

## **SELF-SERVICE TECHNOLOGY AND FINANCIAL PERFORMANCE OF HOSPITALITY INDUSTRY IN PORT-HARCOURT, RIVERS STATE**

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### **ABSTRACT**

This study examined the relationship between self-service technology and financial performance of selected hospitality industry in Port-Harcourt, Rivers State. The survey research design was adopted for this research study. The population of the study consisted of management staff of selected four-star hotels in Rivers State, while a total of 200 designated employees from the 12 hotels constituted the sample size. Four hypotheses were proposed and tested using Spearman's Rank Correlation Coefficient. Results indicated that self-service technology is strong and positively related with financial performance. Thus, it was concluded that self-service technology is a managerial tool that help hotels improve their financial performance. This study therefore, recommended that hotel management should use computerized services in the reservation system to create invoices and bills, to check-in and check-out guests; to record guest expenditure and share information within and across the hotel. By using these computerized reservation systems customers can effectively communicate with the staff in real-time, and their needs are attended to immediately. These services have been confirmed by this research to improve hotel service quality and staff performance.

***Keywords: return on assets, return on equity, reservation system, guest service system.***

### **1. INTRODUCTION**

The hospitality industry has been a dominant contributor to several economies in terms of employment and revenue (Nwakanma, Ubani, Asiegbu and Nwokonkwo, 2020). Financial performance in the hospitality industry is the result of the subtraction of the cost of goods sold from sales revenue. It can either be gross or net (Martínez-Romero, Martínez-Alonso, Rojo-Ramírez, & Diéguez-Soto, 2020). Firms' financial performance is affected by a plethora of factors in the current environment of market liberalization and greater competition.

According to the United Nation Conference on Trade and Development (UNCTAD, 2020), the global hospitality sector had created over \$2 trillion businesses, accounting for 11.3% of world consumption in 1997. Its direct contribution to GDP in 2017 was US \$2, 306 billion (3.1% of GDP). This is forecasted to rise by 3.8% to \$2. 394.2 billion (UNCTAD, 2020). It may not be far from the truth to mention that the hospitality industry is the livewire of tourism activities at all levels. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020), between 70% and 75% of international tourists' expenditure goes to hospitality services on annual basis.

According to the Hospitality Guild (2020), the hospitality industry is comprised of several kinds of establishments including hotels, restaurants, fast food, food service management, coffee shops etc. The hospitality industry is described as labour intensive with operational diversity, product intangibility and problem immediacy (Richard, 2021). According to Hospitality Guild (2020), a hotel can be defined, simply, as an establishment that offers lodging paid on a short-term basis. A typical hotel establishment provides at least the basic accommodation features, that is a room, a bed, with some additional common features (a telephone, a Wi-Fi network, a TV or a mini-bar) and may include some luxury features (bathrobes and slippers). The quality of the hotel and its services is usually indicated by a star-rating system with one to five being most common (Bilgihan, Okumus

and Kwun, 2021).

A major part of hotel advancement is attributed to the use of self-service technology, which is embedded in the use of Information and Communication Technology (ICT) (Nwakanma, Ubani, Asiegbu & Nwokonkwo, 2020). For hotels, considerable investment in self-service technology solutions is spent in designing services/products and improving hotel performance (Richard 2021). For example, Presidential Hotels in Port Harcourt had introduced a guest satisfaction system to improve the customers' lodging experience and increase marketing effectiveness. With the growing trends in using self-service technology in hotels, this system is gaining importance in this current hospitality era (Nwakanma, Ubani, Asiegbu & Nwokonkwo, 2020).

The amount of user acceptability is a significant hurdle that hostels will confront while using self-service technology (SST) initiatives. Previous studies have been carried out in the area of self-service technology and organizational performance across different segments of the economy (Williams 2018; Khim & Brymer, 2020; Sirirak, Islam & Khang, 2018). However, most of these studies had focused on the examination of the effect of self-service technology on hotels performance, which includes competitive advantage, customer purchase behavior, and to the knowledge of the researcher, there is limited research on the relationship between self-service technology and financial performance of hotels in advanced countries such as the US, UK, Germany, China. Again, literature on the financial performance of hotels focused on certain research areas (marketing strategy, and guests' satisfaction and loyalty), and there are few studies that evaluate financial performance in terms of return on assets, and return on equity within the hospitality industry (Sirirak, Islam and Khang, 2018).

This research therefore deviated from extant studies by adopting guest service systems and reservation systems as dimensions of self-service technology; return on assets, and return on equity as measures of financial performance.

**H<sub>01</sub>:** There is no significant relationship between reservation service systems and return on assets of hotels in Rivers State.

**H<sub>02</sub>:** There is no significant relationship between reservation service systems and return on equity of hotels in Rivers State.

**H<sub>03</sub>:** There is no significant relationship between guest service systems and return on assets of hotels in Rivers State.

**H<sub>04</sub>:** There is no significant relationship between guest service systems and return on equity of hotels in Rivers State.

## **2. REVIEW OF RELATED LITERATURE**

### **Concept of Self-service technology**

Self-check-in and self-check-out are two of the many opportunities to digitalize service, and thereby, reduce human contact to make customers' feel safer (Hao, Xiao, & Chon, 2020). In addition, it improves the hotels operational efficiency as well as can lead to a significant cost reduction (Hao, Xiao, & Chon, 2020). Many hotels already started to implement contactless check-in, check-out, contactless payments and digital room keys as response to the Covid-19 pandemic. Even though the implementation of SSTs requires a big investment (Liu & Yang, 2021), the literature is rather coherent about the positive advantages it can bring within the organization (Gupta & Sharma, 2021; Hao, Xiao, & Chon, 2020; Liu & Yang, 2021; Shin & Kang, 2020).

### **Reservation Systems**

Scaglione and Schegg (2015) define a reservation system as; a mechanism that provides sufficient information to the right people at the right time and in the right place to allow a purchase decision to be made, and also allows the consumer to make a reservation and pay for the required product.

### **Guest Service Systems**

According to Reino (2009), these are devices specifically designed for providing additional in-room services and features. Guest service systems can also be used for increasing customer satisfaction and/or for generating further revenue.

### **Financial performance**

According to Mahroqi & Matriano (2021), financial performance is measured using the financial reports issued by the organization annually, whereby a monetary report is attached to its business performance in a specified period. Mahroqi and Matriano (2021) described it as the ability and efficiency of the firm by measuring its operations, which is dependent on the efficiency, ability and skill of the firm's employees in using entrepreneurial knowledge and stressing of the importance and impact it has on raising the level of the corporate's achievement and its ability to make changes in the company through monitoring the plans and the actual performance of the budget, to raise the efficiency of the budget.

### **Return on assets**

Marshall (2019) viewed return on assets (ROA) as an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings.

### **Return on equity**

Return on equity is a metric investors and business executives use to quantify and evaluate the owner's profit. The return on equity analysis is crucial for investors because it establishes the advantages of the investments made.

### **Theoretical Framework**

The theoretical framework of this research was based on the diffusion of innovation theory as propounded by Rogers.

#### **Diffusion of Innovation Theory**

The diffusion of innovations theory was propounded by Everett Rogers in 1995, and it explains how, why, and at what rate new ideas and technology spread. It is one of the oldest theories in communication that has been successfully applied in the field of social sciences.

### **Empirical Review**

Deedenwii (2022) investigated the effect of self-service technology on office secretaries' financial performance: a theoretical approach. Self-service technologies are new innovations in offices that enable the discharge of office functions by the secretary more rapidly and efficiently. Based on the findings of this study, it was concluded that advances in technology and availability of digital technology resources such as internet, e-mail, videoconferencing, have made information and communication processes a lot easier in modern organizations. It is recommended amongst others that secretaries should always be ready and open-minded to acquire additional training/skills development, bearing in mind that changes occur frequently in the line of their chosen career and they are not left behind in the use of ICT in this digital age.

Ernad and Atif (2021) investigated the degree to which Serbian Through an empirical analysis, digital technologies were classified as primary and secondary and the motive was to examine whether digital technologies affect revenue growth, productivity improvement, and increase in market share, customer satisfaction and employee satisfaction, reduction in operating costs, development and use of digital products, digital market expansion and digital platform development. The research was conducted from October 2020 to March 2021. A questionnaire was sent to over 500 email addresses of Serbian companies, and 98 questionnaires were filled in and duly returned. The research

instrument was a questionnaire including the general information (Part I). Part II included the question regarding the primary and secondary digital technologies used in their daily business activities. In Part III, the participants were required to state the specific outcomes their company expects to obtain as a result of digital business transformation. Mobile technologies, social networks and cloud computing were found to be dominantly employed technologies by the Serbian businesses from the sample. In percentage terms, the second class of disruptive technologies was shown to be insignificantly present in the Serbian companies. Finally, it appears that the role and importance of robotics and artificial intelligence have started to be recognised on the business scene. There is a significant impact of digital technologies on business performances, and also give correlations between specific digital technologies and business performances, and intensity and statistical significance of impact in each case. The analysis is performed after standardizing the ordinal scale values of variables making the results more accurate.

### 3. METHODOLOGY

The study employed a survey research design, utilising a questionnaire as the primary data collection instrument. Therefore, the research employed cross-sectional survey design to assess the research components. Fundamentally, the population of this study was limited to selected hotels in Rivers State, due to proximity and convenience. According to the Hotel Association of Nigeria (HAN, 2024), there are a total of twelve (12) selected hotels in Rivers State. The table below shows the various hotels and their addresses.

**Table 3.1 List of Four-Star Hotels in Rivers State**

S/N	NAME	ADDRESS
1	Presidential Hotel	No. 5141 Aba Road, by Rumuola, GRA Phase II, Port Harcourt.
2	Echelon Heights Hotel	No. 73 Ken Saro-Wiwa road, Port Harcourt.
3	Golden Tulip Hotel	1C Evo Crescent, GRA Phase II, Port Harcourt.
4	Novotel Hotel	No. 3 Stadium Road, Rumuomasi, Port Harcourt.
5	Le Meridien Hotels	No. 45 Tombia street Phase II, GRA Port Harcourt.
6	Beverly Hills Hotels	130, Woji Road, GRA Phase II, Port Harcourt.
7	Habitat Hotel	No. 5 Harbitat Drive, Rumualoagu, Choba Road, PH.
8	Swiss International Mabisel	No. 9 Mabisel Avenue, Off Peter Odili Road, Port Harcourt.
9	Limewood Hotels	Plot F, 1B Abacha Road, GRA Phase III.
10	Swiss Spirit	No. 79 Ken Saro-Wiwa Road, Rumuola, Port Harcourt.
11	Genesis Raventon	No 7 Brookstone Close, Professor Abowei Street, New GRA, Port Harcourt.
12	Best Western Hotels	Plot F35 Woke Street, Off Sani Abacha Road, GRA III Port Harcourt.

**Source: HAN (2024).**

The sample size for this study are the selected twelve (12) hotels in Port-Harcourt. Convenient sampling technique was adopted for this study. The questionnaire method of data collection was suitable for this study because it is a consistent, stable, and first-hand data collection tool, which provides the researcher with an objective perspective of the issues being investigated (Kombo & Tromp, 2012). For this research, the chosen tool was Spearman's Rank Correlation Coefficient. It is important to note that all analyses will be facilitated using Statistical Package for the Social Sciences (SPSS) version 25.

## 4 RESULTS AND DISCUSSION

### Response Rate

One hundred and twenty (120) copies of questionnaires were administered to respondents as explained in the methodology.

**Table 4.1: Questionnaire Response Rate**

Questionnaire	Frequency	Percent
Distributed	120	100%
Retrieved and Usable	98	82%
Not retrieved	10	8%
Discarded	12	10%

**Source: Survey Data 2024.**

Table 4.1 above shows a total of One hundred and twenty (120) copies of questionnaires distributed. Ninety-eight (98) of 82% copies of questionnaires were retrieved. Twelve (12) copies of questionnaires of 16.2% were discarded. Ninety-eight (98) representing 82% of the total copies of questionnaire distributed was useful in the study.

**Table 4.2: Summary of Demographic Analysis**

S/N	Variables	Frequency	Percentage (%)
<b>1</b>	<b>Gender</b>		
	Male	55	43.9%
	Female	43	56.1%
	<b>Total</b>	<b>98</b>	<b>100%</b>
<b>2</b>	<b>Age</b>		
	18-29 yrs	6	6.1%
	30-39 yrs	29	29.6%
	40-49 yrs	26	26.5%
	50-59 yrs	27	27.6%
	60 yrs and above	10	10.2
	<b>Total</b>	<b>98</b>	<b>100%</b>
<b>3</b>	<b>Educational qualification</b>		
	Phd	13	13.3%
	M.Sc/MBA	28	28.6%
	B.Sc/B.A/HND	36	36.7%
	OND	21	21.4%
	<b>Total</b>	<b>98</b>	<b>100%</b>
<b>4</b>	<b>Working experience</b>		
	<1 yr	15	15.3%
	1-3 yrs	25	25.5%
	4 yrs and above	58	59.2%
	<b>Total</b>	<b>98</b>	<b>100%</b>
<b>5</b>	<b>Marital Status</b>		
	Single	59	60.2
	Married	39	39.8
	<b>Total</b>	<b>98</b>	<b>100%</b>
<b>6</b>	<b>Nationality</b>		
	Nigerian	91	92.9
	Foreigner	7	7.1
	<b>Total</b>	<b>98</b>	<b>100%</b>

**Source: SPSS Output (Based on Research Data, 2024).**

**Table 4.3: Frequency table Showing the Gender of the Respondents**

<b>GENDER</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	55	43.9	43.9	43.9
Female	43	56.1	56.1	100.0
Total	98	100.0	100.0	

**Source: Researcher's Field Survey, 2024.**

The information in table 4.3 above shows the gender of the respondents. Therefore, the study comprises of the frequencies of 55 respondents at 56% for males and 43 respondents at 44% for females.

**Table 4.4: Frequency table Showing the Age Bracket of the Respondents**

<b>AGE</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-29 yrs	6	6.1	6.1	6.1
30-39 yrs	29	29.6	29.6	35.7
40-49 yrs	26	26.5	26.5	62.2
50-59yrs	27	27.6	27.6	83.7
60 yrs and above	10	10.2	10.2	89.8
Total	98	100.0	100.0	100.0

**Source: Researcher's Field Survey, 2024.**

The information in table 4.4 above shows the age bracket of the respondents. Therefore, the study comprises of the frequencies of 6 respondents at 6.1% for 18-29 yrs, 29 respondents at 29.6% for 30-39yrs, 26 respondents at 26.5% for 40-49yrs, 27 respondents at 27.6% for 50-59yrs and 10 respondents at 10.2% for 60 years and above. In summary, it was deduced that 29 respondents at 29.5% for 30-39yrs are the areas of majority.

**Table 4.5: Frequency table Showing the Educational Qualifications of the Respondents**

<b>EDUCATIONAL QUALIFICATIONS</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Ph.D	13	13.3	13.3	13.3
M.Sc/MBA	28	28.6	28.6	41.9
B.Sc/B.A/HND	36	36.7	36.7	78.6
OND	21	21.4	21.4	100.0
Total	98	100.0	100.0	

**Source: Researcher's Field Survey, 2024.**

The information on table 4.5 shows the educational qualifications of the respondents. It shows that the study comprises of 13 respondents representing 13.3% had Ph.D or equivalent as their highest educational qualification, 28 respondents had M.Sc/MBA or equivalent holders at 28.6%, 36 respondents were B.Sc/B.A/HND or equivalent holders at 36.7% and 21 respondents corresponding to 21.4% had OND holders.

**Table 4.6: Frequency table Showing Working Experience**

<b>WORKING EXPERIENCE</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	<1yr	15	15.3	15.3	15.3
	1-3 yrs	25	25.5	25.5	40.8
	4 yrs and above	58	59.2	59.2	100.0
	Total	98	100.0	100.0	

**Source: Researcher's Field Survey, 2024.**

The information on table 4.6 shows the working experience of the respondents. It shows that the study comprises of 15(15.3%) respondents who have worked for <1yrs, 25(25.5%) respondents who have worked for 1-3yrs, and 58(59.2%) respondents who have worked for 21yrs

**Table 4.7: Frequency and table Showing the Marital Status of the Respondents**

**MARITAL STATUS**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single	59	60.2	60.2	60.2
Valid Married	39	39.8	39.8	100.0
Total	98	100.0	100.0	

**Source: Researcher's Field Survey, 2024.**

The information in table 4.7 above shows the marital status of the respondents. Therefore, the study comprises of the frequencies of 59 respondents at 60.2% for singles and 39 respondents at 39.8% for married.

**Table 4.8: Frequency table Showing the Nationality of the Respondents**

**NATIONALITY**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Nigerian	91	92.9	92.9	92.9
Valid Foreigner	7	7.1	7.1	100.0
Total	98	100.0	100.0	

**Source: Researcher's Field Survey, 2024.**

The information in table 4.8 above shows the nationality of the respondents. Therefore, the study comprises of the frequencies of 91 respondents at 92.9% were Nigerians and 7 respondents at 7.1% were foreigners.

**Reliability Test Results**

**Table 4.9: Reliability Output**

Construct	Statement Items	Cronbach Alpha	Remark
Guest Service System	5	0.763	Reliable
Reservation System	5	0.885	Reliable
Return on assets	5	0.819	Reliable
Return on equity	5	0.848	Reliable

**Source: Cronbach Alpha Output SPSS (2024).**

Based on the analyses reported, it was observed that there was an accepted 0.70 (70%) and above benchmark for measuring instruments using Cronbach Alpha. The research instrument was therefore confirmed to be reliable in measuring what it measured.

**Univariate Analysis of Self-service technology and Financial Performance**

**Table 4.10: Frequency on Items on Guest Service Systems**

S/ N	Statement items	SA	A	U	D	SD	Total	Mean	Remark
1	Our in-room internet free access (WiFi)	35 (5)	35 (4)	4 (3)	20 (2)	4 (1)	98	3.9	Agreed
		35.7 %	35.7 %	4.1% 12	20.4 %	4.1% 4	100% 371		
		175	140		40				

	brings value to our guests.								
2	Our automated billing system saves time and energy for our guests.	25 25.5 % 125	38 38.8 % 152	5 5.1% 15	15 15.3 % 30	15 15.3 % 15	98 100% 337	3.4	Agreed
3	Our automated key-card helps in dictating fraud in the hotel.	35 35.7 % 175	42 42.3 % 168	1 1.2% 3	10 10.4 % 20	10 10.4 % 10	98 100% 376	3.8	Agreed
4	Guests feel more secured with our automated key-card	30 30.6 % 150	50 51% 200	2 2% 6	9 9.2% 18	7 7.2% 7	98 100% 381	3.9	Agreed
	Total	173 865	214 856	13 39	54 108	36 36	490 1,904	3.9	Agreed

**Source: Researcher's Field Survey, 2024.**

Table 4.11 indicates that all the respondents agreed on the five (5) statement items of guest service systems. All the mean scores were greater than 3.0 (mean criterion/ mean threshold). Also, the grand mean is equally greater than 3.0. This shows that guest service systems have a positive relationship with financial performance.

**Table 4.11: Frequency on Items on Reservation Systems Responses**

S/N	Statement items	SA (5)	A (4)	U (3)	D (2)	SD (1)	Total	Mean	Remark
1	Booking through our website is on the rise.	40 40.8 % 200	49 50% 196	1 1% 3	4 4.1% 8	4 4.1% 4	98 100 % 411	4.2	Agreed
2	Our electronic booking system has been very productive.	39 39.8 % 195	39 39.8 % 156	4 4.1% 12	9 9.2% 18	7 7.1% 7	98 100 % 388	4.0	Agreed
3	Our help-telephone/reservation line has yielded positive results in terms of patronage.	42 42.9 % 210	42 42.9 % 168	0 0 0	7 7.1% 14	7 7.1% 7	98 100 % 399	4.0	Agreed
4	Online booking by guest has been helpful in marketing our hotel.	38 38.8 % 190	30 30.6 % 120	2 2% 6	19 19.4 % 38	9 9.2% 9	98 100 % 363	3.7	Agreed
	Total	211 1055	206 824	7 21	39 78	27 27	490 2005	4.1	Agreed

**Source: Researcher's Field Survey, 2024.**

Table 4.12 indicates that all the respondents agreed on the five (5) statement items of reservation systems. All the mean scores were greater than 3.0 (mean criterion/ mean threshold). Also, the grand mean is equally greater than 3.0. This shows that reservation systems have a positive relationship with financial performance.

**Table 4.12: Frequency on Items on Return on assets**

S/N	Statement items	SA (5)	A (4)	U (3)	D (2)	SD (1)	Total	Mean	Remark
1	Return on assets is associated with long-term growth.	30 30.6 %	32 32.7 %	2 2% 6	18 18.4 %	16 16.3 16	98 100% 336	3.4	Agreed
2	Return on assets gives the organization higher competitive advantage.	25 25.5 %	38 38.8 %	5 5.1% 15	15 15.3 %	15 15.3 %	98 100% 337	3.4	Agree
3	Managers are adapting in delivering high return on assets.	39 39.8 %	39 39.8 %	4 4.1% 12	9 9.2% 18	7 7.1% 7	98 100% 388	4.0	Agreed
4	High return on assets.	39 39.8 %	40 40.8 %	1 1% 3	9 9.2% 18	9 9.2% 9	98 100% 385	3.9	Agreed
	Total	183 915	160 772	12 36	52 104	48 48	490 1,875	3.8	

**Source: Researcher's Field Survey, 2024**

Table 4.12 indicates that all the respondents agreed on the five (5) statement items of return on assets. All the mean scores were greater than 3.0 (mean criterion/ mean threshold). Also, the grand mean is equally greater than 3.0. This shows that return on assets has a positive relationship with self-service technology.

**Table 4.13 Frequency on Items on Return on equity**

S/N	Statement Items	SA (5)	A (4)	U (3)	D (2)	SD (1)	Total	Mean	Remark
1	We meet our customer's expectation due to agreed business returns.	40 40.8 %	35 35.7 %	3 3.1% 9	10 10.2 %	10 10.2% 10	98 100% 379	3.9	Agreed
2	Our suppliers fulfill the delivery commitment based on the agreed return.	35 35.7 %	42 42.3 %	1 1.2% 3	10 10.4 %	10 10.4% 10	98 100% 376	3.8	Agreed
3	Information in real-time has made our suppliers meet their deadline.	42 42.9 %	42 42.9 %	0 0 0	7 7.1% 14	7 7.1% 7	98 100% 399	4.0	Agreed
4	Our orders arrive at the appropriate time due to our	45 45.9 %	45 45.9 %	4 4.1% 12	2 2.1% 4	2 2% 2	98 100% 423	4.3	Agreed
		225	180						

	collaboration with suppliers.									
5	We have an uninterrupted supply due to swiftness in handling supply chain activities.	44	44	2	4	4	98	4.2	Agreed	
		44.9	44.9	2%	4.1%	4.1%	100%			
		%	%	6	8	4	414			
		220	176							
	<b>Total</b>	206	208	10	33	33	490	4.1	Agreed	
		1030	832	30	66	33	1991			

**Source: Researcher's Field Survey, 2024.**

Table 4.13 indicates that all the respondents agreed on the five (5) statement items of return on equity. All the mean scores were greater than 3.0 (mean criterion/ mean threshold). Also, the grand mean is equally greater than 3.0. This shows that return on equity has a positive relationship with self-service technology.

#### 4.1.1 Bivariate Analysis

**Table 4.14: The Interpretation of the Correlation**

Range of rs variables	Descriptive level of association
± 0.80 – 1.00	Very strong
± 0.60 – 0.79	Strong
± 0.40 – 0.59	Moderate
± 0.20 – 0.39	Weak
± 0.00 – 0.19	Very weak

#### 4.1.2 Test of Hypotheses using Spearman Rank Order Correlation

##### Test of Hypothesis One

**H<sub>01</sub>:** There is no significant relationship between guest service systems and return on assets of hotels in Rivers State.

**Table 4.15: Correlation Analysis showing the relationship between of guest service systems and return on assets**

			Correlations	
			Guest Service Systems	Productivity
Spearman's rho	Guest Service Systems	Correlation Coefficient	1.000	.871**
		Sig. (2-tailed)	.	.000
		N	98	98
Spearman's rho	Return on Assets	Correlation Coefficient	.871**	1.000
		Sig. (2-tailed)	.000	.
		N	98	98

\*\* . Correlation is significant at the 0.05 level (2-tailed).

**Source: Field Survey Data, 2024, SPSS 22.0 Output**

**Decision:** The output above reveals a Spearman Rank Correlation Coefficient of 0.871 and probability value of 0.000. This result indicates that there is a strong and positive significant relationship between guest service systems and return on assets of hotels in Rivers State. Therefore, we reject the null hypothesis and accept the alternate hypothesis, because the probability value

(0.000) < 0.05 level of significance. This means that, there is a significant relationship between guest service systems and return on assets of hotels in Rivers State.

### Test of Hypothesis Two

**H<sub>02</sub>:** There is no significant relationship between guest service systems and return on equity of hotels in Rivers State.

**Table 4.16: Correlation Analysis showing the relationship between of guest service systems and return on equity**

			Correlations	
			Guest Service Systems	Marketing Effectiveness
Spearman's rho	Guest Service Systems	Correlation Coefficient	1.000	.902**
		Sig. (2-tailed)	.	.000
		N	98	98
Spearman's rho	Return on equity	Correlation Coefficient	.902**	1.000
		Sig. (2-tailed)	.000	.
		N	98	98

\*\* . Correlation is significant at the 0.05 level (2-tailed).

**Source: Field Survey Data, 2024, SPSS 22.0 Output**

**Decision:** The output above reveals a Spearman Rank Correlation Coefficient of 0.902 and probability value of 0.000. This result indicates that there is a strong and positive significant relationship between guest service systems and return on equity of hotels in Rivers State. Therefore, we reject the null hypothesis and accept the alternate hypothesis, because the probability value (0.000) < 0.05 level of significance. This means that, there is a significant relationship between guest service systems and return on equity of hotels in Rivers State.

### Test of Hypothesis Three

**H<sub>03</sub>:** There is no significant relationship between reservation systems and return on assets of hotels in Rivers State.

**Table 4.17: Correlation Analysis showing the relationship between of reservation systems and return on assets**

			Correlations	
			Reservation Systems	Productivity
Spearman's rho	Reservation Systems	Correlation Coefficient	1.000	.913**
		Sig. (2-tailed)	.	.000
		N	98	98
Spearman's rho	Return on Assets	Correlation Coefficient	.913**	1.000
		Sig. (2-tailed)	.000	.
		N	98	98

\*\* . Correlation is significant at the 0.05 level (2-tailed).

**Source: Field Survey Data, 2024, SPSS 22.0 Output**

**Decision:** The output above reveals a Spearman Rank Correlation Coefficient of 0.913 and probability value of 0.000. This result indicates that there is a strong and positive significant relationship between reservation systems and return on assets of hotels in Rivers State. Therefore, we reject the null hypothesis and accept the alternate hypothesis, because the probability value (0.000) < 0.05 level of significance. This means that, there is a significant relationship between reservation systems and return on assets of hotels in Rivers State.

#### Test of Hypothesis Four

**H<sub>04</sub>:** There is no significant relationship between reservation systems and return on equity of hotels in Rivers State.

**Table 4.18: Correlation Analysis showing the relationship between of reservation systems and return on equity**

			Correlations	
			Reservation Systems	Marketing Effectiveness
Reservation Systems	Correlation Coefficient		1.000	.847**
	Sig. (2-tailed)		.	.000
	N		98	98
Spearman's rho	Correlation Coefficient		.847*	1.000
	Sig. (2-tailed)		.000	.
	N		98	98
Return on equity	Correlation Coefficient		.847*	1.000
	Sig. (2-tailed)		.000	.
	N		98	98

\*\* . Correlation is significant at the 0.05 level (2-tailed).

**Source: Field Survey Data, 2024, SPSS 22.0 Output**

**Decision:** The output above reveals a Spearman Rank Correlation Coefficient of 0.847 and probability value of 0.000. This result indicates that there is a strong and positive significant relationship between reservation systems and return on equity of hotels in Rivers State. Therefore, we reject the null hypothesis and accept the alternate hypothesis, because the probability value (0.000) < 0.05 level of significance. This means that, there is a significant relationship between reservation systems and return on equity of hotels in Rivers State.

#### 4.2 Discussion of the Findings

**Guest service systems significantly and positively correlates with financial performance and as such enhances indices such as return on assets, and return on equity.**

Findings from hypotheses one and two showed a positive and significant relationship between reservation systems and financial performance.

**Reservation systems has a significant and positive relationship with financial performance and as such enhances indices such as return on assets, and return on equity.**

Findings from hypotheses three and four revealed that there is a positive and significant relationship between reservation system and financial performance.

## 5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Summary of Findings

**Table 5.1: Summary of Results with respect to the Hypotheses**

S/N	Hypothesis	Findings
H <sub>01</sub>	There is no significant relationship between guest service systems and return on assets of hotels in Rivers State.	Rejected
H <sub>02</sub>	There is no significant relationship between guest service systems and return on equity of hotels in Rivers State.	Rejected
H <sub>03</sub>	There is no significant relationship between reservation systems and return on assets of hotels in Rivers State.	Rejected
H <sub>04</sub>	There is no significant relationship between reservation systems and return on equity of hotels in Rivers State.	Rejected

### Conclusions

The result of the findings on the dimensions of self-service technology, namely, guest service systems and reservation systems all contribute significantly towards achieving financial performance of hotels.

The findings on the dimensions (guest service systems and reservation systems) contribute significantly positive towards achieving financial performance of hotels.

The study concludes that a "strong and positive significant relationship" exists between guest service systems and financial performance of hotels.

The study concludes that a "strong and positive significant impact" exists between reservation systems and financial performance of hotels.

### Recommendations

With the stated findings and conclusions in this study, the following recommendations were advanced:

- i. Hotel strategists should adopt check-in and check-out guest service systems such as electronic door locking, do-not-disturb/make-up-room electronic annunciation, in-room telephone, in-room entertainment, electronic minibar, internet access, in-room printing facilities, energy management systems and/or energy switches.
- ii. Computer Reservation Systems (CRS) should be installed in hotels to coordinate their online sales and marketing.

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## QUESTIONNAIRE

### SECTION A Demographic Profile

**Instruction:** Please choose the appropriate answer by ticking ( ) in the boxes provided, and fill the blank spaces where necessary

**1. Gender:** Male   
Female

**2. Age Group:** 15 -24 years   
25-34 years   
35-44years   
45-54 years   
55 and above

**4. Marital Status:** Single   
Married

**5. Educational Qualification:** SSCE/WAEC   
B.Sc. /B.A   
OND/HND   
M.Sc./MBA   
Ph.D/DBA

**SECTION B  
SELF-SERVICE TECHNOLOGY**

Please tick (✓) in the appropriate box that suggests your candid opinion.

**Note: Strongly Agree SA, Agree (A), Undecided (U), Disagree (D), Strongly Disagree (SD)**

S/N		SA	A	U	D	SD
	<b>Guest Service System</b>					
CC1	Our in-room internet free access (WiFi) brings value to our guests.					
CC2	Our automated billing system saves time and energy for our guests.					
CC3	Our automated key-card helps in dictating fraud in the hotel.					
CC4	Guests feel more secured with our automated key-card					
	<b>Reservation System</b>					
CU1	Booking through our website is on the rise.					
CU2	Our electronic booking system has been very productive.					
CU3	Our help-telephone/reservation line has yielded positive results in terms of patronage.					
CU4	Generally, online booking by guest has been helpful in marketing our hotel.					

**FINANCIAL PERFORMANCE**

Please tick (✓) in the appropriate box that suggests your candid opinion.

	<b>Return on Assets</b>					
P1	Use financial ratios from competitive ability of early warning system to assess success or failure.					
P2	Defined profit targets help the organization determine how best to meet them.					
P3	Development of new channels for products and services offered by our corporation is an on-going process.					
P4	We constantly emphasize development of particular and patent products.					
	<b>Source:</b> Gardner & Schermerhorn, 2004.					
	<b>Return on equity</b>					
ME1	Return on equity is associated with long-term growth.					
ME2	Having a strong Return on equity gives the organization higher competitive advantage.					
ME3	Managers are adapting in delivering profitable.					
ME4	High integration and control of profit returns					