The Dataset For Validation Of Factors Influencing Teachers' Use Of Instant Messenger Tool, Telegram (Im) In Tamil Primary School (Sjkt)

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ABSTRACT

This study focuses to determine factors influencing teachers' use of instant messenger tool, Telegram (IM) in Tamil Primary School (SJKT), and teachers' behavioural intention towards the use of Telegram (IM). To test the study hypotheses, data was collected from the 500 teachers of Tamil primary schools (SJKT). Cross sectional survey-based approach was applied to collect the data. To analyse the data, Pearson product moment technique on SPSS was applied. The study findings shows that teachers' attitude is the highest significant influence on teachers' intention to adopt Telegram in the future, followed by perceived behavioural control. Social norm has little negative and non-significant impact in predicting teachers' intention to use Telegram. The study's finding highlights the perilous importance for fostering the use of telegram (IM) in teaching. Thus, such positive attitude creates stimulating social environment and bring the dynamic move in educational sectors in future.

 Keywords: Telegram (IM), Behavioural Intention, Perceived Behavioural Control, Social Norms, Attitude

I. INTRODUCTION

Rapidly evolving mobile computing technology and a plethora of mobile device applications (mobile apps) make ubiquitous mobile learning possible. The advent of mobile communication technologies has significantly changed the way of interaction. Day by day changes in technological culture and advent of internet has affect the education system a lot (Citrawati et al., 2021; Diamadis & Kotler, 2012).The use of latest technology has provide the support to the student as well changed the way of teaching (Hutapea & Suwastini, 2019). Social media is the most easily accessible technology now a days. Almost 49% population use it worldwide (Tankowaska, 2021). Social media is widely used in different form for different purpose for sharing, sending voice notes, documents as well as files over net. Many researchers have investigated the use of social media in teaching and learning (Anggraeni, 2018).

Telegramm is one the most widely used platform in learning and teaching (Alizadeh, 2018).It provides the facility of sharing documents, audio and videos. Moreover, students can ask questions just like traditional class room. Telegram (IM) has penetrated the teaching process s well. It influence the teacher's behaviour and their teaching attitude. Instant messaging (IM) programs are online based and give the possibility to send short messages instantly to another person. Teachers are dealing with their

own unique sets of challenges nowadays. So, teachers need a cloud based storage to assist their teaching and clerical task managing their multitasking. Teachers need a base that can be access at any time. IM is an excellent tool, since the conversations can be saved and transcripts of them can be analysed on a later stage. A positive feedback received from the students of South African university, claimed that online (IM) is an easier and relaxed way of communication in the class. Moreover, "it was productive of fruitful discourse on relevant issues in an informal environment where teachers could learn intimately and authentically, and that it was also fun" (Bere, 2013). In order to overcome gap in information and physical distance, such collaboration was felt. Overall, IM has become a collaborative forum that increases accessibility, facilitates collaboration, and strengthens encouragement for active engagement in academic tasks (Bere, 2013; Chipunza, 2013). This study aims to examine the influence of factors on teacher's intention to use telegram (IM). Previous studies has focused on university or college teachers for examining the behavioural intention. This research is conducted among school teachers, of Tamil and enlightening a unique phenomenon regarding telegram usage.

II.   LITERATURE REVIEW

A. Theories

The Decomposed theory of planned behaviour focused on the individual behaviour and their intention towards the numerous technology (Pederson, 2005). While Community of Inquiry structure explain the factors analysis conducted by the Garrison et al. (2018). This recent research also provides the support of this theory for online learning. So, these two theories provide the theoretical lens to the study model: factors influencing the teacher's intention about Telegram in teaching. Telegram is most widely used in educational institutes and helped in improving the learning and teaching. There are certain factors which influence the teacher's intention to use telegram (IM).

B. Study Variables and Hypotheses

- **Attitude**

Attitude of individual is one of the most important aspect, urge to use certain thing. According to Taylor and Todd (1995) attitude is defined as "a person's feelings toward performing a certain behaviour". Attitude is based on three factors such as "perceived usefulness ease of use and compatibility". Whereas perceived usefulness is related to triggering events and exploration, explain about the perception of individual to use technology in his task and help others in telegram IM class room. While ease of use is related to the determinant "integration" where individual integrate towards new technology and new ideas. In last, compatibility relates to the best fit of technology. This lead towards resolution where one's apply new ideas. On the basis of above discussion, we postulate that

1a: Triggering event positively and significantly influence the teachers' behavioural intention towards the of Telegram (IM).

1b: Exploration positively and significantly influence the teachers' behavioural intention towards the use Telegram (IM).

1c: Integration positively and significantly influence teachers' behavioural intention. towards the use of Telegram (IM).

1d: Resolution positively and significantly influence teachers' behavioural intention (BI) towards the us of Telegram (IM).

C. Subjective Norms

In every place perception of e always mater a lot regarding work or you. Colleagues, peers and even fellows or staff gives some perception about your work like you should do this or not etc. In (1991) Ajzen stated that "Subjective norms refers to a person's perception of other people's views either that person should or should not perform certain behaviour". Social presence is very imporatnt in completing the administartive task at school.

So, we develop the hypotheses:

2a: Instructional management is positively and significantly influence the teachers' behavioural intention towards the use of Telegram (IM).

2b: Building understanding is positively and significantly influence the teachers' behavioural intention towards the use of Telegram (IM).

2c: Direct instruction is positively and significantly influence the teachers' behavioural (BI) intention towards the use of Telegram (IM).

D. Perceived Behavioural Control

Ajzen (1988) Introduced the "Perceived behavior control" in his theory TPB. He introduced this construct as the determinent of behavioural intention. PCB is mainly related to three factors, self-efficacy, Conceptually, PBC is like the self-efficacy mainly focused in behvaior. But operationally, PBC is related with the ease or difficulty in use of technology. Perceived behavir control is an individual perception that his behavior in his ccontrol. Teachers in school may wants to change the teaching style but due to work pressure and school environment are not conducive for this behavior. Whereas, *resource and facilitative conditions "*discuss about access to financial, time and technology that enable its use" (Sadaf, et al., 2012). So, superior must provide the guidelines to the teachers for group discussion and communication in proper session to engage the students in telegram activities. So, on this discussion, we develop the hypotheses that

3a: Emotional expressions is positively and significantly influence the teachers' behavioural (BI) intention towards the use of Telegram (IM).

3b: Open communication (OC) is positively and significantly influence the teachers' behavioural intention toward the use of Telegram (IM).

3c: Group cohesion (GC)s positively and siignificantly innfluence teachers' behavioural intention (BI) towards the use of Telegram (IM).

III.   METHODOLOGY

This study is based on quantitative approach as the purpose is to test the study hypotheses empirically. For this, a questionnaire was developed and distributed using the survey method. The cross-sectional study design is applied. In this study, the samples are teachers from few Tamil primary schools in Malaysia incorporated the telegram tool for managing their school administrative task.

IV.   DATA ANALYSIS

Different statistical techniques were applied on this data set to answer the research question. Before examining the research question, different test such as Missing value analysis, data normality is done. The results shows there is no missing value. Moreover, to check the data normality, skewness and kurtosis test is applied which shows that data is normal and data set file is ready for further analysis. After initial steps, descriptive statistics and demographic profile of respondents using telegram.

Table 1 shows the demographic detail of respondents based on technological equipment. It can be observed that 5 equipment are owned by 148 teachers the highest figure among the respondents. Only 12 teachers owned only 3 equipment, the lowest figure. All the values are shown in table 1.

Table 1: Demographic information on technological equipment

Number of Equipment Owned	Frequency	Percentage (%)
1	22	4.4
2	21	4.2
3	121	2.4
4	45	9.0
5	148	29.6
6	76	15.2
7	39	7.8
8	137	27.4

Table 2 shows the respondents purpose to use internet. It can be observed from the table that 59.8% teachers use telegram for communication purpose and 58%teachers use it 2 to 3 times daily. Such figure also demonstrate about the use of internet for different purposes.

Table 2: Use of internet and its access

Purpose/ Usage	Communication		leisure		Academic	
	Freq	%	Freq		Freq	%
2 to 3 times daily	299	59.8	272	54.4	290	58

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2 to 3 times Weekly	92	18.4	110	22	138	27.6
Once time in a week	71	14.2	44	8.8	21	4.2
One time in a month	37	7.4	42	8.4	20	4.0
Never	1	0.2	32	6.4	31	6.2

It can be observed from figure 1 that 51% teachers use telegram 2 to 3 times daily. While 13.4 % teachers use it 2 to 3 times in a week. Only 7.8 % teachers use it once in a month a very low ratio among 500 respondents.
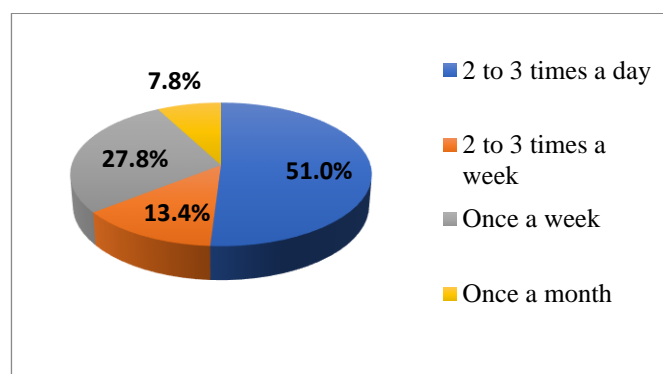

Figure 1. Frequency of participants used telegram

Results

Pearson correlation coefficient was conducted to test the relationship of study hypotheses. As table 4.2 indicates, triggering event (TE) significantly and negatively influence the teacher's behavioural intention (BI) towards the use of Telegram (IM), whereby r (500) = -0.14, p< 0.01. The result does not provide support to H1a. While H1b stated that EXP significantly and positively influence the teacher' behavioural intention (BI) towards the use of Telegram (IM), results show r = 0.22, p<0.01 provide support to Hypothesis H1b. Hypothesis 1c stated a positive and significant influence of between integration (INT) on teacher's behavioural intention (BI) towards the use of Telegram. The result provides support to H3c, whereby r = 0.08, p>0.01. Hypothesis H1d stated that RESO significantly and positively influence the teacher' behavioural intention (BI) towards the use of Telegram (IM), whereby r (500) = 0.13, p<0.01. Thus, H1d is supported.

Hypothesis 2 stated Instructional management (IM), Building understanding (BU) and direct instruction (DI) significantly and positively influence teacher's behavioural intention. The table 3 shows that there is negative but significant influence of instructional management (IM) ((500) = -0.17, p <0.01), building understanding (BU) (r = -0.19, p <0.01) and direct instruction (DI) (r = - 0.17, p< 0.01) with teachers behavioral intention. Hypothesis 2 is not supported as all values show significant negative relation with behavioural intention (BI) towards the use of Telegram (IM).

Hypotheses 3a stated that emotional expression significantly influence the teacher's behavioural intention. At the same time, the result shows that there is a negative and insignificant influence of EE

on teacher' behavioural intention (BI) towards the use of Telegram (IM), whereby r (500) = -0.27, p <0.01, which does not provide support to H3a. It can be observed from Table 4.2 that OC positively and significantly influence teacher' behavioural intention (BI) towards the use of Telegram (IM), whereby r = 0.05, p>0.01, supported to H3b. In contrast, H3c stated a positive and significant influence of Group cohesion on teacher's behavioural intention. Results show that there is a negative but significant influence of GC and teacher' behavioural intention (BI) towards the use of Telegram (IM), whereby r = -0.11, p<0.01 does not provide support to H3c.

Table 3: Results

Hypotheses	Variables	Behavioral intention		Direct Effect	
		M =4.42	SD= 0.48		
		M	SD	r	P
H1a	T .E	4.72	0.27	-0.14	0.00
H1b	Exp	4.55	0.27	0.22	0.01
H1c	INT	4.58	0.32	0.08	0.78
H1d	RESO	4.45	0.37	0.13	0.00
H2a	IM	4.51	0.39	-0.17	0.00
H2b	BU	4.40	0.62	-0.19	0.00
H2c	DI	4.72	0.30	-0.17	0.00
H3a	E.E	4.70	0.27	-0.27	0.00
H3b	OC	4.63	0.27	0.05	0.26
H3c	GC	4.77	0.23	-0.11	0.01

Note: [**] Correlation is significant at the 0.01 level, T.E= Triggering Event, Exp= Exploration

INT= Integration, RESO= Resolution, IM= Instructional management,

E.E = Emotional Expression, OC= Open communication, GC= Group cohesion

V.   DISCUSSION

This study aims to investigate the influence of factors affecting the teacher's intention in using telegram. For this purpose, data is collected from the teachers of Tamil school. The sample is based on 500 respondents. The study is based on decomposed theory of planned behaviour and community of inquiry framework to examine the influence of factors on behavioural intention. TPB is the universal model to explain the behavioural intention (Ajzen, 1991).

The main results refers to the factors influence the teacher's intention to use telegram. First we found that triggering events negatively and significantly influence the behavioural intention. Prior studies also provide support for this result. In the traditional school system, teachers employ hand assignment test as triggering event. In contrast, in online learning context, all individuals from class can raise issues as the setting off occasion to the talk, which may presumably connect with members, embark the knowledge acquisition process and develop an unintentional but developmental understanding (Hew et al., 2018). The study findings of H1b show EXP has positive and significant influence on behavioural intention of teachers. This finding is in line with previous studies where exploration

illustrate that members or students share the views and discussed the searched information collaboratively. Here at first steps participants are strongly encouraged to ask questions and take part in solving the problems in group discussion like "through group activities and brainstorming and/or through more private activities such as literature searches" (Garrison, 2016).

The findings also reveals significant positive influence of integration on teacher' behavioural intention (BI) when using Telegram (IM) (H1c). This finding is in line with previous studies where participants may more concentrate on constructing meaning through integration, a transaction from exploration. Other than that, the Pearson correlational analysis found a significant positive influence of resolution on teacher' behavioural intention (BI). The findings of $H1_d$ show Resolution has positive and significant influence on teacher's behavioral intention. The finding from this study is in line with previous study but most studies has focused on outcomes but few studies paid attention on cognitive dimension in instant messaging in educational sector. By far, only one study (Wang et al. 2016) examined the cognitive presence in the learning process, where knowledge is communicated among students.

The findings of Hypotheses 2 shows that there is no positive influence of subjective norms (IM, BU, DI) on teacher's behavioural intention. This finding is in line with previous study where direct instruction is a teacher-directed teaching method. This means that the teacher stands in front of a classroom, and presents the information. The teachers give explicit, guided instructions to the students. While only one determinant (open communication) of perceived behavioural control has positive and significant influence on teacher's behavioural intention. From the statistical analysis, it was found that there is a significant positive influence of open communication (OC) on teacher' behavioural intention (BI) (r = 0.05, p<0.01), towards using Telegram (IM). The result is in line with past studies where it was found correspondence in learning environment empowers all members to have a sense of safety and agreeable so they can articulate their thoughts unreservedly and participate in the learning exercises. Interpersonal interaction is important to make a feeling of trust between students. The relationship of GC and EE was found negative with the teacher's behavioural intention. The result is in line with previous studies where it was found that Group cohesion acts as an important tool for discussion as it provide platform to solve any query. When students identify with the group and take participation in discussion their knowledge enhance and level of confidence increases as it is related to of the community of inquiry.

Overall, findings shows that attitude have highest significant influence on behavioural intention. While subjective norms have negatively influence and perceived behavioural control has little influence on behavioural intention.

VI.   CONCLUSION

Telegram is the most important wireless communication tool used among the students and teachers as well. This study put forth an important lens on how the teachers perceive telegram as an important instant messaging tool in perspective of different factors. This study investigated the benefits and perception at school level. The result suggested that the learners positively perceived Telegram (IM) as beneficial in learning purpose, at the same time teachers perceived telegram as a tool for motivating the teachers towards better teaching as well as develop their interest for adopting new style for teaching students.

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Additionally, this study also investigated the factors which influence the teachers' intention about Telegram. This study also pursue to find out the factors which are beneficial in learning and teaching through Telegram (IM). Using the Decomposed Theory of Planned Behaviour by Taylor and Todd (1995) and Community of Inquiry (COI), study findings shows the attitude has significant and positive influence on behavioural intention of teachers among all others factors: subjective norm and perceived behavioural control. While subjective norms have negatively but significantly influence on teacher's behaviour. Attitude have highest significant relation in determining teachers' intention about Telegram (IM) in teaching. Overall the findings suggest that attitude, perceived behavioural control and social norms greatly influence the teacher's intention to use Telegram.

VII.   LIMITATIONS AND FUTURE DIRECTION

This study provides some limitations. First of all, data set used to test the hypotheses is based on correlation in nature. Secondly, results cannot be generalizable as the focused is only single school teachers. In future, larger or wider context must be followed for example respondents from different streams of teachers. Moreover, the study has focused on only telegram (IM) as online learning tool. Different online tool such as whatsapp, google meet might be use simultaneous in future study.

VIII.   ACKNOWLEDGEMENT

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IX.   CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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