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TELEGRAM ADOPTION:EASE AND UTILITY PERSPECTIVES

Ali Yousuf Ali Nasser Alkhamis ¹ | Sohil Altaf Pirani ²

¹Research Scholar, United Arab Emirates

²Senior Research Fellow, Dr. Babasaheb Ambedkar Marathwada University, India

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Keywords

TAM, TELEGRAM,
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Abstract

Demand for telegram services is increasing day by day. The purpose of this study is to examine impact of usefulness of telegram & ease of usage of telegram on intention to continue the services in near future using Technology advancement model in different context. Structural equation model was used to examine the relationship of exogenous and endogenous constructs.it is clearly seen that there is a significant positive relationship of usefulness of telegram & ease of usage of telegram on intention to use the services. Further studies can be conducted incorporating few more exogenous constructs based on past literature.

1. INTRODUCTION

In the past few decades, social media has become part of our life. Social media means a person who can easily play with technology. Social media helps us to interact with the world and build relationships within a few seconds. The Internet has become a medium for earning money by posting a video on YouTube for a YouTuber. Social media is considered e-business where one can sell and buy by just clicking it, and it



is being delivered at your doorstep. Social media is a medium of two-way conversation which is supported by networks and tools. Some social media platforms include Facebook, Twitter, YouTube, WhatsApp, Telegram, LinkedIn, etc.

Telegram has become popular in recent times due to WhatsApp's privacy policy changes, which has shifted the customer base from WhatsApp to the telegram and Signal. Telegram is popular due to its instant messaging system, which has changed communication with each other. There is no relation between Telegram users, as seen in other applications due to its private contact. The telegram was launched in August 2013. Users can download Telegram from android, iOS, Windows and many more. It has current centers in Dubai. Applications are also available for PC and Mac. During the beginning of 2021, the telegram has excelled five hundred million active users.

Telegram is a German company based in Dubai has gain popularity among Indian users. Users can download telegram, which is linked with a user phone number, and it is verified by SMS. Telegram account can be deleted automatically by the users, or it gets deleted if the account is inactive for a period of six months. Users can send messages to individual or in a group up to two lakh members who seem to be innovative, which attract users compared to WhatsApp and other applications. Messages can be edited up to forty-eight hours after it is being sent to another user. Telegram has certain features which attract users such as Normal chats, Secret chats which can be to the client which is encrypted. Certain features of Telegram has been implemented in last five years such as the addition of channels, introduction of voice calling in 2017, In 2020 official has added folders which can be customized such as filter the contact and chats.

In December 2020 telegram has added voice chats which can be open all members, the addition of more than twenty thousand stickers has been attractive for the users. Users can easily switch to telegram due to its simplicity, open access, easy to connect from other remote location. User can send the large type of any documents including movies. Messages are cryptographed, which helps the user to lighten.



The security of telegram is based on the MTproto Protocol, which is encrypted by default, which helps users store the data at one end. There is a certain dominance of telegram, which includes sharing photos, videos and files, Safe, feedback etc. As per Telegram's co-founder, Pavel Durov people have shifted to telegram since it provides better quality and privacy compared to other messaging applications. Telegram has certain features that make it's better than other applications such as limitless storage data on the server, creating a group with almost two hundred members and creating channels that help users share and view posts.

Telegram is created to tackle other messaging application. Its infrastructure and policy privacy attract the users to switch to the telegram, which is secured compared to other applications. Thus, it can be considered as future of the messaging application. The information flow via users has limited access. Telegram has seen phenomenal growth in users in the past few years, and this can be seen as a new player in the messaging world. It enables users to provide one to one secure transaction which helps to chant. During the past few years, the telegram has gained trust among the users. Channels can be created free of cost where one can share its thought and view its posts. Telegram earned huge respect and revenue from its users which can be seen later in the coming years.

2. REVIEW OF LITERATURE

Arash Dargahi Nobari et al. (2017) has analysis Telegram as a successful messaging service. The study has been made to analyze the various aspects of messages through Crawled data. The instant message has changed the communication between people across the globe. The features of channels and bots have attracted the audience, helping to share and introduce their products. Crawled data were developed to gather different nodes means users and channels and their relationships. Data were crawled for two weeks to check how many times channels and users forwarded messages. The heat map was used for PageRank and to check the number of followers. It indicates the relationship between PageRank and popularity of channels. The observation results in no relationship with channels.

Hussien Mohamad Alakrash et al. (2020) has studied how telegram can be effectively used in the teaching field. The telegram was used to motivate student, which helps them to learn vocabulary. Forty Arab schools were used to study the effectiveness and data collected through a



placement test, i.e. to test students' proficiency and pre-posttest. However, the study was restricted to Kuala Lumpur for 2019 and 2020. Data were analyzed through paired sample t-test. A student who scored between 3 to 9 can participate in the learning process. Further Independent t-test was used to identify the difference between mean. The discussion reveals that means were higher during post-test.

Fhesti Mayang Sari (2017) has studied how telegram application can be maximized for teaching. Telegram helps by inserting student curriculum in the application, and teacher can use application by creating group channels and discussion. The study was made to analyze the role of the telegram in student learning. Telegram users have been increased due to cost-effectively communication. Certain steps need to be implemented, such as installing the application, inviting students to become members, and sending instructions that can help in student development and evaluation. Telegram has evolved in the teaching field as a boon which helps educators introduce new tricks and methods to develop the habit of learning via mobile application.

Mojtaba Aghajani et al. (2018) has studied how Telegram application can be used as writing material which helps students as an online cooperative. Data were collected from seventy university learners, and pre-test was performed then the student was bifurcated between face-to-face learning and Telegram groups. Data were analyzed through independent t-test and paired sample t- test. English placement test was used to check the language proficiency. Reliability test was used through statistical analysis. The finding reveals that both tests indicated there is a significant difference between telegram and face to face classes also sample t-test reveals that there is a difference between overall performances. Telegram reveals that it helps to improve students writing skills.

Mana Alahmad (2020) has studied how telegram is effective in helping to learn English. The blackboards are replaced with e- books and learning apps. The study was made to identify how telegram can be useful in teaching to Iranian learners since the telegram has been popular in Iran compared to other countries. Telegram helps to install and download students' curriculum, which helps students and teachers focus on self-study. Telegram also helps students by introducing vocabulary apps, which helps in student development in reading and writing. Telegram has evolved as English language learners (ELL) which help college students to focus on self –study. Teachers also find other means to introduce a new concept and subjects.

Masoumeh Rassouli et al. (2017) has studied the conversation analysis of Iranian learners via telegram. The study helps to understand the conversation of learners which can be integrated as computer communications between users. Total one thousand five hundred eighty-one messages were collected from telegram channels. The authors have created the criteria to validate and reliable the data. Analysis has revealed that if there is an increase in the number of participants, it is impossible to control the place. Observation reveals that student discusses the topic at the same time and develop another topic. While identifying conversation analysis repairs were identified, such as self-repair, participants scrolled back and found trouble in communication.

3. OBJECTIVES OF THE STUDY

- 1.To find out the impact of usefulness of telegram on intention of usage of telegram.
- 2.To Find out the impact of ease of usage of telegram on intention of usage of telegram.

4. HYPOTHESES OF THE STUDY

H-1: 1.Usefulness of telegram significantly influences intention of usage of telegram.

H-02: 1.Ease of usage of telegram has positive impact on intention of usage of telegram.

5. RESEARCH METHODOLOGY

5.1 DATA COLLECTION METHOD

The researcher uses both descriptive and exploratory research design. Researcher adopts well known Technology advancement model (TAM). Data was collected by the means of Structured Questionnaire. There was total three parts in the Questionnaire. Part I was related to usefulness of telegram, Part II was related to ease of usage of telegram and Part III was related to intention to usage of telegram. Seven Point Likert type scale has been used with 1 being ‘strongly disagree’ and 7 being ‘Strongly Agree’.

5.2 SAMPLE SIZE

Nunnally (1978) provides the basic rule for the sample size calculation and that is ten times as compared to the number of Indicator. So, by following the guidelines of the above authors total sample size for the study was set as 180.

5.3 DATA ANALYSIS AND TOOL

For Current analysis researcher uses various techniques such as Structural equation model,



measurement model through SPSS 24 and AMOS 24.

6. RESULTS AND DISCUSSION

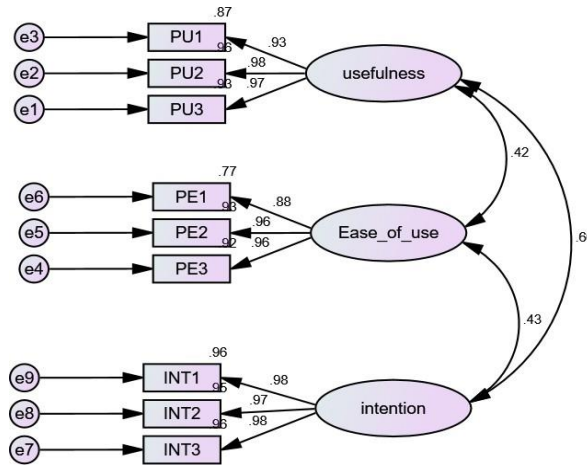


Figure 1: Measurement model

Table 1: Goodness of fit statistics

Goodness of fit model index	Recommended value	Model
CMIN/df	≤ 5.00	2.084
GFI	≥ 0.90	0.943
AGFI	≥ 0.80	0.893
NFI	≥ 0.90	0.980
CFI	≥ 0.90	0.990
RMSEA	≤ 0.05	0.076

These criteria ‘s are according to Hair et al (2010) and wothke (1995)

The score obtained shows that perfect fit between the data and the model. Chi-square =50.015 (chi-square/df=2.084, GFI=0.943, AGFI=0.893, NFI=0.980, CFI=0.990, RMSEA=0.076). All the default values are complying with the recommended values according to Hair et al (2010) and wothke (1995). only it can be seen that RMSEA is exceeding the criteria but still as it is lower than 0.08(borderline value) it can be still accepted and further analysis can be conducted.

Table 2: Output of CFA (construct validity) Convergent validity

Constructs	Items	Factor loadings	t values	Composite reliability	AVE
Usefulness	PU1	0.930	-	0.971	0.919
	PU2	0.980	30.024		
	PU3	0.965	28.214		
Ease of use	PE1	0.878	-	0.953	0.872
	PE2	0.963	21.594		
	PE3	0.958	21.381		
Intention	INT1	0.981	-	0.985	0.956
	INT2	0.975	44.526		
	INT3	0.978	46.085		

As per table No.3 all the beta values are above .70, AVE> .50, Composite reliability >.70 & t-values are significant indicating that each construct strongly relates to its construct i.e.) overall measurement model exhibited adequate convergent validity.

Table 3: Discriminant validity

	Usefulness	Ease of use	Intention
Usefulness	0.919		
Ease of use	0.172	0.872	
Intention	0.357	0.185	0.956

As per the above table all the inter-construct square correlation is less than average variance extracted indicating high level of uniqueness among the constructs.

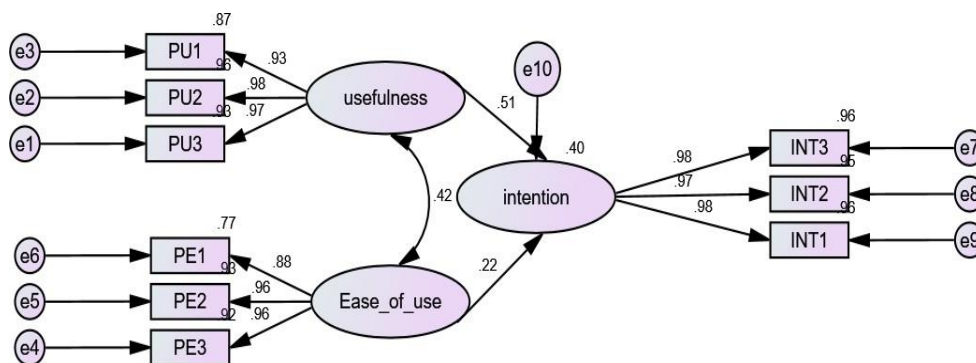


Figure 2 : Structural equation model

Table 4: Hypotheses Testing



Constructs	Estimates	S.E	C.R/t- statistics	Label
Intention <input type="checkbox"/> usefulness	.787	.102	7.709	Accepted
Intention <input type="checkbox"/> Ease of use	.378	.113	3.360	Accepted

7. CONCLUSION

The Technology Acceptance Model (TAM) is crucial in researching users' intentions towards Telegram as it provides a well-established framework to assess and predict technology adoption. TAM focuses on users' perceived usefulness and ease of use, influencing their attitudes and behavioral intentions. By applying TAM to Telegram, researchers can analyze how users perceive the platform's utility and user-friendliness, determining their likelihood to adopt and continue using it. The model's simplicity and practicality make it effective for understanding user behavior, and insights derived from TAM can inform design improvements and policies to enhance user experience on Telegram. The study has used TAM developed by Davis et al (1989) to examine the impact of usefulness of telegram & ease of usage of telegram on intention to continue the services in near future.it is clearly seen that there is a significant positive relationship of usefulness of telegram & ease of usage of telegram on intention to use the services. Extension of TAM proposed by shin (2009) UTAUT model can be applied including few more zero order constructs such as self-efficacy, social norms, attitude, trust, security etc. and can evaluate the impact on intention to use the services.

8. SUGGESTIONS

1. Ensure that Telegram's key features, such as secure messaging, file sharing, and voice/video calls, are prominently visible and easily accessible within the app interface.
2. Streamline the onboarding process to make it intuitive and user-friendly, guiding new users through key features and functionalities.
3. Provide in-app tutorials, tooltips, or a help center to educate users on how to maximize the utility of Telegram for various communication needs.
4. Clearly communicate the benefits of using Telegram, emphasizing its advantages over other messaging platforms, such as enhanced security and privacy features.
5. Allow users to customize their Telegram experience, including notification settings, chat backgrounds, and theme options, to enhance personalization and ease of use.
6. Organize app settings in a straightforward manner, ensuring that users can easily adjust preferences without confusion.



7. Improve integration with other commonly used apps and platforms, facilitating a seamless experience for users who may switch between devices.
8. Offer comprehensive language support to cater to a diverse user base, eliminating language barriers and making the app more accessible.
9. Implement a responsive customer support system, including chat support or forums, to address user queries promptly and effectively.
10. Foster a sense of community by encouraging user discussions, sharing success stories, and promoting user-generated content within the app.

9. CONFLICT OF INTEREST: Nil

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