



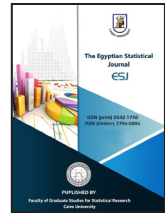
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The social influence relation with perceived ease of use for online meeting

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ABSTRACT

Nowadays digitalization started to participate in daily life and it is expected to be even more essential in the future. The online meeting is one of the forms of digital transformation from a regular face-to-face meeting to be a virtual online meeting. Research objectives are to study the relation of the social influence with the perceived ease of use for online meetings considering the moderation effect of demographic factors such as age, gender, and employment status. The research used a quantitative method by having random sampling in the new Cairo area, using statistical approach. The study showed a significant relationship between social influence with the perceived ease of use and the demographics have moderation effect on such relationship. The findings of the study can be used by online platform providers marketing campaign to increase their market shares by knowing the segments to be targeted, in addition to further researches.

Keywords:

Technology acceptance model, TAM, online-meeting

1. Introduction

“‘Digitization’ and ‘digitalization’ are two conceptual terms that are closely associated and often used interchangeably in a broad range of literature,” explain J. Scott Brennen, Doctoral Candidate in Communication, and Daniel Kreiss, Associate Professor, both at the University of North Carolina School of Media and Journalism. “We refer to digitalization as the way in which many domains of social life are restructured around digital communication and media infrastructures.”(Brennen and Kreiss 2015)

When people from all over the world, regardless of their geographical location, gather online to conduct business, they are referred to as virtual conferences or online meetings. They communicate with one another using video, audio, and text to connect with one another via the internet. Those who engage in virtual meetings can send information and data in real-time without having to be physically present in the same area. (Capello and Shaughnessy 2020)

Considering the widespread use of virtual meetings (online meetings) as the primary mode of communication during the COVID-19 pandemic, and the likelihood that they will continue to be widely used in the workplace and our daily lives, it is critical to understand the factors that influence user perception and intention to use virtual meetings (online meeting). In response to the COVID-19 outbreak and the ensuing mandated absences from work, major changes in the way people conduct their jobs have taken place. As an example, video conferencing is becoming increasingly popular as a means of interacting and having professional meetings.

Other changes are also taking place. While Zoom had 10 million daily meeting attendees in December 2019, by April 2020, that number had increased to more than 300 million participants. Other video conferencing systems, such as Google Meet™ and Microsoft Teams, have also seen a large growth in the number of people who use them daily. It is also possible that the usage of videoconferencing will continue long after the pandemic has ended, as it is expected that only 25% of corporate meetings would take place in person by 2024. (Karl, Peluchette, and Aghakhani 2021)

Based on previous studies, Technology Acceptance Model (TAM) is commonly used to study the perceived user intention to use the new technology which in our case will be the virtual or online meeting.

Knowing the factors and relationship of parameters affecting the intention to use would be of great importance for knowing how to handle or motivate the users to use the application or online meeting providers. That would be important for the providers to increase their market share and strength their business case, moreover, it would help the organizations and institutes to consider such parameters in their internal programs either training or investment for encouraging the user either students, employees, or stakeholders for using such new technology for better efficiency digital transformation leading to performance enhancement with cost optimization at least in the logistics for having physical meeting other than online ones.

1. Research background

A lot of investments are dedicated to digitalization nowadays, knowing the right factors affecting the user-perceived intention to use the new technology (in our case the virtual online meeting) would save a lot of time, effort, and money. Such knowledge of the factors and related parameters would lead the organization and society to allocate the required attention to such factors hopefully increasing the future user-perceived intention to use. The perceived intention to use increase will accordingly raise the demand for the new technology and usage which will guide the developers and providers for further development of the product or service. Considering that the order winners' parameters will shift to be order qualifiers, pushing the providers for competing to provide better along the way to gain users (customer).

The research is analyzing some of the possible factors affecting the user-perceived intention to use the online meeting among the Egyptians who are located in the new Cairo area with different demographics. The factors are gathered from earlier studies made related to the technology acceptance model which could be applied to our case study which is the online meeting. The TAM model validation and relationship correlation were also made for our case in light of the statistical analysis and quantitative survey.

1.1. Technology acceptance model (TAM)

The Technology Acceptance Model is not just one of the most often referenced models regarding new technology acceptance study, but it also represents a distinct research stream in its way. When information technology was introduced, it promised a bright future. Despite significant productivity improvements for businesses, many users seemed to be opposed to the new technologies in the workplace, leading Davis to the conclusion that "apart from their theoretical worth, improved performance is a motivator". Measures for forecasting and explaining system usage would be very useful in the real world, both for system administrators and system users. providers that would want to analyze consumer demand for fresh design concepts as well as for more information. Those in charge of information systems inside user companies want to examine the factors affecting the user intention to use. Davis wrote the initial model, which was also tested later in different studies. The main determinants of the Technology Acceptance Model are "Perceived utility" (PU) and "perceived ease of use" (PEU) were used to describe acceptance behavior or intention to use (IU). That could be noticed in figure 1 showing a brief of the TAM model chart. (Clemens Hiraoka Technology Acceptance of Connected Services in the Automotive Industry n.d.)

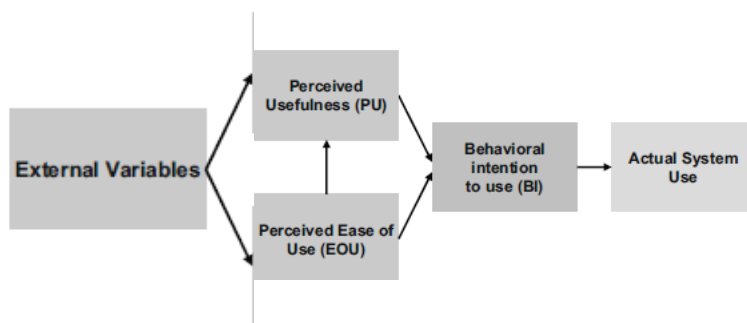


Figure 1: Technology acceptance model

1.2. Perceived ease of use (PEOU)

"Perceived ease of use" is an antecedent that can be defined as "the extent to which a person feels that employing a given system will be devoid of negative consequences." Davis defines ease as "freedom from difficulty or significant effort," which follows the notion of ease as "freedom from difficulty or great effort. (Davis 1989)

1.3. External factors

To study and understand the main determinants, PU and PEOU which are linked to the IU as per the TAM, several variables and factors were considered which are believed to have an impact or moderation on the relationship. (Brezavšček, Šparl, and Žnidaršič 2017) This study considered social influence as one of the factors which will be studied to check the relation with PEOU.

1.3.1. Social influence

The degree or extent to which a person believes that others, particularly his or her acquaintances and friends, believe that he or she should utilize a new system is considered a term of social influence. (Spears 2021; Venkatesh et al. 2003) The findings of numerous studies have revealed that social influence has a significant impact on the intention of users to accept new technologies. (Šumak and Šorgo 2016)

1.4. Research question

The study was looking for the answer to the following research questions:

Is there a relationship between social influence and the user-perceived ease of using online meetings?

Does the demographics have a moderation effect related to the user-perceived ease of use for the online meetings?

1.5. Demographics

When it comes to demographic analysis, age, ethnicity, and gender are all elements to consider. Demographic analysis is the study of a population-based on these and other criteria. Demographic data is a word used in socioeconomic contexts to refer to information that has been statistically expressed. (Qiu 2020) The following are some examples of demographic data: employment, education, income, marriage rates, birth and death rates, and numerous other variables.(Dozier 2019)

The study considered age, gender, and employment status for checking if they act as moderators on the relationship between social influence and perceived ease of use.

2. The research model

The model as shown in Figure 2 is the study research model which is inspired by the TAM, focusing on the relationship which is under the current study to answer the research questions raised.

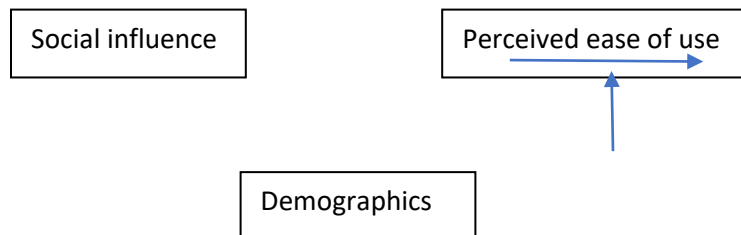


Figure 2: The research model

3. Research instrument and data collection

Data is gathered to test the proposed correlations between the research variables, and the results are presented. As a result, the deductive strategy is used in this investigation. (Rubin and Babbie 2016) in our case survey using a questionnaire is one of the methods for data collection and that was what has been used in this study. The sample was taken randomly from shopping malls in the new Cairo district in early 2022. The questionnaire was built on previous related papers.

4. Results

The collected responses from the questionnaire are 413 responses upon which the data was statistically analyzed. All the questions' responses were checked and showed to be reliable and valid. Accordingly, further analysis of the correlation took place.

The age group of 22-30 is among the greatest responders followed by the age group 31-40 years. Both genders were of nearby numbers for age groups below 30 years while more male responders of other ages. The details of the sample regarding the age group and gender are shown in Figure 3. The sample majority is employed by more than 50% and the last group is the unemployed, as shown in Table 1.

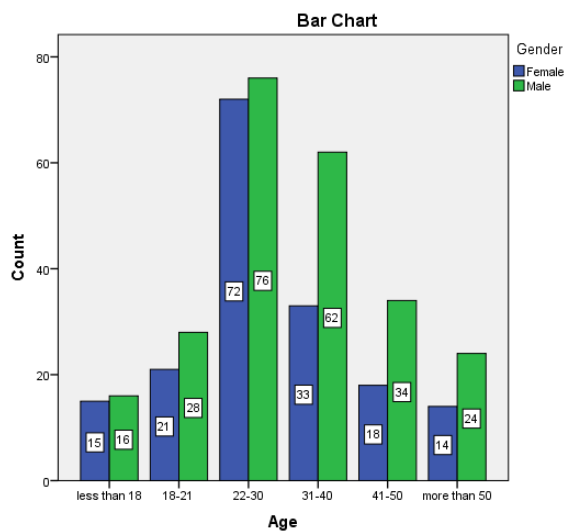


Figure 3: sample gender and age chart

		Responses
Employment Status	Student	80
	Unemployed	61
	Employed	272
Total		413

Table 1: sample employment status and educational level

	Social Influence
	.767
Perceived Ease Of Use	.000
	413

Table 2: correlation between PEOU and SI

Table 2 demonstrates the significance of the relation between social influence with the perceived ease of use which answers the research question by not rejecting the hypothesis that there is a relation between the SI and PEOU. Further, the correlation statistical analysis shows that the Pearson correlation is of high significance up to 0.767.

Correlations

Age		Social Influence	
less than 18	Perceived Ease Of Use	Pearson Correlation	.962**
		Sig. (2-tailed)	.000
		N	31
18-21	Perceived Ease Of Use	Pearson Correlation	.953**
		Sig. (2-tailed)	.000
		N	49
22-30	Perceived Ease Of Use	Pearson Correlation	.973**
		Sig. (2-tailed)	.000
		N	148
31-40	Perceived Ease Of Use	Pearson Correlation	.323**
		Sig. (2-tailed)	.001
		N	95
41-50	Perceived Ease Of Use	Sig. (2-tailed)	.000
		N	95
		Pearson Correlation	.357**
41-50	Perceived Ease Of Use	Sig. (2-tailed)	.009
		N	52
		Pearson Correlation	.969**
more than 50	Perceived Ease Of Use	Sig. (2-tailed)	.000
		N	38
		Pearson Correlation	

Table 3: correlation between PEOU and SI with consideration of age group

Correlations

Gender			Social Influence
Female	Perceived Ease Of Use	Pearson Correlation	.832**
		Sig. (2-tailed)	.000
		N	173
Male	Perceived Ease Of Use	Pearson Correlation	.709**
		Sig. (2-tailed)	.000
		N	240

Table 4: correlation between PEOU and SI with consideration of gender

Correlations

Employment Status			Social Influence
Student	Perceived Ease Of Use	Pearson Correlation	.955**
		Sig. (2-tailed)	.000
		N	80
Unemployed	Perceived Ease Of Use	Pearson Correlation	.861**
		Sig. (2-tailed)	.000
		N	61
Employed	Perceived Ease Of Use	Pearson Correlation	.674**
		Sig. (2-tailed)	.000
		N	272

Table 5: correlation between PEOU and SI with consideration of employability

Table 3, Table 4, and Table 5 show that demographic factors have a moderation impact on the relation of the SI and the PEOU. The age group 22-30 has the highest correlation compared to other age groups, followed by the age group over 50 and group of below 18 then the other groups are considerably below. The female gender has a higher correlation compared to the male gender. The student group has the highest correlation followed by the unemployed and then the employed.

5. Conclusion

This study aligned with the TAM showing the link of the external factor which in our case is the social influence with the perceived ease of use for the online meeting. Further, it directed the light on the demographic moderation of such a relationship. That would be of great use for the

marketing campaign and future understanding of user behavior. The online meeting service providers could accordingly set the marketing demographic segmentation using such study guidelines. Moreover, the organizations would be able to consider that in their training or approaches to encourage the users to increase their online usage and digital transformation.

6. Limitations and further study

The study was made during the Covid pandemic, the responses might vary in different environments or situations. It would be recommended to repeat the study after the pandemic.

The study was localized by collecting the survey responses in the new Cairo district. The sample size was localized while having a greater area of survey spread could lead to different data and cover a wider zone.

The study considered one external factor which was SI. Other external factors could be considered in future studies.

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