# THE EFFECT OF MEDIATING ROLE FOR AWARENESS FACTORS ON THE BEHAVIORAL INTENTION TO USE IN E-COMMERCE SERVICES IN UZBEKISTAN

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**Abstract**

***This study aims to suggest a model that will increase the usage of E-commerce services among students in Uzbekistan.The proposed model may facilitate the understanding of how certain factors can affect the level of usage of E-commerce services.The main objective of this study by working on a new model based on TAM technology acceptance model , Innovation Diffusion theory (IDT), Awareness (AF) factors relationship between the Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Technology Factor (TECF) and compatibility with the Behavior Intention to use as a mediating . The primary data were collected from 384 valid questionnaires, which were distributed, to random Uzbek students in four universities. The analyses of the gathered data selected the Partial Least Squares Structural Equation Modeling (PLS-SEM). Based on the research findings the final overall model was evaluated using the statistics and the acceptable fit of the measurement model to the data has been demonstrated. Based on the outcomes, the factors with the highest direct effect on Intention to use E-commerce appeared to be Attitude toward using E-commerce and the results show that compatibility negatively influences intention to use. The main findings of the study are: perceived ease of use and perceived usefulness, compatibility, trust and technology factor with awareness factor as mediating has a positive and significant impact on behavioral intention.***

***Keyword: Perceived ease of use and perceived usefulness, compatibility, trust and technology factor with awareness and behavioral intention.***

## 1.INTRODUCTION

### *1.1. Research Background*

The development of E-commerce has been part of the world-wide phenomenon that has seen major and significant changes in the way businesses operate, in how consumers affect their purchases, and in how governments function. Advances in communication technologies within the last decade of the twentieth century paved the way for innovations, promoting rapid globalization. The convergence of telecommunications and computer technology has given birth to a new business organizational system called the internet, presenting a revelation of ecological business development (R.G. Javalgi, 2005). New web technologies are offering companies unprecedented opportunities to rethink strategic business models, processes and relationships (Stephen Hawk. 2002). Internet business has a wide reach in pretty much every industry, where one of the most regularly utilized plans of action is the B2C E-Commerce (Laudon and Traver, 2008). Web based business when all is said in done improves a portion of the acquiring traits, for example the accessibility and the home conveyance, however it additionally forestall characteristics like investigation of the item before buy and ensured verified installment (Andonova, 2003), in this way trust is a significant and indispensable component for E-trade organizations to consider (Choi and Mai, 2018).

The comprehension of the factor of awareness is the most questioned aspect of customer interest towards E-

commerce. Awareness refers to the degree to which a person is confident that the significant others are of the view that he or she should make use of the new system (Ziadat et al., 2013). Awareness and trust have been reported to impede people's involvement in online shopping (Alzubi et al., 2017; Shia et al., 2015; Al Ziadat et al., 2013; Al-Azzam, 2014). Thus, the factors deemed crucial in the acceptance of E-commerce from the perspective of the customer performing online shopping should be identified. It is also clear, as evidenced by the past studies, that there are issues surrounding E-commerce implementation. For this purpose, this study expands the utilization of technology acceptance model (TAM) and the innovation diffusion theory (IDT). Also, in the context of developing countries within the same region, differences can also occur particularly with respect to the demographic, cultural, economic, and political attributes.

The present study mainly attempts to examine E-commerce across national borders in order to ascertain the linkages between a selection of factors and attitudes towards E-commerce.

In light of the talks in the past segment, three research questions will be tended in the current study. The questions are as follows:

1. Does the consequence of the Trust, Culture and Technology Factors on the acceptance of E-commerce services among the students?
2. Does the consequence of the compatibility and perceived ease of use on the usefulness of E-commerce services?
3. Does the development of Awareness Mediator by Compatibility, Perceived Ease of Use, Usefulness, Trust, Culture and Technology variables with E-commerce services Mediator in Uzbekistan E-commerce services?

### *1.2. Literature Review*

The evolution of e-commerce can be attributed to a combination of developmental and technological innovation. Though the Internet (which played an important role in the evolution) appeared in the late 1960s, e-commerce now took off with the arrival of the World Wide Web and browsers in the 1990s.

E-commerce is described as "all electronically mediated non-financial transactions and financial transactions between an organization and any third party it deals with" (Haffey 2009). Web empowered clients to pay lower exchange expenses and it gave a simple method for access on data and subtleties; and web gives more choices and progressively focused costs for the items or administrations instead of customary conditions (Chun and Kim, 2005). The web has changed the method for business and made a new commercial center where organizations and clients meet up and make correspondence with one another all the more proficiently (Huang 2010). Like this view, Pries et al., (2006) states that web empowered simple access to a worldwide commercial center where data of items, costs and circulation are equivalent for all. Today, the greater part of the organizations embraced the web as a piece of their showcasing interchanges in their advertising procedures. As indicated by Adegoke (2004 referred to in Jensen, 2008) "web based showcasing correspondences has become a significant piece of a company‟s limited time blend". This view is additionally propelled by Shankar and Batra (2009) and they express that organizations are utilizing the web medium as another showcasing correspondence channel and advertising through web is developing quickly.Marketing department of a company to promote its websites, services and products in the online environment (Elley and Tilley 2009) . The internet offers many opportunities for companies and it can be a useful platform for their marketing activities, such as to spread information, attract new customers, retain existing ones and even to improve relationships with existing customers by online customer relationship management (Ab Hamid 2008).

### *1.3. Research Model And Hypothesis Development*

This study presents a hypothetical model which could explain and foretell the students' acceptance and usage of E-commerce. The establishment of the model includes the belief - intention – behavior relationship of TAM and IDT. The relationship suggests that the actual usage of E-commerce among students is directly controlled by the students' behavioural Behavioral Intention To Use (BI)E-commerce (Venkatesh et al., 2003) Furthermore, the intention of students to use E-commerce is studied in order to ascertain their acceptance of E-commerce services. Acceptance, as well as its level is interesting to scrutinise and thus, data on the Behavioral Intention To Use (BI)will be investigated.

The application of both TAM and IDT is common in describing and predicting adoption of innovation as well as in the application of a system. Examples of such usage can be referred to in Igbaria et al. (1995), Taylor and Todd (1995), Moore and Benbasat (1996), Igbaria et al. (1997) as well as in Karahanna et al. (1999). For that reason, this study will use both TAM and IDT as the underpinning theories.The use of TAM is frequently seen in studies that look into the acceptance of Internet application (e.g., David et al., 1997; Gefen & Straub (2000). For that reason, TAM and IDT have the capacity to effectively scrutinise the Electronic Commerce (EC) adoption as well as the Internet application. Correspondingly, both TAM and IDT could be a solid theoretical foundation for this study. It is interesting that although coming from different domains, TAM and IDT share some perceptible resemblances. It is common for the construct of relative advantage of IDT to be viewed as identical to the construct of PU in TAM, whereas the construct of complexity in IDT has been viewed to be identical to the construct of PEOU in TAM (Wu & Wang, 2005; Tung et al., 2014).

In fact, some scholars have employed TAM and IDT in combined form. For instance, in evaluating and explaining the behaviour of consumer within a virtual store, Lee and Suh (2013) merged TAM with the construct of compatibility of IDT. Tung et al. (2014) also merged TAM with IDT in their work. Correspondingly, Figure 1 highlights the ground model of the E-commerce acceptance examination.

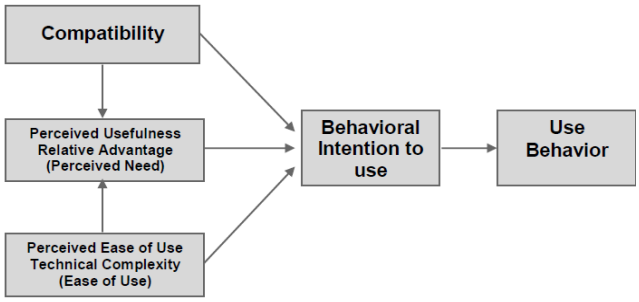


*Figure 1: Basic Model for Acceptance of E-commerce*

The use of TAM combined with other theories of acceptance and diffusion has been proposed by several studies (e.g., Hu et al., 1999; Wu & Wang, 2005; Lee & Suh, 2013; Wu, Weng & Kao, 2014; Tung et al., 2014) in order that the model's predictive and explanatory capabilities could be improved. Moreover, with the inclusion of the construct of compatibility (C) of IDT, the model could address the social environment. Compatibility is determined using the assessment of innovation compatibility with the already present values and beliefs, ideas formerly brought forth, and the needs of the prospective adopters (Rogers, 2003). Theoretically, C would affect PU considerably, exactly like PEOU.

The aforementioned supposition is supported by the ratiocination that the services of E-commerce will be deemed to be of value to the users providing that their E-commerce adoption is not encroaching their lifestyle and requirements. Somehow, the preliminary acceptance of E-commerce and its consistent utilisation show identical significance levels. Furthermore, in extending TAM research, the integral topic of Information System (IS) in terms of continuance in the last few years has been examined by a few researchers. The subject of technology potential discontinuity was discussed by Parthasarathy and Bhattacherjee (1998) and the authors were of the view that the prospective factors of discontinuity are discernible according to the sources of influence for the students first adoption (interpersonal), perceived usefulness, perceived compatibility, service usage, and complementary utilisation of product. Meanwhile, Bhattacherjee (2001) applied the theory of Expectation-Confirmation in his work and found that user's decision towards continuance of the Information System was impacted by their satisfaction with it. As also stated by the author, Information System comprises a direct result of user expectation of confirmation or disconfirmation.

Similarly, it is possible to predict the continuance of usage of the users of E-commerce by looking into the level of confirmation/satisfaction and the use of E-commerce service of students when they initially implemented the system. Also, since both TAM and IDT have been strongly supported, the validity of base model within E-commerce context has been recognised. The creation of the base model follows TAM which means that both the model and TAM share identical weaknesses. For instance, albeit its effectiveness in foretelling the potential user acceptance; TAM has no capacity in inventing and developing the systems that have high acceptance level. As a solution, PU, PEOU, and BI determinants should be determined (Venkatesh & Davis, 1996) in order that the noteworthy solutions could be presented to the designers of the system. The

use of these determinants could ascertain the affirmation of students in addition to their level of satisfaction on E-commerce service as these would denote the important implications that would predict the prolongation of their usage. The next step for the researcher is therefore to determine the factors of the acceptance of students,and these factors would be addressed in the context of E-commerce.

Consumers (i.e., students, for the context of this study) acceptance, and adoption and behaviour expectations are two theoretical constructs that are connected. For this reason, the broadly employed science acceptance mannequin (TAM) and innovation diffusion principle (IDT) have been chosen in this study to establish the theoretical base. On the different hand, unified concept of acceptance models and the software of technological know-how (UTAUT) with recognize to novel technology presents insufficient clarification however it is distinct with respect to the context of technological know-how (Williams, 2009). Additionally, the component of Awareness mediates the relationship between Perceived usefulness, Perceived ease of use and intention to use acceptance of new technology. Furthermore, in accordance to alzubi et al. (2018) it Awareness mediates with Perceived usefulness, Perceived ease of use shows a tremendous causal relationship between the intention to use acceptance of new technology.

### *1.4. Hypothesis Development*

The diagram for the current lookup is to set up a hypothetical mannequin that may want to provide an explanation for and make a prediction on user's acceptance as properly as utilization of E-commerce services. The authentic TAM consisted of perceived usefulness and ease of use as the principal predictors for the attitudes, intentions, and true device used. However, the contemporary learn about considers technology, perceived usefulness, compatibility trust, and ease of use factors as the essential predictors of attitude. There is a opportunity of successful exploration with the inclusion of new predictor elements in the TAM to check out the level of correctness of this concept in one-of-a-kind contexts and situations (Davis, 1989).

Thus, the investigation focuses on the recognition among college students in the carrier region toward E-commerce services in Uzbekistan is anticipated to symbolize the new point of view of their attitude and appreciation of E-commerce in Uzbekistan.

The awareness will be further investigated as to what extent the five independent variables (Technology, Perceived usefulness, Compatibility, Trust, Perceived ease of use and Culture) are indispensable in influencing its direction. Previous literature indicated that there were no past studies that contained these five independent variables formed in one model to generate an effect on the awareness among students. Earlier discussions of the importance for each variable provided evidence that was able to create awareness among students, and has been proved by different researchers such as Lewison (1996), Shimp (1997), Futrell (1992), Kotler (2004) and Weisbord (1988) for the variable technology. This motivates this research, which will combine five factors and form them into one model to create more awareness among students, and consequently improve the issue of the intention to use E-commerce services in Uzbekistan.

#### *1.4.1. The Effect of compatibility on Awareness*

For an IT project to be taken up for implementation, it has to be consistent with the needs, goals and cultural values of the organization (E Altameem, R Almakki 2014), Al-Ghaith, W., Sanzogni, L., & Sandhu, K. (2010), Akbulut, A. (2002). Ascertaining compatibility is vital as it ensures safety among potential adopters. A highly compatible IT innovation is highly meaningful to an organization. When existing systems are compatible with internet-based transactions, organizations require lower effort to streamline a new innovation and this makes it more ready to utilize e-business Teo and Pavri (1997) In general, compatibility is considered a criterion for assessing the completeness of E-commerce initiatives and its important enabler for E-commerce implementation success (Ling, C. Y. 2001) Offering services such as E-commerce is of great value, and not only does it improve the image of the commerce though its ability in providing a variety of services, but when that awareness through offers is combined with the accessibility of these services, it further enhances the security level in the presumption of the customers (Flavi n et al., 2004).

H1: The Compatibility of E-commerce service has a direct effect on awareness to use e- E-commerce services.

### *1.4.2. The Effect of Compatibility on Intention to Use E-commerce service.*

Compatibility to the internet is a prerequisite for the intention to use e-commerce (Sathye, 1999). The more widespread the access to computers and the internet is, the greater the possibility of use e-commerce. O, Connell (1996) revealed that lack of access to computers as one of the reasons for slow intention to use e-commerce. Based on Daniel (1999), who conducted his study in the United Kingdom, lack of customer access to suitable personal computers as the main reason for low usage of electronic commerce. Musa and Hassan (2009) revealed that compatibility to computers and the internet have influenced their decision to use E-commerce in Malaysia. The relationship between compatibility and E-commerce use is significant and findings show that compatibility has a positive relationship with E-commerce use intentions. One possible reason is due to the support by the government and the cheaper cost of computers and internet access for Malaysians, as most of the respondents already own computers and has internet access. Additionally, most Malaysians have a device that supports internet connectivity (e.g., smart phone, tablet, laptop, etc.) and internet access is available in most public areas (universities, schools, malls, restaurants, shops, etc.).Aliyu et al. (2012) found that the construct compatibility mostly has a significant or direct impact on E-commerce adoption, and it could be noted that compatibility is an important factor for electronic based shop adoption, but there are limited empirical studies that found these constructs to have insignificant effect on E-commerce adoption. However, these prior studies on E-commerce adoption factors have produced mixed results, which have culminated to the difficulty in articulating the E-commerce adoption drivers. The factor was compatibility, which mainly refers to respondents being incapable of connecting to an E-commerce (Gerrard et al., 2006). This may have been because they did not own a PC, did not subscribe to an internet service provider (ISP), or because the technical specification of their PC did not satisfy the requirements of internet banks (e.g., there was no modem component in the PC). A further group, who presumably did not subscribe to a broadband service, commented that access would be far too slow for them. From this, it can be mentioned that inaccessibility was mainly due to respondents with no PCs, no internet connection, slow connection, or owning a PC that was incapable of connecting to the internet.

Based on the literature reviewed, this study offers the following hypotheses:

H2: The Compatibility of E-commerce service has a direct effect intention to use E-commerce services.

### *1.4.3. Compatibility significantly effects Perceived Usefulness*

In wide terms, similarity incorporates ''how much an advancement is seen as being reliable with the current qualities, needs, and past encounters of potential adopters'' (Rogers, 1983, p. 15). A positive connection between the two builds - similarity and expectation to utilize - has been found in various past E-business contemplates (Dass and Pal, 2011; Kapoor et al., 2015; Schierz et al., 2010; Yang et al., 2012; Zhang et al., 2012). The apparent convenience and value develops are constantly parallel with one another, and they are the most critical pointers of innovation selection (Kim, Mirusmonov, and Lee, 2010). This examination conceptualized similarity to indirectly affect social goals of E-trade through apparent usability and saw value. Along these lines, this investigation offers the accompanying speculations:

H3: The Compatibility of E-commerce service has a direct effect on perceived usefulness to use E-commerce services.

### *1.4.4. Perceived Usefulness of Intention to Use E-commerce service*

There is extensive research in the IS community that provides evidence of the significant effect of perceived usefulness on usage intention (Agarwal and Prasad, 1999; Davis et al., 1989; Hu et al., 1999; Jackson et al., 1997; Venkatesh, 1999, 2000; Venkatesh and Davis, 1996, 2000; Venkatesh and Morris, 2000). The ultimate reason individuals exploit E commerce systems is that they find the systems useful when carrying out their shopping transactions. This leads to the hypothesis:

H4: The Perceived usefulness of E-commerce service has a direct effect intention to use E-commerce services.

### *1.4.5. The Effect of Perceived Usefulness on Awareness*

Perceived usefulness is, —the degree to which a person believes that using a particular system would enhance his or her job performance‖ (Davis, 1989; Davis et al., 1989; and Mathieson, 1991). It was revealed to influence awareness, and intention to using retail accepting new technology in a number of studies (Al-Sukkar, 2005; Liao and Cheung, 2002; Kolodinsky and Hogarth, 2001; Kolodinsky et al., 2004; Ravi et al., 2007; and Vatanasombut, Lgbaria, Stylianou and Rodger, 2008). Liao and Cheung (2002) revealed that individual expectations concerning accuracy, security, transaction speed, user friendliness, consumer involvement, and comfort are the most essential attributes in the perceived usefulness of E-commerce.

H 5: The Perceived usefulness of E-commerce service has a direct effect awareness to use E-commerce services.

### *1.4.6. Perceived ease of use significantly affects Perceived usefulness*

Perceived ease of use refers to the degree to which an individual believes that using a target system will be free of effort (Davis, 1989). In the E-commerce field, perceived ease of use refers to the degree to which E-commerce would be easy to use and free of mental and physical effort (Wei, et al., 2009). Davis suggested and confirmed that perceived ease of use was an antecedent of perceived usefulness and attitude. Furthermore, Davis (1989, p.334) concluded that, —the easier a system is to interact with, the less effort is needed to operate it and the more effort one can allocate to other activities. In this study, the researcher argues that m-commerce must be easy to learn and easy to use, with less complexity to develop a positive attitude and to enhance his\her performance in order to encourage users to adopt e-commerce services . This posited a similar effect in the following hypothesis:

H6: The Perceived ease of use of E-commerce service has a direct effect Perceived usefulness to use E-commerce services.

### *1.4.7. The Effect of Ease of Use on Awareness*

The variable ease of use has a positive effect on awareness, since it is, in the view point of consumers, a perception that if a product or service is easy to use, then more consumers will use it. However, if consumers view a particular product or service as difficult to use, they will not be motivated to use it. Therefore, it is critical that providers of any product or service, in this case, the service of E-commerce, make their service as easy to use as possible, so that customers are motivated to use it.

H7: The Perceived ease of use of E-commerce service has a direct effect awareness to use E-commerce services.

### *1.4.8. Perceived Ease of Use on Intention to Use E-commerce service*

Extensive research over the past decade provides evidence of the significant effect of perceived ease of use on usage intention, either directly, or indirectly, through its effect on perceived usefulness (Agarwal and Prasad, 1999; Davis et al., 1989; Hu et al., 1999; Jackson et al., 1997; Venkatesh, 1999, 2000; Venkatesh and Davis, 1996, 2000; Venkatesh and Morris, 2000). In order to prevent the —under-used‖ useful system problem, E-commerce systems need to be both easy to learn and use. Information technology (IT) that is easy to use will be less threatening to the individual (Moon and Kim, 2001). This implies that perceived ease of use is expected to have a positive influence on users' perception of credibility in their interaction with the e-commerce systems. This leads to the hypothesis that PEOU influence user's intention to use e-commerce both directly and indirectly. This hypothesis is summarized as:

H8: The Perceived ease of use of E-commerce service has a direct effect Intention to use E-commerce services.

### *1.4.9. The Effect of Trust on Awareness*

Greenfield Online (1998) substantiated the importance of awareness of creating online trust. Although there has been a dramatic rise in the quantity of net users all round the world, security and trust problems nonetheless persist (Suh and Han, 2002). The historical past records indispensable to this study, therefore, consists of the TAM, gadget security concepts, and trust and their consequences on usage. Davis' (1989) work has proven that person acceptance of records science is decided by using two influential factors, which are

perceived usefulness, and perceived ease of use. Perceived usefulness is defined as the diploma to which a person believes that using a specific system would decorate performance while perceived ease of use refers to the degree to which a character believes that the use of a particular gadget would be free from effort. Perceived usefulness and perceived ease of use are recognised to positively affect the acceptance of E-commerce services (Kasemsan and Hunngam, 2011). When the service is easier to use, and the consumer has awareness on how to use it, they will trust the service more. With trust, there is a positive effect on awareness (Yoon, 2002; Yusof and Ismail, 2010; Olivero and Lunt, 2004). Therefore, the following hypothesis was formulated:

H9: The Trust of E-commerce service has a direct effect awareness to use E-commerce services.

### *1.4.10. Trust on the Intention to Use E-commerce service*

The major factors contributing to trust in E-commerce are privacy and security. This extends to electronic commerce (Wang et al., 2003; Rotchanakitumnuai and Speece, 2003; Shih and Fang, 2004; Molla and Licker, 2001; Pikkarainen et al., 2004; Cheng et al., 2006). Wang et al., (2003) argued that information privacy is vulnerable on the internet and can lead people away from use E-commerce. As for security, it is a theme the dominates IT studies and development of It technologies. Secure websites that contain several security features help encourage people to engage in E-commerce. As such, this research hypothesises that:

H10: The Trust of E-commerce service has a direct effect intention to use E-commerce services.

### *1.4.11. The Effect of Technology on Awareness*

In today's economic awareness and the globally competitive business world, technology becomes essential for every business, which uses this technology for performance and accuracy.In recent years, technology has become increasingly important to the evolution of the commerce sector. One of the factors that drives the improvement in the quantum and quality of commerce is more widespread and more efficient use of information technology (Jamil and Kadam, 2013). Over the last two decades, commerce has increasingly come to rely on technology to support communication and information processing in all areas of their operations. Mansor et al., (2012) found that variables such as technology further demonstrate almost similar moderate strength of service quality in terms of their relationship toward the creation of awareness among the users.Based on the literature reviewed, this study offers the following hypothesis:

H11: The Technology of E-commerce service has a direct effect awareness to use E-commerce services

### *1.4.12. Technology on Intention to Use E-commerce service*

Previous studies have shown that the intention to use technology by SMEs is still lower than expected (Mansor et al., 2012; Chong, 2009; Mutula and Brakel, 2006). Several studies investigated a wider perspective of internet intention to use and found that environmental factors such as government intervention, public administration, and external pressure from competitors, suppliers, and buyers play a critical role in the intention to use and implementation of technology, especially in E-commerce (Dube, 2009; Alam, 2009; Musa and Hassan, 2009).

Based on the literature reviewed, this study offers the following hypothesis:

H12: The Technology of E-commerce service has a direct effect on E-commerce services.

### *1.4.13. The Effect of Culture on the Intention to Use e-commerce service and Awareness*

The internet, with its speedy growth, has created a promising future for growing transactions from the use of typical methods to the generation of e-Commerce(Al-Dmour, 2012). While e-Commerce in creating nations takes an gain of a well-developed infrastructure and regulatory environment, creating countries have to discover new ways to overcome many challenges found in the environment. Differing characteristics of local environments, both infrastructural and socio-economic, Cultural troubles have created a huge level of variant in the acceptance and growth of e-commerce in one-of-a-kind areas of the world. The impact of culture on economic development is not limited to the size of value added produced in the sector, the volume of consumption of sector services, employment in the

sector, as well as the contribution of culture to nearby sectors of the economy, for example, to tourism. Culture is not as a sector of economic activity, but as a combination of values and traditions has a much greater impact on economic development than macro-economic indicators can demonstrate.

H13: The culture of E-commerce service has a direct effect on intention to use E-commerce services.

### *1.4.14. The Effect of Awareness on the Intention to Use e-commerce service*

The exploration and understanding of awareness is critical to ensure that the commerce sector remains successful and competitive in the business.There are a range of definitions given for grasp the thought of awareness. Referring to Kotler (2004), the thinking of attention attempts to explore how the clients establish the understanding of the products or offerings and to what extent they are missing information about it. Besides that, a purchaser who receives information from the mass media or via word of mouth will have character cognizance (Mansor et al., 2012). Indeed, the utilization of cell phones has been seen as a successful and promising methods for showcasing correspondence that outcomes in mindfulness (Pousttchi, 2006; Nysveen et al., 2005).The mindfulness on the hazard related with E-trade has likewise been investigated. There were worries on tending to the issue of protection, security hazard, and individual information security (Leppäniemi et al., 2006; Tanakinjal et al., 2010). This is significant, as when seen hazard is low, it will typically bring about reliability of the administration offered (Tanakinjal et al., 2010)

H14: The Awareness of E-commerce service has a direct effect intention to use E-commerce services.

### *1.4.15. The Factors on Behavioral Intention To Use (BI)E-commerce service in Uzbekistan is mediated by Awareness.*

In this work, awareness is a mediator that will be placed between the relationships of the variables that have an impact on the intention to use E-commerce. Since there is a relationship between the five variables and the Behavioral Intention To Use (BI)E-commerce in Uzbekistan, the mediator awareness acts as a third explanatory variable. The variables influence the mediator awareness, and, in turn, the awareness of students in Uzbekistan will influence the Behavioral Intention To Use (BI)accepting new technology, which is the main aim of this work. Padachi and Seetanah (2010) found that user's use of accepting new technology was usually determined by the role of the relevant factors which highly influence the decision of students. From the literature reviewed and previous studies, and based on the analysis of the hypotheses and the factors with their relation to the Behavioral Intention To Use (BI)E-commerce, we examine the following hypotheses:

H15: The influence of compatibility on Behavioral Intention To Use (BI)E-commerce service in Uzbekistan is mediates by Awareness.

H16: The influence of Perceived usefulness on Behavioral Intention To Use (BI)E-commerce service in Uzbekistan is mediates by Awareness.

H17: The influence of Perceived ease of use on Behavioral Intention To Use (BI)E-commerce service in Uzbekistan is mediates by Awareness.

H18: The influence of Trust on Behavioral Intention To Use (BI)E-commerce service in Uzbekistan is mediates by Awareness.

H19: The influence of Technology on Behavioral Intention To Use (BI)E-commerce service in Uzbekistan is mediates by Awareness.

H20: The influence of culture on Behavioral Intention To Use (BI)E-commerce service in Uzbekistan is mediates by Awareness

### *1.5. Data analysis*

Considering the measurement model, the assessment of the structural model was the subsequent step in the PLS Analysis; an analysis was performed towards the inner model. Hair et al.'s (2011) proposed requirements were perused. Thus, for the testing of hypotheses, the researcher employed bootstrapping to measure the significance level of the path coefficients. The researcher applied the PLS-SEM structural model for testing the hypothesized relationships. Here, the PLS algorithm and bootstrapping algorithm in SmartPLS 2.0 3M were used. The path coefficients show a high level of significance in PLS.

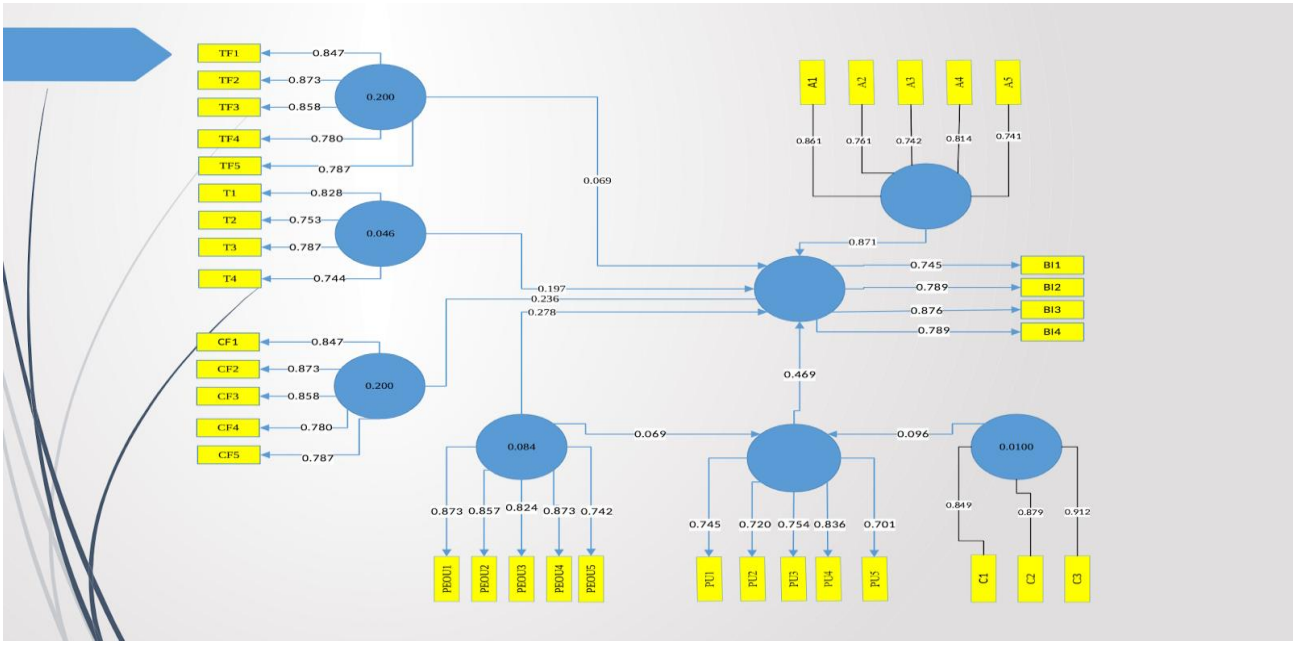


***Figure 2: Items Loadings and $R^2$ Values***

### *1.5.1. Hypotheses Testing*

The final step in PLS-SEM structural model is executing test on the hypothesized relationships. For this purpose, the researcher executed the PLS algorithm and bootstrapping algorithm in Smart PLS 2.0 3M. Although path coefficients are very important in PLS analysis, Hair et al. (2011) confirmed that in the situation where paths are non-significant or reveal signs that are against the direction conjectured, the prior hypothesis should be rejected. On the other hand, in the situation where significant paths that exhibit the hypothesized direction, the causal relationship projected is empirically supported. Further, the authors stated that, similar to the weights and loadings of the indicators, the significance of each path coefficient is assessable with the application of a bootstrapping procedure. Accordingly, Figure 2 can be referred to view the items loadings, path coefficient, as well as $R^2$ values.

The use of the bootstrapping method in the assessment of path coefficients entails the smallest bootstrap sample of 378 and the cases in terms of number should be identical to the amount of observations within the initial sample (Winnie, Poh-Ming Wong, 2014; Winnie & Ramayah, 2015; Sumo & Regien, 2015; Lorenzo-Romero & Carlota, 2014; Henseler, Jörg, 2012; Monecke & Armin, 2012; Rubel & Mohammad, 2014; Iivari & Juhani, 2005). Moreover, for a two-tailed test, the critical t-values appear to be at 1.65 (at 10% degree of significance), 1.96 (at 5% degree of significance), and 2.58 (at 1% degree of significance). Figure 4.5 and Tables 4.16 and 4.17 contain the path coefficient and the outcomes of bootstrapping, where the hypothesized relationships below were tested:

H1: The Compatibility of E-commerce service has a direct effect on awareness to use e- E-commerce services shows association (β = 0687, t =1.070), and hence, the hypothesis not supported.

H2: The Compatibility of E-commerce service has a direct effect Behavioral Intention to Use (BI) E-commerce services shows association (β = 0.548, t =2.720), and hence, the hypothesis was supported.

H3: The Compatibility of E-commerce service has a direct effect on perceived usefulness to use E-commerce services shows association (β = 0.096, t = 2.092), and hence, the hypothesis was supported.

H4: The Perceived usefulness of E-commerce service has a direct effect on Behavioral Intention to Use (BI) E-commerce services shows association (β = 0.469, t = 2.469), and hence, the hypothesis was supported.
H 5: The Perceived usefulness of E-commerce service has a direct effect awareness to use E-commerce services shows association (β = 0.248, t = 2.324), and hence, the hypothesis was supported.
H6: The Perceived ease of use of E-commerce service has a direct effect Perceived usefulness to use E-commerce services shows association (β = 0.069, t =2.651), and hence, the hypothesis was supported.
H7: The Perceived ease of use of E-commerce service has a direct effect awareness to use E-commerce services shows association (β = 0. 269, t = 2.587), and hence, the hypothesis was supported.
H8: The Perceived ease of use of E-commerce service has a direct Behavioral Intention To Use (BI) E-commerce services shows association (β = 0.278, t = 2.612), and hence, the hypothesis was supported.
H9: The Trust of E-commerce service has a direct effect awareness to use E-commerce services shows association (β = 0.548, t = 2.015), and hence, the hypothesis was supported.
H10: The Trust of E-commerce service has a direct effect on To Use (BI) E-commerce services shows association (β = 0.197, t = 2.021), and hence, the hypothesis was supported.
H11: The Technology of E-commerce service has a direct effect awareness to use E-commerce services shows association (β = 0.259, t = 2.158), and hence, the hypothesis was supported.
H12: The Technology of E-commerce service has a direct effect on Behavioral Intention to Use (BI) E-commerce services shows association (β = 0.069, t = 2.210), and hence, the hypothesis was supported.
H13: The culture of E-commerce service has a direct effect on Behavioral Intention to Use (BI) E-commerce services shows association (β = 0.236, t = 2.317), and hence, the hypothesis was supported.
H14: The culture of E-commerce service has a direct effect on Awareness to use E-commerce services shows association (β = 0.187, t = 2.548), and hence, the hypothesis was supported.
H15: The Awareness of E-commerce service has a direct effect Behavioral Intention to Use (BI) E-commerce services shows association (β = 0.871, t = 2.425), and hence, the hypothesis was supported.
H16: The influence of compatibility on intention to use E-commerce service in Uzbekistan is mediates by Awareness shows association (β = 0.365, t = 1.548), and hence, the hypothesis not supported.
H17: The influence of Perceived usefulness on Behavioral Intention to Use (BI) E-commerce service in Uzbekistan is mediates by Awareness shows association (β = 0.418, t = 2.157), and hence, the hypothesis was supported.
H18: The influence of Perceived ease of use on Behavioral Intention to Use (BI) E-commerce service in Uzbekistan is mediates by Awareness shows association (β = 0.014, t = 2.547), and hence, the hypothesis was supported.
H19: The influence of Trust on intention to use E-commerce service in Uzbekistan is mediates by Awareness shows association (β = 0.016, t = 1.370), and hence, the hypothesis not supported.
H20: The influence of Technology on intention to use E-commerce service in Uzbekistan is mediates by Awareness shows association (β = 0.784, t = 2.021), and hence, the hypothesis was supported.
H21: The influence of culture Behavioral Intention to Use (BI) E-commerce service in Uzbekistan is mediates by Awareness shows association (β = 0.542, t = 2.680), and hence, the hypothesis was supported.

### *1.6. Conclusion*

This research highlights the development as well as testing of a structural model, for the usage intention of electronic commerce. The model that this study had devised is grounded on the model of technology acceptance in addition to the applicable constructs obtained from the information systems as well as the studies on E-commerce acceptance. Tests were executed against the model using the data obtained from 384 E-commerce service users in Uzbekistan. For this purpose, SPSS version 22, PLSmart 2M, in. The impact of users (Awareness), and (technology, perceived ease of use, perceived usefulness, compatibility, trust) toward intention to use electronic commerce through expanded TAM, was explored in this study. This brings to the formulation of a conceptual framework that illustrates the intent of an individual to employ electronic commerce grounded on users .The TAM model regards the beliefs of awareness that an individual possesses as the key determinants to

electronic commerce usage intention. In this work, a conceptual model is introduced. The model includes the incorporation of the awareness among users in Uzbekistan towards electronic commerce. TAM's extended model is empirically supported by this study's outcomes. This study has enriched the knowledge on the notion of acceptance of technologies inside the realm of research on theories pertaining to technology acceptance, particularly, in terms of online behavior. The effect of Awareness of users and the selected factors (technology, perceived ease of use, perceived usefulness, compatibility, and trust) toward the intention to use E-commerce has been investigated in this study by way of expanding TAM. Indeed, TAM has been effective in the examining the antecedents of E-commerce in the context of Uzbekistan.

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