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USER UNVEILED: EXTENDING UTAUT-2 TO ILLUMINATE THE ROLE OF TECHNOLOGY EFFICACY IN ONLINE FOOD DELIVERY BEHAVIOR

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Abstract
The hotel industry serves as a pivotal engine of economic development, particularly in emerging economies, offering vital support for international trade and contributing substantially to national budgets, especially in Sub-Saharan Africa (SSA). However, the hospitality sector has grappled with the profound and lasting implications of the COVID-19 pandemic over the past two years. COVID-19, characterized by a high mortality risk and human-to-human transmission, led the World Health Organization (WHO) to recommend interventions such as mask usage, social distancing, self-quarantine, and movement restrictions (WHO, 2021). These measures forced a significant portion of the population to remain at home, leading to the temporary closure or restriction of food-service establishments (Kyungyul et al., 2021).
The pandemic hit hotels and restaurants the hardest, resulting in a drastic decline in sales. In response, many restaurants turned to online food delivery systems as a means to rejuvenate their businesses. However, the adoption of online systems in developing economies faced notable challenges due to high illiteracy rates and issues surrounding technology and internet accessibility (Athenjia, Nsoh & Obeng, 2020; Amegboe, 2019; Amankwa Sarfo, Effah, and Boateng, 2018). Notwithstanding these hurdles, previous studies (Williams, 2014; Reichstein et al., 2018; Bergmann et al., 2020; Queiroz et al., 2020; Adomako et al., 2021; Adabere et al., 2021) have highlighted the pivotal role of digitization in bolstering businesses. Evidently, the statistics point to a substantial surge in the utilization of online food delivery systems during the COVID-19 pandemic (Statista, 2020; Kyungyul et al., 2021; Kwateng et al., 2021).
Ray et al. (2019) categorizes online meal delivery services as "internet-based food ordering and delivery services connecting customers with partner foodservice operations via websites or mobile applications. Consumers can access menus, pricing, and user ratings for various restaurant types through these online meal delivery services."

Keywords: Hotel Industry, COVID-19 Pandemic, Online Food Delivery, Emerging Economies, Digitization in Business

1.1 Introduction

The hotel industry represents one of the major contributors to development in emerging economies. It provides essential support for international trade and generates a significant portion of the national budget, especially for emerging economies in Sub Sahara Africa (SSA). Hoverer, the hospitality fraternity, has over the last two years been battling with the implications of Corona Virus Disease (Covid-19). Because COVID-19 is associated with a high risk of death and human-to-human transmission, the World Health Organization suggested mask use, social distancing, self-quarantine, and movement restrictions as essential interventions (WHO, 2021). As a result of these restrictions,

many people stay home, forcing food-service to be closed or restricted (Kyungyul et al., 2021). As hotels and restaurants represent the most affected businesses by the pandemic, as sales dropped drastically, as a remedy, many restaurants moved towards using online food delivery systems to revive their business. The use of online systems in developing economies has not been encouraging owing to the high illiteracy rate coupled with poor technology and internet issues (Athenjia, Nsoh& Obeng, 2020; Amegboe 2019, Amankwa Sarfo, Effah and Boateng, 2018). Meanwhile, prior studies (Williams, 2014; Reichstein et al., 2018; Bergmann et al., 2020; Queiroz et al., 2020; Adomako et al., 2021; Adabere et al., 2021)have demonstrated the essential role of digitization in enhancing businesses. Available statistics indicate that the use of online food delivery systems increased massively during the COVID-19 pandemic (Statista, 2020; Kyungyul et al., 2021; Kwateng et al., 2021). Ray et al. (2019) defines online meal delivery services as "internet-based food ordering and delivery services that connect customers with partner foodservice operations via their websites or mobile applications. Consumers may compare menus, prices, and even user ratings by restaurant type using online meal delivery services.

Furthermore, because of the extensive usage of mobile devices, customers now have access to a new platform for food delivery apps, which they may use to place an online order. Furthermore, it is anticipated that during and after the COVID-19 epidemic, more customers and businesses used online meal delivery services. However, only a few studies on customers' motives to utilize online food delivery systems exist and are dominant in the developed world (Chai and Yat, 2019; Belanche et al., 2020; Prasetyo et al., 2021; Belanche et al., 2021) and others focused on drivers of online food service usage (Lee et al., 2019; Zhao and Bacao, 2020; Gunden et al., 2020).

Though the concept of internet usage in facilitating activities within a particular sector in Ghana is not new, earlier studies have highlighted the use of the internet in various sectors (Osei et al., 2020; Atuguffio, 2018). However, the basic challenge is its applicability in hotels and restaurants' food service delivery. While the general adoption literature shows what makes consumers want to buy digitized experiential products like customizable hotel stays (Morosan and DeFranco, 2019), little is known about buying hospitality products that can be digitized on the web and reconstructed at the consumer's home (Correa et al., 2019; Nefike et al., 2020), indicating a research gap.

Meanwhile, the products sold by OFDS are unique in that they are perishable and heterogeneous (Kotler et al., 2016), adding to the complexity of consumers' purchasing decisions and the purchasing environment. As a result, consumers are more likely to engage in complicated cognitive processes that demand ongoing awareness throughout the buying process. However, there is little evidence in the literature about the adoption of systems that deliver items to customers who must make such difficult and time-consuming judgments (Bujisic et al., 2014; Nefike et al., 2020). Prior studies have extensively used various theories and models to understand the factors that influence individual intention to accept innovation. The framework developed in this study integrates both system and user characteristics that could provide an in-depth insight into the hospitality industry and guide food delivery services in advancing strategies to facilitate online food service delivery services. More importantly, there are limited studies examining the drivers of user intention to use online food delivery systems, especially in the pandemic era (Hong et al., 2021; Kyungyul et al., 2021). While the impact of the COVID-19 pandemic has reshaped customers' eating habits, it remains imperative to examine what factors could drive customers' intentions to use an online food delivery service. Again, a recent study by Kyungyul et al. (2021) recommends the need to identify other important conditions to influence customers' intention to purchase via an online food delivery service. The purpose of this study is to alter the United Theory of Acceptance and Use Technology (UTAUT-2) model to see how it might influence the

intentions of users of online food delivery services in order to fill in the gaps described above (restaurant customers' perspective). The outcome of this study thus advances the theoretical perspective of why people resist or accept new systems in organizations and presents practical insight for implementing new systems, especially in the food service industry in emerging economies.

Literature Review

Online Food Service Delivery

Advances in information technology have created a new business paradigm in the food service industry (Kyungyul et al., 2021). Certain big fast-food businesses, particularly pizza franchises, were early adopters of online meal ordering through their websites as internet technology advanced. Online meal ordering has been adopted by restaurants because it has met or exceeded expectations in a variety of ways (Kimes, 2011; Annaraud and Berezina, 2020; Dirsehan et al., 2021). Customers and businesses have become more interested in online food ordering because of its benefits (Annaraud and Berezina, 2020). Several different methods for ordering meals online through websites have been introduced. Apart from restaurant chain websites, the forerunners of online meal ordering services merely gathered and posted restaurant names, as well as basic information such as phone numbers and addresses, on their website platforms. More information, including menus and prices, is now available on these platforms. As a result, internet food ordering platforms have accepted food orders from associated eateries. Food ordering systems have merely taken food orders up to this point. If delivery was available, eateries handled it on their own. The latest trend in food ordering systems is for the platform to take care of the delivery. Finally, restaurants that implement online food ordering may receive orders through their own websites or through multiple-restaurant networks. Furthermore, businesses may bring food directly to customers (e.g., KFC delivery), or the platform may pick up and distribute meals from restaurants (e.g., Homechow Ghana, Edziban Food delivery, Jumia Food, Bolt, and Uber Eats). GrubHub, for example, provides both types of services (Statista, 2019). Online food delivery grew out of online food ordering and is now a significant business model in its own right. The process of connecting customers with partner foodservice operations via their websites or mobile applications to prepare and deliver food ordered online was recently defined as "the process of linking customers with partner foodservice operations via their websites or mobile applications to prepare and deliver food ordered online" (Ray et al., 2019). The demand for online food delivery services has increased dramatically in recent years and is expected to continue.

The global market for online food delivery platforms is already worth $31 billion dollars (Statista, 2019). As COVID-19 has evolved, customers prefer a contactless and online-to-delivery system to face-to-face and dinein service. The internet food delivery industry continues to attract new customers. As a result, in order to better understand consumers' decision-making processes and, as a result, support the food service business in surviving in this era, the causes driving customers to use online food delivery services during the COVID-19 epidemic must be recognized.

Theoretical Framework

UTAUT Model

An integration of eight technological models with high variance, robust in nature, and parsimonious was developed by Venkatesh, Morris, Davis & Davis (2003). It was first used in the banking sector in the western world, specifically in the US. Since its implementation, it has been used by many scholars in many diverse fields of study and in many countries. The results have been the same all over the world and in all diverse sectors, namely high variance, parsimonious and robust in nature. UTAUT is one model that has high usage and adoption by many scholars. In view of this, the model has gone through a lot of development. UTAUT 1, 2, and 3 are the stages of development. UTAUT 1 has four independent

variables: performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC), as well as two dependent variables: behavioral intention (BI) and use behavior (UB), as well as four moderators: gender, age, experience, and voluntariness. All of the foregoing is present in UTAUT 2, along with three more independent variables: habit (HT), hedonic motivation (HM), and price value (PV). UTAUT 3 includes all the factors mentioned in UTAUT 1, with one additional independent variable known as personal innovativeness. For the purpose of this study, the concentration will be on UTAUT 2 with some modifications to include a moderator (technology self-efficacy).

Performance Expectancy (PE)

Performance Expectancy (PE) refers to the "degree to which an individual believes that using the system will help him/her to attain gains in job performance" (Venkatesh et al. 2003, p.447). It is therefore expected that adopting the use of internet services will help users gain some skills to enable them to perform their online food ordering activities. In this study, the performance expectancy associated with the adoption of an online food delivery service will be assessed through how online food delivery can enable users to fulfil their needs from restaurants more quickly and efficiently and also help improve performance. The performance expectancy construct is also expected to help the users of the online food delivery service save time in doing business at the restaurant and also improve the quality of services provided by the restaurants. Drawing from previous studies (Yeo et al., 2017; Nefike et al., 2020), the intention to use an online food delivery system could be driven by performance expectancy. Hence the first hypothesis of the study. Thus:

H1: Performance Expectancy has positive significant effect on intention to use online food delivery system.

Website Design (WD)

The terms "website design," "quality," and "usability" connote the same meaning, and they are mostly defined in terms of multiple dimensions. In the view of Zhong & Ying (2008), website design reflects website quality and information quality. Aladwani (2006) cited in Al-Qeisi (2009), website design depicts technical quality, general content quality, specific content quality, and appearance quality. Liu et al. (2001) outline the dimensions of website design to include system quality, information quality, and service quality. The website design associated with this study will be assessed in five-dimensional situations. This will have to do with the security and safety of the online food delivery system; the use of colour and fonts on the system interface; the organization of the internet system web; its availability and regular updates and promotions on the web of the online food delivery system. Extant literature (Jewer et al., 2018; Abbasi et al., 2018; Aboobucker et al., 2018; Dedeke, 2016; AI-Qeisi, 2015; Alasem, 2014) provides enough evidence to show that the relationship between WD and BI has produced mixed findings. Additionally, there is also evidence to show that the relationship in context is not prevalent in OFDS. Therefore, owing to the mixed findings and the non-availability to show the relationship in the context of OFDS, there is a need to further investigate this relationship. Subsequently, this study hypothesizes the relationship between WD and BI. Thus,

H2: Website Design has positive significant effect on intention to use online food delivery system

Trust (TR)

McKnight et al. (2011) note that trust in IT demonstrates its significance in outlining its benefits and usage. In the view of Gefen (2000), one vital element of internet technology acceptance is trust. This trust element is very essential in all online activities because of the issues of risk and uncertainty associated with online business (Sambasivan et al., 2010).

The online food delivery system involves users displaying their vital information online. Therefore, for the system to be embraced holistically by the users, there is the need to ensure that risk and uncertainty are minimized so as to earn the trust of the users in adopting its usage. In this study, the trustworthiness of using the online food delivery system will be assessed on four dimensions, namely: is the online food delivery system able to process all the requests of customers; generate prompt responses to customers' requests; allow customers to decide on their own when to use the system; and finally, whether the system is more friendly, requiring less help. The results of prior studies (Alshehri, 2012; Sambasivan et al., 2010; Hung et al., 2006; Carter and Belanger, 2005) have also shown mixed findings.

Additionally, it is also evident that some of the studies were predominantly conducted in the banking sector and on internet banking, but none were conducted on OFSD, especially in the African setting. Therefore, owing to the inconclusive nature of the findings in the literature, there is a need to further investigate the abovementioned relationship. Subsequently, the hypothesis related to the above-mentioned relationship is posited as; *H3: TR has a positive impact on an individual's behavioral intention to use OFSD.*

Hedonic Motivation

Hedonic motivation focuses mainly on enjoyment resulting from adoption and usage of a technology (Brown and Venkatesh, 2005; Venkatesh et al., 2012). Hedonic motivation is believed to have a direct influence on an individual's technological acceptance in various contexts (Talukder, Chiong, Bao, and Hayat Malik, 2019). Individuals with hedonistic motivation concentrate on fun, playfulness, and pleasure. Thus, hedonic factors may be viewed as enjoyment-oriented. According to Brown and Venkatesh (2005), hedonic motivations are very important to technology usage (Venkatesh et al., 2012; Chang et al., 2011). Raman and Don (2013) also support this proposition by revealing the role motivations play in enhancing technology acceptance and usage. Hedonic impulses are naturally non-functional and emotive, and they are also based on the individual's affective needs (Malik et al., 2013). Consumers' adoption intentions are influenced by the enjoyment and pleasure gained from the usage of new technology (Alalwan et al., 2015). Furthermore, studies have revealed that the use of interactive services is not solely focused on functional motivations but is essentially driven by hedonic factors (Malaquias and Hwang, 2016). Similarly, a study by Curran and Meuter (2007) concluded that hedonic factors are significant in determining the likelihood of consumers adopting self-service technologies. Users can have fun and find pleasure in using online applications, especially if the design and graphics of the application are pleasing to the eye (Hausman and Siepke, 2009). In addition, Sahoo and Pillai (2017) stated that graphical interface elements such as colour, animation, and font can all enhance the experiential appraisal of a customer and elicit feelings of happiness and gratification. Consumers are therefore encouraged to pursue or adopt online delivery systems that fulfill their aesthetic and emotional needs (Li et al., 2012). Hence, this study expects that:

H4: Hedonic motivation has a positive impact on an individual's behavioural intention to use OFDS.

Impulse buying tendency

Impulse buying is defined as a consumer's tendency to buy something on the spur of the moment (Chan et al., 2017; Nefike et al., 2020). Consumers' impulse buying tendencies have been found to be influenced by several IS aspects (e.g., website quality) and shoppers' retention value (Chung et al., 2017; Zafar et al., 2021), which can impact their purchase intents (Chung et al., 2017; Zafar et al., 2020). In the retail setting, compelling information or advertising can be used to assess the worth of a customer's retention. People who buy things on a whim may be persuaded to use OFDS because advertising makes it easier for them to do so (Madhavaram and Laverie, 2004; Ali et al., 2018). Such habits may be exacerbated by the innately tempting display of food commodities in retail as well as the urge to eat.

Furthermore, impulsive customers may purchase using OFDS based on browsing since OFDS provides intangible benefits that can encourage purchasing (e.g., removing specific substances and creating a product bundle) (Sharma et al., 2010; Nefike et al., 2020; Zafar et al., 2021). As a result, OFDS are places in which impulsive consumers can detect cues that can lead them from information to purchase, establishing a link between impulse buying and the intent to use OFDS:

H4: Consumer impulse buying behaviour has a positive impact on an individual's intention to use OFDS.

Habit.

The term "habit" refers to the link between a person's past and future actions (Kim and Malhotra, 2005; Ameri et al., 2020). Users' behaviors have been shown to be influenced by habit, particularly when recurrent patterns arise in the use of information systems (Kamal et al., 2020; Chong et al., 2022). As a result, customers' habits show their continuing use of IS, which is consistent with previous purchasing experiences (Açkgül and ad, 2021). Because IT gadgets are so common today (Nefike et al., 2020), people get into habits of using them that make it easier to use them in the future.

The majority of modern online retail environments are based on the same principles, guiding customers down a clear path from information through decision-making, purchase, and fulfilment. There is no exemption in the case of OFDS. Customers ordering meals are guided along this linear path by OFDS, which improves their learning effects and optimizes subsequent user experiences. As proven by analogous processes in numerous online retail contexts (e.g. software, education, and food services), the resulting habit can lead to future plans to use such services (Correa et al., 2019; Nefike et al., 2020). As a result, this study expects that consumers' habits influence their intentions to use OFDS:

H5: Habit has a positive impact on an individual's intention to use OFSD.

Behavioral Intention (BI)

Behavioral intention is an individual's conscious plan to use technology. Users' intention towards adoption or usage of a particular system is often influenced by the perception of a system's usefulness through persuasive social information, where usage is mandated by the organization. The story is different where usage is not mandatory, as in the case of this study. It is not always the case that intention will lead to usage. In this study, it is expected that when the behavioural intention of the users of the system is positive or appealing to them, then that could lead to adoption and, subsequently, actual usage. Though prior studies (Al-Swidi et al., 2019; Chopdar et al., 2018; Mekonnen, 2017; Doleck et al., 2017; Hoque et al., 2016; Suki et al., 2017; Nematollahi et al., 2017; Shin, 2016; Cho et al., 2016; Lakhal et al., 2016) across diverse sectors have shown one similar result, that is a positive effect of BI on AU. However, little is documented in the hospitality sector, especially in the context of OFSD. There is therefore a need to further investigate this relationship within the context of OFSD so as to draw meaningful conclusions and deductions about the relationship between BI and AU. Subsequently, the relationship between the BI and AU relationship is posited as:

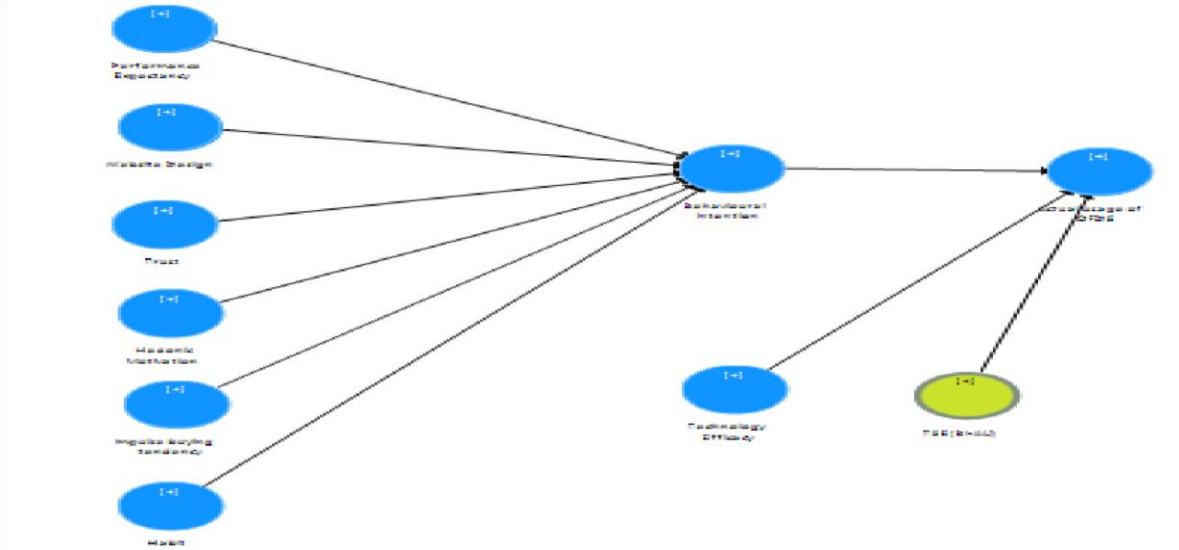
H_6: Behavioral intention to use OFSD has a positive impact on an individual's actual use.

Technology Efficacy

Individuals who have a high level of self-efficacy believe they are capable of directing and managing their tasks (Asebedo and Payne, 2019). People with higher technology self-efficacy are more likely to engage in a certain computer task or behavior (e.g., positive IT behaviors) and are more emotionally robust when faced with adversity (e.g., feeling less computer stress). According to Gecas (1989), people with strong self-efficacy are more inclined to undertake actions and be hopeful about the results. Farrell et al. (2016) say that this way of thinking is more likely to lead to success and good things. As a result, those who have a high level of computer self-efficacy see opportunities rather than threats, including

potentially lucrative options. They are more robust in the face of computer problems and are better equipped to cope with unfavorable situations. Because they can perceive a higher positive value, OFSD is more effective for people with high technology self-efficacy who are confident in their abilities to manage their online tasks. A range of affective and behavioral factors have been found to be influenced by self-efficacy in a variety of circumstances (Alqurashi, 2016; Chen, 2017; Chiou and Wan, 2007; Hasan, 2007; Puente-Daz, 2016; Yeşilyurt et al., 2016; Kim et al., 2017). As a result, users' technological efficacy is recommended to control the association between BI and AU in this study. Recent research by Wen-Lung et al. (2020) and Lori Baker-Eveleth and Robert (2020) highlighted the importance of technological self-efficacy in understanding online system use behavior. Drawing from the discussion above, this study hypothesizes that

H7: Technology Self Efficacy moderates the relationship user intentions and actual usage of OFDS



Data and Methodology

This study conveniently sampled 1118 users of online food delivery systems in Ghana. Data was gathered using the Kobo toolbox online platform. Links to the questionnaire were shared on various social media platforms. The questionnaire duly presented the purpose of the study, and participants were informed that participating in the survey was not compulsory. In other words, they have the right to opt out of the survey at any time or otherwise. Prior to the main data collection, which spanned between November 2021 and January 2022, the instrument was piloted. A subsample of 35 responses were gathered from the pilot. Eligibility to participate in this study was limited to users of OFDS in Ghana.

The instruments used to measure the constructs in the conceptual framework were adapted from previous studies. Technology self-efficacy was assessed using eight (8) items adapted from Eastin and LaRose, (2000).The scales for performance expectancy, habit, and hedonic motivation, herein referred to as the original independent variables of the UTAUT model, were adopted from studies by (Osei-Owusu et al., 2020; Sambasivan et al., 2010; Venkatesh et al., 2003; Kwateng et al., 2018). The measures for trust are adopted from studies by Alshehri (2012) and those for website quality are developed from studies by Osei-Owusu et al., 2020; Sambasivan et al., 2010). An impulse buying tendency was measured with five (5) items adopted and modified from (Anton et al., 2013; Nefike et al., 2020). The scales for the two dependent variables, namely behavioral intention and actual usage,

are developed from studies by Osei-Owusu et al., 2020; Sambasivan et al., 2010; Venkatesh et al., 2003).

Common Method Bias

CMB exist, according to Harman's single factor, when a single component accounts for more than 50% of the overall variability. Hair et al. (2017b) and Podsakoff et al. (2003) both said that no single factor should explain more than 50% of the variance. The result of this study using principal component analysis showed that the highest component explained by a single factor was 34%. The findings confirm the absence of CMB in the dataset.

Results and Discussion

Structural Equation Modeling

The statistical tool for assessing the data in this study was Structural Equation Modelling (SEM) SmartPLS. Covariance-based SEM approaches include covariance-based SEM (CB-SEM) and partial Least Square-Structured Modelling (PLS-SEM). The difference between the two models is that the purpose of the research determines which one is used. CB-SEM is the method to utilize if the purpose of the investigation is to confirm or test a known theory. On the other hand, PLS-SEM is the method to apply if the purpose of the investigation is to create or predict a theory. PLS-SEM has various advantages, according to Henseler et al. (2009), including the ability to examine complex models with a large number of variables at the same time. PLS-SEM is a suitable fit for this study because it investigates a rather sophisticated model with a large number of trait characteristics. Data with a medium or small sample size can also be evaluated using PLS-SEM (Henseler et al., 2009). The two different approaches to evaluating the PLS-SEM model are the structural model and the measurement model (Hair et al., 2011).

To allow the model to be validated in the research, the two assessment types are recommended. The structural model explains how the hidden constructs are connected or linked to one another, whereas the measurement model explains how the constructs are measured.

Measurement Model

An exploratory factor analysis was performed using Statistical Product and Service Solutions (SPSS) software version 26 to validate that the reflected components were unidimensional. A factorial analysis with varimax rotation was used to confirm 27 dimensions, and confirmatory factor analysis was done with SmartPLS 3.0 software (Ringle et al., 2015). Table 2 shows the results of the measuring model. After construct depuration, Cronbach's alpha values and the composite reliability index for most constructs exceeded the minimum allowable value of 0.7, suggesting internal consistency (Hair et al., 2011; Nunnally, 1978). However, only one (1) construct (Status quo bias) was below 0.70. The CA of five (5) measurement sets was above 0.70 except for status quo bias and hence deemed fairly high (Taber, 2016). Items that did not meet the minimum allowable factor loading value of 0.7 were eliminated (Carmines and Zeller, 1979). To determine discriminant validity, the average variance retrieved was employed. The result was likewise found to be higher than the required minimum (0.6). (Hair et al., 2011). As a result, the shared variances between constructs were lower than the derived average variances, showing good discriminant validity (Fornell& Larcker, 1981). Tables 3 and 4 further confirmed discriminant validity. To measure collinearity among latent variance, the researchers utilized a variance-inflated factor. Ideal collinearity statistics (VIF3) were also shown in Table 1: Collinearity Statistics (VIF) (Hair et al., 2019).

Constructs	Items	Loadings	CA	CR	AVE	VIF
Actual usage of OFDS	AU1	0.853	0.867	0.909	0.714	2.151

	AU2	0.867				2.225
	AU3	0.855				2.167
	AU4	0.804				1.878
Behavioral Intention	BI1	0.933	0.935	0.959	0.885	1.619
	BI2	0.944				2.238
	BI3	0.946				2.301
Hedonic Motivation	HM1	0.924	0.930	0.955	0.877	1.257
	HM2	0.942				1.091
	HM3	0.944				1.206
Habit	HT1	0.872	0.901	0.931	0.772	2.652
	HT2	0.872				2.654
	HT3	0.865				2.315
	HT4	0.904				1.017
Impulse buying tendency	IBT1	0.900	0.881	0.927	0.808	2.446
	IBT2	0.888				2.411
	IBT3	0.908				2.506
Performance Expectancy	PE1	0.890	0.915	0.940	0.797	2.901
	PE2	0.910				2.427
	PE3	0.873				2.568
	PE4	0.899				1.069
Trust	TR1	0.873	0.734	0.882	0.789	1.507
	TR3	0.904				1.507
Technology Efficacy	TSE1	0.821	0.785	0.875	0.700	1.617
	TSE3	0.879				1.872
	TSE5	0.808				1.559
Website Design	WD1	0.866	0.899	0.930	0.767	2.427
	WD2	0.885				2.659
	WD3	0.892				2.829
	WD4	0.861				2.255

Constructs	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Actual usage of OFDS	**0.845**								
Behavioral Intention	0.784	**0.941**							

Habit	0.761	0.756	**0.878**						
Hedonic Motivation	0.710	0.728	0.734	**0.937**					
Impulse buying tendency	0.731	0.709	0.712	0.697	**0.899**				
Performance Expectancy	0.713	0.703	0.704	0.726	0.693	**0.893**			
Technology Efficacy	0.390	0.358	0.354	0.342	0.411	0.346	**0.837**		
Trust	0.685	0.645	0.610	0.622	0.681	0.612	0.359	**0.889**	
Website Design	0.679	0.693	0.659	0.720	0.718	0.739	0.419	0.617	**0.876**

INSECT TABLE 3

NSECT TABLE 4

Constructs	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Actual usage of OFDS									
Behavioral Intention	0.779								
Habit	0.787	0.820							
Hedonic Motivation	0.784	0.781	0.802						
Impulse buying tendency	0.830	0.779	0.796	0.767					
Performance Expectancy	0.796	0.759	0.774	0.787	0.768				
Technology Efficacy	0.470	0.417	0.419	0.399	0.493	0.408			
Trust	0.779	0.776	0.746	0.749	0.842	0.744	0.473		
Website Design	0.761	0.755	0.730	0.787	0.805	0.814	0.498	0.758	

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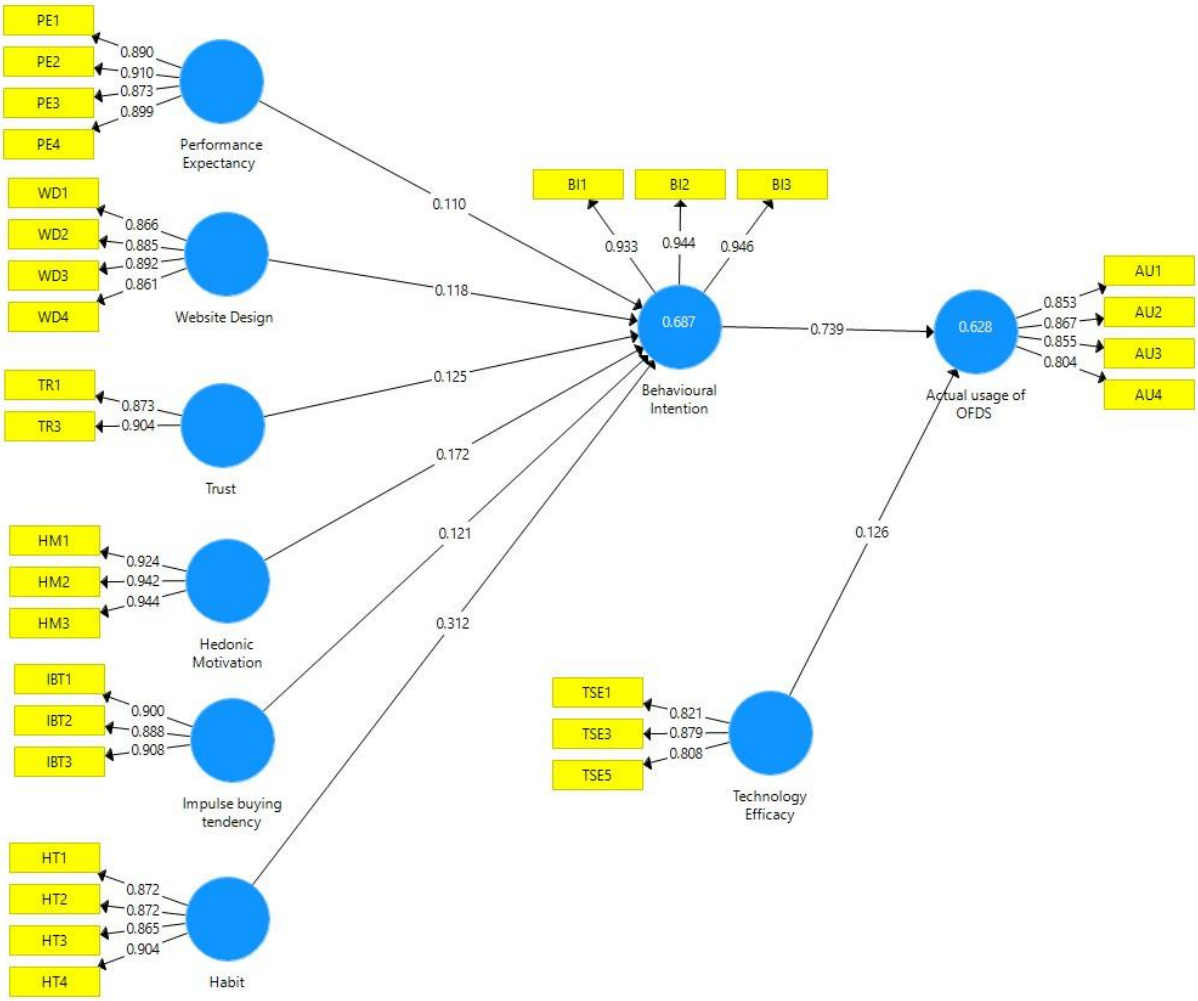


Structural Model Analysis

We employed the structural model, also known as the inner model, to determine the model's capabilities and predict one or more dependent constructs. The study further tests the links among the constructs using the bootstrapping 5000 with the replacement and the standard error as per (Hair, Sarstedt, Hopkins & Kuppelwieser, 2014). The f-value, p-value, path coefficient, coefficients of determination (R2), and q2 effect size are all evaluated and presented below in this study.

To test predictive relevance, we used the and R2 Q2 value recommended by Stone (1974) and Geisser (1974). The model shows substantial predictive accuracy (**R^2**) values of 0.687 and 0.629 towards behavioral intention and usage of OFDS respectively as displayed in Table 2. The result implies that Habit, Hedonic Motivation, Impulse buying tendency, Performance Expectancy, Trust and Website Design can explain 69% of the variation in behavioral intention and63% of the variation in the usage of OFDS. Our models show a positive Q2 value for the main dependent variable. Thus, the results show Q^2 values of 0.241 and 0.604 behavioral intention and the usage of OFDS respectively. The results show large predictive relevance of the model.

Hypotheses	**Path Coefficient**	**StD**	**T Statistics**	**P Values**	**Results**

Performance Expectancy -> Behavioral Intention	0.110	0.034	3.243	0.001	Supported
Website Design -> Behavioral Intention	0.118	0.033	3.533	0.000	Supported
Trust -> Behavioral Intention	0.125	0.031	4.018	0.000	Supported
Hedonic Motivation -> Behavioral Intention	0.172	0.036	4.734	0.000	Supported
Impulse buying tendency -> Behavioral Intention	0.121	0.039	3.109	0.002	Supported
Habit -> Behavioral Intention	0.312	0.032	9.871	0.000	Supported
Behavioral Intention -> Actual usage of OFDS	0.741	0.018	41.776	0.000	Supported
Technology Efficacy -> Actual usage of OFDS	0.115	0.021	5.440	0.000	Supported
TSE(BI-AU) -> Actual usage of OFDS	0.019	0.016	1.195	0.232	Not Supported

Discussion of Findings

The factors influencing restaurant customers' intentions to utilize OFDS were investigated in this study. Table 3 shows that performance expectancy has a positive significant effect on restaurant customers' intention to use OFDS (p value 0.05). Earlier research (Yeo et al., 2017; Nefike et al., 2020) found that performance expectations could affect whether or not someone plans to use an online food delivery service. The results also showed that website design has a positive, significant effect on the intention to use OFDS among restaurant customers (p value 0.05). The finding is consistent with previous studies (Jewer et al., 2018; Abbasi et al., 2018; Aboobucker et al., 2018; Dedeke, 2016; AI-Qeisi, 2015; Alasem, 2014), which provide evidence that website design significantly predicts BI. Thus, there is also evidence to show that the relationship in the OFDS context is valid.

The result also showed that trust has a positive significant effect on the intention to use OFDS among restaurant customers (p value 0.05). The finding is consistent with previous studies (Alshehri, 2012; Sambasivan et al., 2010; Hung et al., 2006; Carter and Belanger, 2005) that have also shown mixed findings. Even though most of these studies were done in the banking industry and on internet banking, the results on OFSD, especially in Africa, add something interesting to the global conversation.

The results also showed that website design has a positive, significant effect on the intention to use OFDS among restaurant customers (p value 0.05). The finding is consistent with previous studies by Talukder et al. (2019). This confirms that individuals with hedonistic motivation concentrate on fun, playfulness, and pleasure. Thus, hedonic factors may be viewed as enjoyment-oriented. According to Brown and Venkatesh (2005), hedonic motivations are very important to technology usage (Venkatesh et al., 2012; Chang et al., 2011). Raman and Don (2013) also support this proposition by revealing the role motivations play in enhancing technology acceptance and usage. Similarly, a study by Curran and Meuter (2007) concluded that hedonic factors are significant in determining the likelihood of consumers adopting self-service technologies. The use of online applications can be enjoyable and

viewed as a source of pleasure by users, particularly when the application's design and graphical characteristics are esthetically pleasing (Hausman and Siepke, 2009).

In addition, Sahoo and Pillai (2017) stated that graphical interface elements such as colour, animation, and font can all enhance the experiential appraisal of a customer and elicit feelings of happiness and gratification. Li et al. (2012) say that consumers should look for or use online delivery systems that meet their aesthetic and emotional needs.

The findings also revealed that consumer impulsive buying has a favorable significant effect on restaurant customers' intention to utilize OFDS (p value 0.05). The findings are in line with past research on the subject (Sharma et al., 2010; Nefike et al., 2020; Zafar et al., 2021). So, OFDS are places where people who buy things on the spot can find clues that can lead them from information to purchase, thus making a link between buying things on the spot and wanting to use OFDS. The results also showed that habit has a positive significant effect on the intention to use OFDS among restaurant customers (p value 0.05). The finding is consistent with previous studies (Correa et al., 2019; Nefike et al., 2020). As a result, this study confirms that consumers' habits influence their intentions to use OFDS. In this study, it was expected that when the behavioral intention of the users of the system is positive or appealing to users, then that could lead to adoption and, subsequently, actual usage. Through prior studies (Al-Swidi et al., 2019; Chopdar et al., 2018; Mekonnen, 2017; Doleck et al., 2017; Hoque et al., 2016; Suki et al., 2017; Nematollahi et al., 2017; Shin, 2016; Cho et al., 2016; Lakhal et al., 2016), across diverse sectors have shown one similar result, that is a positive effect of BI on AU. However, little is documented in the hospitality sector, especially in the context of OFSD. This study, on the other hand, confirmed this link in the context of OFSD (the link between BI and AU).

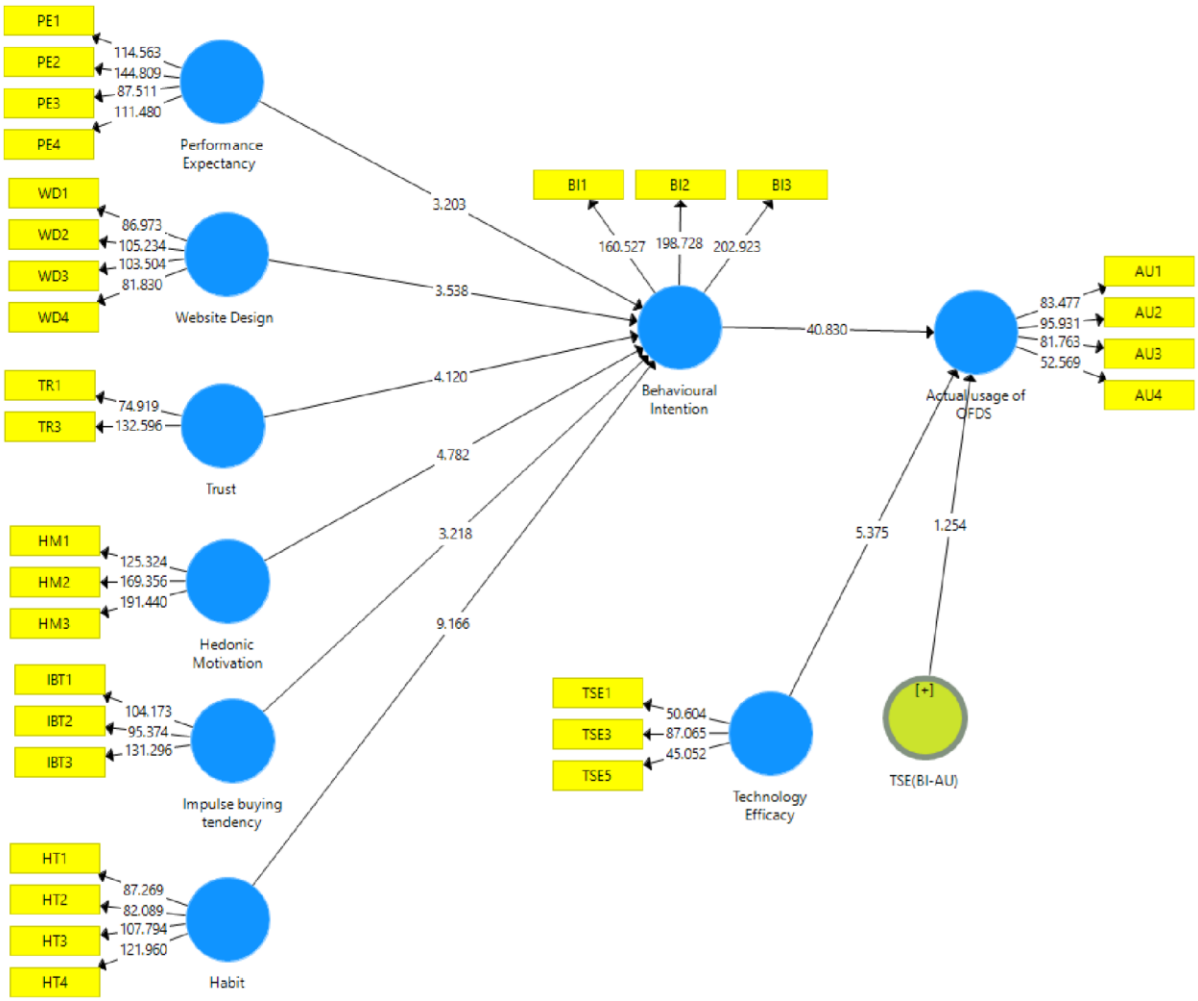
People who have a high level of technology self-efficacy and are confident in their abilities to manage online tasks have a higher positive value. A range of affective and behavioral factors have been found to be influenced by self-efficacy in a variety of circumstances (Alqurashi, 2016; Chen, 2017; Chiou and Wan, 2007;

Hasan, 2007; Puente-Daz, 2016; Yeşilyurt et al., 2016; Kim et al., 2017). Therefore, within this research, users' technology efficacy is examined and how TSE could shape usage of OFDS and also moderate the relationship between BI and AU. Though the outcome showed that TSE directly enhances AU, it does not serve as a condition to induce consumer usage of OFDS. The result is the same as what Wen-Lung et al. (2020) and Lori Baker-Eveleth and Robert (2020) found in their studies, which also showed how important technology selfefficacy is for understanding how people use online systems.

Conclusion

A purposive online food delivery service is gaining momentum. This study analyzed the factors affecting consumer intentions to use OFDS among restaurant customers. The UTAUT2 was extended with consumer impulse buying tendency, website design, and technology self-efficacy to create an integrated model. The study gathered data from 1112 users of OFDS in Ghana. The Partial Least Squares-Structural Equation Modeling was used to test the hypothesis in this study. The results of the current study showed that performance expectancy, habit, hedonic motivation, website design, and consumer impulse buying tendency have a significant effect on consumer intention to use OFDS. The findings further revealed that technology self-efficacy directly enhances usage of OFDS but does not moderate the relationship between consumer intention to use OFDS and actual usage. Though consumer intention to use OFDS is driven by performance expectancy, habit, hedonic motivation, website design, and consumer impulse buying tendency, technology self-efficacy remains critical as it supports OFDS adoption behavior, particularly in the context of hospitality service delivery. This study provides a contemporary perspective on consumer intention to use OFDS, which has received limited attention in SSA. The

outcome of this study therefore offers new insight regarding what drives users of OFDS, which remains essential to the implementation and success of OFDS.



References

Aaltonen, T., González, B. Á., Amerio, S., Amidei, D., Anastassov, A., Annovi, A., ... & Arisawa, T. (2011). Evidence for a mass-dependent forward-backward asymmetry in top quark pair production. *Physical Review*.

Ahmed, I., Nawaz, M. M., Ahmad, Z., Ahmad, Z., Shaukat, M. Z., Usman, A., & Ahmed, N. (2010). Does service quality affect students' performance? Evidence from institutes of higher learning. *African journal of business management*, *4*(12), 2527-2533.

Albion, P. R. (2001). Some factors in the development of self-efficacy beliefs for computer

Aldholay, A. H., Isaac, O., Abdullah, Z., & Ramayah, T. (2018). The role of transformational leadership as a mediating variable in DeLone and McLean information system success model: The context of online learning usage in Yemen. *Telematics and Informatics*.

Alnoor, A.M., Al‐Abrrow, H., Abdullah, H. and Abbas, S., 2020. The impact of self‐efficacy on employees' ability to accept new technology in an Iraqi university. *Global Business and Organizational Excellence*, *39*(2), pp.41-50.

Asamoah, D., Annan, J., Rockson, S.B. and Effah-Baah, D., 2019. The influence of the status quo bias theory in the compliance to public procurement regulations in a Sub-Saharan economy. *International Journal of Procurement Management*, *12*(1), pp.15-40.

Bach, B. W. (1989). The effect of multiplex relationships upon innovation adoption: A reconsideration of Rogers' model. *Communications Monographs*, *56*(2), 133-150.

Bandura, A., & Wood, R. (1989). Effect of perceived controllability and performance standards on self-regulation of complex decision making. *Journal of personality and social psychology*.

Chaudhry, B., Wang, J., Wu, S., Maglione, M., Mojica, W., Roth, E., ... & Shekelle, P. G. (2006). Systematic review: impact of health information technology on quality, efficiency, and costs of medical care. *Annals of internal medicine*, *144*(10), 742-752.

Chen, C., & Czerwinski, M. P. (2000). Empirical evaluation of information visualizations: an introduction. *International journal of human-computer studies*, *53*(5), 631-635.

Creswell, J. W. (2003). A framework for design. *Research design: Qualitative, quantitative, and mixed methods approach*.

Curran, J. M., & Meuter, M. L. (2005). Self‐service technology adoption: comparing three technologies. *Journal of services marketing*.

Dabholkar, P. A., & Bagozzi, R. P. (2002). An attitudinal model of technology-based self-service: moderating effects of consumer traits and situational factors. *Journal of the academy of marketing science*.

Dabholkar, P. A., & Bagozzi, R. P. (2002). An attitudinal model of technology-based self-service: moderating effects of consumer traits and situational factors. *Journal of the academy of marketing science*, *30*(3), 184-201.

Delone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: a tenyear update. *Journal of management information systems*, *19*(4), 9-30.

Dillon, A. (Ed.) (2001). User acceptance of information technology. In W. Karwowski (Ed.),

Eastin, M. S., & LaRose, R. (2000). Internet self-efficacy and the psychology of the digital divide. *Journal of computer-mediated communication*.

Ellen, P. S., Wiener, J. L., & Cobb-Walgren, C. (1991). The role of perceived consumer effectiveness in motivating environmentally conscious behaviors. *Journal of public policy & marketing*.

Encyclopedia of human factors and ergonomics, London, UK: Taylor and Francis.

Engelmann, D., & Hollard, G. (2010). Reconsidering the effect of market experience on the "endowment effect". *Econometrica*.

Gao, R., Cao, B., Hu, Y., Feng, Z., Wang, D., Hu, W., ... & Xu, X. (2013). Human infection with a novel avianorigin influenza A (H7N9) virus. *New England Journal of Medicine*, *368*(20), 1888-1897.

Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review*, *17*(2), 183-211.

Hafeez, S., & Muhammad, B. (2012). The Impact of Service Quality, Customer Satisfaction and Loyalty Programs on Customer's Loyalty: Evidence from Banking Sector of Pakistan. *International Journal of Business and Social Science*, *3*(16).

Hershey, PA: IGI Global Publishing.

Hill, T., Smith, N. D., & Mann, M. F. (1987). Role of efficacy expectations in predicting the decision to use advanced technologies: The case of computers. *Journal of applied psychology*.

Hirschman, E. C. (1980). Innovativeness, novelty-seeking, and consumer creativity. *Journal of consumer research*, *7*(3), 283-295.

Hoaglund, A., Birkenfeld, K., & Box, J. (2014). Professional learning communities: Creating a foundation for collaboration skills in pre-service teachers. *Education*, *134*(4), 521-528.

Hoemann, C. D., Buschmann, M. D., & McKee, M. D. (2006). *U.S. Patent No. 7,148,209*. Washington, DC: U.S. Patent and Trademark Office

Hsieh, H. L., & Shanechi, M. M. (2018). Optimizing the learning rate for adaptive estimation of neural encoding models. *PLoS computational biology*

Hu, P. J., Clark, T. H., & Ma, W. W. (2003). Examining technology acceptance by school implementation: A status quo bias perspective. *MIS Quarterly Information Technology, Learning, and Performance Journal.*

Jambedu, H. A. (2006). *Adherence to anti-hypertensive medication regimens among patients attending the GPHA Hospital in Takoradi-Ghana* (Doctoral dissertation)

Khayun, V., & Ractham, P. (2011, January). Measuring e-excise tax success factors: Applying the DeLone & McLean information systems success model. In *2011 44th Hawaii International Conference on System Sciences* (pp. 1-10). IEEE.

Kim, H. W., Xu, Y., & Gupta, S. (2012). Which is more important in Internet Shopping, perceived price or trust?. *Electronic Commerce Research and Applications*

Kim, H.-W., & Kankanhalli, A. (2009). Investigating user resistance to information systems

Lai, M.-L. (2008). Technology readiness, Internet self-efficacy, and computing experience of

Laing, I. F. (2009). *The impact of training and development on worker performance and productivity in public sector organizations: A case study of Ghana Ports and Harbours Authority* (Doctoral dissertation).

Lee, D. Y., & Lehto, M. R. (2013). User acceptance of YouTube for procedural learning: An extension of the Technology Acceptance Model. *Computers & Education*.

Ma, Q., & Liu, L. (2007). The role of Internet self-efficacy in accepting Web-based medical

Ma, W. W.-K., Andersson, R., & Streich, K.-O. (2005). Examining user acceptance of computer technology: An empirical study of student teachers. *Journal of Computer Assisted Learning*

Makokha, M. W., & Ochieng, D. O. (2014). Assessing the success of ICT's from a user perspective: A case study of Coffee Research Foundation, Kenya. *Journal of Management and Strategy*, *5*(4), 46. *Management Science*.

Marteau, J. F., Raballand, G., & Arvis, J. F. (2007). *The cost of being landlocked: logistics costs and supply chain reliability*. The World Bank.

McDonald, T. and Siegall, M., 1992. The effects of technological self-efficacy and job focus on job performance, attitudes, and withdrawal behaviors. *The Journal of Psychology*, *126*(5), pp.465-475.

McGrath, D. G., De Castro, F., Futenma, C., de Amaral, B. D., & Calabria, J. (1993). Fisheries and the evolution of resource management on the lower Amazon floodplain. *Human ecology*.

Midgley, D. F., & Dowling, G. R. (1978). Innovativeness: The concept and its measurement. *Journal of consumer research*, *4*(4), 229-242.

Mills, R. J. (2001). Analyzing instructional software using a computer-tracking system.

Model: Four longitudinal field studies. *Management Science*.

Mohammad, O. S., Ali, W. K., & Al-Hulitan, A. M. T. (2012). The effect of infestation by the confused flour beetle (Tribolium confusum Duv.) on specifications of wheat flour. *Journal of Agricultural Science and Technology*.

Montesdioca, G., Hino, M., & Maçada, A. (2015). The information privacy concerns at the organizational level: An exploratory study in the bank sector.

Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information systems research*.

Morrison, E. W., & Vancouver, J. B. (2000). Within-person analysis of information seeking: The effects of perceived costs and benefits. *Journal of Management*, *26*(1), 119-137.

Noe, R. A., & Wilk, S. L. (1993). Investigation of the factors that influence employees' participation in development activities. *Journal of applied psychology*, *78*(2), 291.

Norzaidi, M. D., Chong, S. C., Murali, R., & Salwani, M. I. (2007). Intranet usage and managers' performance in the port industry. *Industrial Management & Data Systems*.

Osei-Owusu, J.Y. and Mahmood, R., 2020. Port paperless system in Ghana, the way forward: GCNET or UNIPASS/ICUMS. *ADRRI Journal of Arts and Social Sciences*, *17*(6 (5)), pp.72-87. Park, S. Y. (2009). An analysis of the Technology Acceptance Model in understanding professional accounting students. *Campus-Wide Information Systems*.

Raghuram, S., Wiesenfeld, B. and Garud, R., 2003. Technology enabled work: The role of self-efficacy in determining telecommuter adjustment and structuring behavior. *Journal of Vocational Behavior*, *63*(2), pp.180-198.

Rai, A. K., & Medha, S. (2013). The antecedents of customer loyalty: An empirical investigation in the life insurance context. *Journal of Competitiveness*, *5*(2), 139-163. records. In M. Mahmood (Ed.), *Contemporary issues in end-user computing*.

Rey-Moreno, M., Felício, J. A., Medina-Molina, C., & Rufín, R. (2018). Facilitator and inhibitor factors: Adopting e-government in a dual model. *Journal of Business Research*.

Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk and uncertainty*.

Sánchez, R. A., Cortijo, V., & Javed, U. (2014). Students' perceptions of Facebook for academic purposes. *Computers & Education*.

Stapel, D. A., & Blanton, H. (2004). From seeing to being: subliminal social comparisons affect implicit and explicit self-evaluations. *Journal of personality and social psychology*, *87*(4), 468.

Strong, D. M., DiShaw, M., & Brady, D. B. (2006). Extending task technology fit with computer

Szajna, B. (1996). Empirical evaluation of the revised technology acceptance model. Teachers: A longitudinal study. *Information & Management*.

Timofte, R., Agustsson, E., Van Gool, L., Yang, M. H., & Zhang, L. (2017). Nature 2017 challenge on single image super-resolution: Methods and results. In *Proceedings of the IEEE conference on computer vision and pattern recognition workshops*

Tufour, A. K. (2015). Critical Factors that Influence the Attractiveness of Ghana's Corridor to Stake-Holders engaged in the Transit Business of Landlocked Burkina Faso. *ADRRI Journal*. University students' behavioral intention to use e-learning. *Educational Technology &* use among teacher education students. *Journal of Technology and Teacher Education*.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the Technology Acceptance

Wang, G., Wei, Y., Qiao, S., Lin, P., & Chen, Y. (2018). *Generalized inverses: theory and computations* (Vol. 53). Berlin, Germany: Springer.

Wang, Y. S., & Liao, Y. W. (2008). Assessing eGovernment systems success: A validation of the DeLone and McLean model of information systems success. *Government information quarterly*, *25*(4), 717-733.

Wyatt, M. C. (2005). The insignificance of PR drag in detectable extrasolar planetesimal belts. *Astronomy & Astrophysics*.

Xie, C., Bagozzi, R. P., & Troye, S. V. (2008). Trying to presume: toward a theory of consumers as co-creators of value. *Journal of the Academy of Marketing Science*, *36*(1), 109-122.

Yeo, G. B., & Neal, A. (2006). An examination of the dynamic relationship between self-efficacy and performance across levels of analysis and levels of specificity. *Journal of Applied Psychology*, *91*(5), 1088.