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Understanding Usage Continuance of Webinars among Professionals in the New Normal

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Abstract: The sudden transformation of the educational landscape due to COVID-19 highlighted the need to embrace technology to sustain continuous professional learning. Wider Internet use, availability of technology platforms, and restrictions brought about by the pandemic have led to the proliferation of webinars. While generally effective in delivering its promises, research has not fully grasped the determinants that can sustain its continued use. Using a quantitative inquiry using PLS-SEM, we approached 181 working professionals to capture their perceptions on the usage continuance of webinars during COVID-19. We found that information quality and utilitarianism directly determine satisfaction. The study further confirms that satisfaction and social influence are variables that determine the usage continuance of webinars among professionals.

Keywords: webinars, usage continuance, professional education, online learning, COVID-19

1. Introduction

Continuous learning beyond university life is a constant pursuit for every member of the professional workforce to improve their personal and career lives. The Coronavirus of 2019 or COVID-19 ushered in the New Normal, where the learning process at all levels was disrupted due to constraints imposed by the pandemic (Joaquin et al., 2020). Webinars or seminars conducted online supported learning during this time where participants learn new knowledge at the comforts of their homes or workplaces (Cedeño et al., 2021; Ismail et al., 2021). Globally, the dramatic increase in the conduct of webinars was noticeable during the pandemic, and studies investigating its use, efficacy, and continued use motivations are still scant (Tanidir et al., 2021).

The benefits of using webinars for learning have been widely researched, however challenges persist (Bryson, 2020; Gegenfurtner & Ebner, 2019; Ismail et al., 2021). Information systems or IS research argued that motivators in technology adoption are different from motivators that influence continued use intention (Bhattacherjee, 2001; Hsu et al., 2014; Kim & Oh, 2011). As an effective tool during the COVID-19 pandemic, it is paramount for research to identify what motivators will determine the usage continuance of webinars as they will serve as a complementary tool to other forms of learning modalities in professional education during and beyond the New Normal (Ismail et al., 2021).

In this study, we positioned utilitarian value and information quality as factors influencing satisfaction in the continued usage of webinars among professionals. We hypothesize that satisfaction and social influence are salient determinants of the behavioral intention to continue using webinars for professional education. We accept or reject our hypotheses using Partial Least Square Structural Equation Modeling or PLS-SEM. We add to the current literature fresh knowledge on two fronts: capturing the perspectives of webinars use during COVID-19 and elaborating further the applicability of the usage continuance among professional learners (Gegenfurtner & Ebner, 2019; Hossain et al., 2020; Ismail et al., 2021). In the next section, we synthesize related studies, discuss our theoretical framework and state the basis of our proposed hypotheses. We explicate our study design in the next section, followed by a discussion of our results. We conclude by summarizing our study, its limitations, implications, and recommendations for future research directions.

2. Related Studies and Theoretical Foundations

Webinars afford working adults the convenience of flexibility and affordability to learn professionally without physical and financial constraints. Research in the past decade pointed out the various benefits of webinars with renewed scholarly curiosity during COVID-19. Early research on the use of webinars among pharmacists reveals that the quality, value, and relevance of webinars are positive drivers of participants' motivation to participate (Buxton et al., 2012). In similar studies, webinars among psychologists and soil experts allow wider reach in distributing professional learning opportunities more than the traditional in-classroom modality (Jenkins et al., 2019; Pantalone, 2015). Similarly, the ability to learn online anytime and anywhere and access timely expert knowledge at relatively lesser costs has driven broader participation among librarians and educators (Emre, 2019; Jafarzadeh-Kenarsari et al., 2019). Webinars have become an indispensable tool to support professionals in balancing their thirst for professional growth and personal responsibilities.

COVID-19 changed the learning across various levels, including professional education. Community lockdowns, social distancing measures, and university closures resulted in professionals embracing webinars, as reflected in recent literature (Pokhrel & Chhetri, 2021). Given the volatility and velocity of knowledge dissemination about the current pandemic, physicians and allied professionals harnessed the benefits of webinars to update their knowledge, share experiences and access current information about COVID-19 (Al-Ahmari et al., 2021; Bryson, 2020; Ismail et al., 2021). Among educators, lifelong learning is a constant pursuit, and the New Normal paved the way for many learning opportunities where they can learn new skills through webinars (Nagaraju et al., 2020; Tanucan & Uytico, 2021). Evidence from prior studies suggests that there is a need to learn continually, and webinars present convenient avenues to grow in the New Normal professionally.

Before and during the COVID-19 pandemic, webinars proved robust in sustaining learning among professionals, but challenges and issues remain. Continued participation in subsequent webinars decreased due to varied reasons such as lack of engagement, technology challenges, scheduling conflicts, and overwhelmed participants (Buxton et al., 2012; Ismail et al., 2021; Peuler & McCallister, 2018). Usage continuance is a stream in technology adoption literature that investigates the human behavior of continued technology use (Hsu et al., 2014; Shiue & Hsu, 2017). This belief is based on the principle that individuals have different motivators to continually use technology than their behavior before adoption (Bhattacherjee, 2001; Kim & Oh, 2011). Satisfaction has been a strong determinant of technology usage continuance (Wulandari et al., 2019). In education, the more satisfied learners are in using an online learning technology, the higher the likelihood of continually using that learning platform (Hossain et al., 2020; Joo et al., 2016; Shiue & Hsu, 2017). Another determinant of technology usage continuance is social influence. Individuals tend to adopt and continually use technologies when they see classmates, friends, colleagues, or important persons use a specific technology (Khechine et al., 2014; Shiue & Hsu, 2017). In the context of learning, both satisfaction and social influence have been found to exhibit a positive relationship to the online learning environment and hypothesize: Satisfaction has a positive relationship to the usage continuance of webinars (H1), and Social Influence has a positive relationship to the usage continuance of webinars (H2).

Professionals are adult learners. Therefore, they must balance their time, personal lives, and career goals in their thirst for professional learning. Research findings in adult learning literature suggest that professionals value relevant content that applies to their respective careers (Kleisch et al., 2017; Moore & Shemberger, 2019). Given that satisfaction is a strong determinant of technology of usage continuance, prior research identified various factors that determine satisfaction. Utilitarian value is the perception of the usefulness of a specific technology (Kim & Oh, 2011; Zhang et al., 2020). In the online learning environment and Internet usage, utilitarian value has been found to have a positive relationship with users' satisfaction (Daḷhan & Akkoyunlu, 2016; Isaac et al., 2018). Similar to utilitarian value, information quality can determine satisfaction among technology users. Content relevance has influenced learners' satisfaction, thereby exhibiting a high intention to continue using online learning platforms (Daḷhan & Akkoyunlu, 2016). In the context of learning, both utilitarian value and information quality have been found to exhibit a positive relationship to the online learning environment. Therefore, we further hypothesize: Utilitarian value has a positive relationship to satisfaction (H3), and Information quality has a positive relationship to satisfaction (H4). We illustrate our hypotheses in Figure 1 – Theoretical Framework:

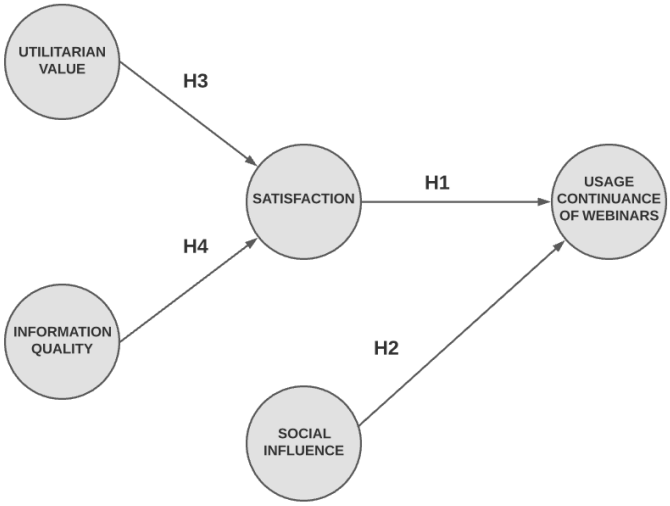

Figure 1. Theoretical Framework.

3. Methods

Similar to other IS researches investigating individual behaviors of adoption and continued use of learning environments (Valverde-Berrocoso et al., 2020), we performed an empirical investigation by adopting and validating a survey instrument, approaching professionals who have attended webinars, and using PLS-SEM to the collected data. In the following sub-sections, we discuss our research phases in furtherance, followed by the analysis of the results in the next section.

3.1 Instrument Development

To operationalize the constructs in our theoretical framework, we adopted questions from the study of Daɬhan and Akkoyunlu (2016) for utilitarian value (3), information quality (6), satisfaction (3), and usage continuance (3). To integrate social influence, we adopted and included questions (3) from the same construct from the study of Huang (2016). Both studies investigated the usage continuance of online learning environments. We added five questions on personal information such as frequency of attending webinars, number of years, and gender. The short survey instrument consisted of 23 questions in a 5-point Likert agreement scale that was modified to fit into the context of this study and deployed using Google forms. We invited four professionals to answer the survey to identify what questions lack clarity or need further improvement through a group discussion via Zoom for better comprehension. We invited 43 working professionals who have previously attended webinars to answer the online survey as a pilot test to check for validity and reliability.

3.2 Test for Reliability and Convergent Validity

To statistically verify the sufficiency in the measurements of our survey instrument, we applied a PLS algorithm using SmartPLS and extracted the values of Cronbach's Alpha, Composite Reliability or CR, and Average Variance Extracted or AVE consistent with the techniques used by prior IS researches (Catedrilla et al., 2019; Limpin, 2018; Nelson et al., 2016). As shown in Table 1 – Instrument Reliability and Validity, the lowest values for Cronbach's Alpha, CR and AVE are 0.896, 0.942, and 0.827 that respectively establishing adequate reliability and validity as they are above the minimum values of 0.70 for Cronbach's Alpha and CR and 0.50 for AVE (Hair et al., 2014).

Table 1. *Instrument Reliability and Validity*

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Utilitarian Value	0.896	0.935	0.827
Information Quality	0.925	0.941	0.728

Social Influence	0.944	0.964	0.898
Satisfaction	0.908	0.942	0.845
Usage Continuance	0.956	0.971	0.919

3.3 Test for Discriminant Validity

We further validated our instrument to ensure that the set of questions representing our constructs in the theoretical framework can depict the dimension it is supposed to measure and that there are weak intercorrelations with the other constructs through the Fornell-Larcker Criterion scores. The topmost value for each column in Table 2 – Fornell-Larcker Criterion Scores and highlighted in bold are highest per column, establishing discriminant validity (Hair et al., 2014).

Table 2. *Fornell-Larcker Criterion Scores*

	Information Quality	Satisfaction	Social Influence	Usage Continuance	Utilitarian Value
Information Quality	**0.853**				
Satisfaction	0.754	**0.919**			
Social Influence	0.757	0.697	**0.948**		
Usage Continuance	0.693	0.805	0.692	**0.959**	
Utilitarian Value	0.659	0.814	0.587	0.703	**0.909**

Recent literature has raised the limitations and possible insufficiency of the Fornell-Larcker Criterion's scores as a single criterion in determining discriminant validity. We decided to extract the Heterotrait-Monotrait or HTMT ratio score (Benitez et al., 2020) from SmartPLS. As shown in Table 3 – HTMT Ratio Scores, all values are below 0.90, the acceptable threshold for conceptually similar constructs in information systems research confirming further that our survey instrument demonstrates discriminant validity (Ab Hamid et al., 2017; Hair et al., 2017).

Table 3. *HTMT Ratio Scores*

	Information Quality	Satisfaction	Social Influence	Usage Continuance	Utilitarian Value
Information Quality					
Satisfaction	0.809				
Social Influence	0.803	0.743			
Usage Continuance	0.730	0.857	0.721		
Utilitarian Value	0.710	0.897	0.631	0.756	

3.4 Recruitment of Participants and their Profiles

We posted our online survey to online professional communities or groups in Facebook, Viber, Whatsapp, and Messenger to test our hypotheses. Respondents should be working and have attended at least a webinar during the COVID-19 pandemic. A total of 181 working professionals answered the validated instrument online. Seventy-six, or 42%, are males, while 105 or 58% are females. The age range of the participants are: 18-25 (5%), 26-35 (28.7%), 36-45 (40.9%), 46-55 (19.3%) and 56 and above (6.1%). Among the participants, 111 (61.3%) reported attending at least nine webinars related to their profession since the start of the pandemic. Of the 181 respondents, 137 or 75.7% have been working for at least nine years.

4. Results and Analysis

The collected data consisting of 181 responses from working professionals were analyzed using a Bootstrapping statistical technique of SmartPLS. This statistical method was deemed appropriate in this study due to its small sample size and the objectives of testing a theoretical model using multiple regression analysis. The results of the path analysis are shown in Table 4 – Bootstrapping Results. T-Statistics values that are above 1.96 are positive and significant relationships, therefore, accepting all hypotheses.

Table 4. *Bootstrapping Results*

Hypotheses	Standard Deviation	T-Statistics	P Value	Decision
H1:Satisfaction → Usage Continuance	0.108	4.612	0.000	Accept
H2:Social Influence→ Usage Continuance	0.103	4.118	0.000	Accept
H3:Utilitarian Value → Satisfaction	0.098	6.225	0.000	Accept
H4:Information Quality → Satisfaction	0.092	3.776	0.000	Accept

The relationships between satisfaction (H1) and social influence (H2) to usage continuance are confirmed as the path coefficients of 4.612, and 4.118 respectively, are above the minimum values, resulting in both hypotheses' acceptance. Prior studies of usage continuance of online learning find that a high level of satisfaction motivates learners to use a learning technology (Cheng & Yuen, 2018; Suzianti & Paramadini, 2021; Zhang et al., 2020). In the New Normal, webinars assumed an alternative role to in-classroom training where attendees gain access to professional training. An early investigation of online adult learning by Lim (2001), found that a high level of technology literacy can lead to higher satisfaction in its continued use. This result can be attributed to efforts to bridge the digital divide by promoting technology diffusion across all sectors, including education, and accelerated further by the challenges brought about by COVID-19 (Shenoy et al., 2020; Velikic et al., 2020). The degree to which important others significantly influence one's decision to use a technology continually is confirmed in the relationship of social influence and satisfaction. Prior studies have revealed similar results where they find that social influence has a positive influence on the usage continuance behavior to use technology in learning (Lee, 2010; Shiue & Hsu, 2017; Wan et al., 2020). Promoting webinars are organized by professional societies and large organizations and promoted online through instant messaging groups and social media that proved to be spaces where social influence, social identity, and group norms can influence an individual's behavior (Hylton, 2020; Soares & Pinho, 2014). Given its lower costs and the speed to which information can be disseminated, salient points about the speaker and the webinar content can be shared and reshared by friends, colleagues, and fellow professionals through their online social networks.

Likewise, the relationships between utilitarian value (H3) and information quality (H4) to satisfaction are confirmed as the path coefficients of 6.225 and 3.776 are above the minimum values, resulting in both hypotheses' acceptance. Aligned with similar studies in usage continuance of technology-enabled learning systems that found the quality of content and perceived value of the online learning environment are crucial to the satisfaction of learners (Daɬhan & Akkoyunlu, 2016; Zhang et al., 2020). Recent literature has pointed out that learner's fatigue in online learning activities necessitates research identifying interventions such as shorter but meaningful online sessions and carefully curating the content (Toney et al., 2021; Wiederhold, 2020). Webinars that add value to professional knowledge through current and relevant content will increase attendees' satisfaction, therefore encouraging continued use of this learning delivery (Ismail et al., 2021).

5. Conclusion

In summary, this study confirms that utilitarian value and information quality are factors that can influence satisfaction. We further confirm that satisfaction and social influence are strong determinants of the behavioral intention to continue using webinars for professional education. While contributing to usage continuance and professional education streams of literature, these findings should be interpreted

in consonance with our limitations for future research initiatives. First, our sample size and recruitment strategy might impede generalizability, and therefore, future studies can replicate our research to consider larger sample sizes. Second, we conducted a quantitative inquiry, and future scholars can conduct qualitative investigations to find meaningful interpretations of the accepted hypotheses. Third, our sample included a few older adults, capturing their perceptions of how they learn from webinars might provide a different set of results. Lastly, given that context is critical in IS research, deploying our model to specific cohorts based on different disciplines, countries, and types of learners may reveal different facets of our research findings.

The New Normal is a social landscape where professionals subscribe to technology-enabled learning activities for professional growth. While the abundance of benefits to working adults is widely researched, uncertainties as to when we revert to how we used to do things before this pandemic exists; therefore, identifying factors that influence people to use technology continually are essential. From a practical perspective, webinars should be carried out with the learners in mind. Professionals value time, and therefore webinars should be succinctly and carefully scheduled without sacrificing the quality of their knowledge content to encourage future participation (Ismail et al., 2021). From the academic perspective, feedback mechanisms should be religiously integrated into webinars to find avenues for improvement in the content and pedagogy so that an iterative improvement can be implemented to increase satisfaction and improve attendance (Peuler & McCallister, 2018; Toney et al., 2021). Continuous learning is a fundamental necessity for professional growth, and while the unpredictability of COVID-19 altered the way we look at the education landscape, tools that supported society today should be carefully investigated to maximize its benefits beyond the New Normal.

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