Bridging Digital Divide: Empirical Evidence of the Hotel Sector in Vietnam

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Abstract

Research purpose:
Many scholars have long been arguing that digital divide is defined as the terms to differentiate between those who have access to digital technology and those who have not. That is also the case for the tourism industry in general and the hotel sector in particular.

Research motivation:
The COVID-19 pandemic has negatively impacted Vietnam's hotel sector with a large proportion of non-booked empty rooms. Just as recently as the hospitality industry has showed some initial signs of recovery, the digital divide has resurfaced as the most serious problem because Vietnam's hotel sector could not recoup the opportunities.

Research design, approach, and method:
The economic losses that Vietnam's hotel sector has been incurring take the forms of occupancy rate is low; digital marketing platforms sometime are poor and can not attract its customers based on their different demands. We adopt the quantitative approach in this empirical study in an effort to investigate the status-quo of digital divide with the use of self-administered questionnaire.

Main findings:
By collecting the data from interviews to hotel owners, we use the collected information to perform the quantitative analysis with the aim to find the answer to research questions. The main findings are: we have identified several factors that affected the digital divide among the hotel sector in Vietnam to different degree. Also, we have discover a very strong inter-relationship that have existed between the dimensions of independent variables therefore assisting the concerned stakeholders in bridging the digital divide for Vietnam's hotel sector. And last but not least, we have had strong foundations to understand that the existing digital divide has profoundly affected the whole hotel sector should the digital inclusion index be ever constructed. This might be helful in measuring the degree to which the consequent affects can be exerted on the other hotel segments?

Practical/managerial implications:
Based on the research results, recommendations and suggestions are drawn for public policy makers to modernize their decision making process so that the digital divide can be bridged to bring the economic benefits to hotel sector at its full-capacity.

Keywords: Digital divide, Hotel sector, Vietnam

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INTRODUCTION

The digital divide has exerted negative impacts on the socio-economic aspects of mankind. Several academicians and policy makers even go further in supporting this statement and claim that it is closely related to many aspects of the business environment on many levels (Anuradha et al, 2022; Erin, 2017). The hospitality industry is not the exception as scholars Sirirak and Islam and Khang (2011) found empirical evidence of a favorable association between ICT adoption and hotel performance in recent research. This link has been demonstrated to have an impact on the operational productivity and revenue of the hotel in the 2 and 3-star category. Tan et al (2015) prove that technology and the internet help speed up and improve customers' information searches, plan their vacations, and obtain access to appealing opportunities and services quality improvement. This is a piece of crucial evidence to prove that the digital divide significantly affects hotel performance. But there was not much research before this one discusses this topic as the digital divide is a complicated, dynamic notion (Herdin and Egger 2015)..

Existing research provides several theoretical models that have been developed to describe and evaluate the digital divide. These include socio technical models, economic and technological models, and models of social capacities. Social capacities models investigate the effects of digital exclusion on societies and participation (engagement with ICTs), whereas economic and technical models frequently concentrate on the early and primary digital divide (access and usage). The research looked at the digital divide model; the access rainbow model, the social position and network model, and the strategic restructuring model to take advantage of the diversity of knowledge and disciplines (Vasilakopoulou P & Eli Hustad 2021; Jan Van Dijk 2003). These models might be correctly used to analyze the digital divide on a regional scale with a societal view. But to analyze the divide among the business entities, there are many more aspects we need to look at. For instance, the human resources and capital of business, which we believe are very important factors, are being underestimated and do not even exist in these models. So, there are not so many people who look at this problem seriously. According to the UNESCAP (2022), after the Covid-19 pandemic, the whole industry will have a crucial time to recover from the damage and start growing. This is an urgent call to understand this complicated problem, and this will be also a great base research to continue developing hospitality in Hanoi and make it to the best potential (Freeman 2012; Gerardo et al, 2021; Anuradha et al 2022).

The target of this research will be the majority 2-3 star hotel sector, which according to Tanja et al (2015) and Bulent and Hancer (2014) is the most competitive and divided sector. This study will provide a rational analysis design to explore and take a deep look at the digital divide among Hanoi's 2-3 stars hotel sector (Dung and Thang 2022; Vietnam News 2023).

The brief of Hanoi's 2 and 3-star hotel sector

According to the Hotel Web (2023), the majority of 2-3 star hotels are small and medium size businesses which are primarily located mainly in 5 main districts. That are, the prefectures of Hoan Kiem, Hai Ba Trung, Dong Da, Ba Dinh, and Cau Giay are the main locations for this hotel segment with an average of 25 rooms per hotel. The star rating system is not very consistent in such a way that this has led to the minor difference between 2- and 3-stars hotels. According to our survey, there are gaps in many aspects of this hospitality sector such as capital investment, number of rooms, and staff. It is proven that Hanoi's 2-3 star hotel sector is very fragmented and diverse and this very thing has made the digital divide even worse (Vietnam News 2023). It has been found out that there are differences in the social and government support and demand pressure between them. Judging on the fact that the whole sector is expected to experience a high growth and expansion, the main challenges for the 2-3 star hotel sector in the capital of Vietnam will take its toll on the recovery efforts generally in Vietnam economy, and in this hotel segment in particular..

LITERATURE REVIEW

Definition of the digital divide

The term "digital divide" refers to the disparity between individuals, households, businesses, and geographic areas at various socioeconomic levels in terms of access to information and communication technologies (ICTs) and the use of the Internet for a wide range of activities. The digital divide also refers to the disparity between individuals who have an internet connection and can make use of new services available on the World Wide Web and those who are not (OECD, 2001, Erin 2017). At the most basic level, people and businesses' engagement in the information society is dependent on access to information and communication technology (ICT). The term "digital divide " refers to the spiral of unequal access to and utilization of information and communication technology, as well as the resulting socio economic rebound (Alexander et al 2015). If true, the digital divide which may be seen as the digital version of the analog knowledge gap contradicts widely held social ideologies and the objectives of a pluralistic information society. Internet connection is commonly believed to be advantageous in theory and thus desirable for everyone, even if it is uncertain whether merely having access to new technologies in terms of technical infrastructure and fundamental ICT skills.

For many other cases, while participation in the debate over the definition of the digital divide is beyond the scope of this article, the diversity of positions appears to confirm, as noted by Barzilai-nahon (2006), that its measurement cannot be limited to economic factors but must be more comprehensive in scope. It could be argued that the digital divide should have several different meanings. Another model based on access and usage variables that are weighted by socioeconomic level, gender, life stage, and geography is suggested by Mathrani (2022). The UNHABITAT (2021) suggests using factors like the number of users or computers, infrastructure accessibility, affordability, training, and content that is relevant, as well as the size and integration of the information technology (IT) sector into existing industries, poverty levels, and demographic factors like geography, race, age, gender, and disability (Deichmann et al 2007). It's noteworthy to notice that most of the indices stated previously do not initially describe and conceive the digital divide before operationalizing their definition. Instead, they begin with variables and indicator levels to enter the "loop of decision makers"; by focusing on quantifiable criteria, they neglect what is significant in any given situation (WTTC 2023).

"Digital divide" should be viewed as a natural differentiation of consumer behavior rather than being turned into a policy concern if different media demand and usage patterns have simply evolved in tandem with the ongoing development and differentiation of the media landscape. Such a viewpoint, however, would contradict current language in European and worldwide social inclusion policies, which have highlighted the digital gap as a danger to a sustainable information society and are, as a result, taking steps to address it.

Improving and ensuring employability: Basic computer and internet skills are becoming increasingly important for a growing range of occupations. As a result, bridging the digital divide should have a favorable influence on the population's employability. Citizens' equal involvement in the information society: The second line of reasoning focuses on the chances for the individual citizen to profit from the advantages afforded by ICT. If an increasing proportion of daily life transactions are handled through digital networks, persons who do not have access to these networks will suffer long-term disadvantages (Ko et al 2013).

Economic considerations (demand-side economics): Although less clear than the previous two explanations, bringing off-liners and non-ICT-literate segments of the population online may have a favorable economic impact (Gert 2003). An increasing number of internet users may motivate businesses to pursue e-commerce, which is often seen as beneficial to the region's economy (Calderón-Gómez, et al. 2020).

In this paper, we will define this term as the divide in technology exposure among the hotels, such as the existence of electronic equipment and computers, internet connections, and human resources. This is more suitable for assessing the divide among business entities that are very different than humans (Yoo et al 2009; Anyanwu, 2019).

Developing the theoretical models

There are some conceptual models for assessing the digital divide among business entities, the one that stands out was the relations modeling as discussed by Vassilakopoulou et al (2023). They looked at the digital divide in many dimensions: SUP = social and government constraints/support; AF = affordability; USE = use; INF = infrastructure access; ACC = accessibility; SOC = socio-demographic factors.

In accordance with various studies that have been conducted in the area (i.e. Karine et al, 2006; Sipior et al 2011, Krish et al 2018) it is suggested that a conceptual model of the causal relations should result in the digital divide. According to Vassilakopoulou et al (2023), we should not only consider the direct relationships between various indicators, such as socio-demographics, accessibility, use, infrastructure access, affordability, and social and governmental support but also should look at how they are related to one another. For instance, accessibility may have a direct impact on the Digital Divide Index, but it may also have an indirect impact through the usage indication (Adreason, 2015; Bruno et al 2011).

Digital Divide Index measurement method

According to Kallol (2005) and Corrocher Ordanini (2002). (2001), any research that attempts to quantify the digital divide must define the parameters of what is assessed by making choices on at least three different levels:

- It's important to specify the unit of observation: There are several kinds of digital divides, including those between people, corporations, and regions.
- The independent variables on which the digital divide among the unit of observation is presumptively reliant must be identified.
- Depending on the observational unit, various sets of variables will apply. For instance, the independent variables may be capital, star rating, location, number of workers, and turnover if hotels are the unit of observation.

The indicators, for instance, a definition for the phrase "digital divide" must be chosen. Internet use is the most often utilized indicator. However, the choice of indicators inevitably reflects what is considered cutting-edge technology in the context of the research. It probably makes sense to add more conventional telecommunication metrics (such as the exposure to digital transformation) if, for instance, the digital divide is assessed in a modern city like Hanoi.

Table 1: DDIX quantifies indicators by author.

Indicator	Definition/ Source	Weigh t
Applying technology to attract customers (Marketing)	The data are based on field survey question.	25%
Applying technology in serving and increasing customer experience (Check in, reservation, payment, ...)		30%
Application of technology in hotel management room, queue		20%
Applying technology in managing customer information (data)		10%
Hotels regularly apply and update new modern technologies in the industry (AI chat bot, IoT, Ai management, consumer learning)		5%
The hotel has a more developed technology infrastructure than the industry average (subjective opinion)		10%

Source: Data collected from field survey 2023

We have taken this approach primarily to adhere to the current digital divide research paradigm and to concentrate on those elements that may be viewed as prerequisites for a wide range of applications. It could be reasonable to look into the whole hotel industry, which can be determined as a service industry so the question will align with the customer journey combined with the internal management and infrastructure (Broadbent & Papadopoulos; 2013).

The ongoing nature of this paper's study and the results shown on the following paragraphs are just provisional. The authors decide to make methodological changes that could affect the findings. But overall, this approach can be accepted as the quantitative DDIX (Digital divide index) that fits into this circumstance.

HYPOTHESIS DEVELOPMENT

The conceptual framework proposed by Karine Barzilai – Nahon (2006) would serve as the foundation for enhancing the model. A more accurate model would allow for better informed national, municipal, business, and individual policy decisions. This model can also be ameliorated to fit in business levels, in this case, the hotel segment. To fit with the assessment which is among business entities and focus on the relation of factors to the digital divide index.

The purpose of this research is to make it more favorable to collect and quantitative method to analyze the data in a short period, the researcher decided to focus on the relation between six constructs (Index): Infrastructure access, affordability, usage, social and government constraints/ support, socio-demographic factors, and accessibility. These hypotheses are proposed:

Usage is the measurement of how much data is passed between your computer and the Internet network over a specific time (expressed in bytes, kilobytes, megabytes, or gigabytes). These files are downloaded from the Internet network to your computer and uploaded from your computer to the Internet network in both directions. Any Internet activity, including Web browsing, emailing, playing online games, downloading files, and utilizing network gaming consoles, creates consumption. Internet usage refers to the use of any electronic communications network that links global computer networks and corporate data centers. Employees who have access to the internet should normally only use it for work-related activities and activities that are in the company's best interests.

Usage dimension as in the previous research (Vassilakopoulou et al 2022) can be included:
- Frequency (Bulent and Hancer 2014)
- Time online (Robyn and Theo, 2013)
- Purpose (ITU, 2022)
- Users' skills in Telecommunication (Mathrani 2022)
-Autonomy of use Technology device (Pan and Fesenmaier, 2006)

All these indicators in usage can be used to determine business the same as with people. The purpose is to make the whole picture of technology applicants in the hotel sector. Usage can be a reasonable aspect to examine as it impacts the digital divide index directly—Most of the current studies concentrate on this factor (Center for the Digital Future, 2004; Cornfield & Rainie, 2003). Most of this research combines the usage factor with socio-demographic subfactors, one further discovers. The following hypothesis is considered in this comparative study:

Hypothesis 1: Usage of technology and the internet positively influences the digital divide index (DDIX)

Business accessibility according to (Kaye, 2000; Lenhart et al., 2003) is the term used to describe how simple it is for customers, workers, and other stakeholders to use an organization's facilities, services, and products. For a firm to reach as many customers as possible and guarantee fruitful interactions with them, a high level of accessibility is essential. People with physical and mental impairments are given special consideration around business accessibility.

In this article, we want to bold the barrier between hotel owners and technology that might lead to the digital gap. The problem might be capital which prevents hotel owners from acquiring necessary items or investing in their technology infrastructure. The lack of information to make suitable adjustments compared to the average industry. So, the hypothesis would be laid out in the following sections as can be seen below:

Hypothesis 2: Accessibility of technology and the internet positively influences the digital divide index (DDIX)

According to Corrocher and Ordanini (2002) and Herdin and Egger (2015) as well as the beneficiary's resources and demands, affordability is the capacity to acquire and keep something over the long term while staying convenient. Technology affordability was referred to as "polysemous in meaning" in the context of the digital divide and technology in this scenario because of the numerous factors involved, such as its life cycle costs, economic impact, people's

preferences, the capital, and their lifestyles (Neeraj et al 2015). As a result, depending on their field, many scholars have had diverse perspectives on it. For instance, the price-to-income ratio is frequently considered by economists (Mustavaio and Ragnedda, 2019). Others define technology affordability as a company's capacity to manage present and future costs of accessing or acquiring a new technology while sustaining other essential expenditures without going into debt (Laura 2015). Affordability in these definitions is linked to its attainability and financial viability. To analyze this, the following hypothesis is developed:

Hypothesis 3: The Affordability of hotels to technology and the internet positively influences the digital divide index (DDIX)

Government and social support are when the government plays a proactive role in fostering the adoption and utilization of technology (Tornatzky & Fleischer, 1990). The fundamental tenet of this idea is that the government is a significant external force that has the power to provide favorable conditions and offers incentives for the adoption of technology. In the era of fast-growing technology, government, and social support are very important for the hospitality industry especially when it recovers from the covid pandemic. To prove our point, this hypothesis is developed:

Hypothesis 4: The Government and social support positively influence the digital divide index (DDIX)

In the era of fast-growing technology, government, and social support are very important for the hospitality industry especially when it recovers from the COVID-19 pandemic. However, there is a skills gap even among HR executives, with 75 percent of HR executives citing a need to take up more skills in this new, evolving workplace, which inevitably leads to a conflict between their existing function and the new demands of HR. These new standards include an aptitude for technology, communications, behavioral sciences, and analytics. It's no surprise that there is a correlation between human resources and the digital divide in the industry.

Hypothesis 5: The Human resource practice positively influences the digital divide index (DDIX)

By prioritizing digital skills development, diversity and inclusion, flexible work arrangements, and digital accessibility, Hotel owners can positively influence the digital divide index and help ensure that everyone has access to the benefits of technology and digital resources

METHODOLOGY

Questionnaire development

The original survey was created in English initially. The translation was then made into Vietnamese. Most of the instruments had been developed in the West, and there was little evidence of the variable operationalization's cross-cultural validity, the back-translations method was put into use in an effort to overcome this disparity. That is, the pre-tests utilizing both the original and the translated versions were carried out to confirm the precision and caliber of the translations. The findings demonstrated that both versions generated the same pattern of replies, demonstrating that the questionnaires were sufficiently trustworthy after being translated (Hair et al 2019).

Sample design

Hair et al. (2019) asserts that there will be as many appropriate samples as there are questions, multiplied by 5. In this survey, the researcher measured 6 variables and 20 questions. Therefore, the minimum number of samples will be 20 x 5 = 100 samples.

Non-probability sampling was used for this study's sample collection. According to Leary (2004), nonprobability sampling is acceptable in research that includes objective hypotheses to evaluate. The survey focuses on five main districts of Hanoi to understand the whole sector and assess it. Surveys may be performed both online and offline, but due to its convenience and time-saving benefits, online surveying (through Google Form Online) is more popular. There were 189 replies received in all. The management and staff of a Hanoi hotel with 2-3 stars make up the target responders. These are chosen at random and are not restricted by demographic factors. As a result, after filtering the data, the author

discards any replies where the researcher was unable to locate their lodging. As a result, 142 samples represent the total number of valid responses collected for this survey. The profiles of 2–3-star hotels can be seen in Table 2.

Table 2. Hanoi 2 and 3-star hotel profile (survey result)

Staff	Frequency	Percent	Room	Frequency	Percent
< 10	54	37.8	< 20	50	8
10 – 24	62	43.4	20 – 50	69	32
25 – 50	22	15.4	50 – 80	17	54
> 50	5	3.5	> 80	7	7
Total	**143**	**100.0**	**Total**	**143**	**100.0**
Location	**Frequency**	**Percent**	**Investment**	**Frequency**	**Percent**
Hai Ba Trung	36	25.2	none	10	7.0
Cau Giay	22	15.4	< 20.000.000 VND	80	55.9
Dong Da	26	18.2	<100.000.000 VND	40	28.0
Hoan Kiem	47	32.9	> 1000.000.000 VND	13	9.1
Ba Dinh	12	8.4			
Total	**143**	**100.0**	**Total**	**143**	**100.0**

Source: Data collected from field survey 2023

Data analysis methodology

The descriptive analysis divides the data into categories based on the general data, which includes gender, age, location, monthly income, monthly expenses, number of employees, and stars. Text and graphs will be used to present this data. One of the most often utilized indicators of internal consistency is Cronbach's Alpha. How closely connected a group of things are to one another is shown by this measure of internal consistency. Even if the alpha value is "high," this does not always mean that the measure is one-dimensional. Internal consistency is the degree to which each question makes a significant positive contribution to assessing the same notion. This is an important factor to consider when assessing the total score's quality. The alpha value demonstrates how closely related the item and total are. This value might be between 0 and 1. George & Mallery (2003) state that a score of less than 0.5 is considered to have low dependability while several more than 0.9 is considered to have excellent reliability.

According to Hair et al. (2019), "a method to reduce the specific number of variables k into a group of smaller number variables while still maintaining the significance of the original list of variables" is Exploratory Factor Analysis (EFA). In EFA, observing specific rules is required:

- Factor loading is accepted when > 0.5

- Kaiser – Meyer – Olkin (KMO) of Sampling Adequacy > 0.5. In case the KMO value is under 0.5, that means no distinction and validity between these variables.

- Significance level of p-value < 0.05 • Total Variance Explained > 50%

- Eigenvalue > 1

Analysis of Variance, or ANOVA, analyzes data from three groups and above, whereas the Independent Sample T-test only compares findings from two study groups (Mishra et al., 2019). Anova tests, as described by author Larson in 2008, are "a type of statistical technique for analyzing variation in a response variable (continuous random variable) measured under conditions defined by discrete factors (classification variables, often with nominal levels)".

One-way Anova employs just one independent variable, as opposed to two-way Anova, which uses two independent variables (Mishra et al., 2019). This test estimates a categorical independent variable with at least three categories in

addition to the continuous dependent variable. to determine the level of significance of the P value. When the P-value for an ANOVA is less than 0.05, it means that the value is significant; when it is more than 0.05, it means that the variance is equal and that no significant value exists. It is similar to the T-test. This research will show the difference and impact of location, investment, number of rooms, and number of staff on the digital divide index of the hotels.

ANALYSIS AND RESULTS

For the first, second, third, and fourth hypotheses concerning the impacts of 4 variables on the digital divide index. In this study, the author employs Cronbach's Alpha test as a technique to assess the reliability of both dependent and independent variables to assess the scale's reliability and eliminate unreliable measuring items. The items will meet the criterion if the Cronbach alpha value is less than 0.3 (Hair et al, 2019).

Table 3. Independent variable findings of exploratory factor analysis

	Value	Condition
KMO measure of Sampling Adequacy.	0.783	0.5<0.783<1
Significance (Barrlett's test)	0.000	0.000<0.05
Total Variance Explained	71.3%	71.3%>50%
Eigenvalue	1.096	1.096>1

Source: Data collected from field survey 2023

After reviewing the reliability test and validating the Exploratory Factor Analysis (EFA), independent variables contain 18 factor-items. As the table below has shown, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy is 0.5<0.783<1, and Sig. value is 0.000<0.05 (Hair et al., 2009). Total Variance Explained findings of 71.3% demonstrates that 5 variables account for 71.3% of data variation. Furthermore, the 18 selected observation items aggregate into 5 variables according to the rotated component matrix varimax rotation.

Component (HR) in the coefficients chart has a significant level > 0.05. The H5 hypothesis is not supported as a result. As a result, HR will be dropped from the model since the human resource component does not adequately account for the dependent variable DDIX—Digital Divide. To analyze the qualifying factor, the regression will be evaluated once again.

Table 4. Regression analysis

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	-.799	.398		-2.009	.047		
Usage	.097	.072	.098	1.359	.006	.629	1.590
Accessibility	.443	.080	.384	5.533	.000	.680	1.470
Affordability	.188	.060	.181	3.112	.002	.969	1.032
Government and Social support	.534	.093	.380	5.721	.000	.743	1.346

Source: Data collected from field survy 2023

The index of Pearson Correlation between independent variables such as US for Usage, AC for Accessibility, AF for Affordability, SG for Social government support/constraint, HR for Human Resource and dependent variable DDIX for Digital divide index. All illustrated the positive values. With Pearson correlation values (0.505; 0.589; 0.238; 0.601; 0.212) – still staying in a range from 0-1, the results demonstrate that the independent variables of US, AC, AF, SG, and HR have a significant relationship. Additionally, these factors' significance level is minimal, reaching a p-value of less than 0.05. As can be observed, there is a positive linear connection between the dependent and independent variables, supporting the study's findings. The result shows how the supported independent variables relate to the dependent variable in the following equation:

DDIX = 0.98*US + 0.384*AC + 0.181*AF +0.380*SG - 0.799

DISCUSSION AND POLICY IMPLICATIONS

The statistical analysis confirms the diversity of views; however, certain findings are insignificant in the context of this review. Since it is one of the most reliable and useful models of digital influencers, many of the Source credibility model's constructs have been consistent.

From the characteristics of digital influencers, only Human resources have no impact on the digital divide index, while Usage, Accessibility, Affordability, and Social Government Support/Constraint do. With the variable Human resources, there is a paper sharing the same results as this research which is the model of Karine Barzilai-Nahon (2006), but the author also encouraged researchers to make their conceptual model. Applying the Taiwan SME study (2001), the researchers found out that human resources have no significant impact on the digital divide index, or in this case, we can call it ‘’Technology access”. This can be explained by many reasons. Since the labor market in Vietnam is developing day by day, the standard of hospitality workers especially in the 4 main districts of Hanoi becomes higher over time. The second reason is the condition of human resources in the local hospitality industry, especially in the 2-3-star sector, is undeveloped. According to Lin (2001), the digital divide is affected directly by human resources, but in the case of the 2-3 stars hotel sector, this statement can be disseminated.

Usage and Accessibility findings are in line with Warschauer's research paper from 2002. In this study, the author also demonstrates that Usage has a stronger impact than Accessibility on the digital divide index. Warschauer (2002) asserts that a crucial factor in determining how large the gap is is the social and governmental impact. The order of impact so that the most important factor to control the digital gap in the Hanoi hospitality inferior sector is the internal control of (investment, exposer, and internal control).

Along with the primary analysis mentioned above, the author also discovered novel results by analyzing T-test and ANOVA test results between gender, age, living area, and product segment. The results demonstrate that there is no evidence of "gender difference" in the process of assessing differences between gender groups. Another finding is that location affects a lot on the Usage and Affordability of 2-3 stars hotel, as the time this thesis is conducted, there is no research about this situation but based on the researcher's judgment and experience, there might be an influence of foreign traveler which have the higher standard are mainly travel to the main district of Hoan Kiem in the heart of Hanoi Capital. Another reason is that the high local density of hotels affects the investment capital of the hotels which leads to these results. The Affordability variable group revealed statistically significant differences with the investment capital by hotels with a p-value index of 0.05 can also be explained that higher capital investment due to high access to new technology. The remaining variables have no statistical difference (Yoo et al, 2009).

In Vietnam, the digital divide is not seriously examined as compared to the urgent essence of these social problems, especially on the business side. Therefore, this study successfully provides the initial approach and analysis of the new topic in the industry. By using the quantitative digital divide index model, the researchers show the relation of these factors to the index and open the new approach as the quantitative approach to gain more access to the situation. This also opens a new field to study for future researchers as this topic is a not being touched on for many reasons. We hope this paper will spark some insights for future studies, and thus helping quantify other businesses on top of hospitality competitiveness (Andromeda 2012; World Economic Forum 2019).

Other characteristics of digital influencers include Accessibility, Affordability, and Social Government Support/Constraint. The quantity of customers and revenue reflects the influence of digital influencers. This is aligned

with the research of Herdin and Egger (2015) Therefore when improving their digital base, businesses should think about this factor first and foremost. However, another factor still affects the gap and the problem that the hotel will face. Therefore, in the difference of coverage view of the digital divide, it is possible to choose the right strategy that fits the hotel budget (World Travel Tourism Council; 2023).

In short, this study implies the key characteristics of the digital divide when we look at the 2-3 stars sector, but we believe that this is not the only dimension that affects the digital divide in the industry. The more support from the government and society, the more technology being practiced in the firm might be the key to bridging the digital divide among the sectors. These findings have very useful implications for Hanoi hospitality policymakers in reducing the policy constraints and supporting hotels in improving their technology base. This is also an urgent call to the 2-3 stars hotels in Hanoi to change.

The gap in hotels' infrastructure is very complicated and a lot of factors affect the result. The researcher has shown the way hotels at low rates can close the gap, which is encouraging their employees to use new technology, and get more exposure to the internet and new technologies. The researcher acknowledges that the gap might lead to the competitiveness of these local businesses, but the research shows the other way to look at these problems, which is significantly worth reviewing.

DISCLAIMER

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