

# Factors Influencing the Intention to Adopt Social Technology Driven Based on Marketing According to Generational Theory in Educational Organizations

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## Abstract

This study aims to explore the relationship between the attitudes of educational organizations toward the use of technology and social media and their intention to implement these tools based on marketing strategies aligned with generational theory. Additionally, the study seeks to develop a comprehensive model (OSTAM) that highlights the impact of social technology and generational factors on enhancing organizational performance. With the rapid rise in the use of technology and social media, educational organizations face challenges in effectively integrating these tools to improve their performance. The key question is how these tools can be utilized to meet the needs of different generations for sustainable performance improvements. The study employed descriptive and analytical methodologies, using a survey distributed to employees in educational organizations. A research framework was developed based on a review of the literature, and hypotheses were tested to evaluate the influence of social technology and generational factors on organizations' attitudes and intentions regarding the use of these tools. The results indicated a gap in the ability of organizations to transfer technological skills from younger to older generations, highlighting the critical role of social technology and generational factors in shaping organizational attitudes and intentions. The findings validated the comprehensive model (OSTAM) developed in the study. The study recommends improving the ability of organizations to transfer technological skills across generations by forming collaborative working groups that include members from different age groups and utilizing individuals who bridge generational gaps to facilitate skill transfer from younger to older employees.

## 1. Introduction

The Social Technology Acceptance Model (STAM) is a theoretical framework that helps organizations understand how different generations approach the adoption and acceptance of social technology and use it accordingly. The TOE model is a framework that studies the contexts (technology, organization, environment) that influence the adoption and use of new technological innovations in organizations (Ali, 2023), generational

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theory highlights the impact of differences between generations on attitudes and behaviors, which is crucial for organizations when developing their marketing strategies (Haynes, 2011). This study explores the importance of generational theory in shaping an organization's management orientation towards adopting technologies and systems that enhance its performance in alignment with its workforce. Additionally, it examines how organizations can use the STAM and TOE models to develop a deeper understanding of behaviors related to the intention to adopt and accept technology, in light of the dynamic nature of the digital age in business organizations. Based on this, we can look at the current educational gap in the absence of a unified model for accepting and using technology and the generational disparity within educational organizations. From here, the main research hypothesis emerged: Are the behavioral intentions of generations of individuals working on adopting social technology affected as a unified model in educational organizations?

To properly build the theoretical aspect of the research, several previous studies and researchers' research ideas were reviewed and discussed to make them the starting base for the current research, including the study (Lamm & Meeks, 2009), which aims to investigate how the mediating role of generational differences affects the workplace and test the effects of interaction between generations. On job satisfaction, task performance, and behavior, using a sample of 701 workers. The results indicated that members of different generations do not respond in the same way, that generation membership is considered a balancing factor for variables in the workplace, and that the method used in the analysis limits the possibility of generalizing the results. The study (Appelbaum et al., 2022) reviewed research related to generational differences and examined the causality between these differences and the conflicts that usually occur in the workplace. The study distinguished between conflicts as being based on values, behavior, or identity and its reflection on managers' strategies when dealing with conflicts at work. She noted that once conflict arising from generational differences is identified and understood, organizations can mitigate and resolve it by developing guiding relationships between stakeholders to embrace generational diversity. The study emphasized the necessity of attracting and retaining talent in the organization. Since the events and developments that cause generational differences are temporal. The study (Lee & Paris, 2013) proposed the social technology acceptance model as an extension of the technology acceptance model, to examine the effect of trust, relationship strength (knowledge sharing factors), and perceived enjoyment in shaping consumers' attitudes and intentions to attend an event. A total of 155 data were collected through a survey conducted on the private event organizer's Facebook "page." The results indicated that users' knowledge-sharing factors have a significant impact on user behavior, and that trust can enhance users' social communication, which in turn affects perceived enjoyment, as the study indicated that the strength of social ties has a more important impact than trust in the information provided by Facebook. The study (Al-Sabaawi & Alshaher, 2021) aimed to identify the role of social technologies and the psychological empowerment of knowledge makers in knowledge leadership. To achieve this, the study proposed a model that relies on one of its variables on a set of measures specific to social technology based on the literature in this field, represented in: (Social capital, perceived ease of use, perceived benefit, harmony, and social interaction). The descriptive approach was adopted to conduct this research, using a questionnaire distributed to a sample size of (413) respondents, and using the structured equation model in the (AMOS) program. The results of this study showed that social technology has a significant impact on knowledge leadership through the mediating role of psychological empowerment of knowledge creators. Finally, a study (Al-Qaysi, Mohamad-Nordin, & Al-Emran, 2020). Based on a set of criteria for (57) articles, they found that TAM is an effective model for adopting and using social media. The study concluded that more research is needed to understand how external factors, such as user characteristics and learning environment, influence the acceptance of social media as well as the necessity of Developing new models of social media acceptance that take into account contextual factors.

Previous studies have provided valuable insights that benefit current research in several ways. They contribute to understanding the impact of generational differences on the intention to adopt social technology in educational organizations. Additionally, these studies apply the social technology acceptance model to explore the factors influencing the adoption of social technology. They also analyze the role of social technology in enabling faculty members to share and lead knowledge within educational organizations. Furthermore, they examine the influence of external factors, such as user characteristics and the learning environment, on the acceptance of social technology. Finally, this body of work supports the development of a new social technology acceptance model that incorporates contextual factors specific to educational organizations

This study is of great importance due to its direct impact on marketing and communication developments within educational institutions. By understanding the factors that influence the intention to adopt social technology, educational institutions can improve their educational and marketing strategies, leading to increased effectiveness in their marketing efforts. This, in turn, helps better meet the needs of beneficiaries and develop an innovative educational environment that effectively leverages technology. Consequently, this study can enhance the ability of educational institutions to keep pace with technological advancements and use them effectively in the teaching and learning environment. It can also help educational institutions improve

their interaction with beneficiaries (students) by using social technology in ways that suit the preferences and needs of each generation.

This study also analyzes the factors that influence the acceptance and adoption of social technology within educational institutions based on generational theory. Generational theory provides a comprehensive understanding of generational differences. This study assumes that those who benefit from the application of social technology can be classified into distinct generational groups, such as Generation X and Generation Z, and that each generation has different preferences and behaviors towards technology and social communication.

The study faced geographical limitations, as the sample of participants was restricted to individuals from Iraqi universities, where the researchers could distribute and collect questionnaires. Additionally, there were time constraints, with the research conducted between October 1, 2023, and June 1, 2024, covering the entire process from data collection to the completion and printing of the study

## 2. Methodology

### 2.1 The Study Problem

The unregulated use of social technology by educational organizations in non-traditional contexts is largely due to the absence of a unified model for its acceptance and usage, combined with varying levels of knowledge among employees from different generations. This variation in knowledge, coupled with differences in willingness and ability, has resulted in a random and unplanned approach to social technology use. While students, who are part of tech-savvy generations, find social technology easier to use, employees often face challenges. Despite significant research on individual adoption of social technologies, the institutional perspective, particularly regarding generational differences in behavior, has been largely overlooked. Additionally, educational organizations have failed to account for generational differences among their staff when using social technology for marketing educational services. This oversight has led to resistance from older generations within the organization, especially during unconventional or exceptional circumstances.

### 2.2 Study Objective

- a. The main objective of this study is to investigate the attitude and intention of educational organizations toward the use of social technology based on marketing concepts and generational theory (NGUYEN, DO, & WU, 2021).
- b. The study aims to provide an intellectual contribution by emphasizing the importance of adopting social technology in organizational work, considering generational diversity within educational organizations.
- c. This will be achieved by analyzing the responses of the individuals surveyed.
- d. The study will present proposals based on the theoretical framework of the study dimensions and the results of statistical analyses of the relationships between the mentioned variables.

### 2.3 Study Approach

In this section of the study, the focus will be on the process of choosing the most appropriate method for this study, and the study tools used in collecting data and information will also be explained. In addition, the study sample and its community and the methods used to analyze the data collected through the questionnaire form prepared specifically for this study will be discussed. The current study adopted the descriptive and analytical methods due to their suitability in describing the study variables and analyzing the data using selected statistical methods. Accordingly, to collect relevant data for this study, we used a two-stage approach, employing a content analysis and a comprehensive literature review. This comprehensive search includes advice books, scientific articles, research published by leading scholars, and resources available through international media networks.

The systematic treatment of the study problem in light of the theoretical framework and its implications requires designing a hypothetical graph represented by Figure (2) that shows the logical relationship between the variables of the study. The variables and dimensions referred to in the figure above were built based on the previous cognitive efforts of the researchers, where the dimensions of OSTAM were explained based on the STAM model by (Lee & Paris, 2013), while TOE was defined by (Mwanza et al., 2023)), as for the dimensions of generational theory, they were defined by (Liu, Wang, Zhang, & Qiao, 2022), while behavioral intention was discussed in light of the opinions of (Grani, 2023).

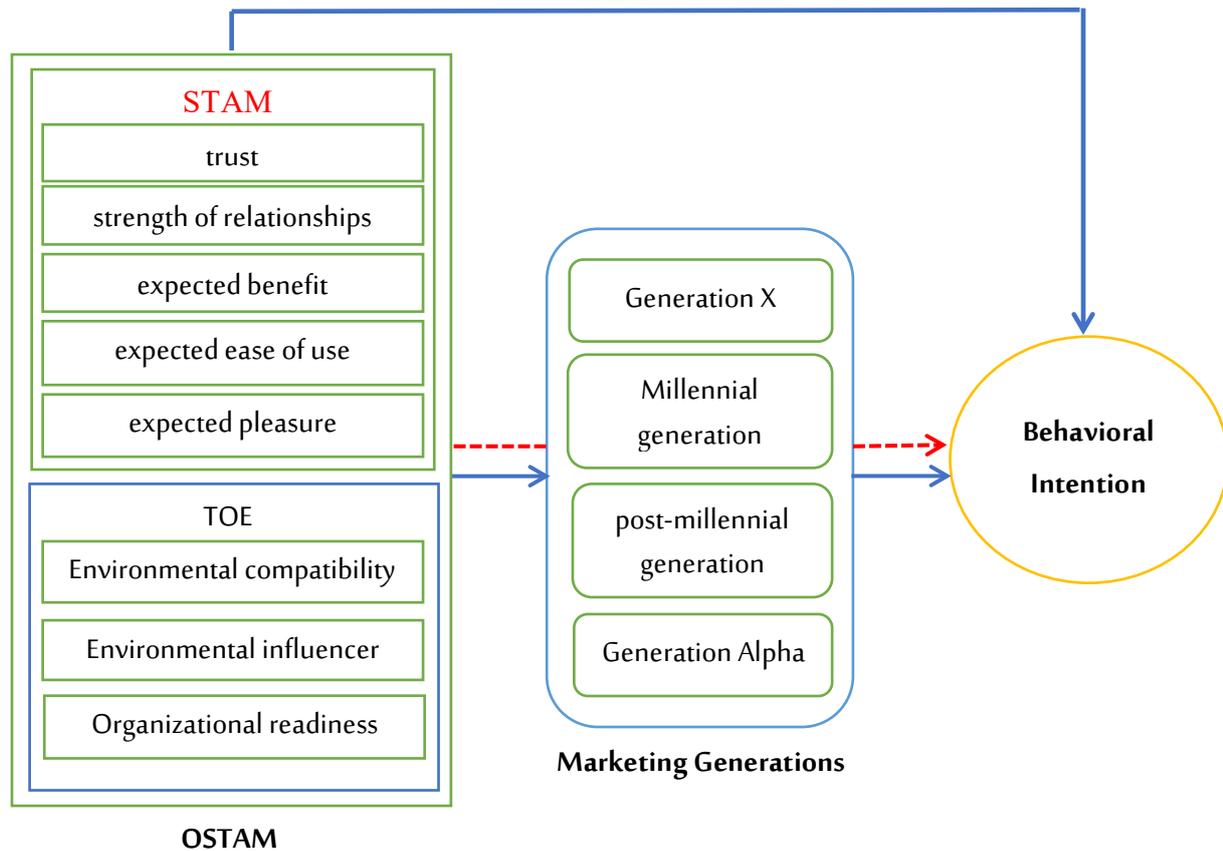


Fig. 2 Hypothetical study plan

This study focuses on social technology and treats it as a basic component affected by the behavioral intention of generations of individuals working to adopt this technology. To test the effects between the model's constructs, four hypotheses were formulated:

- **The (H0.1):** There is no significant effect of social technology on the organization's behavioral intention at a significance level ( $0.05 \geq \alpha$ ).
- **The (H0.2):** There is no significant effect of the theory of generations on the organization's behavioral intention at the significance level ( $0.05 \geq \alpha$ ).
- **The (H0.3):** There is no significant effect of social technology on the theory of generations at a significance level ( $0.05 \geq \alpha$ ), and the following sub-hypotheses emerge from this hypothesis<sup>(1)</sup>:
  - a. **(H0.3.1):** Social technology has no effect on GED at the significance level ( $0.05 \geq \alpha$ ).
  - b. **(H0.3.2):** Social technology has no effect on GEX at the significance level ( $0.05 \geq \alpha$ ).
  - c. **(H0.3.3):** Social technology has no effect on GEY at the significance level ( $0.05 \geq \alpha$ ).
  - d. **(H0.3.3):** Social technology has no effect on GEZ at the significance level ( $0.05 \geq \alpha$ ).
- **The (H0.4):** There is no significant effect of the independent variable, social technology, indirectly on the dependent variable, behavioral intention, with the theory of generations as a mediating variable at a significance level ( $0.05 \geq \alpha$ ).

## 2.4 Measurement Tool

The questionnaire was developed by the researchers based on the following sources (Awa & Ojiabo, 2016) (Vrhoci, Tankovi Ana, & Kap, 2021) (Liu et al., 2022) (NGUYEN et al., 2021) (Al-Qaysi et al., 2020)), and this

<sup>1</sup> The researchers would like to point out that the generations currently present in Iraqi educational organizations range in birth between 1960 (which is the highest age currently present in educational organizations) and 2002 (which is the lowest age at which employment can be employed according to Iraqi law), as stipulated in the provisions of Paragraph (First) of Article (10) of Law No. 26 of 2019, the first amendment to the Unified Retirement Law No. 9 of 2014, as well as Article 35 Fifth (A-1) of the Unified Retirement Law Referral to retirement after reaching the legal age, to consider the details of the retirement law Referral <https://moj.gov.iq/upload/pdf/4566.pdf>

form was concerned with obtaining appropriate data to complete the study and Utilizing a set of (46) indicators that comprehensively addressed the study's variables. The questionnaire form was also subjected to validity and reliability tests, and after completing the collection of the questionnaire forms and recording the data, the Cronbach coefficient was used. (Gronbach Alpha) to determine the degree of reliability of the measurement tool in this study, and it was found that the percentage of agreement in the answers of the study sample members reached (84.6%) at the general level, which is a percentage that proves the existence of a good degree of reliability of the questionnaire compared to (standard alpha). (60%) for human studies (Afifi, May, & Clark, 2003). Before starting any analytical process, the normal distribution of the data must be verified, because it affects determining the appropriate analysis process. If the data are normally distributed on all axes, the approved method will be for parametric tests If the data are not normally distributed, the tendency will be for non-parametric tests. The Kolmogorov-Smirnov test was used to determine how the data were distributed, as shown in Table 1.

**Table 1** Normal distribution of study variables

Variables	Kol -Smi	Sig.	Df
Social Technology	0.172	0.208	151
Marketing Generations	0.164	0.201	
Behavioral Intention	0.138	0.203	

From the results of the table above, it appears that the data included in the analysis follows a normal distribution. This came as a result of the moral value of the tests used reaching higher than (0.05), which indicates that the data included in the analysis are subject to normal distribution tests.

It should be noted that the above-mentioned form was distributed to a random sample of (151) faculty members in a group of Iraqi universities. An electronic questionnaire was designed using Google Forms applications. Finally, about analysis techniques: the ready-made system program (SPSS-24) and (Amos-24) were adopted, through which the arithmetic averages and standard deviations (SD.) of the answers were extracted as they relate to each of the phrases that appeared in the questionnaire, in addition to some tests that he chose. The researcher, as part of the appropriate tests in studying the relationships between the various study variables

### 3. Conceptual Framework and Hypothesis Development

#### 3.1 Social Technology Acceptance Model STAM (Concept and Importance)

To better understand innovation in business, it's important to know the environment in which organizations operate (UNION, 2019). Social technology today involves more than just technology; it highlights the role of social sciences and humanities in shaping society (Skaržauskienė, Tamošiūnaitė, & Žalėnienė, 2013) and emphasizes the social aspects of technology, especially as seen in the rise of Web 2.0. This technology enabled the creation of dynamic websites and social media platforms, where users generate content (Lee & Paris, 2013); (Paris, Lee, & Seery, 2010). Web 2.0, also known as the social web, allows people to easily share and organize information, creating what's called the "network effect," where more users increase the value of a product or service (Kwon & Wen, 2010). This has led to the rise of virtual social networks (VSN), where people interact and exchange information, using platforms, blogs, and forums (NGUYEN et al., 2021); (Almeida, Costa, Coelho, & Scalco, 2016).

Social technology refers to digital tools that individuals and organizations use to collaborate and interact (Skaržauskienė et al., 2013). With its continuous development, organizations have adopted these tools for tasks, giving rise to institutional social media. These platforms allow workers to communicate, share information, and collaborate across the organization (Leonardi, Huysman, & Steinfield, 2013).

Many theories help us understand how individuals adopt and accept social technology. For example, some theories, like TRA, TPB, TAM, and UTAUT, focus on individual behavior and intentions to adopt new technologies (Alsaegh, 2023). Other theories, such as STS and TOE, explore the interactions between social, technical, and environmental factors and their impact on organizations (Papagiannidis, 2022). Adoption generally refers to the intention to use technology, while acceptance means using and integrating it at both personal and organizational levels (Grani, 2023); (Al-Emran, Mezhuyev, & Kamaludin, 2018).

(Chintalapati & Daruri, 2017) also noted that a good theory should be simple, data-driven, and applicable to various fields, making it useful for understanding complex situations.

### 3.2 Dimensions of the Social Technology Acceptance Model

The study (Lee & Paris, 2013) indicated defining the dimensions of the Social Technology Acceptance Model (STAM) as an extension of the TAM model from the users' point of view and defined its dimensions as (trust, strength of relationships, expected benefit, expected ease of use, and expected pleasure), while the study (Al-Qaysi et al., 2020). to address the relationship between social media and the Technology Acceptance Model (TAM), pointing out that studying the factors that affect the adoption and use of social technology among students is the most frequent research problem, in addition to that the study indicated that researchers use many variables and that The reason for the discrepancy is three main points: (context, participants, and infrastructure) and the dimensions of the model of this study are (contextual factors, external factors, factors preceding the adoption of the system and factors subsequent to the adoption of the system) and this is reflected in the factors of the TAM model towards adopting and using social technology. The study (Al-Sabaawi & Alshaher, 2021), clarified measures for social technology (social capital, perceived ease of use, perceived benefit, harmony, social interaction), all of which helped identify the research gap, which is the absence of the organizations' point of view, and that most of these factors are indicators of research. The subject of the above study is the reason behind the development and expansion of the models. Therefore, taking into account the organization's point of view was the motivation behind adopting other theories, such as the TOE framework within the framework of integration with the STAM model, to determine the dimensions of the new model (OSTAM), as will be explained in the following paragraphs.

### 3.3 TOE Framework

A review of the research (Sole, 2009), (Kamunge, Njeru, & Tirimba, 2014), and (Mwanza et al., 2023) showed that there is a group of factors that affect the performance of organizations, including (effective leadership, organizational culture, effective work systems, reliance on modern technology, community participation, environmental factors, work satisfaction, training, development, management, financing) and other factors. The appropriate theory to deal with these factors is the TOE framework, which classifies technology, organization, and environment as the three groups of factors that affect the organization's adoption of innovations (Abed, 2020). TOE is almost the only IS framework that focuses more on social and behavioral construction while recognizing the interplay between technology development and organization conditions shaped by environmental issues (Awa, Ukoha, Emecheta, & Liu, 2016). The T-O-E framework has been further developed to include the concept of decision maker (D) and the D-T-O-E adoption framework to explain how managers' personality influences a company's orientation regarding strategic issues (Awa et al., 2016). The advantages that the TOE framework carries were the motivation behind its adoption and are represented in (creating value from technology, its consistent success at the level of public and private sector organizations, and, regardless of the size of the company, its suitability for studies of IT/information systems adoption, and it has shown consistent empirical support and allows... Examining the phenomenon of adoption and its impact from a comprehensive perspective. Therefore, this framework is adopted as a theoretical basis in this study. (Al-Hujran, Al-Lozi, Al-Debei, & Maqableh, 2018).

### 3.4 Marketing According to Generational Theory

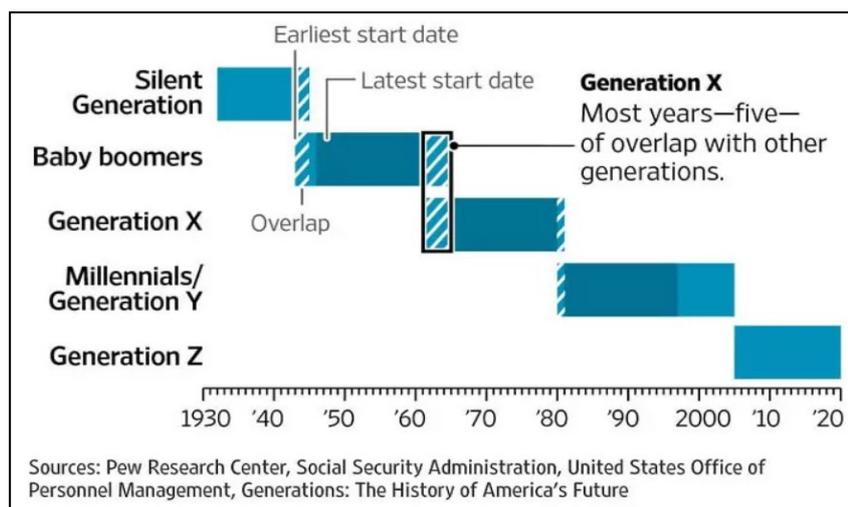
Literature and studies regarding the theory of generations in the workplace and the actual reality of business organizations have indicated that there are many generations of workers that share the workplace and that they all carry different values, morals, desires, ambitions, and different work methods (Schullery, 2013), and that organizations that do not have appropriate marketing strategies to market its ideas and orientations towards its working members and manage them effectively will face low productivity, high rate of job turnover, and other organizational problems (Šedík, Horská, Skowron-Grabowska, & Illés, 2018). Addressing this is achieved by creating an appropriate shared workspace, making it more flexible, and supporting movement between... generational levels by intelligently integrating technology and shifting from a hierarchical to a networked approach, which reduces pressure and increases creativity (Bennett, Pitt, & Price, 2012). (Mehra & Nickerson, 2019) indicated that understanding the differences that may exist between different generations is necessary for organizations to maintain internal organizational communication. While (Liu et al., 2022) pointed out that generational marketing is just a way to understand different generations. This understanding helps organizations gain insight into the needs of working generations, and the generational marketing strategy is used to understand the social, economic, and legal factors that affect people from different age groups. This strategy helps organizations better understand generations' behaviors, preferences, likes, and dislikes (Lissitsa & Kol, 2016). (Chaney, Touzani, & Ben Slimane, 2017) defined generation as "a group of individuals of similar ages, who witnessed a historical event worthy of note and scrutiny within a certain period. Marketing, according to generational theory, is the marketing approach to finding common characteristics between generations that are created in accordance with the values, culture, and customs that

prevailed in each era (Fukuda, 2009), and at the present time, organizations must innovate Marketing strategies for managing a multi-generational workforce by taking into account a number of points, the most important of which are: (1) Ensuring that tensions are reduced and potential conflicts between generations are avoided. (2) Ensure qualified Millennials and Generation Z individuals are attracted and retained in the organization. (3) Ensuring that the knowledge and skills acquired throughout life are transmitted from the most experienced generation to the younger generations. (4) Ensuring that technological skills are passed on from younger generations to older generations (Bennett et al., 2012). In this regard, (Williams & Page, 2011) indicated that there are seven good reasons to believe that communications technology affects how we work, our play, our consumption, communication, transaction completion, and experience, and therefore we must pay attention to their impact on modern marketing, which are (social life, mobile or smart devices, real-time marketing, connected content, mass customization, big data and smart things) and between (Vrhoci et al., 2021) Some generations grew up and formed relationships based on modern information technology technologies through social media such as (Facebook, Twitter, Instagram, and other social networking sites)

### 3.5 Generational Divisions and Their Work Characteristics

Writers classified generations into several classifications, and in their classifications, they relied on different names to refer to generations, as well as the variation in the period for each category of generations. This was confirmed by the study (Mehra & Nickerson, 2019), as a distinction was made between generations based on age (maturity) and period (history). And the age group (formative experiences), while (Taylor, 2018) referred to the term microgeneration to denote individuals who fall in the middle between two successive generations and who carry unique characteristics. They share some characteristics with the generation that precedes or follows the generation to which these individuals belong. They may be more or less flexible than their generation, more or less technology-oriented than their generation, and so on for the rest of the characteristics, as shown in Figure No. (2).

From our point of view, we see that the difference in employing and using variables in environments is the reason for the difference in determining the timeline for each generation, and this was confirmed by (Koulopoulos & Keldsen, 2014), who pointed out that thinking about generations requires us not only to change our individual perceptions of the boundaries between generations but also to build organizations that can do the same. The key to achieving this is through providing communication of a flexible nature between the generations of work, and this will bridge the gap and achieve the organization's goals.



**Fig. 1** Timeline for each generation

Source: Strauss, W., & Howe, N. (1992). *Generations: The History of America's Future, 1584 to 2069*: Quill; Reprint Edition

In light of this, Table 2 shows a summary of the types of generations working in the organizations studied

**Table 2** *Types of generations*

<b>Generation</b>	<b>Description</b>
The silent generation (Williams & Page, 2011)	It was formed in silence in the face of suffering - the Great Depression and harsh economic realities imposed a system of behavior on this generation. These challenges required silence rather than expression. But this did not make much of an impact in their youth.
Baby boom generation (Chaney et al., 2017)	They were given this name due to the sharp increase witnessed by this generation in the number of births, as the prevailing trend was to compensate for the huge human losses resulting from World War II. This generation is characterized by self-confidence, embraces independence, and is comfortable with managing authority. One of the most important characteristics of this generation is that they focus on product quality, guarantees, and value for their payments
Generation X (Šedík et al., 2018)	This generation is characterized by the ability to combine work values and ethics, a calm disposition, and the speed of adapting to and adopting social media, and loves spending time searching for information and communication.
Generation Y (Millennials) (Ren & Biggins, 2017)	This generation is adept at using technological platforms and social media, and they tend to share their personal lives on social media
Generation Z (post-millennials) (Liu et al., 2022)	This generation is notable for their intelligence in technological matters, for not knowing or imagining a world without the internet, for being born and raised in a semi-accelerated digital evolution, resulting in the fourth technological revolution came about, which can be so dated as of 2016 AD, because it opened unlimited possibilities for emerging technologies in artificial intelligence. Big data applications, Internet of Things, blockchain and more
Alpha generation (Miller, 2023)	Generation Alpha is the most digitally connected generation in history. They were born into a world where the Internet and digital technology are widespread, and they use them in basically all aspects of their lives. They have grown up in a world that faces many social challenges, and they are more interested in solving these challenges.

Source: Table prepared by authors

### 3.5 Benefits of Learning About Generational Marketing Classifications

The benefits of generational marketing classifications can be recognized from the point of view of (Cho & Hu, 2009).

- It is useful to know the demographic division and the most available generations that can be targeted.
- Recognizing the existence of the gap between generations and its causes and effects is also useful in reducing generational conflicts and finding a formula for understanding and reconciliation.
- Saving time and effort by finding the appropriate formula to address each generation according to what suits them and what they care about or aspire to.
- It is also useful in building marketing plans based on long-term strategies targeting a specific generation, taking into account recent developments.

As for (Himmel, 2008), he explains that marketing to generations has benefits

- Target audience segmentation allows you to reach specific niches and tailor your message to different people, including each generation.
- Helps create messages that drive Generation marketing for your insights into common generational preferences, whether for a particular device or lifestyle norm.
- Enables more relevant targeting in a technology-driven world, so understanding how each generation interacts with technology is key to reaching the right users at an appropriate.

In light of what has been presented, the idea of the study stems from considering the above trends from an integrative perspective, and it is an intellectual attempt by researchers to provide a theoretical framework and practical evidence to look at this acceptance and use from the point of view of organizations, especially in times of crises and unconventional or exceptional circumstances witnessed by academic and educational organizations in adopting And using the social technology acceptance model quickly or suddenly, it deals with different age groups (generations) of working individuals through the theoretical framing of marketing according to generational theory as an entry point to adopting the social technology acceptance and use model STAM, as organizations resort to adopting models and technological innovations that are friendly to the

beneficiary and familiar to him or her. It is similar in structure, structure, and mechanism of operation to social media applications to remedy the crises or exceptional situations that organizations are going through to achieve their goals. In other words, organizations resort to taking advantage of the acceptance and use of individuals working and beneficiaries of social technology models and employing them in achieving their different types of goals, and this is what researchers seek to try. Proving it and trying to adapt the STAM model and reconstruct it differently, such as developing the TAM model and presenting it as an independent model for accepting and using social technologies from an organization perspective within the concept of generation theory, given that the TAM is a general model for accepting technology From an individual's perspective and that the Organizational Social Technology Acceptance Model (OSTAM) It is a model for adopting social technology in business organizations, which can be defined as a model that aims to understand how organizations accept and use social technology, and to analyze how factors such as generations of workers influence the intention to use social technology adopted by organizations and its reflection in improving their performance. At a deeper level, OSTAM seeks to understand how (expected usefulness, expected ease of use, perceived enjoyment, trust, and, relationship strength) are employed as part of the interactions between organizations and their generations of workers and how these factors can be supportive or hindering factors for organizations' success in adopting this model. In addition to providing a comprehensive understanding framework for organizations of the effects of the aforementioned factors on their decisions and thus improving their strategies, the importance of social technology for organizations is reflected in obtaining a variety of other benefits represented in (cooperation, communication, and engagement with customers (marketing), image management and company reputation) public relations), talent acquisition and recruitment (human resources), research and knowledge management, increasing productivity, providing information, n and fundraising (Turban, Pollard, & Wood, 2015).

## 4. The Practical Aspect

### 4.1 Results of the Descriptive Statistical Analysis of the Social Technology Variable

Table 3 presents the descriptive statistical analysis of the social technology variable dimensions for the study sample. It includes the central tendency of responses, their dispersion from the hypothesized mean (3), and the relative importance of sub-variables by percentage weight. The (STTR) dimension ranked first with an average mean of (4.11), SD of (0.666), and a percentage weight of (82.3%). The (STSR) dimension came second with an average of (3.97), SD of (0.768), and a weight of (79.4%). Other dimensions ranked as follows: (STPU) third with a mean of (3.96) and weight of (79.2%), (TOTA) fourth with a mean of (3.92) and weight of (78.4%), (TOEE) fifth with a mean of (3.88) and weight of (77.6%), (TOPE) sixth with the same values, (TOOG) penultimate with a mean of (3.86) and weight of (77.2%), and (STEU) last with a mean of (3.81) and weight of (76.2%). Overall, the social technology variable for the sample had a mean of (3.92), SD of (0.760), and a percentage weight of (78.4%).

**Table 3** Statistical description of items for the social technology variable

S	Dimensions	Mean	S.D	W.P	A
XA1	STTR	4.23	0.634	84.6	1
XA2		4.14	0.693	82.8	2
XA3		3.97	0.673	79.4	3
<b>Total average</b>		<b>4.11</b>	<b>0.666</b>	<b>82.3</b>	
XB1	STSR	4.09	0.673	81.8	1
XB2		3.99	0.816	79.8	2
XB3		3.83	0.815	76.6	3
<b>Total average</b>		<b>3.97</b>	<b>0.768</b>	<b>79.4</b>	
XC1	STPU	3.78	0.832	75.6	3
XC2		3.98	0.860	79.6	2
XC3		4.13	0.786	82.6	1
<b>Total average</b>		<b>3.96</b>	<b>0.826</b>	<b>79.2</b>	
XD1	STEU	3.87	0.760	77.4	1
XD2		3.72	0.842	74.4	3
XD3		3.83	0.847	76.6	2
<b>Total average</b>		<b>3.81</b>	<b>0.816</b>	<b>76.2</b>	
XE1	STPE	3.91	0.803	78.2	1

XE2		3.90	0.764	78	2
XE3		3.83	0.716	76.6	3
<b>Total average</b>		<b>3.88</b>	<b>0.761</b>	<b>77.6</b>	
XF1	TOTA	3.83	0.790	76.6	3
XF2		3.97	0.702	79.4	1
XF3		3.96	0.738	79.2	2
<b>Total average</b>		<b>3.92</b>	<b>0.743</b>	<b>78.4</b>	
XJ1	TOEE	3.93	0.727	78.6	2
XJ2		3.93	0.690	78.6	1
XJ3		3.79	0.843	75.8	3
<b>Total average</b>		<b>3.88</b>	<b>0.753</b>	<b>77.6</b>	
XH1		3.86	0.758	77.2	2
XH2	TOOG	3.91	0.730	78.2	1
XH3		3.81	0.746	76.2	3
<b>Total average</b>		<b>3.86</b>	<b>0.744</b>	<b>77.2</b>	
<b>The overall rate of social technology variable</b>		<b>3.9</b>	<b>0.760</b>	<b>78.4</b>	

#### 4.2 The Results of the Descriptive Statistical Analysis of the Variables of the Marketingeneration Variable

Table 4 displays the results of the descriptive statistical analysis of the dimensions of the generational theory variable for the study sample in terms of (the mediator parameters of their responses, and the level of dispersion of those responses from the hypothesized mean of the measurement tool of (3), as well as an analysis of the relative importance of the sub variables in terms of their percentage weight). The (GEZ) dimension for the researched sample achieved an overall average of the arithmetic mean of (3.96), with a SD. of (0.808), and a percentage weight of (79.1%). It was ranked first in the dimension, while the (GEY) dimension of the researched sample achieved an overall average of the arithmetic mean of (3.96). (3.94) with a SD. of (0.809), and a percentile weight of (78.7%). Its ranking came in the second dimension, and the ranking of the dimension (GEX) for the sample studied was the (G Avg.) of the arithmetic mean of (3.91) with a SD. of (0.852). A percentile weight of (78.2%), and its ranking came in the third dimension, and the (GED) dimension for the sample studied achieved an overall average of the arithmetic mean of (3.84) with a SD. of (0.874), and a percentage weight of (76.7%). Its ranking came in the last dimension, but at the overall level, it achieved the generational theory variable for the sample studied had an overall mean arithmetic mean of (3.91), with a SD. of (0.836), and a percentage weight of (78%), as shown in the table.

**Table 4** Statistical description of variables after generations theory

S	Dimensions	mean	S.D	W.P	A
YA1		3.83	0.778	76.6	2
YA2	GED	3.79	0.935	75.8	4
YA3		3.79	0.889	75.8	3
YA4		3.93	0.892	78.6	1
<b>Total average</b>		<b>3.84</b>	<b>0.874</b>	<b>76.7</b>	
YB1		3.91	0.859	78.2	3
YB2	GEX	3.93	0.907	78.6	2
YB3		3.85	0.844	77	4
YB4		3.95	0.798	79	1
<b>Total average</b>		<b>3.91</b>	<b>0.852</b>	<b>78.2</b>	
YC1	GEY	3.85	0.882	77	4
YC2		3.97	0.757	79.4	2
YC3		3.99	0.812	79.8	1
YC4		3.93	0.784	78.6	3
<b>Total average</b>		<b>3.94</b>	<b>0.809</b>	<b>78.7</b>	

YD1		4.00	0.872	80	2
YD2	GEZ	4.01	0.766	80.2	1
YD3		3.92	0.821	78.4	3
YD4		3.89	0.771	77.8	4
<b>Total average</b>		<b>3.96</b>	<b>0.808</b>	<b>79.1</b>	
<b>The overall rate of marketing generation variable</b>		<b>3.91</b>	<b>0.836</b>	<b>78</b>	

### 4.3 Results of the Descriptive Statistical Analysis of the Behavioral Intention Dimension

Table 5 provides descriptive statistics for the behavioral psychological variables in the study sample. The Table examines the mean scores by weighting the spread around the estimated center of the measurement instrument (set to 3) and the importance of the subscales Behavioral psychological variables gave a mean score of (3.82) for the sample, with a SD. of (1.002). Furthermore, as shown in the table, the weight of the variables is (76.5%).

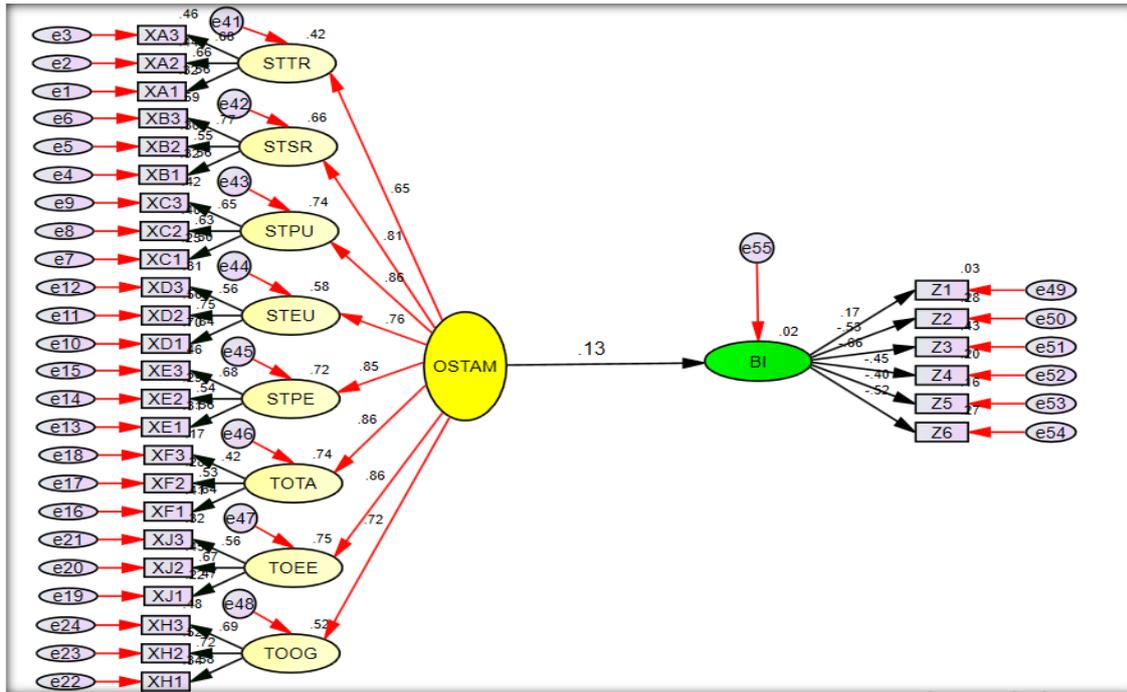
**Table 5** Statistical description of items for the behavioral intention variable

S	mean	S. D	W. P	A
Z1	3.92	0.891	78.4	1
Z2	3.91	1.067	78.2	2
Z3	3.77	0.990	75.4	5
Z4	3.81	1.005	76.2	4
Z5	3.90	0.992	78	3
Z6	3.63	1.068	72.6	6
The overall rate of behavioral intention variable	3.82	1.002	76.5	

### 4.3 Hypothesis Testing

#### 4.3.1 Testing (H0.1): There is No Significant Effect of Social Technology on the Organization's Behavioral Intention at a Significance Level ( $0.05 \geq \alpha$ ).

To confirm (H0.1) and verify its validity and conformity, a structural equation model was formed to prove or deny this hypothesis, Fig. 2 displays this case, while Table 6 displays the non-standard regression coefficient values (Estimate) for the model, which will lead to rejecting or accepting the first null hypothesis.



**Fig. 2** The impact relationship between social technology and the organization’s behavioural intention  
 Table 6 shows the values of the effect relationship of the model that can be inferred to accept or reject the first null hypothesis under the current study.

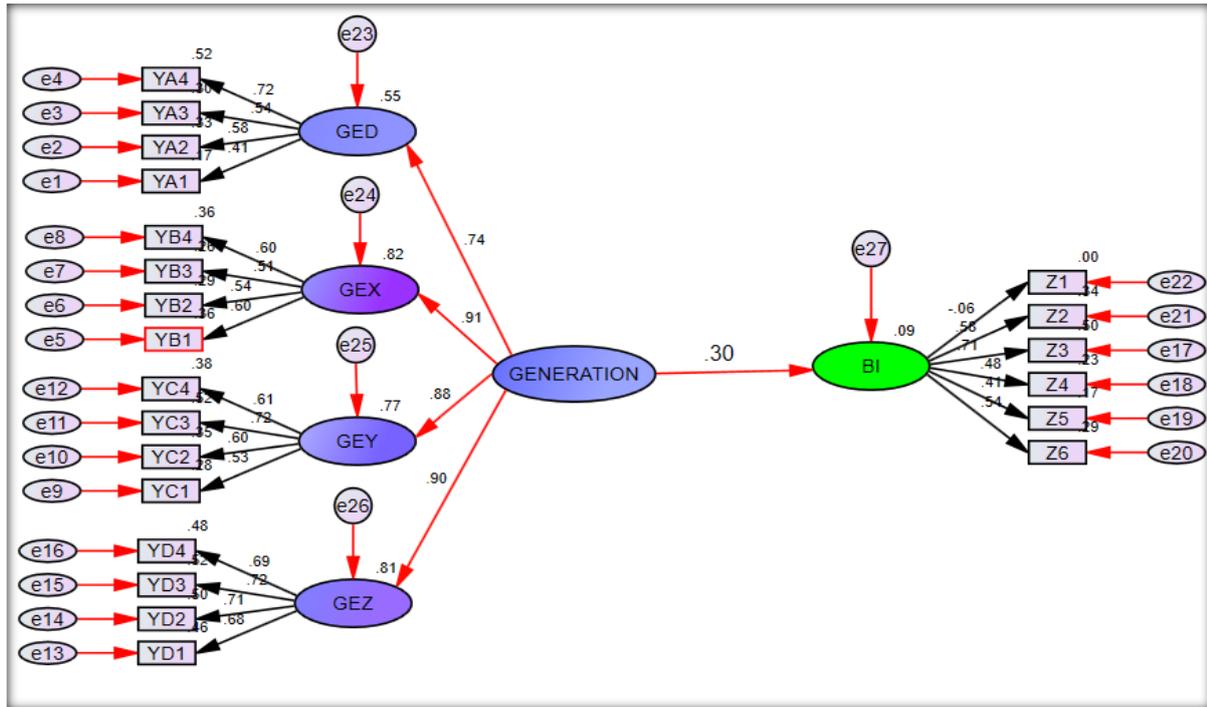
**Table 6** Impact relationship for (H0.1) hypothesis

Influencing variables	Path of influence	The variable affected by it	Estimates	S.E.	C.R.	P
social technology	→	behavioral intention	0.130	0.187	3.920	0.039

Based on the data in Table 6, it is clear that there is an effect of the social technology variable on the behavioral intention variable, as the estimated predicted value reached (0130), which means that it is a significant value in terms of the (CR) value, which reached (3.920), which is greater than the critical value (1.96). ) at the significance level ( $0.05 \geq \alpha$ ), and thus we reject the first null hypothesis (H0.1) and accept the first alternative hypothesis, which states (H1.1: There is a significant effect of social technology on the behavioral intention of the organizational organization at the significance level ( $0.05 \geq \alpha$ )).

**4.3.2 Testing (H0.2): There is no Significant Effect of the Theory of Generations on the Organization’s Behavioral Intention at The Significance Level ( $0.05 \geq A$ )**

To confirm the (H0.2) and verify its validity and conformity, a structural equation model was formed to prove or deny this hypothesis. Fig. 3 displays this case, while Table 7 displays the non-standard regression coefficient values (Estimate) for the model, which will lead to the rejection or acceptance of the second null hypothesis.



**Fig. 3** The impact relationship between generational theory and the organization’s behavioral intention Table 7 shows the values of the effect relationship of the model that can be inferred to accept or reject the second null hypothesis under the current study.

**Table 7** Impact relationship for (H0.2) hypothesis

Influencing variables	Path of influence	The variable affected by it	Estimates	S.E.	C.R.	P
marketing generation	→	behavioral intention	0.300	0.132	4.379	0.000

Based on the data in Table 7, it is clear that there is an effect of the generational theory variable on the organization’s behavioral intention variable, as the estimated predicted value reached (0.300), which means that it is a significant value in terms of the (CR) value, which reached (4.379), which is greater than the critical value (1.96) at the significance level ( $0.05 \geq \alpha$ ), and thus we reject the second null hypothesis (H0.2) and accept the second alternative hypothesis which states (H1.2: There is an effect of the theory of generations on the behavioral intention of the organization at the significance level ( $0.05 \geq \alpha$ )).

**4.3.3 Testing the (H0.3): There is No Significant Effect of Social Technology on the Theory of Generations at a Significance Level ( $0.05 \geq \alpha$ ), and the Following Sub-hypotheses Emerge from this Hypothesis**

- (H0.3.1): Social technology has no effect on the GED at the significance level ( $0.05 \geq \alpha$ ).
- (H0.3.2): Social technology has no effect on GEX at the significance level ( $0.05 \geq \alpha$ ).
- (H0.3.3): Social technology has no effect on GEY at the significance level ( $0.05 \geq \alpha$ ).
- (H0.3.3): Social technology has no effect on GEZ at the significance level ( $0.05 \geq \alpha$ ).

To confirm the (H0.3) and verify its validity and conformity, a structural equation model was formed to prove or deny this hypothesis, Fig. 4 displays this case, while Table 8 displays the values of the non-standard regression coefficient (Estimate) for the model, which will lead to the rejection or acceptance of the third main null hypothesis.

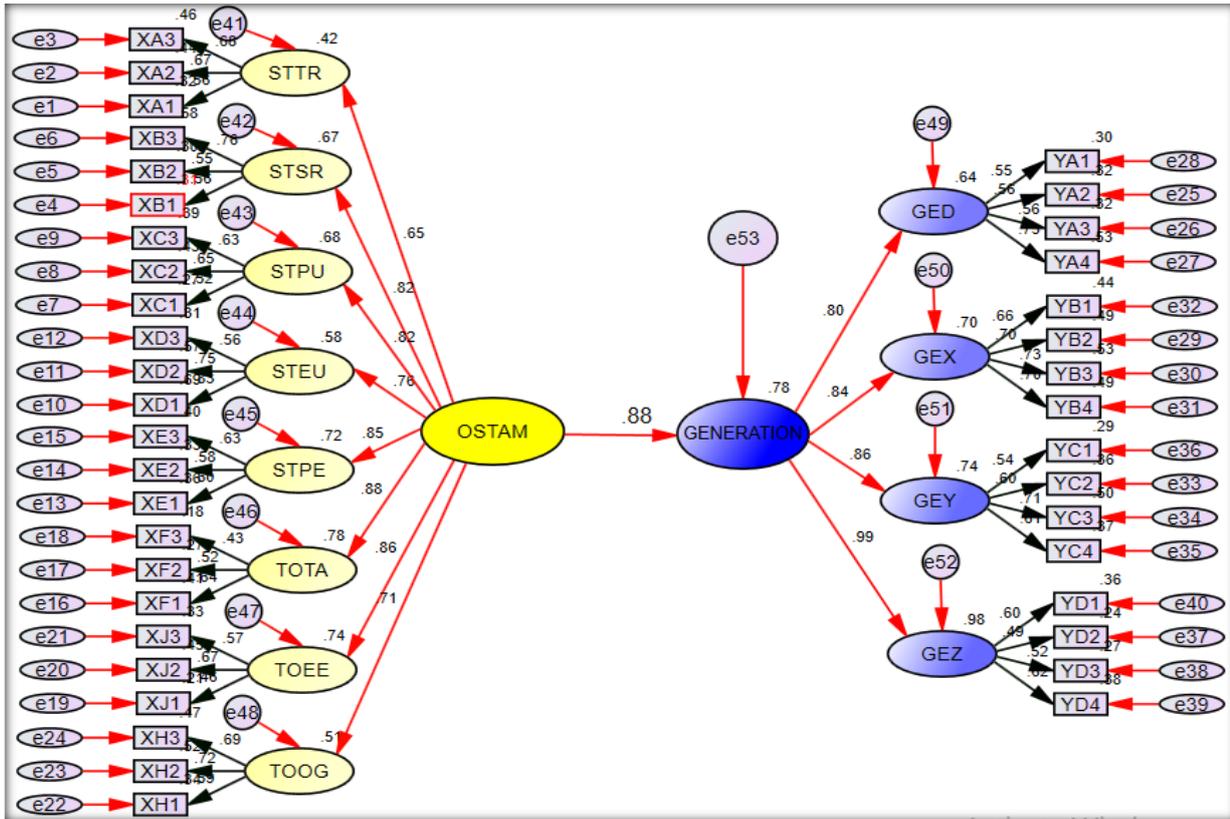


Fig. 4 Impact relationship between social technology and generation theory

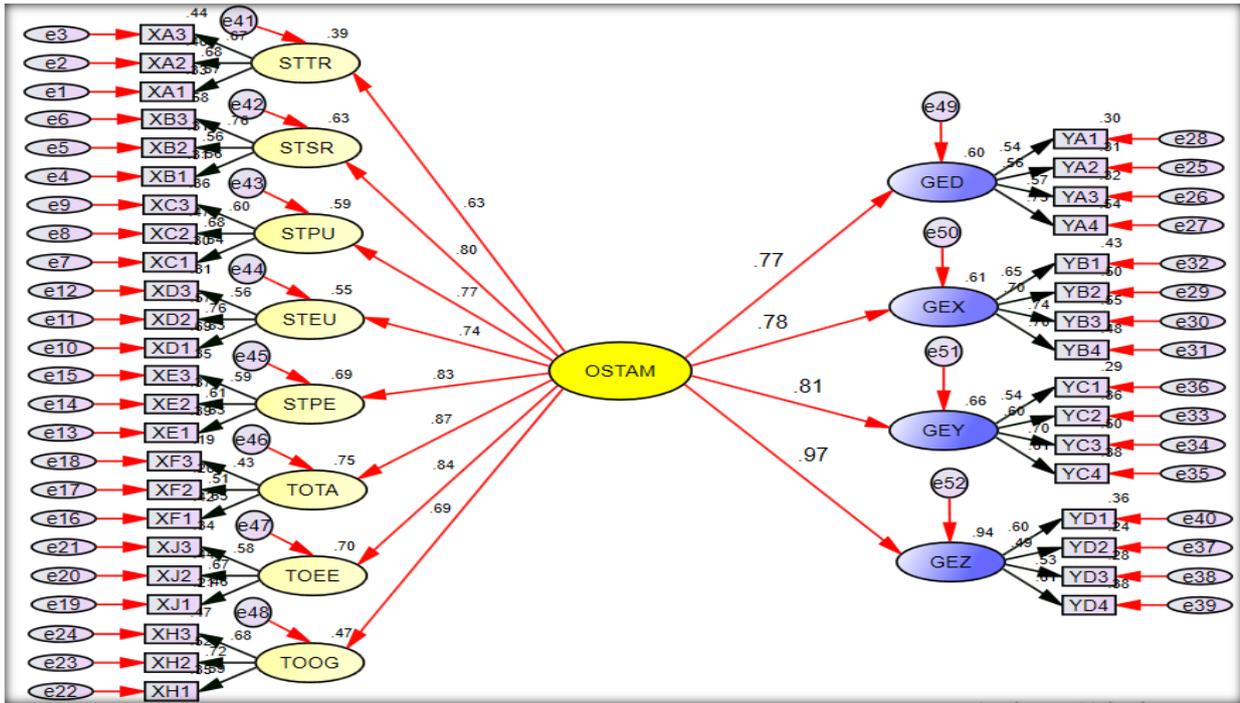
Table 8 shows the values of the effect relationship of the model that can be inferred to accept or reject the third main null hypothesis under the current study

Table 8 Impact relationship for the (H0.3) hypothesis

Influencing variables	Path of influence	The variable affected by it	Estimates	S.E.	C.R.	P
social technology	→	marketing generation	0.880	0.412	3.886	0.000

Based on the data in Table 8, it is clear that there is an effect of the social technology variable on the generation theory variable, as the estimated predicted value reached (0.880), which means that it is a significant value in terms of the (CR) value, which reached (3.886), which is greater than the critical value (1.96.) at a significance level of  $0.05 \geq \alpha$ , and thus we reject the third main null hypothesis (H0.3) and accept the third alternative hypothesis, which states (H1.3: There is an effect of social technology in the theory of generations at a significance level of  $(0.05 \geq \alpha)$ ).

To verify the sub-hypotheses emanating from the third main null hypothesis (H0.3.1, H0.3.2, H0.3.3, H0.3.4) and verify their validity and conformity, a structural equation model was formed to prove or deny these hypotheses, and the Fig. 5 displays this case. Table 9 displays the non-standard regression coefficient values for the model, which will lead to rejecting or accepting the sub-hypotheses.



**Fig. 5** The impact relationship of social technology in the theory of generations in terms of its Table 9 shows the values of the model's influence relationships that can be inferred to accept or reject the sub-hypotheses emanating from the third main null hypothesis under the current study

**Table 9** Impact relationships for the subsidiary hypotheses stemming from the third primary hypothesis

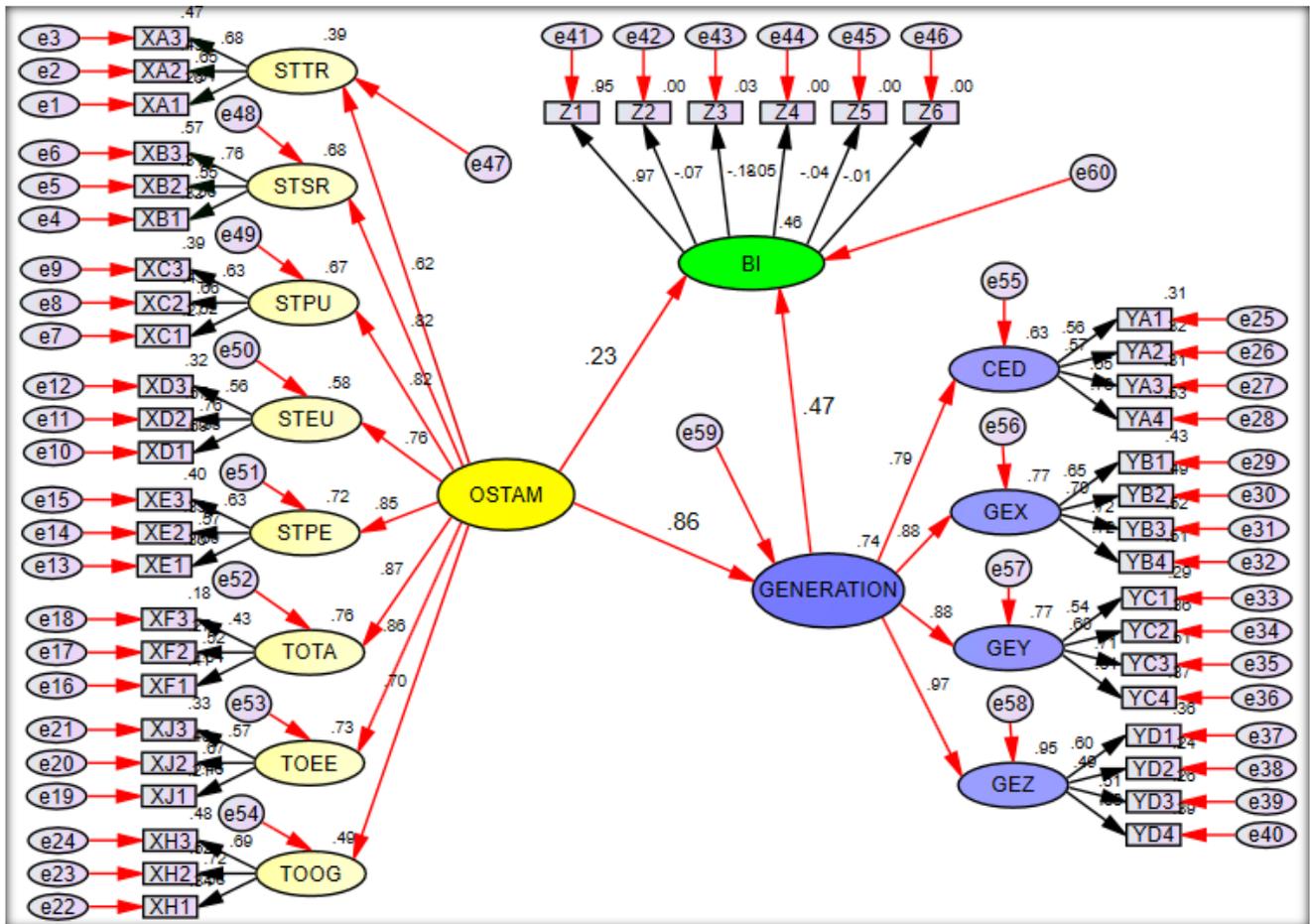
Influencing variables	Path of influence	The variable affected by it	Estimates	S.E.	C.R.	P
social technology	→	GED	0.770	0.452	3.920	0.000
		GEX	0.780	0.503	4.351	0.000
		GEY	0.810	0.395	4.129	0.000
		GEZ	0.970	0.401	4.960	0.000

Based on the data in Table 9, it is clear that there is an effect of the social technology variable on the GED dimension, as the estimated predicted value reached (0.770), which means that it is a significant value in terms of the (CR) value, which reached (3.920), which is greater than the critical value (1.96). At a significance level of  $0.05 \geq \alpha$ , it also appears that there is an effect of the social technology variable on the GEX dimension, as the estimated predicted value reached (0.780), which means that it is a significant value in terms of the (CR) value, which reached (4.351), which is greater than the critical value (1.96) at a significance level of  $0.05 \geq \alpha$ , and it appears that there is an effect of the social technology variable on the GEY dimension, as the estimated predicted value reached (0.810), which means that it is a significant value in terms of the (CR) value, which reached (4.129), which is greater than the critical value (1.96) at a significance level of  $0.05 \geq \alpha$ . It also appears that there is an effect of the social technology variable on the GEZ dimension, as the estimated predicted value reached (0.970), which means that it is a significant value in terms of the (CR) value, which reached (4.960), which is greater than the value Critical (1.96) at a significance level of  $0.05 \geq \alpha$ . Thus, we reject the null sub-hypotheses emanating from the third main null hypothesis (H0.3.1, H0.3.2, H0.3.3, H0.3.4) and accept the alternative sub-hypotheses emanating from the third alternative hypothesis, which states: on me:

- (H1.3.1): The effect of social technology on GED exists at a significance level ( $0.05 \geq \alpha$ ).
- (H1.3.2): The effect of social technology on GEX exists at a significance level ( $0.05 \geq \alpha$ ).
- (H1.3.3): The effect of social technology on GEY exists at a significance level ( $0.05 \geq \alpha$ ).
- (H1.3.4): The effect of social technology in GEZ exists at a significance level ( $0.05 \geq \alpha$ ).

**4.3.4 Testing the (H0.4): There is No Significant Effect of the Independent Variable, Social Technology, Indirectly on the Dependent Variable, Behavioral Intention, with the Theory of Generations as a Mediating Variable at a Significance Level (0.05 ≥ α)**

To confirm the (H0.4) to verify its validity and conformity, a structural equation model was formed to prove or deny this hypothesis. Fig. 6 displays this case, and Table 10 shows the regression analyses (weights) of the model for the three variables. To test this hypothesis, Table 10 The value of the direct and indirect influence relationship at the overall level of the model in a way that can be used to infer to accept or reject the fourth main null hypothesis.



**Fig. 7** The direct and indirect impact relationship of the independent variable, social technology, on the dependent variable, behavioral intention, in the presence of the mediating variable, generational theory at the macro level

**Table 10** Regression weights for the three variables at the aggregate level

Influencing variables	Path of influence	The variable affected by it	Estimates	S.E.	C.R.	P
social technology		marketing generation	0.860	0.409	3.668	0.000
marketing generation	→	behavioral intention	0.470	0.248	4.218	0.000
social technology		behavioral intention	0.230	0.488	3.683	0.000

**Table 11** Direct and indirect influence relationship at the aggregate level for the fourth main null hypothesis (H0.4)

Influencing variables	The variable affected by it	Direct impact value	Indirect effect value	Total impact value
social technology	marketing generation	0.860	.....	0.860
marketing generation	behavioral intention	0.470	.....	0.470
social technology	behavioral intention	0.230	.....	0.230
social technology	behavioral intention	.....	0.410	0.410

Based on the data in Table 11, it is clear that there is an indirect effect of the social technology variable on the behavioral intention variable in the presence of the generational theory variable as a mediating variable, as the value of the indirect effect reached (0.410) at a significance level of  $0.05 \geq \alpha$ , and thus we reject the four-quarter null hypothesis (H0. 4) We accept the fourth alternative hypothesis, which states (H1.4: There is a significant effect of the independent variable, social technology, indirectly on the dependent variable, behavioral intention, with the theory of generations as an intermediary variable at a significance level ( $0.05 \geq \alpha$ )).

## 5. Conclusions and Suggestions

The research sought to examine the factors influencing the intention to adopt social technology in educational organizations, guided by generational theory. The findings highlighted several key points. First, there are various factors that affect the intention of both organizations and individuals to adopt and use new technological innovations, which depend on the interactions between social, technical, and environmental components and their positive impact on organizational performance. The study introduced a new theoretical model, the OSTAM, to better understand the adoption and use of social technology in educational institutions, with consideration for generational diversity. Additionally, the existence of generational theory in educational organizations is crucial for understanding the different generations in the workplace, each of which has distinct values, ethics, ambitions, and work methods. However, the study found that organizations struggle to create a flexible and inclusive workspace that supports mobility across generational levels and faces challenges in transferring technological skills from younger to older generations. This gap highlights the need for organizations to manage generational differences more effectively to maintain internal communication. Furthermore, the research identified weaknesses in managing educational technology, which hampers the development of a learning and innovation culture. Lastly, the organization's inability to apply an enhanced TOE model with contextual factors limits its capacity to predict individual and organizational behavior toward new technology.

In line with the conclusions, the research provided several recommendations. First, organizations should create a flexible and shared workspace that supports mobility between generational levels by intelligently integrating technology and transitioning from a hierarchical to a networked approach. Second, the ability to transfer technological skills from newer to older generations must be emphasized by forming joint work groups and utilizing individuals from the "microgeneration" (those positioned between two generations) to facilitate reverse knowledge transfer. Third, organizations need to improve their management of educational technology to foster a culture of learning and innovation, with a particular focus on how social technology can enhance organizational performance. Finally, the organization should adopt the improved TOE model, incorporating contextual factors such as organizational culture, technology characteristics, and usage context to better predict individual and organizational behavior toward new technology adoption.

Future research could explore several areas, including the impact of generational differences on the adoption of digital marketing tools in educational organizations. Another important area of investigation could be the role of intergenerational interaction in enhancing the intention to adopt social technology in educational institutions. Additionally, analyzing the behaviors of different generations regarding the use of social technology in higher education could provide deeper insights into how generational diversity influences technology adoption in educational settings.

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## Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of the paper.

## Author Contribution

The authors confirm their contribution to the paper as follows: **study conception and design:** Saif Khalid Zakaria, Mohammad Mahmood AL-Mulla Hasan; **data collection:** Mohammed Ahmed Mahmood; **analysis and interpretation of results:** All authors contributed to the preparation of the manuscript draft.: Saif Khalid Zakaria, Mohammad Mahmood AL-Mulla Hasan. All authors reviewed the results and approved the final version of the manuscript.

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