the administration problem and improving performance monitoring. In addition, weighing evidence, evaluating alternative, predicting outcomes and making complex decisions is the major factor that influence organization to apply the technology system in business environment (Uzoka & Famuyiwa, 2004).

Furthermore, the benefit of technology cannot be denied and questioned. Based on the definition and notion highlighted above, it shows that there are many positive impacts to the organization if the management understands the importance of technology in their daily business environment. In addition, as a general understanding most of previous researchers agree that technology is one of the important tools in organization.

While the world is rapidly applying technology as the medium of achieving effectiveness, efficiencies and productivity, the service industry is parallel with that mission. According to Law and Jogaratnam (2005), the investment of technology benefits the hotel if it enables customers to have a better experience and the hotel staff to work more efficiently to better assist the customers. It shows that, technology adoption also may give benefit to the hotel operation. Overall, all the examples pertaining to the technology highlighted previously by the researchers, can be seen within the daily hotels' operation around the globe. With the focus on the employees' efficiencies and effectiveness, it is critical for any hotel operator to understand the staffs' level of acceptance towards the technology applied. With different levels of education, knowledge and experience, it is assumed that the level of employees' acceptance upon the use of technology in their daily tasks is different. Furthermore, according to Shumaila, Gordon and John (2007), acceptance of a technology can only be determined by individual intentions towards the technology.

According to Lee, Kim and Lee (2006), task fit is a variable to evaluate the users' performance in using technology. Task fit can be defined as the degree to which technology meets a user's task need. Another definition of task fit is highlighted by Schrier, Erdem and Brewer (2010), where it is defined as the degree to which a technology assists an individual in performing their portfolio of task. According to them, technology task fit is used to measure the match between a user's requirements for a specific task, the users' abilities and the functionality of a technology. In addition, task fit is lower if the function of the technology is less helping in matching the needs of the user or when the application of

technology are more complicated and hardly to coop. Furthermore, Ballout (2007) also defines task fit as ability between a person and the demand of the job or the needs/ desire of a person and the attribute of the job.

Due to this reason, this paper examines to what extent task fit may influence the perceived usefulness of technology in their daily operation task, specifically on the application of Point of Sale System (POS) in the Food and Beverage Department operations.

2. RESEARCH METHODOLOGY AND DATA COLLECTING PROCESS

This study was conducted at four and five stars rated hotels in Kuala Lumpur. It focused on the individual level of analysis and in this case, the relevant unit of analysis was frontliners working in the Food and Beverage (F&B) department, specifically the coffee house. As these hotels promise high quality services, the pledge had encouraged the organisations to adopt and practice a high technological system in their operations. The system applied is more up to date and could highly increase the performance of the staffs in order to achieve their certain objectives of the operation. Therefore, it is worth at this stage for the researcher to collect reliable and valid information regarding the perspectives of employees' acceptance towards the technology applied among those hotels.

The researchers applied self-administered questionnaires as their quantitative data collection method. Permissions were requested from each participating hotels and “drop-off/pick-up method” was adopted. The researchers distributed the questionnaires to each coffee house manager of each hotel that agreed to participate and the managers then distributed them to their employees. The respondents were asked to indicate their perceptions on technology usage and their level of acceptance. Within a period of a week, the researchers collected the completed questionnaires from each participating hotels.

In planning the research instrument, consideration was initially given to two related issues. Considering the difference in customers' profiles and experience levels, the questionnaires were designed to be simple and easy to comprehend, with the use of simple language to reduce any possible uncertainty.

As noted by Salkind (2003), to obtain a good level of response and useable data, it was essential to keep the survey instrument as straightforward to complete as possible. The second issue is related to the language use for the instrument. The use of Bahasa Malaysia and English is appropriate as both languages are widely used in Malaysia. In addition, some respondents might have a poor understanding of either language. Since this study is quantitative in nature, there is a need to develop the questionnaire in order to get the better result. The questionnaire has been divided into three sections which are: demographic, evaluation on perceived usefulness, task fit, and question regarding the acceptance of technology use from the view of workers.

3. RESULT & DATA ANALYSIS

Owing to the different star rating of the hotels involved in this study, it was assumed that employees who are working in four stars hotels may have had different perceptions of the POS system applied in the five stars hotel. A comparative analysis between all hotels was initially undertaken to determine the homogeneity of the data obtained. The results of One-way ANOVA and post-hoc (Scheffe test) showed that no statistical significant differences appeared on any of the 30 items with a significance level of $p>0.05$, $p>0.01$ and $p>0.001$. In other words, there were no fundamental underlying differences between any perceptions of the respondents. Therefore, regardless of the hotels' star rates, respondents' perceptions of POS system were identical. With that, all the data was treated as no homogeneous issue.

3.1 Respondents Profile

Table 1: Number and percentage (%) of the overall respondents reported by gender, age, position, working experience and education background

VARIABLES	ALL	
	N	%
Gender:		
Male	60	46.9
Female	68	53.1
Age:		
25 Years and below	76	59.4
26 – 35 Years	43	33.6
36 – 45 Years	8	6.3
46 – 55 Years	1	0.8
56 Years and above	0	0
Position:		
Waiter	60	46.9
Waitress	68	53.1
Supervisor	0	0
Others	0	0
Working Experience:		
2 Years	53	41.4
2 – 5 Years	54	42.2
5 – 10 Years	18	14.1
More than 10 Years	3	2.3
Education Background:		
SPM	86	67.2
Certificate	14	10.9
Diploma	13	10.2
Degree	14	11.7
Others	0	0

Based on the 128 questionnaires collected, the female respondents (n=68) exceeded the male (n=60) with the score difference of 6.2 percent. This is obvious as each hotel hired more female workers than male workers in the coffee house operation. In addition, most respondents came from the age of group between 25 years and below (n=76, %=59.4). It could be assumed that, management is more likely to hire young workers in the coffee house operation.

Moreover, working in F&B operation requires a high level of physical activity and the working hour is not fixed according to a timetable. Next, the result is followed by the age of group between 26 - 35 years (n=43, %=33.6), 36 – 45 years (n=8, %=6.3) and age between 46 – 55 years (n=1, %=0.8). No respondents came from the age group of 56 years and above. Meanwhile, the position of waitress recorded the highest number of respondents (n=68, %=53.1) and the waiter (n=60, %=46.9). Based on the data, it reveals that there is an equivalent number between gender and position in coffee house operation.

Academic qualification has become a minor issue in coffee house operation. This can be seen through the percentage score highlighted on the table 4.1, as the number of workers who has SPM (High School Certificate) (n=86, %=67.2) is higher compared to Certificate (n=14, %=10.9), Degree (n=14, %=11.7), and Diploma (n=13, %=10.2) holders. It can be assumed that, to have a good qualification is not obligatory in this area. Maybe a certain position required a certain qualification level such as supervisor and higher ranking positions. This can be seen through the numbers of respondent who have Degrees that are currently doing their management trainee program in the coffee house operation.

Last but not least, it cannot be denied that high job turnover is still one of the most critical problems within the hotel industry. The notion relates with the next percentage score as the staffs who has working there for more than 10 years are only 2.3 percent (n=3). Years between 2 – 5 is the highest with 50 percent (n=54), followed by 2 years 41.4 percent (n=53) and 5 – 10 years with 14.1 percent (n=18).

3.2 Analysis of Task Fit

Table 2: The Mean Scores for the Items on Task Fit of POS Reported By Respondents

No	Item	n	Mean (m)	S.D
1	I am able to complete my task without assistance	128	3.80*	0.641
2	POS is not flexible	128	2.54	0.955
3	Difficult to perform work effectively	128	2.54	1.071

Perceived usefulness can be defined as belief, by using a specific application system, it will help to increase his or her job performance within organization. Based on Table 2 above, it shows the highest mean score is (item 1, m=3.80) “I am able to complete my task without assistance from other staff”.

Furthermore, item two “POS is not flexible” and item three “Difficult to perform work effectively”, both only get a same mean score (item 1, 3 m=2.54). It is less compared to item number one. It shows that, in term of task fit, most of employees did not agree that POS system is not flexible and POS make them difficult to perform work effectively. Based on the mean score gain, it can be assumed that, perceived usefulness will be the mediating effect on the relationship between task fit and employees’ acceptance.

3.3 Perceived Usefulness

Table 3: The Mean Scores for the Items on Respondents' Perceived Usefulness towards POS

No	Item	n	Mean (m)	S.D
1	Accomplish task more quickly	128	5.09	0.664
2	Improve my job performance	128	5.23*	0.737
3	Increase my productivity	128	5.10	0.686
4	Enhance my effectiveness	128	5.13	0.725
5	Easier to do my job	128	5.11	0.751
6	Useful In my job	128	5.23*	0.745

Perceived usefulness can be defined as an individual belief, by using a specific application system, it will help to increase his or her job performance within organisation (Yousafzai et al., 2007). Based on the data recorded, it shows that respondent was perceived usefulness of POS system. This can be revealed from the mean score gain for item two and six. Respondents agreed that, POS will assist them in order to improve their job performance and it is useful for them in coffee house operation, (item 2, m=5.23) and (item 6, m=5.23). At this stage, it can be assumed that most of employees in the coffee house operation are relying heavily on POS system in order to perform their task well. In addition, employees must be knowledgeable in this system.

Besides, item number one also exposed that employees might become more skillful in coffee house operation, since by using POS it help to improve employees' job performance. Moreover, item number two also revealed that, the POS system is really useful to employee and functional well in order to make the operation in coffee house business run smoothly.

Furthermore, this scenario also supported by item four which is, most employees believe that, in dealing with POS, it helped them to enhance their effectiveness in daily operation. This can be revealed from the mean score gain for item number four (item 4, mean = 5.13). This information probably may give a clear picture in term of the functionality and the important of POS system in coffee house operation.

As noted by Sheldon (1983), Food and Beverage department need technology because a lot of information that needs to be processed and communicated. Based on the notion, it shows that technology is compulsory in food and beverage department. Technology might help employees to become more affective and make the task easier and simpler. Most respondents agreed that POS will make easier for them to perform their job (item 4, mean=5.11). It can be assumed that, POS system is an instrument that assists the employees in daily job tasks.

It is cannot be denied that respondents are perceived the usefulness of POS system. Referring to item three and one of the questionnaire respondents believe that POS will increase their productivity (item 3, mean=5.10) and would enable them to accomplish their task more quickly (item 1, mean=5.09). At this phase, employees believe that POS system is helpful in terms of increasing employees' speed during the operation time.

In line with that, POS system also helps to increase the customer turn over during the operation time. In addition, the adaptation of POS system in coffee house operation, has

gave a positive impact to the employees, thus most of employees in coffee house operation perceived usefulness of POS system in the operation. It proves that, employees did perceived usefulness of POS system in the coffee house operation.

3.4 Result of Hypothesis Testing

In order to justify conclusion from the data gathered, hypotheses testing needed to be done. The entire six of hypotheses developed in this study were tested by using a regression analysis. In addition, the value of R Square, Significant Coefficients and Beta Score were viewed.

+H1: There is a positive relationship between External Variable and Perceived Usefulness

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.474 ^a	.225	.219	2.64895

a. Predictors: (Constant), EFxx

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.487	2.171		6.211	.000
	EFxx	.643	.106	.474	6.045	.000

a. Dependent Variable: Total_PU

According to Pallant (2005) the first step in analysing multiple regression analysis is to identify the value of R Square as it measures the percentage of variance in perceived usefulness (Dependent Variable) is explained by the predictor that is the (External Variable). Based on the table above, it shows the result of hypotheses testing based on regression analysis. Task fit was label as EFxx and perceived usefulness was label as PU.

In this case, the R Square value score is, 0.225 which in turns means that the predictor explain 22.5% relationship of the dependent variable. Moreover, it is a positive relationship between external variable and perceived usefulness when it refer to standard coefficient (beta=0.643). Other than that, in order to identify the significant of the relationship between variable, referring to the p-Value is a must (Cooper & Schindler, 2001). In this case, the p-Value score is 0.00 which is less than 0.05. Thus the data is statistically significant.

4. DISCUSSION & IMPLICATION

Some of employees are capable enough with the system and believe that without POS system in coffee house operation it might affect their job performance. In addition, even though there are different perceptions towards POS system in coffee house operation, most of employees agree to still using POS system in the future. At this stage, it can be concluded that even though employees are not able to fully utilise the POS system, they still believe that without POS system they are not able to perform their job task better.

What can be said from the preceding analyses is that, most employees at the coffee house operation perceived usefulness of POS system optimistically. In the meantime, task fit are the factors that contribute to the perceived usefulness towards POS system. Based on the conclusions gathered, it shows that, task fit might influence to the perceived usefulness of POS system.

5. LIMITATION OF THE STUDY & POSSIBLE FUTURE RESEARCH

Although the result highlighted the meaningful and significant finding, there are still some limitations encountered during the research process. Since this study is focusing on coffee house operation in hotel business, it cannot be generalised and represent the whole concept of employees acceptance towards technology in the whole organization of the hotel and even in the different department in hotel operation. Moreover, the question arises whether the finding would be the same or different if the survey was conducted in different department in hotel operation or in any business environment.

6. CONCLUSION

Since this study is focusing on employees' acceptance towards POS system in coffee house operation, it can be as a reference to other potential researcher to use the information here in order to explore into a bigger area. Understanding on employees' acceptance toward POS system is necessary because the system need human skills in order to make in functional. It is good for management to put a higher consideration towards this matter and make them able to identify the employees' acceptance level towards POS system. In addition, no matter how excellent the technology install in coffee house operation, if the employees itself did not able to fully utilize the system; it might lead to the failure in business operation.

REFERENCES

- Algahtani, Said S., and King, M. (1999). Attitudes, satisfaction and Usage: Factors Contributing to Each in the Acceptance of Information Technology. *Behavior and Information Technology*, 18, 277-297.
- Baker, M., Cattet, A., and Riley, M. (1995). Practical Food and Beverage Training in The UK: A study of Facilities and a debate on its relevance. *International Journal of Contemporary Hospitality Management*, 7, 21-24.
- Ballout, H. I. (2007). Career Success; The Effect of Human Capital, Person-Environment fit and Organizational Support. *Journal of Managerial Psychology*, 22, 741-765.
- Chathoth, P.K. (2006). The Impact of Information Technology on Hotel Operations, Service Management and Transaction Costs: A Conceptual Framework for Full –Service Hotel Firms. *International Hospitality Management*, 396-408.

- Chtourou, M.S. & Souiden (2010). Rethinking the TAM model: time to consider fun. *Journal of Consumer Marketing*, 27, 336-344.
- Davis, F.F. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13, 318-340.
- Davis, F.F. (1993). User Acceptance of Information Technology: System Characteristic, User perceptions and Behavioral Impacts. *International Journal of Man-Machine Studies*, 38, 475-487.
- Davies, D., Taylor, R., & Savery, L. (2001). The Role of Appraisal, Remuneration and Training in Improving Staff relations in the Western Australian Accommodation Industry: A Comparative to Study. *Journal of European Industrial*, 25, 366-373.
- F.M.E. Uzoka & F.O. Famuyiwa (2004). A Framework for The Application of Knowledge Technology to The Management of Diseases. *International Journal of Health Care Quality Assurance*, 4, 194-204.
- Icek, A., & Martin, F. (1980). Understanding Attitudes and Predicting Social Behavior. *Prentice – Hall, Inc.*
- Jesen, N.J. (2004). Technology and Intelligent. *Journal of Money Laundering Control*, 3, 227-242.
- Lee, H.Y., Kim, W. G., & Lee, Y.K. (2006). Testing the Determinants of Computerized Reservation System Users' Intention to Use Via a Structural Equation Model. *Journal of Hospitality & Tourism Research*, 30, 246-266.
- Li, Y. H. & Huang, J.W. (2009). Applying Theory of Perceived Risk and Technology Acceptance Model in the Online Shopping Channel. *World Academy of Science, Engineering and Technology*, 53, 919-925.
- Martin, F. (1998). Understanding Attitudes and Predicting Social Behavior. *Prentice Hall, Inc.*
- Mohammad Reza Davarpanah (2001). Level of Information Technology Application in Iranian University Library. *MCB University Press*, 9, 444-450.
- Morley, M. J. (2007). Person-Organization Fit. *Journal of Managerial Psychology*, 22, 109-117.
- Murphy, K. & Olsen, M. (2009). Dimensions of A High Performance Management System: An Exploratory Study of the US Casual Restaurant Segment. *International Journal of Contemporary Hospitality Management*, 21, 836-853.
- Riley, M. (2005). Food and Beverage Management, A Review to Change. *International Journal of Contemporary Hospitality Management*, 17, 88-93.
- Schrier, T., Erdem, M. & Brewer, P. (2010). Merging Task-Technology Fit and Technology Acceptance Models to Assess Guest Empowerment Technology Usage in Hotel. *Journal of Hospitality and Tourism Technology*, 1, 201-217.
- Sheldon, P.J. (1983). The Impact of Technology on The Hotel Industry. *Butterworth & Co Ltd*, 269-278.
- Walley, P., & Amin, V. (1994). Automation in a Customer Contact Environment. *International Journal of Operations & Production Management*, 14, 86-100.
- Wagner, G.D. & Flannery, D.D. (2004). A qualitative Study of Factors Affecting Learner Acceptance of a Computer – Based Training Support Tool. *Journal of European Training*, 28, 383-399.
- Yousafzai, S.Y., Foxall, G.R. & Pallister, J.G. (2007a). Technology Acceptance: A Meta-Analysis of the TAM: Part 1. *Journal of Modeling in Management*, 2, 251-280.
- Yousafzai, S.Y., Foxall, G.R. & Pallister, J.G. (2007b). Technology Acceptance: A Meta-Analysis of the TAM: Part 2. *Journal of Modeling in Management*, 2.