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Customer ICT Use and their Level of Satisfaction in Fast Food Restaurants in Nairobi County, Kenya

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Abstract

ICT adoption influences Fast Food Restaurants (FFRs) performance by reducing customer complains. ICT use in FFRs had an impact on customer frequency of visit and over 50% of the FFRs had no point of sale terminals, ICT was mainly applied in marketing and menu management as opposed to table reservations, inventory management and reporting systems. The recommendations made from the findings were Management team in FFRs should increase point of sale terminus because 50% of FFRs had none, use of electronic pay system should be increased in order to enhance efficiency in guest billing cycle which reduces customer complains. Statistics and report system should be adopted and implemented in FFRs because they are least adopted with a rating of 51.7 and therefore hotel and restaurant policy makers should consider installation of ICT components as key element when they are assessing hospitality sectors for classification and rating. The relationship between ICT use and customer satisfaction had a p -value of 0.000 and r value of 0.307 which indicated a moderate positive relationship between the variables, and therefore null hypothesis that there was no significant relationship between the intensity of ICT use and customer satisfaction in fast food restaurants was rejected.

Keywords: Customer, Satisfaction, Visit, Fast Food Restaurants, ICT, Management

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1. Introduction

Restaurants have historically been slow to accept new technology (Leahy, 2008; Ansel and Dyer, 1999). This is because restaurants believed that adopting new technology would increase costs and reduce already tight profit margins. According to Sabir *et al.* (2013), in the last 50 years, the restaurant sector has grown and expanded to become a global force in many areas due to changes in eating preferences and lifestyles of people.

According to Mwangi (2010), management in these fast food outlets try to outdo one another by differentiating their products and service performance by continuously monitoring and adapting to environmental changes like the modern Technology in order to have a competitive advantage. The fast food restaurants in Nairobi County have historically experienced drastic changes as a result of competition.

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Siguaw and Enz (1999) stated that Information Communication Technology (ICT) being adopted and implemented by hospitality industry would enhance the level of service delivery, quality products which lead to increased customer satisfaction. The same would apply for fast food restaurant sector. Strategic application of ICT gives establishments' ability to assess their experience, efficiency and effectiveness and this allows them to predict the purchasing capabilities of their clients which help in operation efficiency hence customer satisfactions (Garver, 2002). As in the hotel sector, fast food restaurants would have the capability to construct competitive and strategic advantage by analyzing the expectation of clients, hence encouraging repeat guests.

According to Piccoli *et al.* (2001), the advantage provided by Information and Communication Technology is useful to fast food sector and all the commercial establishments. Gaining competitive advantage by using technology requires commitment from the establishment workforce and all other stakeholders. Piccoli *et al.* (2001), uphold their position that using ICT in conjunction with proper customer, rival, internal, and external variable evaluation would create a wealth of chances that might be leveraged to improve service quality and client satisfaction in the hotel and other industries.

ICT and Management Information Systems (MIS), according to Papadopoulos *et al.* (2000), are synonymous words. These are connected computerized systems that function as a unit to gather, analyze, retrieve, store, and distribute data in order to improve corporate planning, coordination, analysis, control, and decision-making. ICT is employed in marketing, foodservice, processing, and accounting (Laudon, 2001).

According to Choi (2002), Restaurant Management Information Systems (RMIS) is a system that encourages management in their decision-making processes, the creation of various reports, and the forecasting of their business. RMIS is essential for boosting hotel performance, such as when creating reports that assist management in making decisions, enhancing customer service, and speeding up food delivery (Huber, 2010).

1.1. Information Communication Technology and Hotel Performance

A study by Sirawit *et al.* (2011) found that the use of ICT in the hotel industry is significant since it improves operational effectiveness in a variety of ways. The use of ICT enhances employee and managerial tasks, which increases organizational performance. One of the factors influencing hospitality performance is ICT (Ham *et al.*, 2005).

According to Law and Jogaratnam (2005), ICT is widely employed in the hospitality business to close the gap between customer service and purchasing. This is due to the fact that the hospitality sector is one where decisions are made independently of the experiences of customers. Applying cutting edge technical knowledge to the creation of goods and services and the development of fresh business concepts in order to attain certain objectives are examples of creativity. ICT improves organizational performance, which results in strong profit margins, ongoing process innovation, and motivated staff, all of which increase customer happiness (Epstein, 2004).

ICT has a favorable impact on employee performance since innovations come from human resources. The use of ICT in any industry is completely dependent on its human resources (Zaheer, 2011). It is true that when an institution is competent in their manufacturing, value is added to the product by investing in cutting edge technology, as proven by Wong *et al.* (2007) in their study on the relationship between innovation and organizational success.

According to Denison (2008), the Resource Based Theory explains the function and effectiveness of ICT by making the assumption that competencies remain constant over time and are shared across many industries. ICT is now understood to be a priceless resource and a source of competitive advantage that improves organizational performance. ICT is one of the performance drivers in the hotel industry and comprises the introduction of fresh, creative ideas into a sector (GoK, 2007). ICT has been identified by Cagna (2007) as one of the finest strategies for corporate survival in the modern era. According to Shimplone *et al.* (2006), the adoption and implementation of ICT can be facilitated by involving human resources.

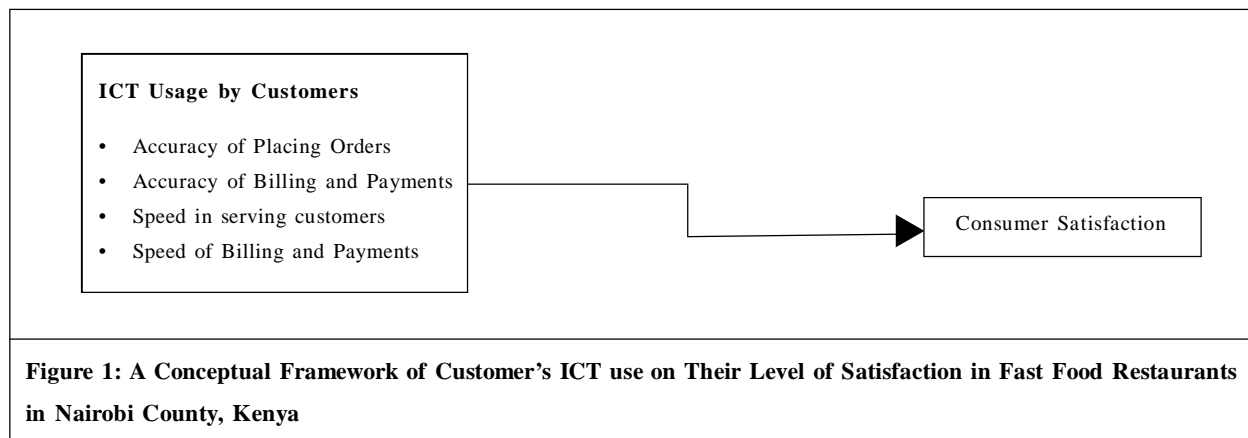
Hotel sector advocates using ICT as a strategic driver of organizational success has been quite supportive of its adoption (Sharma and Upneja, 2005). Law and Jogaratnam (2005) advocated that using ICT improves operational efficiency, contending that institutions and other associated concerns are among the key elements influencing ICT adoption in hotels. According to Lau *et al.* (2011), the adoption and application of ICT to critical business units like manufacturing and service processes has received relatively little attention, making ICT in hotels a very difficult subject. Utilizing ICT despite not being extremely competitive in the hotel industry, according to Barkhi and Daghfous (2009), is a key driver of operational efficiency, which boosts client satisfaction. Like other company sectors, the fast food industry is searching for cutting edge strategies to keep them competitive in the world market.

1.2. Objective of the Study

- 1) To determine the influence of customer ICT use, and their level of satisfaction in fast food restaurants in Nairobi, County Kenya.

1.3. Conceptual Framework and Hypothesis

Hypothesis: There is no significant difference by customer use of ICT and their level of satisfaction in fast food restaurants in Nairobi County, Kenya (Figure 1).



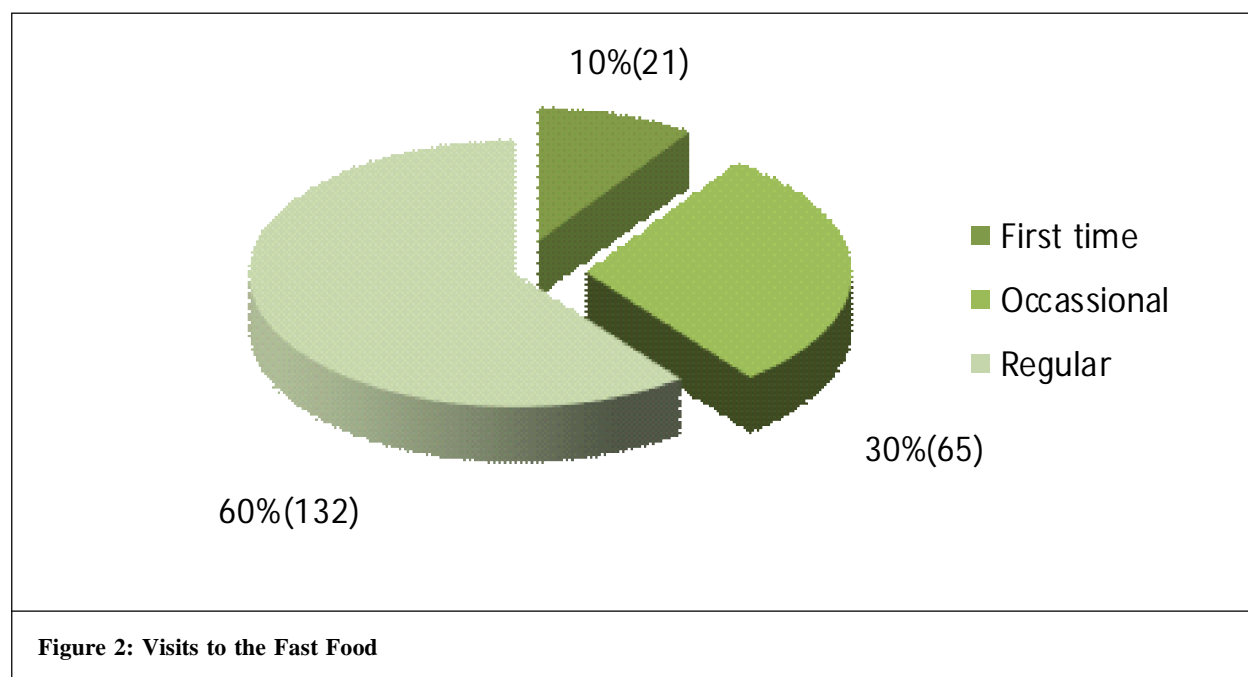
2. Methodology

To compile, the sample size 260 customers were selected out of a total population of 804 using Fisher *et al* formula for sample size determination. The target population of this study constituted 42 fast food restaurants operating in Nairobi County. According to TRA (2016) fast food restaurants have been categorized as fish and chips, cafes, and food courts. These fast food restaurants are chosen as they are strategically located in the main streets, and some of them have more than one outlet offering same kind of services to the clients within Nairobi County. The target population of employees who were respondents to this study was 282 people.

3. Results and Discussion

3.1. Frequency of Customer Visit to the Fast Food Restaurants

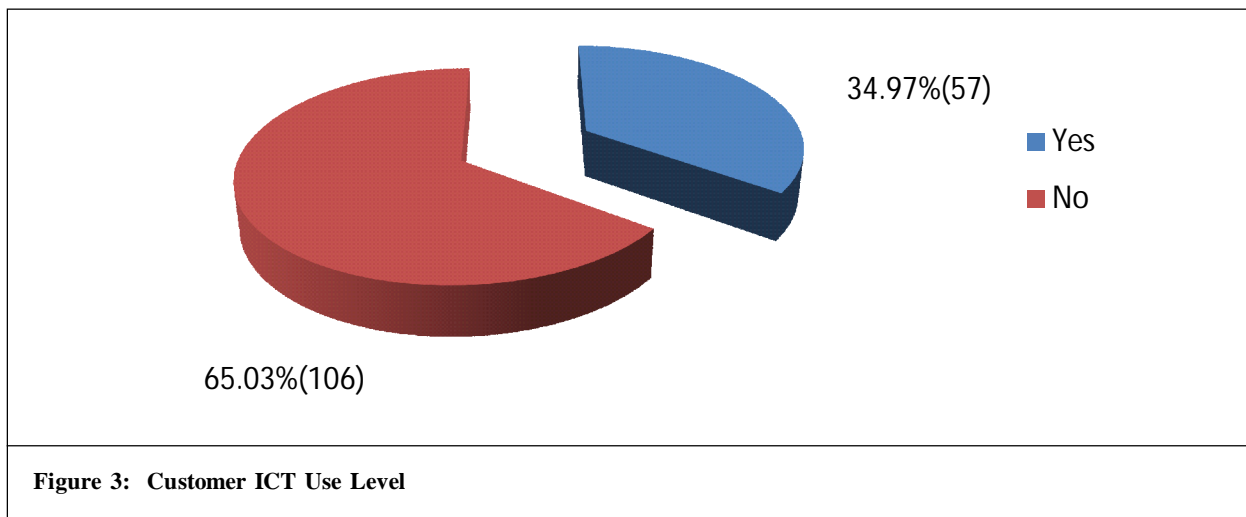
The clients were asked to indicate their frequency of visit to the fast food restaurants and they responded as indicated in Figure 2.



From the findings, 60% of the respondents were regular customers, 30% were occasional guests and 10% first time customers. The largest number of respondents (60%) was regular clients, followed by occasional customers (30%), which mean they had good experience with the services offered in the fast foods and therefore they were at a better position of providing credible information required by the researcher.

3.2. Customers ICT use Level

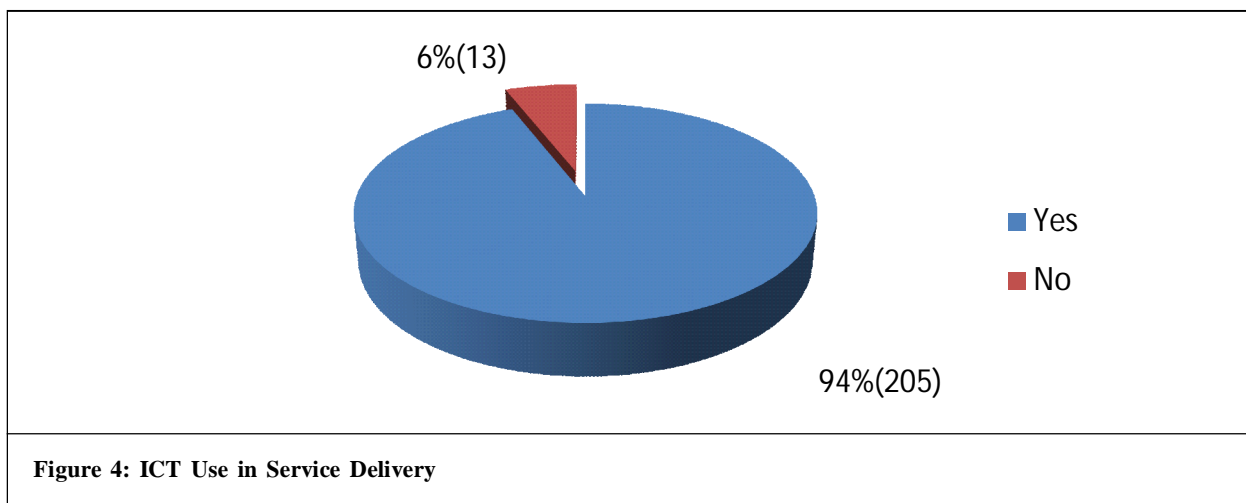
The respondents were expected to state whether their target clients had any impact on ICT adoption level in their fast food restaurant and the response was as indicated in Figure 3.



The findings indicate that 34.97% of the respondents indicated that the target clients in their fast foods restaurants had an impact on the adoption of ICT and the other 65.03% said that the target client in fast food restaurants had no impact on adoption level of ICT.

3.3. Descriptive Analysis on the Fast Food ICT Use

The clients gave a response on whether the fast foods restaurants adopted ICT in their service delivery or not and Figure 4 gives the summary of responses.



The findings indicate that 94% of the clients indicated that the fast foods adopted the ICT and the other 6% said that the fast foods had not adopted the ICT in their operations and therefore the impact of ICT usage on the performance of fast foods operations could easily be traced.

3.4. Effect of ICT Use on Service Delivery

The fast food restaurants client respondents also rated the effects of ICT use on service delivery as indicated in Table 1 the rating was in the range of $\mu = 3.3$ to $\mu = 4.4$.

Effect of ICT use on Customer Satisfaction	N	Mean	Std. Deviation
Accuracy of Placing Orders	218	3.3211	0.52374
Accuracy of Billing and Payments	218	3.3211	0.49664
Speed in serving customers	218	4.2936	0.58872
Speed of Billing and Payments	218	4.3991	0.59289
Average Mean	218	3.8337	0.55000

From the findings the overall rating on effect of ICT use on service delivery was ($\mu=3.8, \sigma=.550$). The best rated element was on Speed of Billing and Payments ($\mu=4.4, \sigma=.592$) Speed in serving customers ($\mu=4.3, \sigma=.587$), Accuracy of Billing and Payments ($\mu=3.3, \sigma=0.497$) and accuracy of placing orders ($\mu=3.3, \sigma=.524$).

The highest rating showed that ICT had the greatest impact on service delivery in terms of speed of billing and payment by clients ($\mu=4.4, \sigma=.592$), which means large numbers of customers can be billed within minimum time and this will result into high customer turnover and better sales.

All the indicators rated showed that ICT had positive impact on customer satisfaction and therefore their use should be reinforced by training the employees who may not have technical knowledge on how to use ICT, and by adopting the ICT components in fast food operations.

According to Aziz *et al.* (2012), ICT is seen as a resource and a core competency in the hospitality industry because it has the potential to add value to businesses and boost competitiveness. According to research, implementing ICT in the hospitality sector has led to higher revenues, lower costs, better service quality, higher productivity, and greater guest satisfaction.

3.5. Hypothesis Testing

There is no significant difference by customer ICT use and their level of satisfaction in fast food restaurants in Nairobi.

The hypothesis sought to determine if there was significant difference by customer frequency of visit on ICT use and their level of satisfaction in fast food restaurants. An ANOVA test was carried to test the hypothesis (Table 2).

Descriptive		N	Mean	SD	SE	95% Confidence Interval for Mean		Min.	Max.
						Lower Bound	Upper Bound		
Intensity of ICT use	First time	21	3.4643	.85982	.18763	3.0729	3.8557	1.75	4.50
	Occasional	59	3.1780	.81612	.10625	2.9653	3.3906	1.00	4.25
	Regular	138	3.7029	.67106	.05712	3.5899	3.8159	1.00	5.00
	Total	218	3.5378	.76389	.05174	3.4359	3.6398	1.00	5.00
Customer Satisfaction	First time	21	3.8929	.42991	.09381	3.6972	4.0885	3.50	4.50
	Occasional	59	3.6356	.34529	.04495	3.5456	3.7256	3.00	4.50
	Regular	138	3.9094	.38320	.03262	3.8449	3.9739	3.00	4.50
	Total	218	3.8337	.39530	.02677	3.7809	3.8865	3.00	4.50

From the findings in Table 3, the *p*-value for ICT use and customer satisfaction was 0.00. This was not less than 0.05 the significance level and therefore no significance difference in the means on the dependent variables based on the ICT usage and customer satisfaction. This however, was in contrast with the findings in the study by Baloglua and McCleary, (1999) who found out that client’s aspects such as customer satisfaction and frequency of visit to a destination influences perceptions of ICT use.

Table 3: ANOVA Intensity of ICT Use and Customer Satisfaction						
		Sum of Squares	df	Mean Square	F	Sig.
Intensity of ICT use	Between Groups	11.514	2	5.757	10.753	0.000
	Within Groups	115.111	215	0.535		
	Total	126.625	217			
Customer satisfaction	Between Groups	3.180	2	1.590	11.125	0.000
	Within Groups	30.729	215	.143		
	Total	33.910	217			

4. Conclusion

The study aimed at exploring the Customer ICT use and their level of satisfaction in fast food restaurants in Nairobi County. ICT elements assessed were: Menu Management System, Marketing systems, E-point of Sale, Statistics and Report System, Storage and Inventory System and Table Reservation Systems. The respondents who were mainly the employees agreed that ICT components were available in the fast foods restaurants though they were few. The study revealed that menu management system was more popular in fast food restaurants and this is supported by its rating of ($\mu=3.4, \sigma=1.2$) which was the highest which means it is adopted and used in most of the fast food restaurants compared to other ICT components. This ICT component impacts positively to the employee performance but other components that impacts positively to customer satisfaction are adopted at a very low pace according to the findings and the management should find ways of ensuring that components that lead to operational efficiency should be adopted and used as well.

Concerning the overall rating of Intensity of ICT use in fast-food operations the study revealed the usage is low ($\mu=2.1, \sigma=1.6$). The respondent agreed that menu management system was extensively used in the fast food and they argued that it promoted the employees work and especially those working in the kitchen. This is supported by the rating given by the staff a score of ($\mu=2.5, \sigma=1.343$), which was higher than the other ICT elements that were assessed.

A significant number of respondents agreed that the following ICT components have been adopted and used in very low levels in fast food and the evidence is the rating they gave each of them as listed; purchasing systems was rated second with a score of ($\mu=2.3, \sigma=1.61$), stock and inventory system scored ($\mu=2.2, \sigma=1.5$), electronic point of sale had a score of ($\mu=2.1, \sigma=1.6$), wireless internet connection had a score of ($\mu=2.0, \sigma=1.4$) and the least rated was table reservation systems which scored ($\mu=1.91, \sigma=1.43$).

The responses given by some respondents concerning low rate of usage brought to light some facts that part of the management don’t want to spend on acquisition of costly systems while others responded by saying that the ICT don’t add value to the operation efficiency and customer satisfaction.

References

Ali, A. Faiz. (2022). [Examining the Moderating role of ICT Between Relationship of Organizational Culture and Business Excellence. *Journal of Information System and Technology Management*, 77\(27\), 1-26.](#)

Ansel, D. and Dyer, C. (1999). [A Framework for Restaurant Information Technology. *Cornell Hotel and Restaurant Administration Quarterly*, 40, 74-84.](#)

Choi, T.Y. (2001). [Determinants of Hotel Guests’ Satisfaction And Repeat Patronage in the Hong Kong Hotel Industry. *International Journal of Hospitality Management*, 20\(3\), 277-297](#)

- Choi, I. (2002). Combination Unit Root Tests for Cross-Sectionally Correlated Panels, Mimeo. *Hong Kong University of Science and Technology, Hong Kong*.
- Chevers, D. and Andrew, S. (2019). A Comparative Analysis of the Impact of ICT on Hotel Guests' Satisfaction: *The Case of Jamaica and the Bahamas*.
- Denison (2008). Legume Sanctions and the Evolution of Symbiotic Cooperation by rhizobia. *Am Nat*, 156: 567–576.
- Epstein, M. (2004). The Drivers and Measures of Success in High Performance Organizations. Performance Measurement and Management, *International Journal of Hospitality Management*, 24(2), 281-294.
- Epstein, G. (2005). Introduction: Financialization and the World Economy. United Kingdom: Edward Elgar. *International Journal of Hospitality Management*, 24(2), 281-294
- Garver, M.S. (2002). Using Data Mining for Customer Satisfaction Research. *Marketing Research*, 14(1), 8-12.
- Government of Kenya (GoK) (2007). Kenya Vision 2030: A Globally Competitive and Prosperous
- Ham, S.K. (2005). Effect of Information Technology on performance in Upscale Hotels. *International Journal of Hospitality Management*, 24(2), 281-294.
- Huber, L. (2010). Validation of Analytical Methods. Agilent Technologies Printed in Germany, *Publication Number 5990-5140EN*.
- Judy A.S. (1999). The Key to Best Practices in the US Lodging Industry. American Express and the American Hotel Foundation, Washington, DC.
- Laudon, D.P. and Laudon J.P. (2001). *Management Information Systems: Organization and Technology in the Network Enterprises*, (4th ed.). Prentice Hall International, USA.
- Leahy, R.L. (2008). The Therapeutic Relationship in Cognitive-behavioral Therapy. *Behavioral and Cognitive Psychotherapy*, 36(6), 769–777.
- Mwangi, C.W. (2010). Strategic Responses to Competition among Large Fast Food Restaurants in Nairobi Central Business District. 9-12.
- Papadopoulos, I. and Lees, S. (2002). Developing Culturally Competent Researchers. *Journal of Advanced Nursing*, 3, 258–264.
- Piccoli, G., Ahmad, R. and Ives, B. (2001). Web-based Virtual Learning Environments: A Research Framework and Preliminary Assessment of Effectiveness in Basic IT Skills Training. *MIS Quarterly*, 25(4), 401-426
- Siguaw and Enz (1999). Cornell Hotel and Restaurant, 1999 - *journals.sagepub.com environment-friendly hotel Page 1 72 Best Hotel Environmental Practices by Cathy A. Enz and Judy A. Siguaw* Cathy A. Enz, Ph.D., is the Lewis G. Schaeneman, Jr., Professor of Innovation.
- Siguaw, J.A., Enz, C.A. and Namasivayam, K. (2000). Adoption of Information Technology in US Hotels: Strategically Driven Objectives. *Journal of Travel Research*, 39(2), 192–201. <https://doi.org/10.1177/004728750003900209>
- Sirirak, S., Islam, N. and Khang, D.B. (2011). Does ICT Adoption Enhance Hotel Performance. *Journal of Hospitality and Tourism Technology*.
- Wong, Y.H., Leung, T.K.P., Hung, H. and Ngai, E.W.T. (2007). A Model of Guanxi Development: Flexibility, Commitment and Capital Exchange, *Total Quality Management and Business Excellence*, 18(8), 875-887.
- Zaheer, A.S.M. (2011). Link Between Product Innovation and Non-technical Organization Performance. *Asian Journal of Business Management*, 3(4), 287-293.

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