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## The Relationship of Social Influence on Online Collaborative Learning in an E-Learning Environment

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### ABSTRACT

This study investigates the impact of social influence on online collaborative learning within an e-learning environment, aiming to understand how social factors shape student engagement and learning outcomes. Employing a descriptive analytics approach, data was collected through a questionnaire to assess respondents' attitudes towards e-learning acceptance and social influence. The findings revealed a moderate acceptance of e-learning, influenced by usability, simplicity of use, and the quality of the e-learning system. Social influence emerged as a key determinant, emphasizing the significance of peer interactions, collaborative learning, and teacher involvement in enhancing learning outcomes and engagement. While the study acknowledges limitations such as potential response bias from self-reported data, future research could explore more objective measures of social influence and additional factors impacting student acceptance and engagement. This research contributes to the field by highlighting the crucial role of social influence in shaping attitudes and behaviors in online learning environments, offering valuable insights for educational technology and paving the way for further exploration of social dynamics in e-learning settings.

### ARTICLE INFO

*Keywords:*

*E-learning,  
Social,  
Influence,  
Students,  
Theory (TAM)*

### 1.0 INTRODUCTION

Because of the spread of the COVID-19, the governments recommended using alternatives to standard learning techniques in emergency situations to make sure especially students don't miss class and to stop the pandemic from spreading after the sudden closure of educational facilities. According to (Brika, 2021) to limit the spread of the pandemic, universities, institutes, and academic schools had to switch to e-learning using the available platforms. Because of the increasing use of technology and the internet in education, a new age of learning has emerged with plenty of potential and problems. According to (Khaled M S Faqih, 2019) e-learning is a social learning phenomenon because both educators and learners interact within a complex social environment, whereby they need to converse, interact, exchange, express thoughts, support ideas, argue, speculate, collaborate and assess.

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E-learning is one of the many educational innovations that have arisen in this digital landscape, and it is becoming a crucial and widely used part of modern teaching methods. E-learning is the formal education system that makes use of electronic resources. One aspect of the complicated framework of e-learning that needs more consideration is the impact of social influence on online collaborative learning. For instance, the issues of the social influence towards e-learning are a lot of students who use online learning fall behind and believe that the technological aspects of it, including the lack of contact between students and teachers, are overwhelming. Thus, although students get to interact with their classmates over Zoom or Google Meet platform, it is not the same as physical interaction (Burton, 2022). Other than that, according to (Martinez, 2020) when in class, students can get additional motivation from their peers and teachers, but this is impossible when studying online. So, based on the research, the student's ability and motivation to focus are totally different.

In the context of e-learning, social impact is important since it can affect a number of components of the learning process. According to (Goode, 2023) on the positive side, social influence can lead to greater cooperation and teamwork, as well as the adoption of beneficial behaviors and beliefs. And on the negative side, it can lead to the spread of harmful or dangerous behaviors and the suppression of individuality and critical thinking. For example, social influence can foster an environment in which student may communicate, exchange ideas and collaborate on work. In addition to strengthening the sense of community it creates by the acceptance of e-learning, this can improve also their education in general. Thus, the importance of e-learning is a perspective diversity. The users of e-learning may be exposed to a range of viewpoint and methods to problem solving by studying alongside with their friends who come from a variety of background and experiences.

This variety can enhance the educational process and lead to a more through comprehension of the information that need to be covered. Other than that, social influence is essential to e-learning since it can improve the teamwork, engagement, motivation, and the learning process as a whole. The instructors may create a dynamic and encouraging atmosphere that simulates the social aspects that are same as face-to-face environment by introducing the social influence component into the e-learning platforms. Next, to address the issues towards the e-learning towards the social influence Technology Acceptance Model (TAM) is used. The Technology Acceptance Model (TAM) is a widely recognized framework for understanding and predicting user acceptance and adoption of technology. TAM suggests that perceived ease of use and perceived usefulness are a key factor influencing users' attitudes and intentions to use a particular technology such as e-learning.

The dependent variable which is e-learning acceptance. In order to recognizing the many elements that affect people's attitudes and actions is crucial when assessing the adoption of e-learning within a community. For example, community qualities. By recognize the community demographic towards the social influence, social class, age, education level, and cultural background may all have an impact on how people see and embrace e-learning. They filled in the questionnaire based on how they used the e-learning.

## 2.0 LITERATURE REVIEW

### 2.1 Social Influence

Social influence refers to the phenomenon where an individual's behaviors, opinions, or beliefs change as a result of their network ties, often becoming more similar to those with whom they are connected (Tracy M. Sweet, 2022). There are different kind and levels of social commitment are defined by a social influence theory which is identification and participation. Towards e-learning process, the users that use an online platform such as student and instructors are the people that accepts influence in the exception of receiving a favorable response from another person or group that has a standard of behavior. For example, in the context of e-learning, social influence is the effect that connections, interactions and social interactions with others have on the student

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especially and their participation in virtual learning environments. According to (McLeod, 2023) conformity is a type of social influence defined as a change in belief or behavior in response to real or imagined social pressure. It also deals with how people are affected by their teachers, and other students thus in the larger community in the virtual learning environment. Towards e-learning acceptance on the community to this research which is at Flat Pandan Perdana, Cheras the individual effort and preparedness are essential to guaranteeing a first-rate information. In fact, the most important component of a competitive educational service nowadays is a e-learning. Additionally, in order to satisfy the demand from student for education, educational institutions provide online courses, online assessment, and online advisory services.

## 2.2 E-learning Acceptance

The self-efficacy creates a bridge of possible connections on the acceptance of e-learning as it is linked to personal conviction in one's own capacities to plan and carry out the courses of action necessary to accomplish a specific acceptance. Nowadays, the education sector has been suggested to use internet-based learning materials from secondary to higher education due to the growing demand for e-learning which has been filled by the internet and the technology rapid growth. According to (Alyoussef, 2023) the potential of e-learning to produce more notable effects on all study modes, including full time, part time and distance learning, is its most notable impact on student at higher educational institutions. For example, like the other educational platforms, the acceptance of e-learning has their advantages, disadvantages, opportunities and risks of e-learning acceptance. It may be utilized to foster a sense of community among the student at the lower costs, enhance the student and instructor contact, also help student to develop their capacity of problem-solving skills. In contrast to traditional learning approaches, it has an interaction quality that contain the result in less in acceptance of e-learning when it comes to feedback. According to (Masrom, 2007) e-learning is essentially anu form of education that is facilitated by the internet and its technologies and encompasses the use of the World Wide Web to support instruction and deliver a course of content.

## 2.3 Technology Acceptance Model (TAM)

According to (Charness, 2016) Technology Acceptance Model (TAM; Davis, 1989) has been one of the most influential models of technology acceptance, with two primary factors influencing an individual's intention to use new technology: perceived ease of use and perceived usefulness. Since its development in 1989, the technology acceptance model (TAM) has grown to be the most widely used research model for predicting and determining an individual's use and acceptance of technology. For this research the use of (TAM) is to illustrated the connection between belief, attitudes, intentions, and conduct to show the relationship between intention and behavior for the elearning acceptance. In addition, perceived ease of use is said to predict perceived usefulness according to the original TAM hypothesis. However, the attitude and perceived utility of a system determine behavioral intention, or the extent to which individuals act or do not perform for a certain future behavior, to embrace it.

## 3.0 METHODOLOGY

Descriptive analytics is the process of using the current and historical data to identify trends and relationship and its sometimes called the simplest form of data analysis because it describes trends and relationship but doesn't dig deeper (Cote, 2021). For this research descriptive analytics survey approach were used such as a questionnaire as the research instrument to offer an overview of respondent towards the social influence and e-learning acceptance. According to (Rawat, 2021) descriptive analysis can be categorizing into four which are measures of frequency, central tendency, dispersion or variation and position. In order to gain the data, the theoretical framework was using. These methods are optimal for a single variable at a time. It is simple to gather the data required the data by using the questionnaire tools. The descriptive step of the questionnaire primarily focuses on examining the overall numerical findings of the Flat Pandan Perdana Community's desire for e-learning acceptance. It is

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anticipated that questions on a scale will focus on the preliminary investigation of the elements influencing respondent in Flat Pandan Perdana Community's acceptance of e-learning.

### 3.1 Demographic

Variables	Frequency	Percentage
<b>GENDER</b>		
Male	48	44.9%
Female	60	55.1%
<b>AGE</b>		
Less than 20-year-old	19	17.6%
20-30 years old	81	75%
30-40 years old	6	5.6%
40-50 years old	1	0.9%
Above 50 years old	1	0.9%
<b>EDUCATION</b>		
PHD	4	3.7%
Master	7	6.5%
Bachelor Degree	64	59.3%
Diploma	23	21.3%
SPM	1	0.9%
Secondary School	9	8.3
Primary School	0	0%
<b>RACE</b>		
Malay	90	83.3%
Chinese	11	10.2%
India	7	6.5%
<b>EXPERIENCE INVOLVE WITH E-LEARNING</b>		
Less than 1 year	13	11.1%
1-2 years	54	50%
3-5 years	35	33.3%

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More than 5 years 6 5.6%

**Social Influence**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage</b>
<b>I should have participation in the e-learning activities, as per my instructors</b>		
Strongly Disagree	2	1.9%
Disagree	8	7.4%
Neutral	29	26.9%
Agree	56	51.9%
Strongly Agree	13	12%
<b>I should make use of the e-learning system, as per the people who affect my behaviors or whose opinions, I consider worthy</b>		
Strongly Disagree	0	0%
Disagree	8	7.4%
Neutral	36	33.3%
Agree	48	44.4%
Strongly Agree	16	14.8%
<b>Generally, I think that the utilization of the e-learning system would be supported by the university/school/tuition provider</b>		
Strongly Disagree	1	0.9%
Disagree	9	8.3%
Neutral	24	22.2%
Agree	52	48.1%
Strongly Agree	22	20.4%
<b>My friends think that I should use the e-learning system</b>		
Strongly Disagree	2	1.9%
Disagree	7	6.5%
Neutral	30	27.8%
Agree	55	50.9%
Strongly Agree	7	6.5%

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### 3.2.1 Independent Variable Social Influence

Table 3.2.1 show the result of independent variable of social influence. The respondent can pick one of five options, ranging from strongly disagree to strongly agree. Other than that, the responder must answer 4 questions of social influence towards e learning. The higher percent or respondent mostly answer agree with the selection of answer and the lowest are strongly disagree for all the questions.

#### E-Learning Acceptance

Variables	Frequency	Percentage
<b>I will make use of the e-learning system regularly in the forthcoming time</b>		
Strongly Disagree	3	2.8%
Disagree	5	4.7%
Neutral	23	21.5%
Agree	61	57%
Strongly Agree	15	14%
<b>I intend to make use of the content and functions of e-learning system for providing assistance to my academic activities</b>		
Strongly Disagree	1	0.9%
Disagree	7	6.5%
Neutral	24	22.2%
Agree	58	53.7%
Strongly Agree	18	16.7%
<b>I will give out my recommendation to others to use the e-learning system</b>		
Strongly Disagree	2	1.9%
Disagree	5	4.6%
Neutral	27	25%
Agree	56	51.9%
Strongly Agree	18	16.7%
<b>I will use the e-learning system on a regular basis in the future</b>		
Strongly Disagree	1	0.9%
Disagree	4	3.7%

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Neutral	21	19.4%
Agree	54	50%
Strongly Agree	28	25.9%

### 3.3.1 Dependent Variable E-Learning Acceptance

Table 3.3.1 show the result of dependent variable of e-learning acceptance. Same as the independent variable of social influence, respondent can pick one of five options, ranging from strongly disagree to strongly agree. Other than that, the responder must answer 4 questions of social influence towards e learning. The higher percent or respondent mostly answer agree with the selection of answer and the lowest are strongly disagree for all the questions.

### Theoretical Frameworks

Within the limits of the crucial of limiting assumptions, the theories are developed to explain, forecast and comprehend occurrences as well as, frequently, to criticize and expand on the state of knowledge. The framework that a research study's hypothesis may be supported by is called the theoretical framework. The theoretical framework presents and explains the theory that explains the existence of the research topic which is the social influence. According to (Vinz., 2023) theories are developed by researchers to explain phenomena, draw connections and make predictions in a theoretical framework, explain the existing theories that support the research, showing the paper or dissertation topic is relevant and grounded in established ideas.

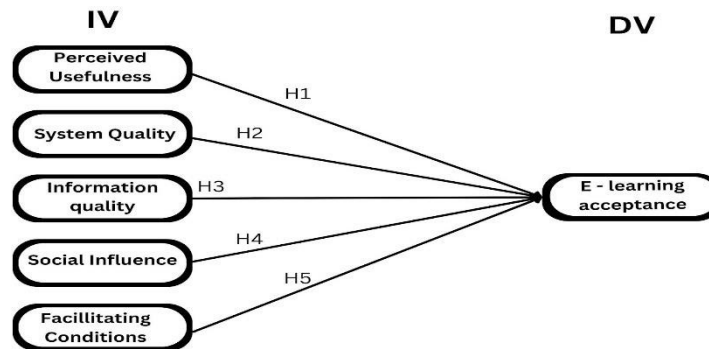


Table 3.1.1 Theoretical Frameworks Table

## 4.0 FINDINGS AND DISCUSSION

Descriptive analysis in Table 3.1 is used to explain the demographic profiles such as gender, age, occupation, education, race and experience involve with e-learning. Either a finding or a discussion in a basic quantitative summary might be used to summarize the data that was collected. This finding in demographic puts the data in perspective and transforms it into pertinent knowledge, which can help to find percent of people in the community that respond to the survey. The distribution of the questionnaire took place from October 16 to October 19, and 108 questionnaire forms were returned by respondents. Questionnaires were distributed to all residents of Flat Pandan Perdana Community, with the focus of this study being students. Still, the broader population responds to it as well. Within a few days, the survey was finished and returned with all of the answers. Several surveys have been coded and will be assessed with SPSS (Version 26), a statistical program. There were 100%

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of the disseminated questionnaires returned, based on the total number of questionnaires distributed. For the demographic findings, the gender specific percentage of responders, totaling 108. The majority of the respondent are 60 people, or 56% of the total, are female; the remaining 48 people, or 44% of the total, are of other genders. Next for the age, 81 people, or 75% of the survey's respondents, are between the ages of twenty and thirty. The second largest age group is those under 20 years old, comprising 19 individuals, or 17.6% of the total population. 6 individuals, or 5.6%, belong to the group aged 30 to 40, while 1 person, or 0.9%, belongs to the groups aged 40 to 50 and over 50 years old. Thus, for the occupation result in demographic overall were answer by student, with 79 answers, receiving 73.1%. Furthermore, the private sector has the second-highest number of occupants with 14 replies, or 13% of the total. Government employment is placed third with 8 respondents, or 7.4%, while the nonprofit sector is ranked lowest with 7 respondents, or 6.5%. Other than that, the number of respondents who answered the poll about education. With 64 replies, or 59.3% of the total, bachelor's degree holders have answered to this poll the most. Next, a diploma holder receives 21.3% or 23 replies. Other than that, 9 replies, or 8.3%, come from respondents who attend secondary schools. Furthermore, out of the 7 replies, 6.5% came from master's degree holders, 4.7% came from 3.7% of respondents, and 0.9% came from SPM and PhD holders. Next, the races shown that Malay received 90 replies, or 83.3% of the total. Furthermore, the Chinese have the second-highest number of replies, accounting for 10.2% of the total, with 11 responses, while the India race has the lowest rating, accounting for 6.5% with seven respondents. And lastly, in the first two years, 50% of respondents, or 54, reported using e-learning. Moreover, 33.3%, or 35 respondents, have three to five years of experience. Furthermore, 13. out of the respondents, or 11.1%, had less than a year's experience. Finally, six respondents, or 5.6% of the total, reported having more than five years of e-learning experience.

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**Table 4.1 Reliability Statistic and Result of Reliability Test**

No	Items	Reliability statistic	Results
1	IV: Social Influence	$0.7 > \alpha \geq 0.6$	Questionable
2	DV: The Definition of ELearning Acceptance	$0.5 > \alpha$	Unacceptable

**Table 4.1.2 Result of Reliability Test**

Reliability Statistic		
Variables	Instruments	Cronbach's Alpha Coefficient
<b>Independent Variables</b>		
Social Influence	4	0.808
<b>Dependent Variables</b>		
E-Learning Acceptance	4	0.917

Table 4.1.1 display the reliability statistic for Independent Variable for Social Influence are  $0.7 > \alpha \geq 0.6$  and the result are questionable. Thus, for Dependent Variables for The Definition of E-Learning Acceptance are  $0.5 > \alpha$  and the result shown unacceptable. Thus, for the result of reliability test for the social influence, it shown that the section questions of Cronbach's Alpha were  $\alpha = 0.808$  and were produced in an acceptable response. The questions coefficients were calculated from the situational factors in an appropriate way. This indicated that responded were accept the e-learning acceptance in the to assist with their learning process.

#### Correlation Coefficient

The Pearson Correlation Coefficient research is one of the important investigations that evaluates the strength of the linear relationship between the independent variable (IV) and dependent variables (DV). The aim of the correlation coefficient is to discover whether there is any correlation between the dependent variable such as e-learning acceptance and independent factors which is social influence. This research was allowed to verify the direction and strength of the link between the variable in the event that a correlation was found. As a result, the degree of correlation between the independent and dependent variables determines whether or not to maintain the reference.

**Correlations**

		SocialInfluenc e	ElearningAcc eptance
SocialInfluence	Pearson Correlation	1	.731**
	Sig. (2-tailed)		.000
	N	108	108
ElearningAcceptance	Pearson Correlation	.731**	1
	Sig. (2-tailed)	.000	
	N	108	108

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 4.3.1 Table Correlation Coefficient**

There is significant relationship between social influence and E-learning acceptance. This shows the link between the independent variable, dependent variable, e-learning acceptability, system quality for the Pearson correlation for social influence is 1 and for the E-learning acceptance are 0.731. Therefore, for the factors that impacting e-learning acceptance, there is a strong positive association between the social influence and e-learning acceptance.

## 5.0 CONCLUSION

To summarize this journal the e-learning strategy is crucial for providing students and their instructors with a variety of teaching and learning approaches. Based on this survey, respondents' acceptance of e-learning was only moderate and was impacted by the things that they like usability and simplicity of use. The quality of the system offered by the Institute and the knowledge imparted by the lecturers have an impact on the students' usefulness and convenience. However, the Institute should give technical support some thought because of external concerns that might discourage students from using the modality, such poor signal, delayed internet connection, difficulty to logging in, less user-friendly interfaces, and unappealing to the e-learning websites. The process of e-learning acceptance in the context of social influence is complicated and ever-changing, including several components interacting with one another. The incorporation of social influence into e-learning settings has the capacity of improving learning outcomes, engagement, and cooperation. The beneficial effects of social influence on e-learning have been repeatedly highlighted in the research. A lively and encouraging learning environment is greatly enhanced by peer interactions, collaborative learning, and teacher involvement. For students, social influence has a strong motivating effect. A sense of accomplishment may be inspired by constructive social interactions, comments, and acknowledgement from classmates and teachers, which can create a more enjoyable and stimulating learning environment. It is basically the result of a cooperative effort of educators, community leaders, and students themselves to adopt e-learning within the context of social influence. E-learning efforts may provide educational environments that are inclusive, inspiring, and successful by acknowledging the significance of social connections, addressing cultural variations, and mitigating difficulties. The future terrain of e-learning adoption affected by social dynamics will be shaped by its continued dedication to research, flexibility, and community participation.

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