

**THE EFFECTIVENESS OF SOCIAL MEDIA AS AN E-LEARNING TOOL IN
ENHANCING UNDERSTANDING AND LEARNING EXPERIENCES IN BUSINESS
SIMULATION GAMES: A CASE STUDY OF EDUGATE**



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**DEPARTMENT OF MANAGEMENT
INTERNATIONAL UNDERGRADUATE PROGRAM
FACULTY OF BUSINESS AND ECONOMICS
UNIVERSITAS ISLAM INDONESIA**

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SIMULATION GAMES: A CASE STUDY OF EDUGATE**

Internship Final Project

Compiled and submitted to meet the final exam requirements in order to obtain a Bachelor's
degree in Management Study Program, Faculty of Business and Economics

Universitas Islam Indonesia



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INTERNATIONAL UNDERGRADUATE PROGRAM
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ADVISOR APPROVAL

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Dean of the Faculty of Business and Economics
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Prof. Johan Arifin, S.E., M.Si., Ph.D.

DECLARATION OF AUTHENTICITY

Hereby I declare the originality of the thesis; I have not presented anyone else's work to obtain my university degree, nor have I presented anyone else's words, ideas or expression without acknowledgement. All quotations are cited and listed in the bibliography of the thesis. If in the future this statement is proven to be false, I am willing to accept any sanction complying with the determined regulation or its consequence.

Yogyakarta, 11 March 2026



A handwritten signature in black ink, appearing to read 'Salima'.

(Salima Fadhilatus Sholihah)

ABSTRACT

The integration of digital platforms in business education has reshaped instructional delivery, particularly within simulation-based learning environments. In this context, Edugate utilizes social media as a pre-training activation tool to support the implementation of its Business Simulation Game (BusinessSim). This study aims to examine the effectiveness of Edugate's social media as an e-learning instrument and to evaluate the effectiveness of structured training sessions in improving measurable learning outcomes. A mixed-method approach was employed, combining survey data and pre-test post-test analysis involving 125 participants of the International Business Simulation Competition 2025, including representatives from several ASEAN countries. Data were analyzed using descriptive statistics, instrument validity and reliability testing, and N-Gain score analysis. The findings reveal that social media serves as an effective supportive learning platform by reinforcing key constructs of the Technology Acceptance Model (TAM), particularly perceived usefulness, perceived ease of use, and behavioral intention to use. Furthermore, the training intervention demonstrates statistically significant improvement in post-test scores, indicating cognitive gains. The participation of international students enhances the cross-contextual relevance of the findings. The study highlights the strategic integration of digital communication and experiential training in advancing simulation-based learning effectiveness.

Keywords: Business Simulation Games, Social Media-Based Learning, Technology Acceptance Model, Learning Outcomes, Satisfaction

PREFACE

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CHAPTER I

INTRODUCTION

1.1 Company Profile

1.1.1 Company History

PT Harfan Tri Megah (Edugate) is a national private company founded by Hanry D. Kumala and Indri Leonita Sibarani. Officially established in 2006, the company operates in the fields of technology and education, with a strong commitment to serving as a bridge between educational institutions and industry. The establishment of Edugate originated from the founders' involvement in various projects related to SAP (System, Applications, and Products in Data Processing) and ERP (Enterprise Resource Planning). Through these experiences, they recognized the significant market potential of SAP in Indonesia. They also observed that most SAP implementations were carried out by foreign experts, resulting in high implementation costs and challenges in maintaining post-implementation reliability. This situation prompted the founders to recognize the importance of developing competent local human resources in information technology, particularly in the implementation of SAP solutions.

As one of the most populous countries in the world, Indonesia must optimize its human capital and prioritize education to address the balance between the supply and demand of skilled workers. Therefore, Edugate began operating as an SAP Partner, with a strong commitment to serving as a pioneer in bridging the gap between higher education institutions and the industrial sector in Indonesia.

Since its inception, Edugate has focused on human resource development through intensive education and training programs in information technology (IT), with a particular

emphasis on SAP-related solutions. The company aims to cultivate professionals who not only possess technical expertise but also have a comprehensive understanding of industrial needs and challenges. Edugate has established collaborations with various educational institutions and companies across Indonesia, providing SAP/ERP implementation services and delivering relevant training programs. As part of its innovation, Edugate developed a web-based learning platform called the Business Simulation Game (BusinessSim), designed to support the learning of ERP fundamentals and integrated business processes in an engaging, accessible, and interactive manner for both students and educators.

Edugate has a clear vision to become the leading organization in equipping Indonesia's human resources with the highest value of IT knowledge through higher education institutions, thereby creating Indonesian leaders capable of making significant contributions in the global era. The company recognizes that the rapid advancement of technology requires continuous updates in both knowledge and skills. Through its programs, Edugate aims to cultivate a generation capable of driving digital transformation and supporting sustainable economic growth in Indonesia. To achieve its vision and mission, the company upholds five core values: innovation, knowledge, integrity, adaptability, and excellence.

1.1.2 Company Profile and Services

PT Harfan Tri Megah (Edugate) is headquartered at Edugate Building, Jl. RS Fatmawati, South Jakarta, Indonesia. Operating at the intersection of technology and education, Edugate offers four core services:

1. University Partnership Program

The service is designed to integrate SAP knowledge into higher education curricula, ensuring that academic learning aligns with industry requirements. SAP is widely recognized as one of the world's leading Enterprise Resources Planning (ERP) software solutions, used by top global corporations to achieve efficient and integrated business processes. In response to the growing demand for SAP-skilled professionals, Edugate focuses on strengthening the supply of qualified graduates by enhancing university curricula. To date, the company has collaborated with over 30 higher education institutions across Indonesia, providing students with the skills to understand integrated business processes within leading ERP systems and preparing them to meet industry standards upon graduation.

2. Business Simulation

The Business Simulation Game (BusinessSim) is a web-based interactive learning platform designed to facilitate the understanding of business process integration in an engaging and enjoyable way. Through the platform, users form teams and compete to achieve the highest profit by applying their own business strategies. In addition to teaching business process integration, BusinessSim helps users develop essential soft skills such as leadership, teamwork, analytical thinking, decision-making, communication, and data analytics.

3. SAP Implementation & Advisor

This service offers SAP/ERP implementation across various modules such as Financial/Accounting (FI/CO), Sales and Distribution (SD), Materials Management (MM), and Production Management (PM). Leveraging its extensive expertise in SAP, Edugate

supports a wide range of industries, including oil and gas, telecommunications, mining, logistics and transportation, and hospitality, in implementing SAP/ERP systems. The company also provides consulting and advisory services to ensure successful implementation and long-term operational efficiency.

4. Management Consulting

In addition to SAP implementation, Edugate has extensive experience in management consulting projects, including business process mapping, business process reengineering, standard operating procedure (SOP) development, IT blueprint design, software selection, and human resource competency modeling. Edugate provides comprehensive management support to help organizations execute their strategic initiatives effectively. Most importantly, the company ensures that the outcomes of its consulting services are not merely conceptual but are successfully implemented and deliver tangible results.

1.1.3 Company Structure

PT Harfan Tri Megah (Edugate) is structured into three main departments, including the operational department, technical engineering, and functional SAP consulting. This organizational structure allows the company to operate efficiently while maintaining the quality and consistency of its services. Each department is responsible for specific functions that support the company's core activities. By clearly defining roles and responsibilities, the company is able to ensure effective coordination between its educational services and technological development initiatives. The organizational structure of Edugate is illustrated in Figure 1.1.

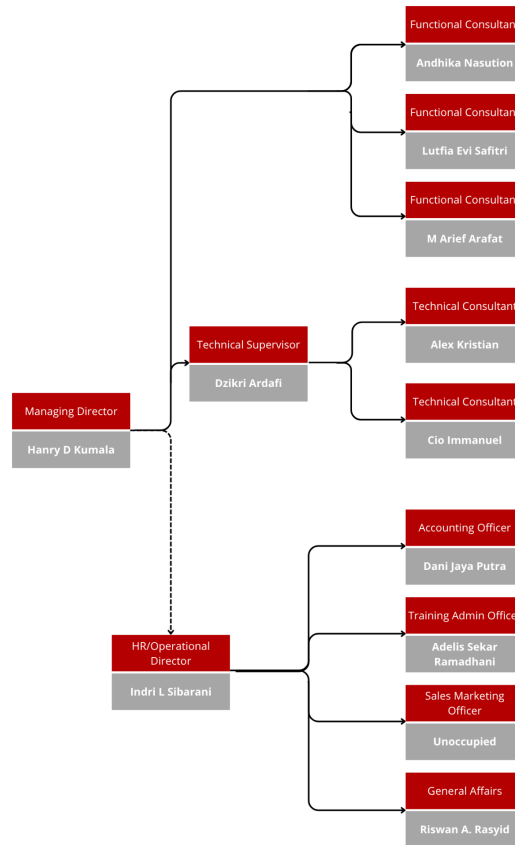


Figure 1.1 Edugate Organization Structure

1.2 Background

The rapid advancement of digital technology has significantly transformed the landscape of education worldwide. The shift from face-to-face learning environments toward digitally mediated learning, commonly referred to as e-learning, has accelerated significantly, particularly following the COVID-19 pandemic, which compelled educational institutions to adopt remote learning strategies (Saufi, 2025). Higher education is increasingly integrating digital learning platforms to complement conventional classroom instruction, creating more flexible, interactive, and student-centered learning environments. E-learning provide flexibility in terms of time and location while providing various interactive media that facilitates knowledge acquisition and collaboration among learners. Moreover, digital learning platforms expand access to education enabling students from diverse geographical backgrounds to participate in learning activities without physical constraints. Previous studies indicate that the integration of digital learning technologies not only enhances accessibility but also promotes lifelong learning opportunities for both adult learners and professionals (Saufi, 2025).

Within the field of business education, this digital transformation has encouraged educators to adopt more experiential and application-oriented teaching methods. Traditional lecture-based instruction is increasingly supplemented by interactive learning approaches that allow students to apply theoretical knowledge to practical scenarios. Among these approaches, simulation-based learning has gained considerable attention in higher education, as it enables learners to engage in real-world decision-making processes within controlled virtual environments. Through simulation-based learning, students can experiment with strategies, observe outcomes of their decisions, and refine their

understanding through repeated practice. As noted by Skjelberd and Daus (2022), business educators are gradually shifting from rule-based knowledge transfer toward simulation-driven pedagogies that emphasize critical thinking, problem solving, and experiential engagement.

One example of this pedagogical shift can be observed in the initiatives undertaken by PT Harfan Tri Megah (Edugate), an Indonesian educational technology company specializing in Enterprise Resource Planning (ERP) and System Application and Data Processing (SAP) learning solutions. Recognizing the gap between theoretical instruction in universities and the practical competencies required in industry, Edugate developed a web-based learning platform known as the Business Simulation Game (BusinessSim). This platform aims to provide students with experiential exposure to integrated business processes within a simulated learning environment. By engaging with realistic business scenarios, students are expected to develop a deeper understanding of how different functional areas within an organization interact and influence overall performance.

BusinessSim is a web-based simulation game that allows users to manage virtual companies either individually or collaboratively in teams. Within the simulation environment, participants are responsible for making strategic decisions across multiple departments, including production, operations, sales, accounting, human resources, and warehousing. Each department is designed to simulate realistic business functions, exemplified in the production and sale of fruit juices in the game. Students are required to make strategic decisions to achieve optimal company performance, which encourages them to apply theoretical knowledge in dynamic and competitive settings. This learning model aligns with the experiential learning cycle, in which learners gain knowledge through active

participation, reflect on their experiences, integrate new insights, and apply them to future scenarios (Cai, 2023).

To further strengthen experiential learning opportunities, Edugate organizes the Business Simulation Competition, an academic event that brings together participants from multiple educational institutions to compete in managing simulated businesses. In June 2025, in collaboration with Malang State Polytechnic (POLINEMA), Edugate hosted the International Business Simulation Competition, one of the largest academic competitions the company has organized to date. Participants came from several ASEAN countries, including Thailand and the Philippines, and represented diverse backgrounds, including students with prior experience using the Business Simulation Game as well as those entirely new to the platform. This competition serves not only as a platform for applying academic knowledge but also as an opportunity for students to develop teamwork, leadership, analytical thinking, and strategic decision-making skills. Beyond its educational objectives, international competition also functions as a strategic exposure initiative, enabling the company to introduce its Business Simulation Game platform to a broader regional audience and expand its potential international user base. In this sense, the program operates both as an experiential learning environment and as a strategic effort to promote cross-border adoption of the platform.

Prior to the competition, the company conducted structured mentoring sessions designed to introduce participants to the game mechanics, strengthen critical thinking skills, and support the development of competitive strategies. To facilitate this process, Edugate implemented a multi-platform digital learning model using social media. Instagram and YouTube served as primary channels for delivering pre-training materials,

while Zoom meetings and WhatsApp groups provided interactive spaces for communication and discussion during the mentoring period. Participants also received e-books to supplement their understanding of business processes and the gameplay. The use of Instagram and YouTube as instructional media for learning “How to Play the Business Simulation Game?” represents an innovative pedagogical strategy for the company. This approach improves accessibility to business process tutorials and engage students through visually rich and user-friendly formats.

The increasing use of multi-platform digital tools in educational context reflects broader changes in how knowledge is distributed and consumed in the digital era. Social media, in particular, has become one of the most prominent innovations in digital technology, evolving beyond its original function as a communication tool to become a powerful medium for information dissemination and learning. Over time, social media platforms have transformed into accessible spaces where users can acquire knowledge, exchange ideas, and engage in interactive educational experiences (Law et al., 2022). The user-friendly nature of social media, combined with visually engaging content and well-crafted captions, enhances users’ comprehension and motivation to learn. This interactive and visual-based approach allows educational materials to be delivered in a more engaging, relatable, and efficient manner, thereby making social media a valuable tool for supporting digital learning in the modern era (Niyomsuk & Polyiem, 2022). By leveraging the unique characteristics of each platform, the company aims to create a learning experience that is more dynamic, personalized, and aligned with students’ digital habits.

Despite the growing adoption of digital learning platforms in higher education, the effectiveness of combining social media-based learning support with structured

synchronous training remains insufficiently understood. In the context of simulation-based learning, most previous studies have primarily examined the role of simulation environments in enhancing conceptual understanding and decision-making skills (Cai, 2023). Meanwhile, research on the use of social media in education often focuses on engagement, communication patterns, or user participation rather than evaluating its contribution to measurable learning outcomes such as conceptual comprehension or skill development (Guckian et al., 2021). Consequently, there is limited empirical evidence regarding multi-platform digital mentoring models, particularly those integrating asynchronous learning media - such as Instagram and YouTube - with synchronous platforms like Zoom and WhatsApp to support students' readiness and performance in business simulation learning environments.

This limitation highlights a significant research gap, particularly in understanding how different digital platforms function collectively within a structured instructional ecosystem. While previous studies have independently examined the effectiveness of simulation-based learning effectiveness (Cai, 2023), experiential learning approaches (Kolb, 1984), and the use of social media in education (Law et al., 2022; Niyomsuk & Polyiem, 2022), relatively few studies have explored how these elements interact within a unified training model designed to prepare students for competitive simulation environments. Furthermore, the role of technology acceptance in shaping students' perceptions of such integrated learning systems has not been sufficiently investigated, particularly in the context of business simulation competitions.

Therefore, this study introduces a novel perspective by examining the effectiveness of a multi-platform digital mentoring model that integrates social media-based learning

support, synchronous online training, and simulation-based competition preparation within a single educational framework. The Technology Acceptance Model (TAM) provides a valuable theoretical lens for understanding how users accept and utilize new technologies, emphasizing two core constructs: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) (Davis 1987). In the context of this study, Perceived Usefulness refers to the extent to which students perceive Edugate's digital learning contents - such as Instagram posts, YouTube tutorials, and Zoom sessions – as beneficial in supporting their understanding of the simulation. Meanwhile, the Perceived Ease of Use captures the extent to which students find it easy to access, navigate, and comprehend learning materials through these platforms. By applying the Technology Acceptance Model (TAM) to analyze students' perceptions of the usefulness and ease of use across various digital learning platforms, this research study provides a comprehensive evaluation of how technology acceptance influences learning experience and outcomes in a simulation-based educational context. In addition, this study incorporates complementary learning dimensions - such as engagement, conceptual understanding, skill development, teamwork, and satisfaction - in order to capture both perceptual and measurable aspects of learning effectiveness.

Integrating the TAM into the company's context enables a comprehensive analysis of how technology acceptance correlates with learning effectiveness. This includes examining the extent to which students who perceive the company's social media contents as useful and easy to use demonstrate comprehensive understanding and improved performance in Business Simulation Game competition. It also involves exploring how various forms of digital media – ranging from Instagram posts and YouTube videos to synchronous interactions conducted via Zoom and WhatsApp - collectively shape students'

learning experiences. Through this analysis, this research study offers valuable insights not only into the educational effectiveness of the company's digital strategy but also into broader considerations for designing effective e-learning environments in higher education.

Therefore, evaluating the effectiveness of integrated digital learning ecosystems has become increasingly important, particularly in the context of simulation-based business education. The mentoring model implemented by Edugate represents a unique case in which multiple digital platforms - including social media content and synchronous mentoring sessions - are combined to support students' preparation for business simulation competitions. However, empirical evidence regarding the effectiveness of such integrated learning models remains limited, especially in understanding how students perceive and benefit from these digital platforms within structured learning environments. Therefore, this study seeks to examine the effectiveness of Edugate's social media and digital mentoring ecosystem as an e-learning tool in enhancing students' learning experiences and their understanding of Business Simulation Games. By applying the Technology Acceptance Model as a research framework, this research aims to provide a comprehensive evaluation of students' learning experiences, perceptions, and outcomes. The findings of this study are expected to contribute both theoretically to the literature on digital learning and simulation-based education, and practically by offering insights for educators and educational technology providers in designing more effective digital learning strategies for experiential business education.

1.3 Problem Formulation

During the internship program at PT Harfan Tri Megah (Edugate), several specific challenges and issues were identified related to the company's digital learning and training strategy:

- a. Edugate has recently begun utilizing social media platforms not only for branding purposes but also as educational tools. However, the company has not yet developed a structured approach or curriculum, such as key performance indicators, for producing effective digital content, particularly in audiovisual or video-based formats, to meet educational and training objectives.
- b. The training programs provided in preparation for the Business Simulation Game (BusinessSim) have not been empirically evaluated. While Edugate has implemented online training and communication using platforms such as Zoom and WhatsApp, there has been no formal assessment of the effectiveness of these media in facilitating learning. As a result, there is no measurable data on user performance improvement or customer satisfaction following the training.

The recent development and integration of video-based learning content on social media, initiated earlier this year, also lacks evaluation in terms of their educational impact and effectiveness in enhancing users' understanding. Based on these identified issues, this research aims to address the following research questions:

1. To what extent are Edugate's social media content, video tutorials, and e-learning materials effective in supporting users' conceptual and practical learning related to the Business Simulation Game?

2. To what extent is the online training conducted by Edugate effective in enhancing participants' comprehension and learning experiences in using the Business Simulation Game?

1.4 Internship Purpose

This research is expected to provide valuable insights for PT Harfan Tri Megah (Edugate) in enhancing the effectiveness of its digital learning strategies, particularly through social media and online training programs. The findings of this study are anticipated to serve as a strategic reference for the company in developing more impactful, user-oriented, and educationally sound content that supports users' preparations for the Business Simulation Game. Specifically, the objectives of this research are as follows:

1. To evaluate the effectiveness of Edugate's social media content, video tutorials, and e-learning materials in supporting users' conceptual and practical learning related to the Business Simulation Game.
2. To evaluate the effectiveness of the online training conducted by Edugate in enhancing participants' comprehension and learning experience in using the Business Simulation Game.

1.5 Internship Benefit

1.5.1 Practical Contribution

This research is expected to provide strategic recommendations for PT Harfan Tri Megah (Edugate) in enhancing the effectiveness of its digital learning initiatives, especially those delivered through audiovisual content on social media

platforms. By evaluating user experiences related to such content, such as ease of use, usefulness, creativity, and enjoyability, the findings may serve as a reference for developing more structured, engaging, and pedagogically sound digital content that better supports students' understanding of the Business Simulation Games (BusinessSim). By optimizing the use of audiovisual media and improving the design of online training (such as Zoom-based workshops), Edugate can establish a more effective and learner-centric digital learning environment. Furthermore, this research may assist the company in understanding user engagement patterns and in designing digital education strategies that are responsive to student needs, preferences, and behaviors.

1.5.2 Theoretical Implications

Theoretically, this study aims to contribute to the body of knowledge in the fields of digital education, experiential learning, and educational content marketing. By examining the use of social media as a learning platform in the context of the Business Simulation Game, this research extends the discourse on social media in education and the Technology Acceptance Model (TAM). It further enriches the literature by exploring how digital content delivered through platforms such as Instagram and YouTube influences learner readiness, comprehension, and perceived learning outcomes. This study may also serve as a foundation for future research investigating the intersection between social media strategies and pedagogical effectiveness in business and management education.

1.5.3 Expected Outcomes & Solution

The expected outcome of this research is the development of a standardized strategy for delivering educational and training content that aligns with current industry dynamics and the evolving needs of students. This strategy may include the creation of a curriculum framework for video-based learning and supporting learning materials, the capacity building of human resources or trainers involved in the Business Simulation Game, and the enhancement of social media content.

Additionally, leveraging customer insights gathered from digital interaction data can support more data-driven decision-making. The implementation of these solutions is expected to improve the quality of online educational training programs delivered through platforms such as Zoom as well as the effectiveness of content disseminated via social media. Ultimately, this approach aims to strengthen customer loyalty and increase users' intention to use social media-based learning tools for Edugate's product training, especially in the context of rapid growth and competition within the educational technology landscape.

CHAPTER II

LITERATURE REVIEW

2.1 Theoretical Foundations

2.1.1 Game Simulation

The integration of games into the learning process has gained significant traction among schools and higher education institutions in recent years (Vlachopoulos & Makri, 2017). This trend includes educational games, digital game-based learning, and applied games, all of which serve as cutting-edge resources that enhance classroom instruction and shift the paradigm from conventional teaching methods to more interactive and participatory ones. Within this domain, various categories exist, including simulation games. A simulation game is defined as a type of game whereby players must accomplish certain objectives within simulated or real-world systems or scenarios (Gros, 2007). Through simulation-based environments, students are encouraged to use their practical skills along with their prior knowledge to address real-world challenges. Simultaneously, such approaches enable educators to accomplish teaching objectives more effectively (Andreu-Andres & Garcia-Casas, 2010).

Simulation games often feature practical scenarios that can be completed individually or collaboratively in groups (Robertson et al., 2009). These kinds of experiences help students acquire and develop critical abilities such as interpersonal communication, teamwork, leadership, decision-making, task prioritization, and stress management (Robertson et al., 2009). In the context of business and economics education, simulation games play a crucial role in improving students' critical and analytical thinking skills. By engaging in simulated business environments, students are able to experience

authentic decision-making processes and gain a deeper understanding of the complexities of economic systems, thereby bridging the gap between theoretical knowledge and practical application.

Building on these insights, the Business Simulation Game (BusinessSim) developed by PT Harfan Tri Megah (Edugate) serves as a bridge between conceptual ERP/SAP-based learning and the applied understanding of business processes. The experiential learning approach embedded in BusinessSim closely aligns with the pedagogical objectives of ERP/SAP education, which emphasize process orientation, system thinking, and practical integration of business processes.

2.1.2 Social Media Learning

The rapid proliferation of social media has permeated all aspects of modern society (Guckian et al., 2021). As platforms continue to diversify, defining social media has become increasingly complex (Guckian et al., 2021). For the purpose of this study, social media is defined as a broad range of digital platforms - including websites, blogs, chat applications, and other computer-based programs that facilitate communication that enable users to share information and express ideas (Cheston et al., 2013).

According to data reported by Statista (2025), there are approximately 5.4 billion social media users across the world. Social networking platforms range from microblog services such as X to social media applications such as Facebook, YouTube, Instagram, LinkedIn and TikTok. These platforms have reshaped how individuals interact socially, access information, and manage their daily lives including in educational context (Muftah, 2024). As digital natives, higher education students increasingly rely on social media not

only for social interaction but also for accessing academic resources, exchanging knowledge, participating in discussions, and exploring professional opportunities. Beyond its communication purposes, social media has gradually emerged as a supportive learning environment that complements formal educational activities. Ciampa et al. (2016) identified nine common purposes of social media use among college students, including communication with peers, entertainment, family interaction, accessing information about community and college events, engaging in classwork discussions, building professional networks, and communicating directly with instructors. These findings indicate that social media serves not only as a social or recreational space but also as an informal learning support system that extends learning beyond the traditional classroom setting. When integrated effectively, social media platforms can facilitate continuous engagement, peer interaction, and knowledge reinforcement within a blended learning environment.

In the educational context, the adoption of emerging web technologies has been increasing rapidly (Khan et al., 2021). The widespread use of social media as a learning tool highlights the importance for both educators and students to understand and effectively adopt social media sites to establish future educational strategies and deliver course materials through technology-driven environments (Sarwar et al., 2018). To create an inclusive and effective approach to content delivery, a comprehensive understanding is required in selecting appropriate social media platforms and in designing content formats that align with students' learning preferences. The manner in which educational content is presented plays a crucial role in determining its accessibility, engagement level, and overall learning impact, whether in textual, visual, or audiovisual forms. Different social media platforms offer distinct affordances that support learning in different ways. In the context

of Business Simulation Game learning, Edugate utilizes Instagram and YouTube as complementary platforms for delivering educational content, while Zoom and WhatsApp serve as the primary platforms for synchronous training sessions. The selection of these platforms is based on their respective communication features and learning support capabilities. Instagram is widely used for visual-based communication through short videos, images, and interactive features, allowing complex concepts to be presented in concise and engaging formats. In contrast, YouTube enables longer-form audiovisual content facilitating more detailed demonstrations, tutorials, and conceptual explanations. These characteristics make Instagram suitable for delivering concise learning prompts and engagement-oriented content, while YouTube enables the delivery of more comprehensive instructional materials.

Meanwhile, Zoom and WhatsApp support real-time interaction during training sessions. Zoom enables direct virtual meetings between mentors and participants, facilitating live explanations, demonstrations, and discussions that simulate classroom interaction in an online environment. WhatsApp complements this by enabling continuous communication, quick information exchange, and effective coordination between mentors and participants throughout the training process. Understanding the versatile role of social media as a learning support tool, along with the relevance of specific platforms, and the impact of content formats, provides an important foundation for examining how Instagram and YouTube can enhance students' comprehension of the Business Simulation Game within a digitally enriched learning environment.

2.1.3 User Perception

In the context of information systems, a *user* refers to any individual who directly interacts with and utilizes a system for specific purposes (Whyte et al., 1997). *User perception* represents the psychological responses formed by users through their sensory experiences when engaging with a system or digital platform (Erin & Maharani, 2018). These perceptions are shaped based on users' prior experiences, expectations, and emotional conditions. Through cognitive processes involving sensory input, individuals interpret stimuli and construct either positive or negative perceptions. This process occurs through several stages, including stimulus selection, interpretation, and subsequent response (Erin & Maharani, 2018).

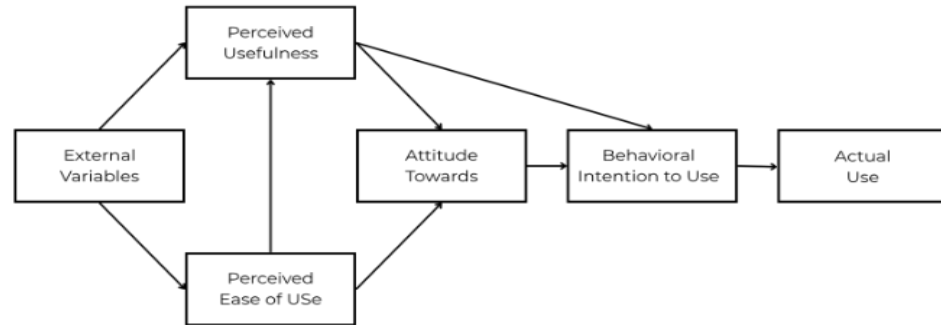
In the context of this study, user perception refers to how students and users interpret, evaluate, and respond to Edugate's social media as a digital instructional tool that supports their understanding of Business Simulation Games. The following sections discuss several theoretical perspectives on user perception that underpin this research.

2.1.3.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), introduced by Davis (1987), is one of the most influential and widely applied theoretical frameworks in the fields of information systems and educational technology. TAM has proven to be a theoretical model in helping to explain and predict user behavior in the adoption of information technology (Legris et al., 2003). It provides a framework for examining how external variables affect users' belief, attitudes, and use of intention. TAM proposes two cognitive beliefs: Perceived Usefulness (PU) and Perceived Ease of

Use (PEOU). Figure 2.1 illustrates the suggested model, with arrows indicating causal relationships.

Figure 2.1 Original Technology Acceptance Model (TAM)



It is suggested that a prospective user's general perception of utilizing a particular system plays a significant role in determining whether the user actually uses it. Perceived usefulness and perceived ease of use are the two main beliefs that influence an individual's attitude toward system use.

In the educational context, TAM has been widely used to explore students' attitudes and behavioral intentions toward e-learning, mobile learning, and social media-based tools. Park (2009) found that both PU and PEOU significantly influence students' intention to use e-learning systems in higher education. Amid the rapid digital transformation in higher education, TAM serves as a valuable analytical framework for analyzing how students engage with emerging learning tools such as audiovisual social media content. In this study, TAM is employed to examine how students perceive the usefulness and ease of accessing social media platforms such as YouTube and Instagram in supporting their understanding of complex business-related materials, particularly in preparation for the Business Simulation Game Competition. These perceptions are crucial in determining

whether students are likely to adopt social media content as a primary learning resource. Furthermore, Venkatesh & Davis (2000) expanded TAM to include social influence and cognitive instrumental processes, highlighting that behavioral intention is also shaped by external variables such as content design, media interactivity, and peer influence. In this research, these external factors include the audiovisual quality, engagement level, and content relevance. Therefore, integrating TAM into this study not only clarifies the behavioral motivations underlying students' adoption of social media for learning but also offers valuable insights for designing more effective and engaging educational content.

The TAM model offers critical explanatory power in assessing students' behavioral intentions to rely on social media content as a supporting medium for mastering the Business Simulation Game. Thus, TAM not only anchors the analysis of technology acceptance within this research but also guides the interpretation of how factors such as design quality, interactivity, and content relevance shape students' learning experiences in technology-enhanced environments.

1. Perceived Usefulness (PU)

According to Davis (1987), Perceived Usefulness is the extent to which an individual perceives that utilizing a specific system would improve their job performance. In the context of educational technology, PU reflects users' perceptions of how effectively a system supports learning outcomes, improves understanding, and facilitates task accomplishment. Within this research, PU serves as a key indicator of whether Edugate's social media effectively

functions as an effective digital instructional tool rather than merely as an informational or promotional medium. Higher levels of PU are expected to contribute to improved comprehension of simulation games, enhanced learning performance, and better preparation for competitions.

2. Perceived Ease of Use (PEOU)

According to Davis (1987), Perceived Ease of Use is defined as the degree to which a person believes that utilizing a specific system would require no mental or physical effort. PEOU reflects how easily users can access, navigate, and interact with digital platforms such as Edugate's social media-based learning resources.

Within the Technology Acceptance Model (TAM), PEOU is theorized to have a significant and direct influence on perceived usefulness. Davis (1987) explains that when a system is perceived as easy to use, users are more likely to view it as useful, even when it offers similar functional capabilities to other systems. This relationship suggests that usability enhances users' ability to perform tasks more efficiently, thereby strengthening their perception of the system's overall value. Moreover, an easy-to-use system reduces the cognitive effort required for operation, allowing users to allocate more attention to task-related activities rather than system navigation. In the context of e-learning and digital instructional media, such as Edugate's social media platforms, a high level of PEOU may therefore enhance perceived usefulness by enabling users to focus more on

understanding business simulation concepts rather than struggling with the learning interface or content delivery format.

2.1.3.2 Perceived Enjoyment (PE)

Perceived Enjoyment is defined as the degree to which the activity of using technology is perceived to be enjoyable in its own right, apart from any anticipated performance outcomes (Davis, et.al., 1989). PE plays an important role in technology acceptance, and has been shown to have a strong correlation with perceived ease of use (Venkatesh, et.al., 2002). In this study, PE reflects the participants' feelings of enjoyment when using the company's social media and training materials during the business simulation learning process. Higher levels of PE are expected to enhance participants' perceived ease of use and overall acceptance of social media as a learning tool.

2.1.3.3 Perceived Creativity (PC)

Creativity is commonly defined as the ability to produce ideas or solutions that are both original and effective (Runco & Jaeger, 2012). Originality refers to the novelty of an idea, while effectiveness indicates that the idea must be useful and valuable within a specific context. Accordingly, the definition of creativity is highly dependent on contextual factors (Runco & Jaeger, 2012). Perceived creativity refers to an individual's belief in their own ability to generate valuable ideas. This construct reflects participants' self-perceived creative capability, which influences their confidence in problem-solving and learning activities, rather than measuring

actual creative performance (Laguía A., et al 2019). When participants perceive that learning tools support and encourage creativity, this perception enhances their confidence and motivates them to explore alternative strategies, experiment with decisions, and engage more actively within a simulation-based learning environment.

2.1.3.4 Relative Advantage (RA)

Relative advantage refers to the extent to which an innovation is perceived as better than the system or method it replaces (Rogers, 2003). This construct encompasses perceived benefits such as improved efficiency, savings in time and effort, lower cost, and greater convenience in task performance. Innovations that offer clearer and more tangible advantages are therefore more likely to be accepted and adopted by individuals. Supporting this perspective, Lee et al. (2011) identify relative advantages as a key predictor of technology adoption, as users tend to compare the value of new tools with existing alternatives. In the context of this study, relative advantage reflects participants' perceptions of whether the company's social media content, video tutorials, and training support provide more effective and efficient learning experiences than conventional learning approaches in supporting learning activities in the Business Simulation Game.

2.1.3.5 Self Efficacy (SE)

Self-efficacy represents a form of self-evaluation that plays a crucial role in shaping individuals' motivation and behavior (Chow et al. 2012). It refers to an

individual's belief in their capability to perform specific behaviors and has been shown to significantly influence the effective use of technology (Manolika et al. 2021). In the context of technology adoption, self-efficacy influences how confidently users interact with a system and perceive its ease of use. Venkatesh et al. (2002) emphasize that computer self-efficacy serves as an important determinant of perceived ease of use, both before and after hands-on experience with a system. In e-learning settings, self-efficacy is reflected in users' confidence in accessing information, communicating with instructors, and applying the skills required to use digital learning platforms effectively (Park, 2009). In this study, self-efficacy represents participants' confidence in using the company's social media content, video tutorials, and training support to effectively learn and perform tasks within the Business Simulation Game.

2.1.4 Affective and Behavioral Response

2.1.4.1 Satisfaction

Satisfaction is derived from the Latin *satis* (enough) and *facere* (to do or make). It serves to highlight the idea that satisfaction represents a sense of fulfillment, possibly up to a point where unfavorable consequences may arise. Oliver (2010) defined satisfaction as the customer's reaction to fulfillment. It is a judgment whether a feature of a product or service, or the product or the service itself, offers (or is offering) a pleasurable level of consumption-related fulfillment, including levels of under- or over-fulfillment. Kotler et al. (2022) state that satisfaction is the emotional response of pleasure or disappointment derived from

comparing perceived performance against expectations. Thereby, satisfaction is closely related to the extent to which customers' expectations align with their perceptions of an institution's or company's actual performance (Zeithaml, 2000).

A corporate learning provider such as PT Harfan Tri Megah (Edugate) maintains strong relationships not only with educational institutions as its primary clients but also with the students who directly use its products (Business Simulation Game) and services throughout their learning processes. Consequently, the company's long-term sustainability is significantly influenced by the level of satisfaction experienced by these students.

The concept of student satisfaction, first introduced by Cardozo (1965), originates from customer satisfaction theory. Accordingly, and in line with this theoretical foundation, student satisfaction is understood as an evaluative response to the learning services and instructional support provided to them (Beerli et al., 2004). Weerasinghe et al. (2017) conceptualize student satisfaction as a short-term evaluative attitude that emerges from students' assessments of their overall educational experience, including the quality of services and facilities they receive throughout the learning process. This evaluation reflects the extent to which their actual experience aligns with or diverges from their initial expectations. Thus, student satisfaction serves not only as a measure of educational quality but also as a key determinant of institutional sustainability and continuous improvement.

2.1.4.2 Attitude Toward Use (ATU)

Attitude Toward Use refers to users' overall evaluative feelings toward their interest and willingness to use a technological system (Firdaus et al. 2024). Within the Technology Acceptance Model (TAM), attitude plays a mediating role in explaining how perceived usefulness and perceived ease of use influence users' behavioral intention to adopt a system (Davis, 1989; Wiprayoga et al. 2023). In the context of this study, ATU represents the extent to which a participant possesses positive feelings toward the use of technology, specifically social media content, video tutorials, and training materials as learning tools.

2.1.4.3 Intention Toward Future Use

Intention is defined as an individual's self-instruction to perform a specific behavior (Triandis, 1980). This construct has received considerable attention in information systems (IS) research, particularly in studies on technology adoption and continued system use (Jeyaraj et al. 2023). Intention toward future use refers to an individual's conscious plan or willingness to continue using a particular system or technology in the future (Jeyaraj et al. 2023). Beyond reflecting initial acceptance, this construct captures the sustainability of technology usage. In the context of this study, intention toward future use represents participants' willingness to continue utilizing the company's social media content, video tutorials, and training support as learning tools for Business Simulation Games beyond the competition setting.

2.1.5 Perceive Learning Outcome of Training

Learning outcomes refer to the measurable changes in knowledge, skills, attitudes, and competencies that occur as a result of participation in a structured learning process. Learning outcomes emerge through the interaction between learners and the learning environment, which leads to cognitive and behavioral improvement (Ikhsan et al., 2019). In this study, the perceived learning outcome of training is conceptualized into six dimensions, including Experience Generation (EG), Conceptual Understanding (CU), Skill Development (SD), Affective Evaluation (AE), Teamwork (TW), and Training Satisfaction (S).

2.1.5.1 Experience Generation (EG)

According to Darmer & Sundbo (2008), experience refers to a holistic and multidimensional process that extends beyond the mere consumption of a product. It may be embedded within the product itself, function as a complementary element, or constitute the entire value proposition offered to the customer. Experience is not limited to functional utility, but includes the meaningful impressions, perceptions, and psychological outcomes formed in the customer's mind as a result of their interaction with the product or service. In the context of Business Simulation Games, Experience Generation represents students' perception of their involvement in decision-making processes, experimentation with strategic alternatives, and the application of management concepts within realistic scenarios (Mohsen et al., 2018).

2.1.5.2 Conceptual Understanding (CU)

Concepts represent structured meanings that explain phenomena, relationships, and underlying principles within a particular domain of knowledge. When individuals use a concept, they implicitly rely on a network of associated meanings, assumptions, and theoretical foundations that give coherence to their interpretation of reality (Widiyatmoko, 2018). In the context of business simulation training, conceptual understanding refers to the degree to which students comprehend theoretical frameworks and are able to appropriately apply them within the simulation environment (Mohsen et al., 2018). This includes understanding strategic management principles, financial analysis, sales strategies, operational decision-making, and integrating these concepts when formulating competitive strategies within the game environment.

2.1.5.3 Skill Development (SD)

Skill Development refers to the improvement of learners' practical abilities as a result of active participation in structured training activities. In simulation-based learning environments, students are exposed to scenarios that closely resemble real-world business operations, allowing them to practice and refine key managerial competencies. These competencies include analytical thinking, strategic planning, decision-making, problem-solving, and collaborative skills (Mohsen et al., 2018; Ranchhod et al., 2014). In this study, Skill Development reflects the extent to which students perceive that the Zoom- based business simulation training enhances their managerial and strategic competencies. By

participating in synchronous online instruction and direct engagement with the simulation platform, students are required to analyze data, formulate strategies, make competitive decisions, and coordinate with team members under time constraints. Therefore, Skill Development represents a crucial dimension of perceived learning outcomes, as it captures the practical value of online business simulation training.

2.1.5.4 Affective Evaluation (AE)

Affective Evaluation (AE) refers to individuals' immediate emotional responses when encountering a stimulus in their environment (Buttaccio & Hahn, 2010). Based on the theory of automatic evaluation, individuals are capable of assessing an object's goodness, pleasantness, or trustworthiness without fully processing its perceptual or functional attributes (Buttaccio & Hahn, 2010). This suggests that affective reactions occur rapidly and can influence subsequent judgment and behavioral intentions, even before deliberate cognitive evaluation takes place.

In the context of training, Affective Evaluation pertains to participants' emotional responses toward the training experience, including motivation, engagement, enjoyment, and perceived relevance (Ranchhod et al., 2014). It reflects how learners feel about the learning process and how these feelings influence their willingness to participate actively and persist throughout the training. Positive affective reactions can enhance attention, involvement, and overall learning effectiveness. In this study, Affective Evaluation captures how

students emotionally perceive the online instructional delivery via Zoom, interactive discussions, and strategic simulation game activities.

2.1.5.5 Teamwork (TW)

Teamwork or joint action refers to coordinated actions performed by individuals who share aligned beliefs and collective goals that guide their behavior toward achieving common outcomes (Cohen & Levesque, 1991). In collaborative settings, individuals work interdependently, distribute responsibilities, and rely on a shared commitment to accomplish desired outcomes. Effective teamwork involves communication, coordination, and collective responsibility among members.

In the context of business simulation training, teamwork represents the collaborative learning process in which students work together to understand the material, analyze data, and make strategic decisions within the simulation. Through discussion and mutual support, team members develop shared understanding and stronger decision-making capabilities. As argued by Arbaugh and Benbuan-Finch (2006), collaborative learning environments result in greater knowledge acquisition compared to individual learning settings. Therefore, teamwork in simulation training plays a critical role in improving students' comprehension and strategic performance.

2.1.5.6 Training Satisfaction (S)

Satisfaction refers to an individual's evaluative judgment regarding the extent to which a product or service fulfills expectations and provides a pleasurable

level of experience. According to Oliver (2010), satisfaction is a reaction to fulfillment, reflecting whether a particular service or its attributes deliver an adequate, under, or over-fulfilled level of consumption-related expectations. In the context of educational services, satisfaction represents students' overall appraisal of the learning experience based on perceived quality, usefulness, and value obtained from the training or learning-related activities.

Within business simulation training conducted through Zoom, training satisfaction pertains to students' evaluation of the effectiveness, clarity, interactivity, and overall delivery of the synchronous online learning sessions. Simulation-based learning can fulfill students' psychological needs for competence, autonomy, and relatedness, thereby increasing intrinsic motivation (Lohmann et al., 2019). Furthermore, satisfaction in this context is influenced not only by the instructional content but also by factors such as communication quality, real-time feedback, instructor guidance, technological reliability, and opportunities for discussion and collaboration.

2.2 Previous Empirical Research

Table 2.1 Previous Empirical Studies

Research Scope & Context	Research Sample	Variable/Focus	Key Findings	Relevance to The Current Study
Galatsopoulou et al. (2022)				
Examined students' perceptions toward video-based learning as a digital instructional medium in higher education.	University students enrolled in online and blended learning courses.	Video-based learning quality, perceived usefulness, engagement, learning satisfaction.	Video-based learning improves students' perceived understanding and engagement when content is structured and aligned with learning objectives. However, passive consumption reduces its effectiveness.	Supports the role of video tutorials as learning support tools and highlights the importance of instructional alignment, relevant to evaluating the company's training video.
Niyomsuk & Polyiem (2022)				
Investigated the use of TikTok as a social media	Grade 7 students learning	Social media-based learning, engagement,	Social media enhances student motivation and	Provides empirical support for social media as an

learning tool in formal education	Thai traditional dance	motivation, learning performance	engagement when integrated with instructional objectives, with informal and visual content encouraging active participation.	educational medium, strengthening the rationale for analyzing the company's social media content in learning contexts.
Skjelbred & Daus (2022)				
Analyzed the effectiveness of computer-assisted learning (CAL) through a randomized controlled trial.	University students participating in CAL-based instruction.	Learning satisfaction, learning outcomes, instructional effectiveness.	Learner satisfaction itself does not guarantee improved learning outcomes. Structured guidance, clear objectives, and pedagogical support remain essential.	Reinforce the need to evaluate training support and instructional design, not only user satisfaction, but also directly aligned with your evaluation of training effectiveness.
Cai (2023)				

Examined the influence of business simulation games on students' learning outcomes and decision-making skills.	Undergraduate business students	Business simulation usage, cognitive skills, engagement, learning performance.	Business simulation games enhance analytical thinking, decision-making, and practical business understanding, especially when supported by instructional guidance.	Underpins the educational value of business simulation, justifying the focus on learning support systems (training and social media) surrounding the simulation.
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The reviewed studies consistently demonstrate that various forms of digital learning support, such as video-based instruction, social media platforms, computer-assisted learning, and business simulation games, can positively influence student engagement and learning outcomes when supported by effective instructional design and structured learning guidance. Prior research highlights that the effectiveness of digital learning is not solely determined by the presence of technology itself, but rather by how digital tools are integrated within appropriate pedagogical frameworks. Despite extensive research on individual digital learning tools, relatively limited attention has been given to the combined role of social media-based learning content and structured training support in enhancing participants' learning experiences, particularly in the context of competitive and simulation-based academic activities. This limitation presents a research gap that warrants further investigation.

Addressing this gap, the present study examines how social media-based instructional content and synchronous training sessions support participants' understanding of a Business Simulation Game. In this context, social media functions as a complementary learning platform that reinforces key concepts and facilitates continuous learning. Furthermore, this study adapts measurement instruments used in prior research by modifying Likert-scale survey items to better reflect the context of learning in business simulation games. The questionnaire items were adjusted to capture participants' perceptions of social media content and online training sessions as digital instructional platforms within the Business Simulation Game environment.

Based on the explanation above, a research framework is proposed, as illustrated in Figure 2.2.

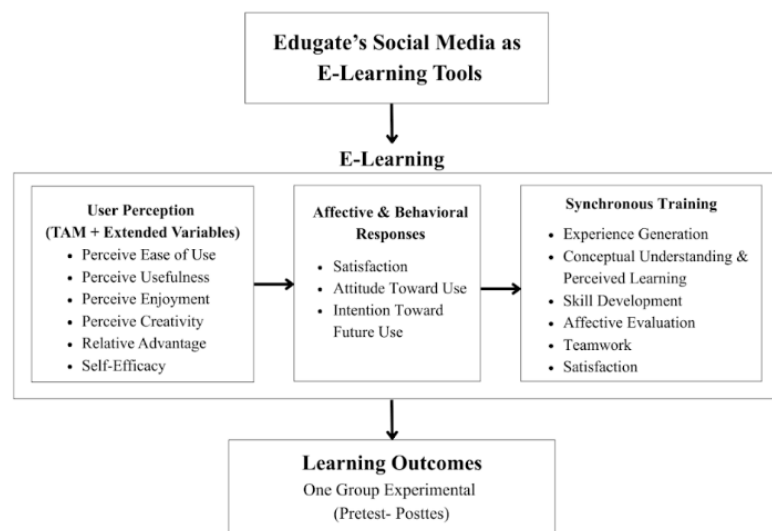


Figure 2.2 Research Model Framework

CHAPTER III

METHODOLOGY

3.1 Research Focus

This study employs a mixed-methods research design, integrating both quantitative and qualitative approaches to obtain a comprehensive understanding of the research findings. A mixed methods approach focuses on collecting, analyzing, and integrating both quantitative and qualitative data within a single study or series of related studies. In business and educational research, mixed methods approaches have become increasingly common (Sekaran & Bougie, 2016). Mixed-methods research is particularly appropriate when research questions cannot be sufficiently addressed through a single methodological approach. The application of mixed methods design is perceived to increase the validity of findings and provide a more comprehensive understanding of the phenomenon under investigation (McKim, 2017).

Quantitative research involves the collection of numerical structured questions (Sekaran & Bougie, 2016). It emphasizes numerical measurement, statistical analysis, and hypothesis testing to identify patterns, relationships, and causal effects among variables (Handayani, 2020). In this study, the quantitative approach adopts a structured questionnaire consisting of closed-ended questions to capture respondents' perceptions across predefined variables. The use of closed-ended questions provides respondents with no option other than selecting a list prepared by the researcher; thereby ensuring clarity, comparability, and reliability of the data (Sekaran & Bougie, 2016).

The qualitative component of this research aims to explore deeper insights into respondents' experiences, perceptions, and contextual factors that may not be entirely captured through numerical data to supplement the quantitative findings. Qualitative data is referred to as

word-based data gathered through interviews, responses to open-ended questions, or observations (Sekaran & Bougie, 2016). In this study, qualitative data are collected through short open-ended questions included in the questionnaire. These questions allow respondents to express their views freely, enabling researchers to capture broader perspectives and gain deeper insights into participants' perceptions and experiences related to the research topic (Sekaran & Bougie, 2016).

3.2 Methodology

This study employs a mixed-methods research approach, integrating both quantitative and qualitative methods in accordance with the research objectives to assess user perceptions, affective and behavioral responses toward the platform, as well as the effectiveness of synchronous training sessions in improving participants' learning outcomes. This approach has been proven and justified by previous research in similar contexts, such as in Thailand (Niyomsuk & Polyiem, 2022) and Norway (Skjelbred & Daus, 2022), which applied both quantitative and qualitative methods to evaluate technology-supported learning. The adoption of a mixed methods design enables the researcher to capture not only measurable patterns of user perceptions and learning outcomes but also in-depth contextual insights that explain and enrich the quantitative findings.

The quantitative research instruments used in this study are designed to measure participants' perceptions in a structured and systematic manner. The data were collected through closed-ended questionnaires administered at multiple stages, including one-group experimental pretest and post-test measurements. These questionnaires focused on key constructs derived from the Technology Acceptance Model (TAM). To complement the quantitative findings, open-ended questions were embedded within the questionnaire, allowing respondents to provide brief

explanations of their learning experiences and perceptions.

3.3 Unit Analysis

This study targets higher education students who participated in the Business Simulation Game competition at the International Management, Accounting, and Business Tournament (TREASURE) 2025, organized by the State Polytechnic of Malang (POLINEMA) in collaboration with PT Harfan Tri Megah (Edugate), and held in June 2025. These participants actively engaged in a structured training program provided by Edugate, which included access to social media-based learning content and synchronous instructional sessions. As direct users of the company's e-learning instructional tools, the participants serve as appropriate units for examining perceptions, learning outcomes, and behavioral intentions related to the use of social media as a learning support for understanding the Business Simulation Game (BusinessSim).

3.4 Population & Sampling

The population of this study consists of all higher education students who participated in the Business Simulation Game Competition at the International Management, Accounting, and Business Tournament (TREASURE) 2025. These participants were selected as the research population because they directly participated in the learning process using the Business Simulation Game and were exposed to the company's digital instructional education tools. Population refers to a generalization area consisting of objects or subjects that have certain characteristics determined by the researcher (Sugiyono, 2013). In line with this definition, all participants of the Business Simulation Game at TREASURE 2025 constitute the population of this study.

Given that the population size was relatively limited and all participants were exposed to the same learning intervention, this study employed a census approach, which refers to the inclusion of all elements within the target population (Sekaran & Bougie, 2016). In this approach, the entire population is used as the research sample. A census approach is appropriate when the population is manageable in size, and the researcher aims to obtain comprehensive data from all units of analysis, thereby minimizing potential sampling error (Sekaran & Bougie, 2016). Accordingly, the sample in this study consists of 125 participants who completed the full training program and competition phases. All respondents had direct experience with the company's instructional learning tools, including social media-based learning support and structured training materials.

3.5 Data Collection

This study employed a structured data collection timeline aligned with the learning and competition phases of the Business Simulation Game competition. Quantitative data were collected through a systematic process conducted over a five-day training period prior to the competition. On the first day, 125 participants completed a pre-test designed to measure their initial understanding of Business Simulation Game concepts before receiving intensive exposure to the company's social media content and synchronous online training. At this stage, participants had limited and unstructured access to the company's digital learning platforms.

Following the training sessions delivered through the company's digital platforms, including Zoom-based instruction and curated social media content, participants completed a post-test and a structured questionnaire. The questionnaire primarily consists of closed-ended items measured using a five-point Likert scale (1-5) to assess their perceptions across multiple

constructs. In addition, several open-ended questions were included at the end of the questionnaire to provide complementary qualitative insights and enrich the overall interpretation of the findings.

3.5.1 Timeline of Data Collection

The process of collecting both quantitative and qualitative data was conducted through several phases during the preparation period prior to the competition. These phases were carried out in a structured and sequential manner, where each phase was interconnected in order to ensure systematic data gathering and a comprehensive analysis of participants' learning experiences and outcomes. The structured timeline allowed the researcher to capture participants' initial conditions, monitor the learning process during the training sessions, and evaluate the learning outcomes after the intervention. The detailed timeline of the data collection is illustrated in Table 3.1.

Table 3.1 Data Collection Timeline

Phase	Activity	Data Collection Tool	Details
Phase 1	Pre-Test	Google Form (Online Test)	<ol style="list-style-type: none"> 1. Conducted prior to the online training period to assess participants' initial understanding of business processes within the Business Simulation Game concepts. 2. Consists of 10 objective questions and was administered online before participants

			received structured training materials or intensive exposure to the company's social media.
Phase 2	Training Evaluation and Post-test	Zoom (Training Session) and Google Form	<ol style="list-style-type: none"> 1. Implemented after the completion of a two-day online training program delivered via Zoom. 2. Participants received learning materials and explored key features of BusinessSim.
Phase 3	Social Media Evaluation	Google Form (Questionnaire)	<ol style="list-style-type: none"> 1. Conducted after the training period and a five-day self training phase, during which participants actively accessed the company's social media content and independently practiced using the BusinessSim Game.

3.6 Primary Data

The primary data in this study comprise both quantitative and qualitative data collected directly from the research subjects. Primary data refers to information obtained firsthand from original sources through direct data collection processes (Sugiyono, 2013). In this study,

quantitative data were gathered through direct interaction between the researcher and respondents during the training period and competition by administering pretest-posttest assessment as well as closed-ended questionnaires. Meanwhile, qualitative data were collected through open-ended questions embedded at the end of the questionnaire. The following sections describe in detail the primary data obtained through the pre-test and post-test, closed-ended questionnaire, and open-ended questions.

3.6.1 Pre-Test and Post-Test

The pre-test and post-test were conducted to measure changes in participants' understanding of Business Simulation Game concepts before and after the digital learning intervention. As mentioned by Cresswell (2009) the pre-test measures the characteristics assessed by the researcher assesses prior to the treatment, while post-test measures those same characteristics after the treatment has been administered. Table 3.2 shows an illustration of the one group pre-test and post-test research design.

Table 3.2 The Illustration of Pre-Test and Post-Test Design

Pre-Test	Treatment	Post-Test
Y1	X	Y2

1. Y1: Pre-Test conducted before exposure to the company's e-learning instructional content.
2. X: Digital learning instructional exposure provided by the company.
3. Y2: Post-Test conducted after exposure to the digital learning instructional design.

The research procedure that uses a one-group pre-test and post-test design, is described as follow:

1. Administering a pre-test (Y1) to measure participants' initial knowledge and baseline comprehension prior to their exposure to structured online training and social media-based learning support.
2. Applying the experimental treatment (X) by providing digital learning instructional support through structured online training and social media-based learning content to all participants.
3. Administering a post-test (Y2) to measure the participants' understanding and competencies in using the Business Simulation Game.

This approach allows the researcher to directly compare participants' performance across the two testing periods and evaluate the extent to which the learning intervention contributes to improvements in knowledge and understanding. The set of questions used in both the pre-test and post-test was designed to assess participants' comprehension of the core concepts related to the Business Simulation Game. The detailed list of questions used in the pre-test and post-test is presented in Table 3.3.

Table 3.3 Pre-Test and Post-Test Questions

No	Questions	Answer
1	Have you ever taken a course on ERP (Enterprise Resource Planning), SAP, or Business Simulation at your university?	Yes/No
2	Have you ever participated in a Business Simulation competition, either in class, in an Edugate-organized competition, or at any other event?	Yes/No
3	Have you accessed the Business Simulation materials (YouTube video or Module) we provide and share before?	Yes/No
Q1	Business Simulation (BusinessSim) is a game-based platform designed to help users understand the following, except	Digital Marketing
Q2	What is the minimum number of periods required to run all scenarios?	4
Q3	What happens if “Cash in Bank” is negative when a new period is opened?	Disqualification
Q4	What performance metric is used to determine a company’s overall victory across all departments?	Highest Revenue

Q5	What does In-house Production mean?	Production done by the company itself
Q6	What is the key factor that affects production capacity?	Amount of Workers
Q7	What is “Make to Order”?	Production after consumer order is received
Q8	Special periods for Giftpacks sales are	Periods 4,6,7,10
Q9	What is the benefit of providing training for sales managers?	Increase skill, score, and skill value
Q10	Who can negotiate in intercompany transactions?	Sales/Procurement Director
Self-Assessment Questions		
1	I had to guess the answers to several questions on the previous quiz	Likert Scale 1-5
2	I was motivated to do my very best on the previous quiz	Likert Scale 1-5
3	I believe I could have answered more difficult questions	Likert Scale 1-5
4	The quiz questions were aligned with the material covered by the Instructor in the YouTube videos	Likert Scale 1-5

5	The content presented on the YouTube videos was new to me and I learned many new things.	Likert Scale 1-5
6	I have improved my ability to find solutions and develop strategies in business simulation activities	Likert Scale 1-5
7	I will likely be able to use the YouTube videos later in other parts of the course in the future	Likert Scale 1-5
8	I like to play digital strategy games	Likert Scale 1-5
9	I like to use computers and digital platforms to support my learning process in my university	Likert Scale 1-5
10	I lose concentration when using computers and digital platforms for learning at university	Likert Scale 1-5

3.6.2 Questionnaires

A questionnaire is defined as a written series of pre-formulated questions to which respondents record their answers based on a set of predefined response alternatives (Sekaran & Bougie, 2016). The questionnaire used in this research consists of items designed to capture respondents' perceptions and evaluations of the company's digital learning support. A Likert scale is used as a measurement tool in this study. According to Sekaran & Bougie (2016), a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), is used to measure respondents' level of agreement with each statement. The use of a Likert scale enables the researcher to quantitatively assess subjective

perceptions, attitudes, and satisfaction levels in a systematic and comparable manner across respondents.

Table 3.4 Likert Scale

No	Item	Score
1.	Strongly Disagree	1
2.	Disagree	2
3.	Neither Agree Nor Disagree	3
4.	Agree	4
5.	Strongly Agree	5

At various points during the research procedure, two distinct questionnaires are given out in accordance with the study's objectives. The first questionnaire focuses on evaluating the effectiveness of the company's online training conducted via Zoom, while the second questionnaire assesses respondents' perceptions of the company's social media platforms as digital learning tools after completing the competition. This separation allows for a more precise evaluation of each learning intervention and its contribution to participants' learning experiences.

3.6.2.1 Online Training Evaluation Questionnaire

The questionnaire is administered immediately after participants complete the online training sessions delivered through Zoom. This questionnaire aims to

evaluate participants' perceptions of the training effectiveness and overall satisfaction with the instructional support provided. The data collected from this questionnaire serve as an initial assessment of how synchronous online training contributes to participants' readiness and conceptual understanding prior to the competition.

Table 3.5 Training Evaluation Questionnaire Items

Code	Item Statement	Source
The BusinessSim Training gives me the opportunity to:		
EG1	Better grasp the application of Business Process knowledge.	Cai, 2024
EG2	Experiment with different business strategies.	Cai, 2024.
EG3	Have a strategic perspective	Cai, 2024.
EG4	Enhance knowledge and understanding through discussion with the mentor.	Cai, 2024.
BusinessSim E-learning Module and Mini Games Training enabled me to better understand:		
CUPL1	Overall Business Process	Cai, 2024.
CUPL2	Planning Skills	Cai, 2024.

CUPL3	Understanding the sales order process and strategy	Cai, 2024.
CUPL4	Understanding financial performance	Cai, 2024.
CUPL5	Understanding human resource management	Cai, 2024.
CUPL6	Understanding intercompany sales and negotiation	Cai, 2024.
CUPL7	The ability to read and analyze	Cai, 2024.
Skill Development		
BusinessSim training enabled me to:		
SD1	Evaluate the success of particular strategies that were adopted.	Cai, 2024.
SD2	Extend knowledge beyond what would typically be acquired in a traditional classroom setting.	Cai, 2024.
SD3	Use the learned skills in future jobs.	Cai, 2024.
Affective Evaluation Total		
AE1	The BusinessSim training motivated me to	Cai, 2024.

	strive for success in the Business Simulation Competition - Treasure 2025.	
AE2	The BusinessSim training motivated me to learn about business/operation strategies.	Cai, 2024.
AE3	I find the experience of BusinessSim training is conducive to effective learning.	Cai, 2024.
Teamwork Total		
TW1	Teamwork draws agreement on important issues more effectively.	Cai, 2024.
TW2	Key decisions within our team were made by all members.	Cai, 2024.
TW3	I felt comfortable sharing my strategic ideas with my team.	Cai, 2024.
TW4	Team members frequently sought feedback from one another regarding their departmental progress.	Cai, 2024.
Satisfaction Total		
S1	The BusinessSim training made the game more interesting.	Cai, 2024.

S2	The skills and knowledge learned during the BusinessSim training will be useful for my future career.	Cai, 2024.
S3	Overall, I learned a lot from this training.	Cai, 2024.
S4	Overall, I am satisfied with the BusinessSim training as a learning medium.	Cai, 2024.
S5	I found the training sessions enjoyable.	Skjelbred & Daus, 2022.
S6	The training caught my interest from the beginning.	Skjelbred & Daus, 2022.
S7	The Zoom training and e-learning modules were easy to use and understand.	Skjelbred & Daus, 2022.
S8	I learned concepts from the teacher or e-learning modules that I would not have learned through Zoom training alone.	Skjelbred & Daus, 2022.
S9	I received sufficient training on how to use Business Simulation Game features, allowing me to focus on developing business strategies.	Skjelbred & Daus, 2022.

S10	I would consider re-watching the Zoom training sessions the following day if I had access to the recorded sessions.	Skjelbred & Daus, 2022.
Open-Ended Question (Short Answer)		
A1	Can you describe your experience during the BusinessSim training?	
A2	What did you understand or learn after Day 1/Day 2 of the training?	
A3	What challenges or difficulties did you experience during the training?	
A4	Do you think the Zoom training was effective in helping you understand BusinessSim? Why or why not?	
A5	What suggestions do you have for improving the BusinessSim training experience?	
A6	Do you have any feedback for the mentor?	

3.6.2.2 Social Media Evaluation Questionnaire

The second questionnaire is administered after all participants have completed the preliminary phase of the competition. This instrument focuses on evaluating the company's social media platforms, including Instagram, YouTube, and other supporting channels as digital learning tools. The questionnaire examines several key variables related to user perception and technology acceptance,

including Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Perceived Enjoyment (PE), Perceived Creativity (PC), Satisfaction (S), Relative Advantage (RA), Self-Efficacy (SE), Attitude Toward Use (ATU), and Intention of Use (IOU). By administering this questionnaire after the competition, this research study captures participants' reflective evaluations of how the company's social media content supported their learning process and performance during the simulation.

Table 3.6 Social Media Evaluation Questionnaire Questions

Code	Item Statement	Source
PEOU1	Instagram content and YouTube videos are easy to use during the training process.	Galatsopoulou et al., 2022.
PEOU2	Learning to use Business Simulation features via YouTube videos is easy.	Galatsopoulou et al., 2022.
PEOU3	Using social media and YouTube videos requires minimal mental effort.	Galatsopoulou et al., 2022.
PU1	YouTube, email, and WhatsApp provided flexibility in communicating with mentors and the team.	Galatsopoulou et al., 2022.
PU2	Instagram and YouTube content helped me reflect, analyze, and think critically.	Galatsopoulou et al., 2022.

PU3	The learning resources met my learning needs during the Business Simulation training.	Galatsopoulou et al., 2022.
PU4	By watching Edugate's YouTube videos, I gained additional knowledge.	Galatsopoulou et al., 2022.
PU5	I learn better through videos and Instagram posts.	Galatsopoulou et al., 2022.
PU6	YouTube videos give me the flexibility to study anytime.	Galatsopoulou et al., 2022.
PU7	YouTube tutorial videos helped me save time.	Galatsopoulou et al., 2022.
PU8	The tutorial videos in training met my expectations.	Galatsopoulou et al., 2022.
PU9	Watching YouTube videos and Instagram posts improved my performance in the competition.	Galatsopoulou et al., 2022.
PU10	Using YouTube videos increased my learning productivity.	Galatsopoulou et al., 2022.
PE1	I enjoy watching Edugate's YouTube and Instagram content.	Galatsopoulou et al., 2022.

PE2	Business Simulation YouTube videos are enjoyable to watch.	Galatsopoulou et al., 2022.
PE3	Using videos in training is a pleasant experience.	Galatsopoulou et al., 2022.
PC1	Watching Business Simulation tutorial videos and Instagram posts sparked my creativity.	Galatsopoulou et al., 2022.
PC2	The videos enhanced my creativity and provided useful ideas.	Galatsopoulou et al., 2022.
S1	I am satisfied with the training using BusinessSim tutorial videos.	Galatsopoulou et al., 2022.
S2	YouTube videos were effective in achieving training goals.	Galatsopoulou et al., 2022.
S3	The videos significantly improved my understanding of business processes.	Galatsopoulou et al., 2022.
S4	The tutorial videos motivated me to spend more time studying.	Galatsopoulou et al., 2022.
S5	I enjoy learning analytical skills using YouTube	Niyomsuk & Polyiem, 2022.

S6	The instructional purpose of the BusinessSim YouTube tutorial videos are is clear.	Niyomsuk & Polyiem, 2022.
S7	The mentors supported both collaborative and individual learning.	Niyomsuk & Polyiem, 2022.
S8	I can discuss BusinessSim training with mentors through YouTube, Instagram, Email, and WhatsApp.	Niyomsuk & Polyiem, 2022.
S9	I believe that YouTube and Instagram support engaging and up-to-date training.	Niyomsuk & Polyiem, 2022.
RA1	Watching BusinessSim YouTube tutorial videos during the training helped me understand the platform's features.	Galatsopoulou et al., 2022.
RA2	Watching BusinessSim YouTube tutorial videos in BusinessSim training helped me understand the business process within each feature.	Galatsopoulou et al., 2022.
RA3	Watching BusinessSim youTube tutorial videos on BusinessSim allowed me to understand concepts from sessions I did not attend.	Galatsopoulou et al., 2022.

SE1	I have the technical skills required to watch BusinessSim videos.	Galatsopoulou et al., 2022.
SE2	If I need assistance in accessing videos in the future, there are resources available to support me.	Galatsopoulou et al., 2022.
SE3	I have the necessary technical tools (computer, mobile phone, internet access) to access the videos and posts.	Galatsopoulou et al., 2022.
ATU1	All things considered, using the Business YouTube tutorial videos in training is good for me.	Galatsopoulou et al., 2022.
IOU1	In the future, I will continue to use videos during my study	Galatsopoulou et al., 2022.
IOU2	In the future, I will continue to join training classes that use videos	Galatsopoulou et al., 2022.
IOU3	In the future, I will continue to participate in discussions about the videos shown in the BusinessSim YouTube tutorial videos.	Galatsopoulou et al., 2022.
IOU4	In the future, I may search for other videos from different sources related to the	Galatsopoulou et al., 2022.

	BusinessSim for more knowledge	
IOU5	In the future, I may search online video lectures on business processes to further support my learning.	Galatsopoulou et al., 2022.
IOU6	I would recommend others to join BusinessSim classes, in which videos are used for learning.	Galatsopoulou et al., 2022.
Open-Ended Questions (Short Answer)		
A1	What challenges or issues did you encounter while watching the YouTube tutorial videos? How do you think these videos could be improved?	
A2	What is your opinion about Edugate's Instagram content in supporting your understanding of the Business Simulation Game Material?	
A3	What suggestions do you have to make communication through WhatsApp more effective & less confusing?	
A4	Were the emails you received during the training clear and helpful? What could be improved?	
A5	Which features of the Business Simulation game do you think require improvement, or could be added?	

A6	How would you describe your overall experience using the Business Simulation Game and joining the competition?
A7	Is there anything you would like to share or say to the organizing committee?

3.7 Test of Research Instruments

This study employs both quantitative and qualitative research instruments; therefore different approaches are applied to assess the validity and reliability of each instrument. The following subsections explain the procedures used to test validity and reliability in this research.

3.7.1 Validity Test

Validity refers to the extent to which a research instrument accurately measures what it is intended to measure (Sugiyono, 2013). In this study, face validity was employed to assess the validity of both quantitative and qualitative instruments. Face validity implies that the items designed to assess a topic appear, at first glance, to appropriately measure the intended construct (Sekaran & Bougie, 2016). The face validity assessment was conducted through expert evaluation, in which the research instruments, including pre-test and post-test items, closed-ended questionnaire statements, and open-ended questions, were reviewed and discussed with the research and field supervisors. This process ensured that the wording, structure, and content of each item were aligned with the research objectives, theoretical framework, and operational definitions of the variables.

3.7.2 Reliability Test

Reliability refers to the extent to which a measurement instrument is free from bias or random error, thereby ensuring consistency and stability of the results over time and across different items within the instrument (Sekaran & Bougie, 2016). In this study, reliability testing was applied differently to quantitative and qualitative instruments in accordance with their distinct methodological characteristics.

The reliability of the questionnaire was assessed using Cronbach's Alpha, which is commonly used to evaluate the internal consistency of closed-ended items measured on a Likert scale. An instrument is considered reliable if the Cronbach's Alpha coefficient is greater than 0.60 or 60% (Sugiyono, 2013). The criteria for reliability testing are as follows:

1. If the Cronbach's Alpha value (α) exceeds 0.60, the instrument demonstrates good reliability and can be regarded as reliable or trustworthy.
2. If the Cronbach's Alpha value (α) is less than 0.60, the instrument is considered unreliable.

Table 3.9 Instrument Reliability Categories

Reliability	Categories
0.00 - 0.199	Very low
0.20 - 0.399	Low
0.40 - 0.599	Adequate
0.60 - 0.799	Strong
0.80 - 1.00	Very Strong

Cronbach's Alpha Coefficient Formula:

$$a_u = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum S_i^2}{S_I^2} \right)$$

Explanation:

1. k = Number of questionnaire items
2. a_u = Reliability coefficient of the questionnaire items
3. $\sum S_i^2$ = Sum of the variances of valid item scores
4. S_I^2 = Total variance of item scores

If the value of Cronbach's Alpha approaches 0 (zero), the reliability of the instrument decreases. Therefore, data reliability was assessed using the Cronbach's Alpha formula as shown above.

The total variance is calculated using the following formula:

$$s_I^2 = \frac{\sum X_i^2}{n} - \left(\frac{\sum X_i}{n} \right)^2$$

Explanation:

1. $\sum X_i$ = Total score of each item
2. $\sum X_i^2$ = Sum of squared scores of each item

For the qualitative data, which include open-ended questionnaire responses, reliability was not assessed using statistical measures. Instead, reliability was ensured through systematic data collection procedures and careful documentation. These procedures were discussed and approved by the research supervisor prior to data collection. This approach helped maintain consistency in the qualitative data collection process while allowing sufficient flexibility for participants to express their perspectives and experiences in depth.

3.8 Data Analysis Technique

This study employs both quantitative and qualitative data. Therefore, different data analysis techniques are applied in accordance with the nature of each data type. Quantitative data obtained from closed-ended questionnaires were analyzed using descriptive statistical analysis, while pre-test and post-test scores were examined using N-Gain Score analysis to assess learning improvement. In addition, qualitative data obtained from open-ended questionnaire responses were analyzed using content analysis to enrich the interpretation of participants' perceptions and experiences.

3.8.1 Normalize-Gain's Score Analysis (N-Gain Score)

This study makes use of the normalized gain (N-Gain) score analysis. The N-Gain score is widely used in educational research to assess the effectiveness of instructional interventions by comparing pre-test and post-test results (Hake, 1998). This method evaluates the proportion of the possible improvement that is actually achieved by participants after the learning intervention.

The N-Gain score is calculated using the following formula:

$$\text{N-Gain} = \frac{\text{Posttest score} - \text{Pretest score}}{\text{Ideal score} - \text{Pretest score}}$$

Furthermore, the categorization of N-gain scores used to assess the effectiveness of the implemented module is shown in Table 3.10.

Table 3.10 N-Gain Score Effectiveness

< 0.40	Ineffective
--------	-------------

0.41 - 0.55	Less Effective
0.56 - 0.75	Effective
> 0.75	High Effective

The use of N-Gain analysis in this study allows the researcher to objectively measure the extent to which participants' understanding of the Business Simulation Game improved as a result of the exposure to the company's e-learning instructional support.

3.8.2 Descriptive Statistic Analysis

The data collected through closed-ended questionnaire items were analyzed using descriptive statistical analysis. Descriptive statistics are employed to present and summarize data in order to describe the characteristics of respondents' perceptions based on the sample data (Sugiyono, 2013). Since the questionnaire items were measured using a five-point Likert scale, the analysis focused on identifying general response patterns across the research variables.

The descriptive analysis focused on measures of central tendency and dispersion. The measures of central tendency included the mean, median, and mode; while the measures of dispersion included the range, standard deviation, variance, and interquartile range (Sekaran & Bougie, 2016). The use of mean and variance in descriptive statistical analysis is appropriate because this study aims to summarize respondents' perceptions measured through Likert-scale items. The mean represents the overall tendency of responses, while the variance indicates the degree of response consistency among

participants. This approach allows the study to describe not only the direction of perceptions but also the level of agreement or diversity of opinions, which is essential before conducting further analysis.

In addition to descriptive statistical measures, this study also applied the Ideal Score Method to provide a clearer interpretation of the extent to which respondents' perception approached the maximum possible score (Sugiyono, 2013). This method allows the researcher to evaluate the achievement level of each variable by comparing the actual score obtained from respondents with the ideal maximum score that could be achieved. The ideal score is calculated based on the highest possible value on the Likert scale. The formula is presented below:

$$\text{Ideal Score} = \text{Highest Scale Value} \times \text{Number of Items} \times \text{Number of Respondents}$$

Meanwhile, the achievement level for each variable is calculated using:

$$\text{Achievement Level (\%)} = \frac{\text{Actual Score}}{\text{Ideal Score}} \times 100\%$$

Through this approach, the analysis not only describes the mean tendency of responses but also indicates how closely the respondents' overall perceptions approach the ideal condition. Therefore, this Ideal Score method strengthens the descriptive statistical analysis by providing additional quantitative interpretation of the effectiveness of social media-based instructional tools in preparing participants for the Business Simulation Game competition.

3.8.3 Content Analysis

Content analysis is an observational research method that systematically examines the symbolic content of recorded communication (Sekaran & Bougie, 2016). In this study,

content analysis was applied to qualitative data obtained from open-ended questionnaire responses. This method was selected to enable a structured and in-depth examination of participants' perspectives and experiences related to the use of social media and training materials in Business Simulation learning.

The analysis followed a conceptual analysis approach, which focuses on identifying the presence and frequency of key concepts or themes within textual data (Sekaran & Bougie, 2016). The process began with a thorough review and organization of all qualitative responses. Meaningful statements were then identified and coded into several categories. These categories were subsequently analyzed to determine dominant themes that reflect participants' perceptions and experiences in utilizing the company's e-learning instructional supports.

The findings from the content analysis were subsequently interpreted and linked to the quantitative results to provide deeper contextual explanations. By combining numerical trends with qualitative insights, this approach allows the study to capture not only measurable learning outcomes but also the underlying reasons and experiences shaping users' perceptions.

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

4.1 Data Collection

This chapter presents a comprehensive analysis of the data collected during the internship at PT Harfan Tri Megah (Edugate). The data were obtained from several primary sources, including pre-test and post-test assessments, closed-ended questionnaires, and open-ended questionnaire responses. These instruments were distributed to respondents via Google Forms and administered online through Zoom and WhatsApp in several stages during a one-week pre-competition training phase involving 125 participants. All respondents had been exposed to the company's digital instructional tools, which included social media-based learning content and synchronous online training sessions.

The pre-test and post-test assessments measured the changes in participants' understanding of Business Simulation Game concepts before and after the learning intervention. The closed-ended questionnaire provided detailed information regarding the participants' perceptions of the digital instructional tools across several constructs, including cognitive evaluation, affective responses, and behavioral intention. In addition, open-ended questions were included to enrich conceptual insight and complement the quantitative findings by capturing participants' experiences of how the company's learning tools supported their learning process.

4.2 Respondent Profile

A total of 125 respondents completed the questionnaire, all of whom participated in the Business Simulation Game competition. The pre-test and post-test administered to assess participants' learning outcomes consists of 10 multiple-choice questions. The same set of questions

was employed in both tests to gain a direct comparison of participants' understanding before and after the learning intervention. In addition, the questionnaire, which included both closed-ended and open-ended questions, employed a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). These instruments captured participants' cognitive evaluations, affective responses, and behavioral tendencies toward the digital learning tools. By integrating objective test scores with perception-based measures, this study provides a comprehensive understanding of both learning effectiveness and user experience. The respondent profile of Business Simulation Game competition participants is derived from these findings.

4.2.1 Gender

Gender was included as a demographic variable to categorize respondents based on sex. The distribution of respondents according to gender is presented in Table 4.1.

Table 4.1 Gender of Respondent

Gender			
		Frequency	Percent
Valid	Male	46	36.8%
	Female	79	63.2%
	Total	125	100%

Source : Primary data processed by the researcher (2026).

Table 4.1 displays that the majority of respondents were female, comprising 79 individuals or 63.2% of the total sample. In contrast, male respondents accounted for 46 individuals or 36.8% of the total sample. This distribution indicates that female participants

represented a larger proportion of the respondents involved in the Business Simulation Game competition and its associated online training program.

4.2.2 Nationality

Since the Business Simulation Game competition at TREASURE 2025 was conducted as an international-level competition, nationality is included as a geographic variable to categorize respondents based on their national background. The distribution of respondents according to nationality is presented in Table 4.2.

Table 4.2 Nationality of Respondent

Nationality			
		Frequency	Percent
Valid	Indonesian	120	96%
	Philippines	5	4%
	Total	125	100%

Source: Primary data processed by the researcher (2026)

Table 4.2 shows that the vast majority of respondents were Indonesian students, accounting for 120 individuals or 96% of the total sample. In contrast, only 5 respondents, or 4%, came from other nationalities, specifically the Philippines. This distribution suggests that although the competition was positioned as an international event, participation was predominantly represented by Indonesian students. Therefore, the findings of this study mainly reflect the perspectives and experiences of domestic participants, with a relatively small proportion representing international participants.

4.2.3 University Affiliation

Participants of the Business Simulation Game competition were students from various higher education institutions. University affiliation is presented to illustrate the institutional distribution of respondents involved in this study. The distribution of respondents based on their university affiliation is shown in Table 4.3.

Table 4.3 University Affiliation of Respondent

University Affiliation			
		Frequency	Percent
Valid	Universitas Islam Indonesia (UII)	15	12%
	Universitas Internasional Batam (UIB)	15	12%
	Universitas Bunda Mulia (UBM)	15	12%
	Universitas Telkom	15	12%
	Politeknik Negeri Malang (POLINEMA)	15	12%
	Politeknik Negeri Madiun	5	4%
	Universitas Widyatama	5	4%
	Universitas Negeri Padang (UNP)	10	8%
	Ilocos Sur Polytechnic State College	5	4%

	Universitas Mikroskil	15	12%
	Politeknik Negeri Batam	10	8%
	Total	125	100%

Source: Primary data processed by the researcher (2026)

Table 4.3 demonstrates that respondents were distributed across multiple universities, indicating institutional diversity among competition participants. Several institutions contributed the highest proportion of respondents, each representing 12% of the sample or 15 individuals, including Universitas Islam Indonesia, Universitas Internasional Batam, Universitas Bunda Mulia, Universitas Telkom, Politeknik negeri Malang, and Universitas Mikroskil. Meanwhile, Politeknik Negeri Madiun, Universitas Widyatama, and Ilocos Sur Polytechnic State College had the lowest representation, each accounting for 5 students or 4% of the total sample. Other universities, such as Universitas Negeri Padang and Politeknik Negeri Batam, each contributed 8% or 10 individuals of the total respondents.

Overall, the data indicate that participants originated from a broad range of institutions, suggesting that the competition attracted students from diverse academic environments. This diversity strengthens the representativeness of the sample in reflecting varied educational backgrounds within the Business Simulation Game competition.

4.2.4 Field of Study

Respondents in the Business Simulation Game competition came from various academic disciplines. The field of study is presented to describe the educational

background of participants, which may relate to their familiarity with business process concepts and analytical tasks involved in the simulation game. The distribution of respondents based on field of study is shown in Table 4.4.

Table 4.4 Field of Study of Respondent

Field of Study			
		Frequency	Percent
Valid	Entrepreneurship	5	4%
	Accounting	24	19.2%
	Business Management	38	30.4%
	Business Administration	5	4%
	Information System	20	16%
	Accounting Information System	10	8%
	Digital Business	23	18.4%
	Total	125	100%

Source: Primary data processed by the researcher (2026)

Table 4.4 indicates that the majority of respondents were students in the Business Management major, comprising 38 students or 30.4% of the total sample. This was followed by the accounting major for 19.2% or 24 individuals and the Digital Business major for 18.4% or 23 individuals, showing strong representation from business and

technology-related disciplines. Information system students also formed a notable portion at 16% or 20 individuals. In contrast, Entrepreneurship and Business Administration students had the lowest representation, each contributing 5 individuals or 4% of the total sample. Students from the Accounting Information System represented 10 individuals or 8% of the total sample.

The data show that most participants came from business, management, and technology-oriented study programs. This academic background is relevant to the nature of the Business Simulation Game, which requires analytical thinking, decision-making skills, and an understanding of business processes.

4.2.5 Year of Enrollment

Year of enrollment is presented to describe the academic cohort of the respondents, which may reflect differences in academic maturity and exposure to business-related coursework. The distribution of respondents based on year of enrollment is shown in Table 4.5

Table 4.5 Enrollment Year of Respondent

Field of Study			
		Frequency	Percent
Valid	2020	1	0.8%
	2021	10	8%
	2022	46	36.8%

	2023	54	43.2%
	2024	10	8%
	2025	4	3.2%
	Total	125	100%

Source: Primary data processed by the researcher (2026)

Table 4.5 indicates that 54 individuals, or 43.2% of the total sample, enrolled in 2023, making this the largest cohort in the study. This is followed by 46 individuals or 36.8% of the total sample who enrolled in 2022. Meanwhile, 10 individuals or 8% of the total sample were from the 2021 cohort, and another 10 individuals or 8% of the total sample enrolled in 2024. Only a small number of participants came from the 2025 cohort, consisting of 4 individuals or 3.2% of the total sample, and the 2020 cohort was represented by an individual, or only 0.8% of the total sample.

These results indicate that the sample was predominantly composed of students from the 2022 and 2023 cohorts. It means that most participants were in the intermediate stage of their academic studies. At this stage, students are generally expected to have acquired foundational knowledge in business processes, which is relevant to understanding the Business Simulation Game concepts.

4.2.6 Prior Coursework in ERP/SAP Coursework

Prior coursework in ERP/SAP is included to identify respondents' prior exposure to enterprise systems and digital business tools. The distribution is shown in Table 4.6.

Table 4.6 Prior Coursework in ERP/SAP Coursework

Prior Coursework in ERP/SAP Coursework			
		Frequency	Percent
Valid	Have taken an ERP/SAP-related course	99	79.2%
	Have not taken an ERP/SAP-related course	26	20.8%
	Total	125	100%

Source: Primary data processed by the researcher (2026)

The data show that 99 individuals, or 79.2% of respondents, had previously taken an ERP/SAP-related course, while only 26 individuals, or 20.8%, had not. This indicated that most participants already possessed background knowledge related to integrated business systems, which may support their ability to understand simulation-based business processes. However, the presence of participants without such coursework suggests variation in prior technical readiness among respondents.

4.2.7 Prior Participation in Business Simulation Games

This variable describes respondents' previous experience with simulation-based learning competitions. The distribution is presented in Table 4.7.

Table 4.7 Prior Participation in Business Simulation Game Competition

Prior Participation in Business Simulation Game Competition		
	Frequency	Percent

Valid	Have participated in a Business Simulation Game Competition	53	42.4%
	Have not participated in a Business Simulation Game Competition	72	57.6%
	Total	125	100%

Source: Primary data processed by the researcher (2026)

The table shows that 72 individuals, or 57.6% of the total respondents, had never participated in a Business Simulation Game competition before, whereas 53 individuals, or 42.4% of respondents, had prior experience. This indicates that the majority of participants were relatively new to competitive simulation games, suggesting that the learning intervention and instructional support provided during the program played an important role in helping students adapt to the game.

4.2.8 Duration of Social Media Use for Educational Purposes

The variable illustrates how long respondents have used social media as a learning tool. The distribution is shown in Table 4.8.

Table 4.8 Duration of Social Media Use for Educational Purposes

Duration of Social Media Use for Educational Purposes			
		Frequency	Percent
Valid	Less than 1 year	98	78.4%

	1 - 4 years	21	16.8%
	4 - 7 years	4	3.2%
	More than 7 years	2	1.6%
	Total	125	100%

Source: Primary data processed by the researcher (2026)

The majority of respondents, 98 individuals or 78.4% of the total sample, reported using social media for educational purposes for less than a year. In addition, 21 respondents representing 16.8% had used it for 1-4 years. Only a small proportion showed longer experience, with 4 individuals or 3.2% reporting 4-7 years of use, and 2 individuals or 1.6% indicating more than 7 years. These results suggest that for most participants, the use of social media as a structured learning tool is still relatively recent.

4.2.9 Exposure to Edugate Learning Module and Social Media Content

This variable identifies whether respondents had accessed the company's learning materials prior to or during the program. Table 4.9 presents the distribution.

Table 4.9 Exposure to Edugate Learning Module and Social Media Content

Exposure to Edugate Learning Module and Social Media Content			
		Frequency	Percent
Valid	Have accessed Edugate Learning Module and Social Media	101	80.8%

	Have not accessed Edugate Learning Module and Social Media	24	19.2%
	Total	125	100%

Source: Primary data processed by the researcher (2026)

The majority of respondents (101 individuals or 80.8% of the total sample) had accessed the company's learning modules and social media-based learning content, while only 24 individuals or 19.2% had not. This indicates that most participants were directly exposed to the digital learning support provided by the company.

4.2.10 Average Time Spent Using Social Media for Educational Purposes Per Day

This variable measures the daily intensity of social media use for learning. The distribution is shown in Table 4.10.

Table 4.10 Average Time Spent Using Social Media for Educational Purposes

Average Time Spent Using Social Media for Educational Purposes Per Day			
		Frequency	Percent
Valid	Less than 1 hour	42	33.6%
	1 to 3 hours	54	43.2%
	3 to 5 hours	20	16%
	More than 5 hours	9	7.2%

	Total	125	100%
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Source: Primary data processed by the researcher (2026)

The largest group of respondents, represented by 54 individuals or 43.2% of the total sample, spent 1-3 hours per day using social media for educational purposes. This was followed by less than 1 hour, represented by 42 individuals or 33.6% of the total sample, 3-5 hours represented by 20 individuals or 16% of the total sample, and more than 5 hours represented by 9 individuals or 7.2% of the total sample. These results indicate that social media plays a moderate but regular role in respondents' daily learning activities.

4.2.11 Average Time Spent Accessing Edugate Social Media for Learning Purposes

This variable specifically measures engagement with the company's learning-related social media content. The distribution is presented in Table 4.11.

Table 4.11 Average Time Spent Accessing Edugate' Social Media for Learning Purposes

Average Time Spent Accessing Edugate Social Media for Learning Purposes			
		Frequency	Percent
Valid	Less than 3 days	26	20.8%
	3 to 6 days	46	36.8%
	6 to 9 days	28	22.4%
	10 days	25	20%

	Total	125	100%
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Source: Primary data processed by the researcher (2026)

The largest proportion of respondents, represented by 46 individuals or 36.8% of the total sample, have accessed the social media content for 3-6 days. This was followed by 28 individuals or 22.4% of the total sample, who accessed the content for 6-9 days, 25 individuals (20%) for 10 days, and 26 individuals (20.8%) for less than 3 days. These findings suggest that most participants engaged with the company's social media learning support multiple times during the training period, indicating sustained exposure rather than one-time access.

4.3 Test Result

4.3.1 Validity Test

In this study, instrument validity was assessed using face validity. The face validity test was conducted through expert judgment, in which the research instruments, consisting of closed-ended questionnaire statements, were reviewed and discussed with the research supervisor and the field supervisor. The consultation process aimed to ensure that each item in the instruments was aligned with the research concepts and objectives, as well as to confirm the clarity and relevance of the questions. The results of the face validity assessment from both supervisors are presented in Table 4.12.

Table 4.12 Content Validity Index (CVI)

Code	Expert 1	Expert 2	Experts who agree	I-CVI	Result

Online Training Evaluation					
EG1	1	1	2	1,00	Item allowed
EG2	1	1	2	1,00	Item allowed
EG3	1	1	2	1,00	Item allowed
EG4	1	1	2	1,00	Item allowed
CUPL1	1	1	2	1,00	Item allowed
CUPL2	1	1	2	1,00	Item allowed
CUPL3	1	1	2	1,00	Item allowed
CUPL4	1	1	2	1,00	Item allowed
CUPL5	1	1	2	1,00	Item allowed
CUPL6	1	1	2	1,00	Item allowed
CUPL7	1	1	2	1,00	Item allowed
SD1	1	1	2	1,00	Item allowed
SD2	1	1	2	1,00	Item allowed
SD3	1	1	2	1,00	Item allowed
AE1	1	1	2	1,00	Item allowed

AE2	1	1	2	1,00	Item allowed
AE3	1	1	2	1,00	Item allowed
TW1	1	1	2	1,00	Item allowed
TW2	1	1	2	1,00	Item allowed
TW3	1	1	2	1,00	Item allowed
TW4	1	1	2	1,00	Item allowed
S1	1	1	2	1,00	Item allowed
S2	1	1	2	1,00	Item allowed
S3	1	1	2	1,00	Item allowed
S4	1	1	2	1,00	Item allowed
S5	1	1	2	1,00	Item allowed
S6	1	1	2	1,00	Item allowed
S7	1	1	2	1,00	Item allowed
S8	1	1	2	1,00	Item allowed
S9	1	1	2	1,00	Item allowed
S10	1	1	2	1,00	Item allowed

			S-CVI	1,00	The item is good
Social Media Evaluation					
PEOU1	1	1	2	1,00	Item allowed
PEOU2	1	1	2	1,00	Item allowed
PEOU3	1	1	2	1,00	Item allowed
PU1	1	1	2	1,00	Item allowed
PU2	1	1	2	1,00	Item allowed
PU3	1	1	2	1,00	Item allowed
PU4	1	1	2	1,00	Item allowed
PU5	1	1	2	1,00	Item allowed
PU6	1	1	2	1,00	Item allowed
PU7	1	1	2	1,00	Item allowed
PU8	1	1	2	1,00	Item allowed
PU9	1	1	2	1,00	Item allowed
PU10	1	1	2	1,00	Item allowed
PE	1	1	2	1,00	Item allowed

PE2	1	1	2	1,00	Item allowed
PE3	1	1	2	1,00	Item allowed
PC1	1	1	2	1,00	Item allowed
PC2	1	1	2	1,00	Item allowed
S1	1	1	2	1,00	Item allowed
S2	1	1	2	1,00	Item allowed
S3	1	1	2	1,00	Item allowed
S4	1	1	2	1,00	Item allowed
S5	1	1	2	1,00	Item allowed
S6	1	1	2	1,00	Item allowed
S7	1	1	2	1,00	Item allowed
S8	1	1	2	1,00	Item allowed
S9	1	1	2	1,00	Item allowed
RA1	1	1	2	1,00	Item allowed
RA2	1	1	2	1,00	Item allowed
RA3	1	1	2	1,00	Item allowed

SE1	1	1	2	1,00	Item allowed
SE2	1	1	2	1,00	Item allowed
SE3	1	1	2	1,00	Item allowed
ATU1	1	1	2	1,00	Item allowed
IOU1	1	1	2	1,00	Item allowed
IOU2	1	1	2	1,00	Item allowed
IOU3	1	1	2	1,00	Item allowed
IOU4	1	1	2	1,00	Item allowed
IOU5	1	1	2	1,00	Item allowed
IOU6	1	1	2	1,00	Item allowed
			S-CVI	1,00	The item is good

Based on the face validity assessment conducted by two expert reviewers, all research instruments obtained a validity index value of 1,00. This value exceeds the commonly accepted minimum agreement threshold of 0.80 for studies involving two expert reviewers (Davis, 1992). The instruments evaluated includes pre-test, post-test, and closed-ended questions related to training and social media evaluation. A validity index of 1.0 indicates complete agreement between the experts that all items are relevant, clear, and appropriate to measure the intended research construct. Therefore, it can be concluded that

all items in the research instruments are valid and suitable for use in the data collection process.

4.3.2 Reliability Test

Reliability testing of research instruments aims to determine the consistency and stability of measurement results. A reliable instrument produces consistent outcomes when the same construct is measured under similar conditions. In this study, reliability testing was conducted only on items that had been declared valid in the previous validity test as shown in Table 4.12. Thus, the reliability test covered all 14 measurement items.

This study employed Cronbach's Alpha to examine the instrument items. The instrument is considered reliable when the Cronbach's Alpha value meets the acceptable threshold. According to Sugiyono (2013), Cronbach's Alpha coefficient ranges from 0 to 1. A value of 0.60 or above indicates good reliability, values between 0.4 - 0.599 are considered acceptable, while values below 0.4 indicate low reliability. The results of the reliability test for each research variable are presented in Table 4.13.

Table 4.13 Reliability Test Results

Variable	Number of Items	Cronbach's Alpha	Interpretation
Experience Generation	4	0.88	Reliable
Conceptual Understanding and Perceived Learning	7	0.93	Reliable

Skill Development	3	0.89	Reliable
Affective Evaluation	3	0.89	Reliable
Teamwork	4	0.9	Reliable
Training Satisfaction	10	0.94	Reliable
Perceived Ease of Use	3	0.91	Reliable
Perceived Usefulness	10	0.96	Reliable
Perceived Enjoyment	3	0.92	Reliable
Perceived Creativity	2	0.91	Reliable
Social Media Satisfaction	9	0.97	Reliable
Relative Advantage	3	0.93	Reliable
Self-Efficacy	3	0.93	Reliable
Attitude Toward Use	1	Not Applicable	Not Applicable
Intention of Use	6	0.95	Reliable

Based on Table 4.13, all multi-item variables show Cronbach's Alpha values above the minimum acceptable threshold. This indicates that the measurement items within each variable have a satisfactory level of internal consistency. This suggests that the instruments used to measure these variables are reliable and capable of producing consistent results.

However, the Attitude Toward Use (ATU) variable was measured using a single-item indicator. Since Cronbach's Alpha assesses the internal consistency among multiple items within a construct, it is not applicable to single-item measures. Therefore, while reliability testing was conducted for all multi-item variables, ATU was exempt from this analysis. Nevertheless, single-item constructs are considered acceptable when the variable represents a concrete and singular perception, making this measurement approach methodologically appropriate for ATU in this study.

4.4 Statistic Descriptive Analysis

4.4.1 Result of Social Media Questionnaire

In this study, a five-point Likert scale was employed to measure the extent to which respondents agreed with the item questionnaire items. The scale consists of five levels: a score of 1 indicated *strongly disagree*, 2 indicated *disagree*, 3 indicated *neither agree nor disagree*, 4 indicated *agree*, and 5 indicated *strongly agree*. The questionnaire items were designed to measure variables related to user perceptions, as well as affective and behavioral responses toward the use of the company's social media as a learning support tool.

The analysis in this section focuses on the mean of each variable. The mean is used to describe the general tendency of respondents' perceptions toward each variable, indicating whether the responses tend to be negative, neutral, or positive. This discussion highlights and interprets how social media contributes to perceived ease of use, usefulness, enjoyment, creativity, satisfaction, relative-advantage, self-efficacy, attitudes, and

intention toward future use. The results of the descriptive statistical analysis for each variable are presented in the following tables.

Table 4.14 Social Media Questionnaire Result: Perceived Ease of Use

Perceived Ease of Use							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
PEOU1	2	2	46	47	28	472	3.77
PEOU2	1	5	45	47	27	469	3.75
PEOU3	1	2	55	43	23	457	3.65

Table 4.9 presents the findings related to participants' perceptions of the ease of using the company's social media as a learning platform. The average scores of the indicators within this variable do not demonstrate notably high score values, and no substantial differences are observed among the indicators. PEOU1 shows the highest mean score at 3.77, while PEOU3 shows the lowest mean score at 3.65. Despite this difference, the variation between these indicators remains minimal.

These findings suggest that, overall, participants perceived the company's social media as relatively easy to use for learning purposes. The learning content distributed through social media was considered understandable and accessible, with limited technical difficulties, enabling participants to become accustomed to its use without significant obstacles. The lowest score for PEOU3 may indicate that some participants perceived social media-based learning as mentally demanding and requiring additional effort.

However, given the small differences among the indicator means, it can be concluded that participants generally perceived the company's social media as easy to use as a learning support tool in preparation for the Business Simulation Game competition.

Table 4.15 Social Media Questionnaire Result: Perceived Usefulness

Perceived Usefulness							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
PU1	0	2	40	53	30	486	3.89
PU2	1	3	49	46	26	468	3.74
PU3	0	1	52	45	25	463	3.7
PU4	2	0	54	37	31	467	3.74
PU5	2	0	57	50	15	448	3.58
PU6	0	2	46	50	26	472	3.78
PU7	1	1	48	50	24	467	3.73
PU8	0	3	48	47	26	468	3.74
PU9	2	1	51	45	25	462	3.7
PU10	1	1	53	45	24	462	3.7

Table 4.15 presents the findings related to participants' perception of the usefulness of the company's social media as a learning support tool. The average scores of the indicators within this variable range from 3.58 to 3.89, which indicates that the responses across the items are relatively consistent, with no substantial differences observed among the indicators. PU1 shows the highest average indicator at 3.89, while PU5 shows the lowest average indicator at 3.58. Despite this difference, the variation between these indicators remains moderate.

These results indicate that participants generally perceived the company's social media as useful in supporting their learning of Business Simulation Game materials. The social media platform utilized by the company, such as YouTube tutorial videos, email communication, and WhatsApp interaction with participants, contributed to improving understanding and enhancing learning effectiveness in terms of accessibility and time efficiency. The lowest score for PU5 may suggest that some participants perceived that certain learning formats, such as Instagram carousel posts, as requiring further improvement in terms of content depth and additional instructional support beyond social media materials. However, given that the differences among the average indicators are not substantial, it can be concluded that participants overall recognized the usefulness of social media as a learning support tool in preparing for the Business Simulation Game competition.

Table 4.16 Social Media Questionnaire Result: Perceived Enjoyment

Perceived Enjoyment			
Question	Total Assessment	Total Indicator	Average

Code	1	2	3	4	5		Indicator
PE1	0	2	57	44	22	461	3.67
PE2	1	2	48	45	29	474	3.8
PE3	0	4	46	52	22	464	3.71

Table 4.16 presents the descriptive results of the perceived enjoyment variable, which refers to the extent to which participants feel that using the company's social media as a learning tool is enjoyable in itself, apart from performance outcomes. Perceived enjoyment captures the affective experience of learners while engaging with video tutorials and social media content. The average scores for the indicators show relatively small differences, ranging from 3.67 to 3.80, indicating consistency among respondents. The highest average indicator is found in PE2 at 3.80, while the lowest appears is recorded for PE1 (3.67).

The average indicator score indicates that participants generally experience positive feelings and enjoyment while engaging with the learning content delivered through social media. This suggests that the format, delivery style, and visual presentation of the social media content contribute to a pleasant learning experience. The slightly lower score may indicate that although the learning experience is enjoyable, some participants still view the activity as academically demanding for competition preparation, which may reduce its purely entertaining aspect. Overall, despite minor differences, the results indicate that participants generally perceive the use of the company's social media as an enjoyable

learning experience, thereby supporting emotional engagement during Business Simulation Game preparation.

Table 4.17 Social Media Questionnaire Result: Perceived Creativity

Perceived Creativity							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
PC1	1	0	51	50	23	469	3.75
PC2	1	0	54	45	25	468	3.74

Table 4.17 presents the findings related to participants' perception of whether the social media learning tools stimulate creative thinking and encourage exploration of alternative ideas and strategies. The average indicator scores are highly consistent, ranging from 3.74 to 3.75, indicating almost no variation between indicators. PC1 has the highest score at 3.75, while PC2 has a slightly lower score at 3.74. These results suggest that participants perceive the social media learning materials as effective in encouraging creative approaches to understanding business simulation game concepts. The minimal difference between indicators implies that both aspects of creativity measured in the questionnaire are perceived at a similar level. In conclusion, participants generally perceive Edugate's social media learning tool as supportive of creative thinking, which is essential in simulation-based decision-making contexts.

Table 4.18 Social Media Questionnaire Result: Satisfaction

Satisfaction

Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
S1	1	2	46	52	24	471	3.8
S2	1	0	49	51	24	472	3.78
S3	0	1	51	52	20	463	3.7
S4	1	0	57	44	22	458	3.67
S5	0	2	49	53	20	463	3.7
S6	1	1	53	44	25	463	3.7
S7	0	2	48	46	28	472	3.78
S8	1	0	48	48	27	472	3.78
S9	1	1	51	44	27	467	3.73

Table 4.18 presents the descriptive findings of the satisfaction variable, which reflects the overall level of participants' contentment with the use of social media as a learning support tool. The average indicator scores range from 3.67 to 3.80, indicating a relatively consistent pattern across the items. The highest average was observed in S1 at 3.80, while S4 records the lowest score at 3.67.

These findings indicate that participants generally felt satisfied with their learning experience through social media platforms, both in terms of accessing learning materials, such as YouTube tutorials videos, and interacting with mentors via email and WhatsApp

to clarify content through question-and-answer discussions. The slightly lower score on S4 may suggest that certain expectations regarding learning outcomes or the depth of material were not fully met for all participants. In addition, the use of social media as a learning platform may not have reached a level of satisfaction that strongly motivated participants to spend additional time studying. Overall, the findings demonstrate that participants tend to feel satisfied with the use of social media as a supporting learning tool for the Business Simulation Game competition.

Table 4.19 Social Media Questionnaire Result: Relative Advantage

Relative Advantage							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
RA1	1	0	53	40	31	475	3.8
RA2	1	0	52	44	28	473	3.78
RA3	0	1	54	39	30	470	3.76

Table 4.19 shows the descriptive findings related to participants' perceptions of the relative advantages of using the company's social media compared to conventional learning methods. The average indicator scores range from 3.76 to 3.80, indicating very small variation. The highest mean score is observed for RA1 (3.80), while RA3 records the lowest score at 3.76. These results suggest that participants perceive clear benefits such as efficiency, accessibility, and convenience when using social media as a learning tool to understand the business simulation game features. The slightly lower score for RA3 score

may indicate that not all participants fully perceive social media as superior in every aspect, possibly due to individual learning preferences. Overall, the results show that participants generally perceive positive relative advantages of social media as a learning support tool in preparing for the competition.

Table 4.20 Social Media Questionnaire Result: Self-Efficacy

Self-Efficacy							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
SE1	1	0	53	45	26	470	3.76
SE2	1	0	55	41	28	470	3.76
SE3	1	1	55	43	24	460	3.68

Table 4.20 presents findings related to participants' confidence in their ability to effectively access social media and video-based learning tools. The average indicator scores range from 3.68 to 3.76, showing minimal differences. SE1 and SE2 show the highest mean scores at 3.76, while SE3 records the lowest at 3.68. These results indicate that participants feel confident in operating the platforms and accessing learning materials. The slightly lower score for SE3 may suggest that certain participants still feel uncertain about mastering more complex features or applying knowledge independently in the Business Simulation Game, possibly due to technical difficulties in accessing social media platforms. Overall, the average indicator scores demonstrate a moderate to high level of

confidence in their ability to use social media as a learning tool in preparing for the Business Simulation Game competition.

Table 4.21 Social Media Questionnaire Result: Attention Toward Future Use

Attention Toward Future Use							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
ATU1	1	1	58	36	29	466	3.72

Table 4.21 shows the results for Attitude Toward Future Use, which reflects participants' overall positive or negative evaluation of continuing to use the platform. The single-item measure yields a mean score of 3.72, indicating a generally favorable attitude toward future use of the social media platform for educational purposes in preparing for the Business Simulation Game competition.

Table 4.22 Social Media Questionnaire Result: Intention of Use

Intention of Use							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
IOU1	0	1	54	37	33	477	3.81
IOU2	1	1	52	45	26	469	3.75
IOU3	0	3	50	46	25	465	3.72
IOU4	1	0	53	43	27	467	3.73
IOU5	1	0	53	47	23	463	3.7

Table 4.22 shows the findings related to participants' willingness to continue using the company's social media learning platforms in the future. The average indicator scores show consistent responses, ranging from 3.70 to 3.81. The highest score is observed for IOU1 (3.81), while the lowest records for IOU5 (3.70). The limited variation among the indicators suggests a stable and consistent tendency in participants' intentions to use the platform in the future.

This variable demonstrates the participants' strong willingness to continue using video-based learning in their future studies. This intention suggests that participants perceive video-supported and social media-facilitated learning as beneficial, flexible, and capable of supporting self-directed learning beyond the structured competition environment. In contrast, the slightly lower scores on several items may be associated with

participants' intention to recommend the social media content related to the Business Simulation Game. Overall, the findings indicate that participants show a positive and sustained intention to continue using the company's social media and video-based learning platforms as learning support tools beyond the competition.

Table 4.23 Social Media Ideal Score Calculation

Ideal Score						
Variable	Highest Score	Total Item Questions	Total Respondents	Ideal Score	Actual Score	Achievement Level (%)
PEOU	5	3	125	1.875	1.398	74.56%
PU	5	10	125	6.250	4.663	74.61%
PE	5	3	125	1.875	1.399	74.61%
PC	5	2	125	1.250	937	74.96%
S	5	9	125	5.625	4.201	74.68%
RA	5	3	125	1.875	1.418	75.63%
SE	5	3	125	1.875	1.400	74.67%
ATU	5	1	125	625	466	74.56%
IOU	5	6	125	3.750	2.341	62.43%

Table 4.23 presents the ideal score calculation for each variable in the social media evaluation. This analysis compares the actual scores obtained from respondents with the

maximum possible or ideal score to determine the achievement level of each variable. The percentage values indicate the extent to which each variable approaches the optimal condition. The findings show that most variables demonstrate achievement levels ranging from 62% to 75%, which reflects a relatively high level of perception toward the use of social media as a learning support tool. This indicates that the company's social media platforms are positively received and function effectively in assisting the learning process, although they have not yet reached a fully optimal level.

In terms of system usability, Perceived Ease of Use (PEOU) shows an achievement score of 74.56%, indicating that participants generally find the social media platforms easy to operate and accessible for learning. Similarly, Self-Efficacy (SE) shows an achievement score of 74.67%, suggesting that participants feel sufficiently confident in their ability to use these platforms, although some difficulties and differences in digital skills may still exist.

From the perspective of learning benefits, Perceived Usefulness (PU) with an achievement score of 74.71%, indicates that participants believe social media contributes meaningfully to their understanding of the Business Simulation Game materials. This is reinforced by the high score of Relative Advantage which is 75.63%, the highest among all variables, indicating that participants clearly recognize the advantages of social media-based learning compared to other learning methods, particularly in terms of flexibility, accessibility, and time efficiency.

In the context of learning experience, Perceived Enjoyment (PE) with a score of 74.61% and Perceived Creativity (PC) with a score of 74.96% demonstrate that the learning process through the company's social media is considered engaging and creatively

delivered. These results suggest that the content format and presentation successfully enhance the overall learning experience. In addition, Satisfaction (S) with an achievement score of 74.68% reflects that participants are generally satisfied with their overall learning experience, although certain aspects of content depth or learning outcomes may still require improvement.

However, a different pattern emerges for Intention of Use (IOU), which records a score of 62.43% representing the lowest achievement level among all variables. This indicates that despite the positive perceptions regarding usefulness, ease of use, and learning experience, participants' willingness to continue using the company's social media learning tools in the future is comparatively lower. This condition may be influenced by situational factors such as limited time or preferences for alternative learning methods beyond social media.

In conclusion, the ideal score analysis reveals that social media plays a significant role as a supporting learning tool in preparing participants for the Business Simulation Game competition. Participants demonstrate positive cognitive, affective responses, as well as perceive a high level of usefulness. However, the relatively lower level of IOU may indicate that further development is needed to strengthen long-term engagement and position social media not only as a complementary tool, but also as a sustainable digital learning platform.

4.4.2 Result of Training Questionnaire

The present study employed a five-point Likert scale to measure the degree of respondents' agreement with the questionnaire items. The scale ranged from 1 to 5, where 1 represented *strongly disagree*, 2 represented *disagree*, 3 represented *neither disagree nor*

agree, 4 indicated *agree*, and 5 indicated *strongly agree*. The questionnaire items were designed to assess participants' evaluation of the training program conducted via Zoom and supported by email and WhatsApp as a medium of communication between participants and mentors.

The analysis in this section focuses on the mean or average indicator score of each variable. The mean is used to describe the general tendency of participants' perceptions of the training experience. It indicates whether the responses reflect negative, neutral, or positive evaluations. This discussion interprets how the training program contributed to participants' learning experiences, understanding of concepts and context, development of relevant skills, affective evaluation, collaborative learning processes, and overall satisfaction with the program. The results of the descriptive statistical analysis for each variable are presented in Table 4.24.

Table 4.24 Training Questionnaire Result: Experience Generation

Experience Generation							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
EG1	0	2	15	60	48	529	4.23
EG2	0	1	20	65	39	517	4.13
EG3	0	1	23	65	36	511	4.08
EG4	0	0	29	59	37	508	4.06

Table 4.24 presents the descriptive findings related to the experience generation variable, which measures the extent to which the Business Simulation Game online training provided participants with meaningful experiential learning. The average indicator scores range from 4.06 to 4.23, indicating consistently high responses with minimal variation across items. EG1 records the highest average indicator score at 4.23, while EG4 shows the lowest average indicator score at 4.06.

The average indicator score indicates that the online training effectively helped participants understand the practical application of business process knowledge, experiment with different business strategies, and develop strategic perspectives. The slightly lower score may reflect that, although mentor-led discussions were beneficial, not all participants experienced the same depth of interaction or opportunities to engage actively in discussion sessions. Overall, the minimal differences between indicators suggest that participants evaluated all experiential aspects of the training positively and relatively consistently.

Table 4.25 Training Questionnaire Result: Conceptual Understanding & Perceived Learning Total

Conceptual Understanding & Perceived Learning Total							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
CUPL1	0	3	22	63	37	509	4.07
CUPL2	0	2	23	67	33	506	4.04

CUPL3	0	1	25	63	36	509	4.07
CUPL4	1	0	23	64	37	511	4.08
CUPL5	0	2	19	65	39	516	4.12
CUPL6	0	1	24	67	33	507	4.05
CUPL7	0	1	21	66	37	514	4.11

Table 4.25 shows the findings related to participants' perceived improvement in understanding the overall business process. The average indicator scores range from 4.04 to 4.12, demonstrating high and consistent perceptions. CUPLS 5 records the highest score at 4.12, while CUPL 2 shows the lowest at 4.04. The minimal variation indicates that balanced learning outcomes across different business domains.

The average indicator scores suggest that the online training and module effectively helped participants improve their understanding of the overall business process. It includes planning, sales strategy, financial performance, human resource management, intercompany transaction, and report analysis through the training and practice sessions. The slightly lower score on CUPL2 may indicate that planning-related skills, such as procurement, production, and sales planning in the Business Simulation Game were perceived as more complex and required greater cognitive effort. In general, the training effectively enhanced participants' understanding and supported their readiness for the Business Simulation Game competition.

Table 4.26 Training Questionnaire Result: Skill Development

Skill Development							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
SD1	0	1	25	60	39	512	4.09
SD2	0	1	21	63	40	517	4.13
SD3	0	0	23	62	40	517	4.13

Table 4.26 presents the findings related to the skill development variable, which assesses the extent to which the training enhances participants' practical skills relevant to business processes. The average indicators range from 4.09 to 4.13, showing very small differences. SD2 and SD3 share the highest average indicator score at 4.13, while SD1 records a slightly lower score at 4.09. These results indicate that participants strongly perceived the training as beneficial in extending knowledge beyond traditional classroom settings and in developing practical skills. The slightly lower score for SD1 may suggest that evaluating strategy success within the Business Simulation Game is more challenging and requires higher-level analytical skills. Overall, the online training contributed positively to the enhancement of practical skills relevant to both the competition and future professional contexts.

Table 4.27 Training Questionnaire Result: Affective Evaluation

Affective Evaluation							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
AE1	0	0	17	61	47	530	4.24
AE2	0	2	22	68	33	507	4.05
AE3	0	1	21	70	33	510	4.08

Table 4.27 shows the findings related to affective evaluation, which measures participants' motivation, interest, and emotional engagement toward the training experience. The average indicator scores range from 4.05 to 2.34, indicating strong positive affective responses. AE1 records the highest score at 4.24, while AE2 shows the lowest at 4.05. These findings indicate that the online training strongly motivated participants to succeed in the competition. The slightly lower score may suggest that, although motivation to learn business strategies increased, some participants still perceived certain aspects of the training content as demanding. In general, the online training fostered strong motivation and positive emotional engagement, which are important factors supporting performance in the Business Simulation Game competition.

Table 4.28 Training Questionnaire Result: Teamwork

Teamwork							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
TW1	0	1	27	67	30	501	4.08
TW2	0	0	23	65	37	514	4.11
TW3	0	1	17	72	35	516	4.12
TW4	0	1	23	62	39	514	4.11

Table 4.28 presents the findings related to participants' active participation in collaboration and comfort in sharing ideas during practice sessions. The average indicator scores range from 4.08 to 4.12, indicating consistent and positive perceptions. TW3 shows the highest average indicator score at 4.12, while TW1 records the lowest average indicator score at 4.08. These findings reflect that participants frequently engaged in mutual feedback within teams, collaboration in creating business strategy, and strategic decision-making. The slightly lower score on TW1 may indicate that reaching agreement on important issues still required negotiation and coordination among team members. Overall, the online training environment supported effective teamwork dynamics, which are crucial in the Business Simulation Game competition.

Table 4.29 Training Questionnaire Result: Satisfaction

Satisfaction							
Question Code	Total Assessment					Total Indicator	Average Indicator
	1	2	3	4	5		
S1	0	1	20	65	39	517	4.13
S2	0	1	20	66	38	516	4.12
S3	0	1	16	68	40	522	4.17
S4	0	3	23	64	35	506	4.04
S5	0	2	20	64	39	515	4.12
S6	0	1	27	61	36	507	4.056
S7	0	5	25	60	35	500	4.0
S8	0	2	23	67	33	506	4.04
S9	0	1	29	62	33	502	4.02
S10	0	1	31	54	39	506	4.04

Table 4.29 presents the findings related to participants' overall contentment with the training experience, perceived usefulness for future careers, enjoyment, interest, and perceived learning outcomes. The average indicator scores range from 4.00 to 4.17, indicating generally high satisfaction. S3 records the highest average indicator score at

4.17, while S7 shows the lowest average at 4.00. These results reflect that participants felt they learned a great deal from the online training. The slightly lower S7 score may suggest that not all participants experienced the same level of sustained engagement and enjoyment throughout the entire online training period. Overall, participants expressed strong satisfaction with the Business Simulation Game training as a learning platform, reinforcing its role as an effective preparation for the Business Simulation Game competition.

Table 4.30 Training Ideal Score Calculation

Ideal Score						
Code	Highest Score	Total Item Questions	Total Respondents	Ideal Score	Actual Score	Achievement Level (%)
EG	5	4	125	2.500	2.065	82.60%
CUPL	5	7	125	4.375	3.572	81.65%
SD	5	3	125	1.875	1.546	82.45%
AE	5	3	125	1.875	1.547	82.51%
TW	5	4	125	2.500	2.045	81.80%
S	5	10	125	6.250	5.097	81.55%

Table 4.30 presents the ideal score calculation of the two-day online training conducted by the company via Zoom prior to the Business Simulation Game competition. This analysis compares the actual scores obtained from respondents with the maximum possible score to determine the achievement level of each training outcome variable.

Overall, each variable shows a high level of achievement, with scores exceeding 81%. It indicates that the online training program was perceived as highly effective in preparing participants to deeply understand business processes, utilize game features, and actively engage in the game. These results suggest that the training not only delivered knowledge but also successfully supported cognitive, skill-based, and affective learning outcomes.

In terms of learning experience, Experience Generation (EG) records the highest achievement level score at 82.60%. It indicates that the training provided a meaningful and practical learning experience, allowing participants to actively engage with the simulation game-related scenarios rather than merely receiving theoretical explanations. The training therefore, functioned as an experiential learning tool that helped bridge the gap between theory and real practice.

Regarding the knowledge understanding, Conceptual Understanding and Perceived Learning (CUPL) shows an achievement level score of 81.65%. It demonstrates that participants were able to comprehend the practical context and the underlying concepts of the game. This shows that the training successfully clarified how business strategy theories are applied within the simulation game-setting. It helped the participants reduce confusion and enhance their readiness prior to the competition.

Furthermore, in the context of competence perspective, the Skill Development (SD) variable with an achievement level score of 82.45% indicates that the training contributed significantly to the development of relevant analytical and decision-making skills needed in the competition. Participants perceived that their ability to interpret information, evaluate options, and make strategic decisions related to business strategies improved, which are essential competencies in the competition.

On the affective dimension, Affective Evaluation shows an achievement level score of 82.51%, reflecting positive emotional responses toward the training process. Participants reported feeling interested, motivated, and engaged during the two-day online training sessions. It suggests that the instructional delivery, interaction with mentors, and learning atmosphere were effective in maintaining learning attention and enthusiasm.

Moreover, the Teamwork (TW) variable shows an achievement score of 81.80%, indicating that participants perceived themselves as able to communicate, coordinate, and collaborate effectively with team members during the training activities. This is crucial for success in the competition, given its emphasis on group decision-making.

The Satisfaction (S) variable records the achievement level score at 81.55%, indicating that participants were generally satisfied with the overall quality of the online training program. Although slightly lower than other variables, the score still reflects a strong positive evaluation. It suggests that the online training program met participants' expectations in terms of content relevance, delivery method, and usefulness for competition preparation.

In conclusion, the ideal score analysis confirms that the online pre-competition training was highly successful in generating positive perceived learning outcomes. The program effectively fostered experiential learning, conceptual understanding, skill enhancement, emotional engagement, teamwork, and overall satisfaction. These findings indicate that the Zoom-based training served as a strong preparatory foundation, enabling participants to engage in the Business Simulation Game competition with improved knowledge and skill competence.

4.5 Statistic Descriptive Variable

This section presents the descriptive statistical analysis of the research variables.

The mean scores interpretation was classified into categories using an interval scale approach. The class interval was calculated using the formula below.

$$\frac{\text{Highest Scale Value} - \text{Lowest Scale Value}}{\text{Number of Scale Categories}} = \frac{5 - 1}{5} = 0.8$$

Based on this calculation, the interpretation criteria for the mean scores are presented in Table 4.31.

Table 4.31 Mean Criteria Interpretation

Mean Range	Interpretation
1.00 - 1.80	Strongly disagree
1.81 - 2.60	Disagree
2.61 - 3.40	Neither Disagree nor Agree/Neutral
3.41 - 4.20	Agree
4.21 - 5.00	Strongly Agree

After categorizing the respondents' answers based on these intervals, the descriptive statistical results for the research variables are presented in Table 4.32.

Table 4.32 Descriptive Statistics of Social Media Variable

Code	Total Respondent	Minimum Score	Maximal Score	Mean
PEOU	125	1	5	3.74
PU	125	1	5	3.73
PE	125	1	5	3.73
PC	125	1	5	3.75
S	125	1	5	3.73
RA	125	1	5	3.80
SE	125	1	5	3.73
ATU	125	1	5	3.72
IOU	125	1	5	3.74

Based on the descriptive statistical results of the social media evaluation questionnaire, the interpretations are presented as follows.

1. The perceived ease of use variable has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. The mean score is 3.74, which falls within the *agree* interval. This indicates that, on average, respondents agreed that the company's social media platform was easy to

use as a learning support tool. Participants generally experienced minimal technical difficulties and were able to adapt to its use without significant obstacles.

2. The perceived usefulness variable has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. The mean score of 3.73, which also falls within the *agree* category. This suggests that respondents perceived social media as beneficial in supporting their understanding of Business Simulation Game materials in terms of accessibility, flexibility, and effectiveness as a learning support tool.
3. The perceived enjoyment variable has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. With a mean score of 3.73, this variable falls within the *agree* category. This indicates that participants generally found the learning experience through social media enjoyable, which helped maintain their engagement during the learning process.
4. The perceived creativity has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. The mean score of 3.75 is categorized as *agree*. This implies that participants perceived the learning content delivered via social media as creative and engaging, contributing to a more dynamic and interesting learning experience.
5. The satisfaction variable has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. It has a mean score of 3.73, which falls within the *agree* category. This indicates that participants were generally satisfied with their overall learning experience through social media, including access to materials and communication with mentors.

6. The relative advantage variable has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. It records the highest mean score at 3.80, which is also in the *agree* interval. This suggests that participants perceived the use of social media as offering advantages compared to traditional learning methods, such as greater flexibility and convenience.
7. The self-efficacy variable has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. With a mean score of 3.73, the self-efficacy variable is categorized as *agree*. This indicates that participants felt confident in their ability to use social media effectively for learning purposes.
8. The attitude toward future use variables has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. The mean score of 3.72 falls within the *agree* category interval. This demonstrates that participants showed a willingness to continue using social media as a learning tool in the future.
9. The intention of use variable has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. This variable has a mean score of 3.74, categorized as *agree*. This indicates that participants showed a willingness to continue using social media-based learning tools beyond the competition context.

Overall, all variables fall within the *agree* category. This indicates that participants generally held positive perceptions of the company's social media as a learning support tool in preparing for the Business Simulation Game competition. These findings

demonstrate that social media contributes positively to ease of use, usefulness, enjoyment, creativity, satisfaction, perceived advantages, self-efficacy, and future usage intention.

Table 4.33 Descriptive Statistics of Training Variable

Code	Total Respondent	Minimum Score	Maximal Score	Mean
EG	125	1	5	4.13
CUPL	125	1	5	4.10
SD	125	1	5	4.12
AE	125	1	5	4.13
TW	125	1	5	4.10
S	125	1	5	4.10

Based on the descriptive statistical results of the training evaluation questionnaire, the interpretations of each variable are presented as follows.

1. The experience generation variable has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. The mean score of this variable is 4.13, which falls within the *agree* category. This indicates that participants generally agreed that the training program successfully generated meaningful learning experiences. The training activities were able to stimulate real learning situations, enabling participants to gain practical exposure and hands-on understanding relevant to the Business Simulation Game.

2. The conceptual understanding and perceived learning total variable have a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. The mean score is 4.10, which falls within the *agree* category. This suggests that the training effectively helped participants understand both the conceptual framework and the contextual application of the Business Simulation Game materials. Participants were able to relate theoretical knowledge to practical business simulations introduced during the training sessions.
3. The skill development variable has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. With a mean score of 4.12, this variable also falls within the *agree* interval. This indicates that the training contributed positively to the development of participants' skills, such as analytical thinking, decision-making, and problem-solving abilities, which are essential for participating in the Business Simulation Game competition.
4. The affective evaluation has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. This variable records a mean score of 4.13, which belongs to the *agree* category. This shows that participants exhibited positive emotional responses toward the training. They reported feeling interested, motivated, and engaged during the learning process, which contributed to a conducive learning atmosphere.
5. The teamwork variable has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. This variable shows a mean score of 4.10, which also falls within the *agree* category. This

indicates that the training activities supported collaboration among participants. Group tasks and discussions likely enhanced participants' communication, coordination, and collaboration skills required for team-based competition.

6. The satisfaction variable has a minimum score of 1 and a maximum score of 5, indicating that the lowest possible evaluation is 1 and the highest is 5. It shows a mean score of 4.10, which also falls within the *agree* category. This indicates that participants were generally satisfied with the overall training program, including the learning process, training structure, and instructional support provided.

All training variables fall within the *agree* interval category, with mean scores above 4.00. This demonstrates that participants held positive perceptions of the training program. The training was effective in generating learning experiences, enhancing understanding, developing skills, fostering positive emotional engagement, supporting teamwork, and producing overall satisfaction. These findings indicate that the training program played a significant role in preparing participants for the Business Simulation Game competition.

4.6 Pre-Test and Post-Test Result

Table 4.34 N-Gain Score Result

Indicator	Mean Pretest	Mean Posttest	Mean Gain (Post-Pre)	Ideal Score	Mean (Ideal-Pre)	Mean N Gain Score
Total Test Score	64.4	91.5	27.12	100	35.6	0.75

Table 4.34 presents the N-gain average analysis for all pretest and posttest items. The instrument consists of 10 questions in the pretest and the same 10 questions in the posttest. Each correctly answered question was worth 10 points; therefore, the total ideal score for the entire test was 100. The mean pretest score represents the average number of correct responses obtained by participants before receiving the online training intervention. Similarly, the mean posttest score indicates the average number of correct responses after participants completed the two-day online training prior to the competition. The mean gain reflects the average increase in participants' scores between the pretest and posttest. Furthermore, the 'Ideal Score - Pretest' value represents the gap between participants' average pretest score and the maximum possible score. Finally, the mean N-gain score indicates the normalized learning improvement achieved by participants as a result of the online training.

Based on the data presented in Table 4.34, a clear improvement in learning outcomes can be observed. The overall mean pretest score was 64.4, while the mean posttest score increased to 91.5, resulting in a mean gain of 27.12 points. This substantial increase indicates that participants experienced significant knowledge enhancement after the online training intervention.

The mean N-Gain score obtained was 0.75 or 75%, which falls within the *high* effectiveness category according to normalized gain interpretation criteria. This indicates that the two-day online training was significantly effective in enhancing participants' learning outcomes. The high N-Gain score confirms that the instructional approach, learning materials, and Zoom-based delivery during the training effectively supported participants in understanding business process concepts and mastering the Business Simulation Game.

4.7 Content Analysis Result

4.7.1 Results of Social Media Questionnaire

The analysis of open-ended responses was conducted using a content analysis approach, in which participants' statements were coded and categorized into themes aligned with the research variables related to user perceptions and affective behavioral responses toward the use of social media as a digital instructional learning tool in the context of the Business Simulation Game competition. These qualitative findings served to support and enrich the quantitative results obtained from the closed-ended questionnaire, which measured the variables of Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Perceived Enjoyment (PE), Perceived Creativity (PC), Satisfaction (S), Relative Advantage (RA), Self- Efficacy (SE), Attitude Toward Use (ATU), and Intention of Use (IOU).

The open-ended section consists of seven questions, addressing participants' experiences with YouTube tutorial videos, Instagram content, WhatsApp and email communication, system or game features, overall competition experience, and feedback to the committee. The responses reveal patterns that are largely consistent with the descriptive statistical findings, where most variables show mean scores within the "agree" category and achievement levels ranging from 74 to 76%, indicating generally positive perceptions of the use of social media as a learning support tool.

4.7.1.1 Perceived Ease of Use (PEOU) and Self-Efficacy (SE)

The cognitive response reflects participants' rational evaluation of how the learning system operates, and their interaction with the platform influences their perceived capability to perform learning tasks. PEOU refers to the extent to which

the company's social media and Business Simulation Game platform are considered easy to use, while SE refers to participants' confidence in performing tasks after using the learning platform.

Based on the descriptive statistical analysis, the mean score for Perceived Ease of Use was 3.74, indicating that participants generally agreed that the company's social media learning content was relatively easy to use. In addition, the achievement level of 74.56% suggests that the usability of the platform reached a substantial proportion of the ideal condition, although it has not yet achieved an optimal level. Similarly, the Self-Efficacy variable recorded a mean score of 3.73 with an achievement level of 74.67%. It demonstrates that participants also tended to agree that social media learning-based platforms enhanced their confidence in performing the game tasks.

These quantitative findings are strongly supported by the qualitative responses. Most participants reported that they did not experience significant obstacles when accessing learning materials through YouTube tutorials, WhatsApp communication, and email correspondence. Statements such as "*no challenge or issue,*" "*clear and helpful explanation,*" and "*so far so good*" suggest that the instructional delivery through social media was perceived as accessible and user-friendly. A word frequency analysis was conducted to identify dominant expressions used by participants in describing their experience with social media learning tools related to PEOU and SE. The results are summarized in Figure 4.1.

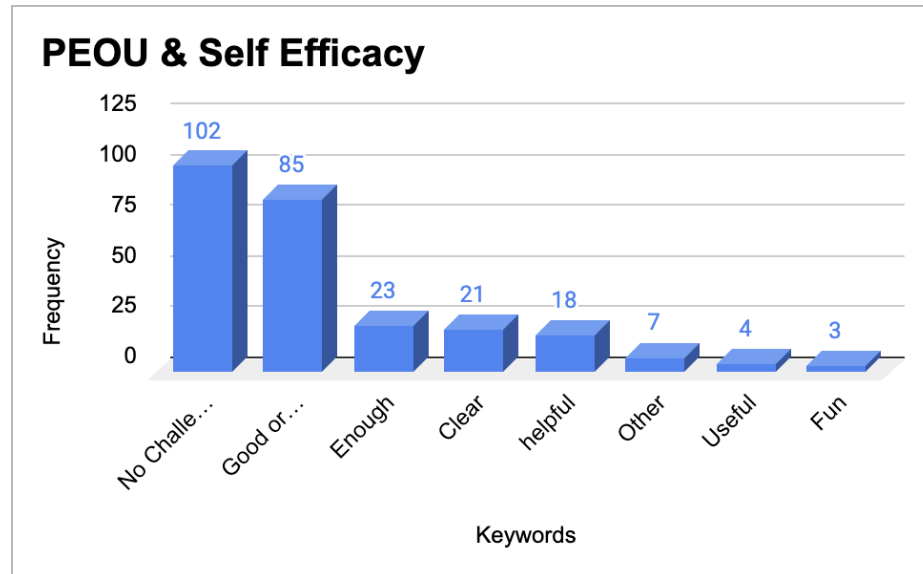


Figure 4.1 Word Frequency Count in PEOU and SE

The graph demonstrates that the most dominant response was “No challenge or issue” (102 occurrences), followed by “Good or great” (85 occurrences). This frequency distribution empirically confirms that technical or functional barriers were not a major concern among participants. The frequent use of positive descriptors such as “Helpful” (18 occurrences), “Clear” (21 occurrences), and “Enough” (23 occurrences) further supports the quantitative findings, which showed that both PEOU and SE variables fell within the “agree” category with achievement levels above 74%.

However, a deeper examination of the responses reveals specific usability nuances. Several participants noted that the pacing of tutorial videos was sometimes too fast, making complex procedures difficult to follow. Table 4.35 shows several quotations from respondents:

Table 4.35 Respondent Cognitive Responses Quotation

Respondent Code	Key Quotation
R28	“Create a community on WhatsApp to make communication easier.”
R86	“Some parts of the video were difficult to follow because the explanations were too fast or lacked detailed examples. It would be helpful to include subtitles, timestamps, or a clearer step-by-step demonstration. To improve communication on WhatsApp, the committee could create a fixed message or pinned post for important information and limit unnecessary chatting in the main group. Using bullet points and clear headings in announcements would also help.”
R119	“The videos were sometimes too fast, making it hard to follow complex steps. Adding more pauses or on-screen text for key points would be helpful.”

These responses indicate that while technical access to the platform was not a major issue, instructional clarity and pacing influenced cognitive effort, which in turn affects both perceived ease of use and self-efficacy. When explanations are too rapid or insufficiently detailed, learners may feel less confident in fully mastering the game, even if the system itself is accessible. In addition, some participants

offered constructive suggestions such as creating a broadcast-style WhatsApp channel or adding concise summaries in emails. These suggestions indicate the need for minor structural refinements rather than fundamental usability issues. This explains why both PEOU and SE scores fell within the “agree” range rather than “strongly agree.”

Overall, the qualitative findings reinforce the quantitative results, indicating that participants experienced a relatively high level of ease in using social media as a learning support tool. This ease of use contributed positively to their self-efficacy, as accessible instructional resources and clear communication enhanced their confidence in understanding features, making decisions, and participating in the competition. The identified limitations relate primarily to content presentation speed and information structuring, rather than system complexity. This suggests that the platform is functionally accessible, with opportunities for further refinement in instructional clarity.

4.7.1.2 Perceived Usefulness (PU) and Relative Advantage (RA)

The descriptive statistical findings indicate that the Perceived Usefulness (PU) variable obtained a mean score of 3.73, accompanied by an achievement level of 74.61%. These findings suggest that participants generally acknowledged the functional benefits of the company’s social media platforms in supporting their understanding of the Business Simulation Game. The results also imply that learners perceived social media not only as supplementary content, but as a meaningful academic resource that contributes to their competition preparation.

Similarly, the Relative Advantage (RA) variable, which reflects perceived benefit compared to alternative learning methods, achieved a mean score of 3.80 with an achievement level of 75.63%, indicating that participants recognized clear advantages in using social media-based learning compared to relying solely on conventional instruction.

This interpretation is reinforced by qualitative findings, which consistently highlight the instructional value of the materials delivered through YouTube, Instagram, and email. Participants frequently described the content as “*very educational*,” “*helpful and informative as a guide*,” and “*good for newbies*,” indicating that the materials effectively supported foundational comprehension, particularly for first-time users of the game platform. These statements demonstrate that social media content functioned as an entry-level scaffolding tool, helping participants bridge the gap between theoretical understanding and practical tasks.

To further substantiate these findings, a word frequency analysis was conducted to identify dominant expressions used by participants in describing the usefulness of social media and its relative advantages. The results are presented in Figure 4.2.

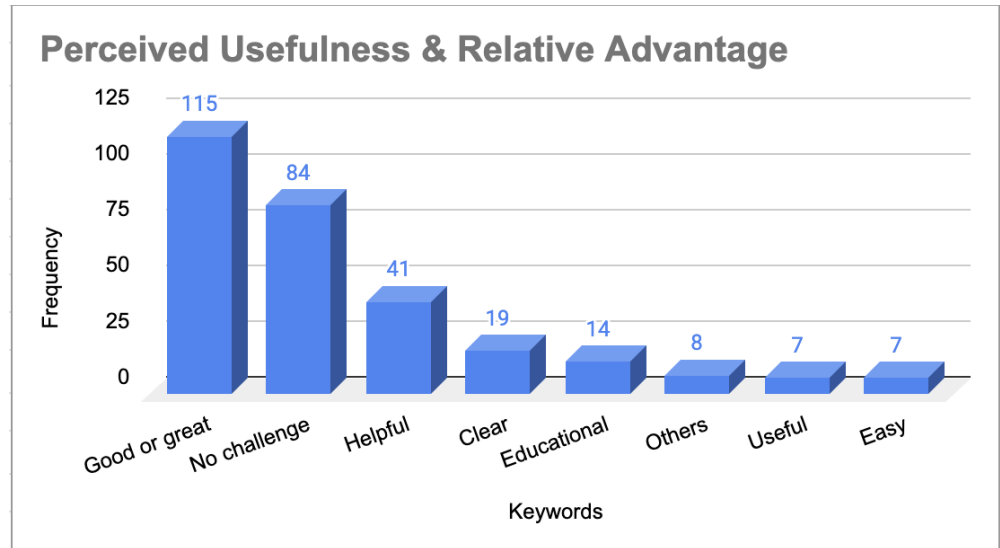


Figure 4.2 Word Frequency in PU and RA

The frequency distribution demonstrates that the most dominant expression was “Good or great” (115 occurrences), followed by “No challenge” (84 occurrences) and “Helpful” (41 occurrences). The strong dominance of positive evaluative terms indicates that participants perceived the instructional materials as beneficial and value-adding. The presence of keywords such as “Educational” (14 occurrences) and “Clear” (19 occurrences) further supports the interpretation that the content successfully enhanced conceptual understanding.

The relatively high occurrence of the phrase “No challenge or issue” (84 occurrences) strongly supports the Technology Acceptance Model (TAM), which posits that Perceived Ease of Use (PEOU) positively influences Perceived Usefulness (PU). The absence of significant difficulties indicates that participants perceived the instructional materials and platforms as easy to use, thereby reducing cognitive effort. According to TAM theory, when users experience minimal barriers, they are more likely to evaluate the system as beneficial and value adding. Therefore, the frequent expression of “No challenge or issue” empirically

demonstrates that ease of use directly strengthened participants’ perceptions of usefulness and relative advantages in the context of social media-based learning for the Business Simulation Game competition.

In addition, Instagram content was appreciated for its concise and visually structured format. One respondent noted that the material was “*good, not much time needed to read it*” (R103), suggesting that the platform facilitated efficient information processing. Another participant emphasized that the company’s Instagram posts were “*visually appealing and gave useful summaries*” (R86), although they also recommended adding “*more detailed explanations or short video clips about key concepts,*” (R86). This feedback indicates that while Instagram effectively delivered quick conceptual overviews, participants still expected deeper elaboration to fully support complex decision-making processes. Such insights help explain why the PU score falls within the “agree” category rather than reaching “strongly agree” category.

Interestingly, several qualitative responses linked PU and TA to participants’ ability to apply the learning materials to the operational understanding of the game system. Participants suggested improvements related to system responsiveness and feature functionality, as shown in Table 4.36.

Table 4.36 Respondents’ Quotation on Perceived Usefulness

Respondent Code	Key Quotation
R85	“Server, fix bug, more efficient procurement system”

R86	“The interface could be more use-friendly and easier to navigate. A tutorial mode or demo simulation would be a great addition for new users to practice before the real rounds”
R87	“Giftpack because we are still confused about the Giftpack period”

These findings reveal that participants associated the usefulness of learning materials with how effectively the instructional content translated into practical decision-making competence during the game rounds. When system features were perceived as confusing or experienced performance issues, the perceived usefulness and relative advantage of prior learning support were indirectly affected.

4.7.1.3 Perceived Enjoyment (PE) and Satisfaction (S)

The affective response reflects participants’ emotional reactions toward the use of social media as a learning support tool. The descriptive statistics analysis indicates that Perceived Enjoyment (PE) obtained a mean score of 3,73 with an achievement level of 74.61%, while Satisfaction (S) showed a mean score of 3.73 and an achievement level of 74.68%. These results indicate that participants generally experienced positive emotions while engaging with the company’s social media learning materials and the game. This result suggests that the learning process was not only cognitively meaningful but also effectively engaging, as participants tended to feel interested, excited, and emotionally involved during the preparation and competition activities.

Qualitative responses obtained from open-ended questions reveal strong emotional engagement. In relation to the participants' perception of the company's Instagram content, several respondents noted that the platform was not only informative but also enjoyable to use. One participant (R112) described it as a *"highly effective supplementary resource,"* stating that *"the visual and concise format makes complex concepts easier to grasp."* This suggests that the presentation styles contributed to a pleasant learning experience, as visually engaging and simplified explanations reduced cognitive strain and increased user comfort. Moreover, participants generally demonstrated positive affective responses as described in their experience as *"so much fun,"* *"exciting and interesting,"* *"very challenging,"* *"it was fun and refreshing to enjoy a new experience,"* *"it was such a great experience."* A word frequency analysis was conducted to identify dominant expressions stated by the participants, as presented in Figure 4.3.

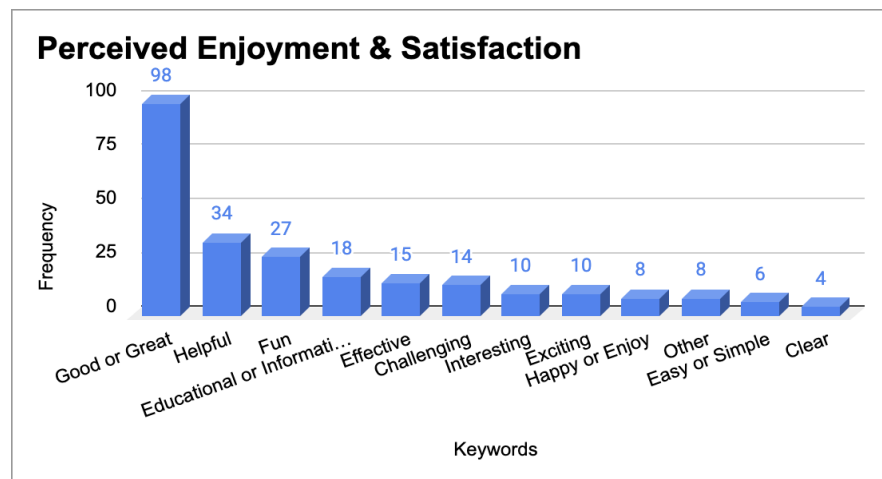


Figure 4.3 Word Frequency in PE and S

The frequency distribution indicates that the most dominant expression was “Good or great” (98 occurrences), followed by “Helpful” (34 occurrences) and

“Fun” (27 occurrences). Emotional descriptors such as “Interesting” (10 occurrences), “Exciting” (10 occurrences), and “Happy or enjoy” (8 occurrences) further demonstrate that participants experienced positive affective reactions during accessing the company’s social media for learning purposes. The presence of the response “Challenging” (14 occurrences) also suggests that participants perceived the competition as intellectually stimulating rather than overwhelming. The consistent use of positive evaluative terms indicates that the learning environment delivered through social media platforms successfully fostered intrinsic motivation, which aligns with the concepts of Perceived Enjoyment and Satisfaction.

However, alongside these positive responses, several participants also reported technical issues, such as *“Fun, but lots of bugs like double and multiple purchases”* and *“Unclear system bugs.”* These system-related challenges represent factors that may have limited the optimal learning experience. As a result, although affective responses were generally positive, the presence of such operational constraints in the game system likely explain why the perceived enjoyment and satisfaction scores merely reached the “agree” level rather than the “strongly agree” level.

4.7.1.4 Intention of Use (IOU) and Attitude Toward Use (ATU)

Behavioral responses reflect participants’ evaluative orientation and future-oriented tendencies toward the continued use of social media as a learning support tool. ATU represents participants’ overall positive or negative disposition toward using social media in the learning process, while IOU refers to their willingness to continue using similar digital learning tools in the future.

Based on the descriptive statistical analysis, ATU obtained a mean score of 3.72 with an achievement level of 74.56%, indicating that participants generally held a positive attitude toward the use of social media as a learning support platform. Similarly, IOU recorded a mean score of 3.74, although its achievement level was relatively lower at 62.43%, suggesting that while participants demonstrated an overall willingness to continue using social media-based learning, this intention was moderated by situational and contextual factors.

The qualitative findings provide strong support for these quantitative results. Participants frequently expressed positive emotional and evaluative responses toward their learning experience, which directly reflect a favorable attitude toward continued use. Statements such as *“It’s so happy, I was to join again” (R44)* clearly illustrate participants’ positive disposition toward the learning approach. These responses indicate that the enjoyment and engagement experienced during the competition fostered affirmative attitudes toward the learning platform, which is a key antecedent of behavioral intention. A word frequency analysis was conducted to identify dominant expressions related to future orientation and continued engagement, as shown in Figure 4.4.

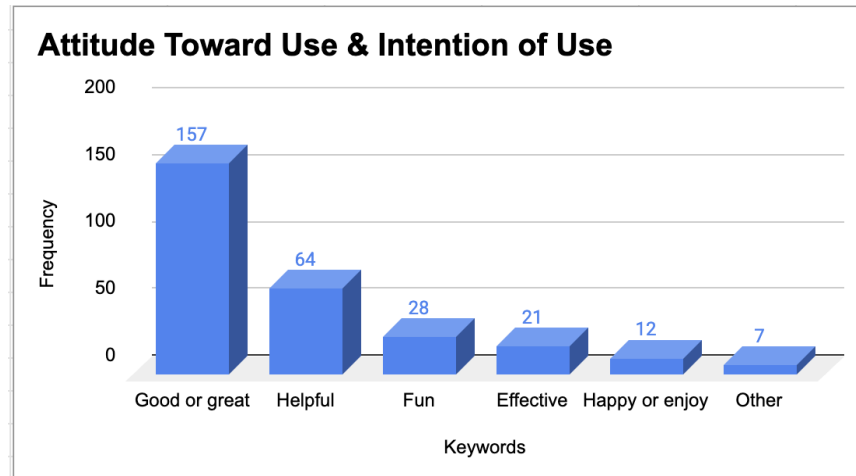


Figure 4.4 Word Frequency in ATU and IOU

Figure 4.4 shows that the dominant expressions were “Good or great” (157 occurrences), followed by “Helpful” (64 occurrences), “Fun” (28 occurrences), and “Effective” (21 occurrences). These evaluative keywords indicate that participants formed favorable judgments toward the learning experience. Positive emotional expressions such as “Happy or enjoy” (12 occurrences) further suggest a generally affirmative disposition toward the platform. In line with behavioral acceptance theories, such positive evaluations typically serve as a foundation for developing usage intention. However, the responses were predominantly reflective of satisfaction and evaluation of past experiences rather than explicit commitment to future reuse. It explains the reason why the intention scores remained moderate in the “agree” category.

The qualitative data also help explain why both ATU and IOU did not reach higher achievement levels. While participants expressed enthusiasm and openness toward future participation, earlier comments related to system limitations, technical issues, time constraints, and the demanding nature of the competition

suggest that continued use may depend on contextual readiness rather than rejection of the learning approach itself. In this sense, participants' intention to reuse social media-based learning tools appears to be conditional, shaped by practical considerations rather than by negative attitudes toward the platforms.

4.7.2 Results of Training Questionnaire

The analysis of open-ended responses related to the training evaluation was conducted using a content analysis approach. Participants' responses were systematically coded and categorized into themes corresponding to the research variables that reflect learning experiences and training outcomes in the context of competition preparation. These variables include Experience Generation (EG), Conceptual Understanding and Perceived Learning (CUPL), Skill Development (SD), Affective Evaluation (AE), Teamwork (TW), and Satisfaction (S).

The qualitative findings in this section are intended to complement and strengthen the quantitative results obtained from the closed-ended training evaluation questionnaire. The open-ended section consists of six questions, addressing participants' learning experiences during two-day online training, challenges encountered during training sessions, perceptions of training effectiveness, suggestions for improvement, and feedback for the mentor. As presented in the descriptive statistical analysis, all training-related variables recorded mean scores within the "agree" to "strongly agree" categories, with achievement levels exceeding 80%, indicating highly positive perceptions of the Zoom-based training conducted prior to the competition. This qualitative analysis provides a more

comprehensive understanding of how the training contributed to participants' preparedness for the competition.

4.7.2.1 Experience Generation (EG)

Experience Generation reflects participants' overall learning experience formed through their direct involvement in the online training sessions. It captures how effectively the two-day Zoom-based training facilitated an engaging and valuable learning environment to prepare participants for the Business Simulation Game competition. Based on the descriptive statistical analysis, the mean score for Experience Generation was 4.13, indicating that participants generally agreed that the online training provided a positive and meaningful learning experience. In addition, the achievement level of 82.60% suggests that the training reached a high proportion of the ideal experiential learning condition. These values position EG among the strongest-performing variables in the training evaluation, suggesting that the training design was largely successful in generating engaging learning experiences.

The quantitative findings are strongly supported by the qualitative responses collected through the open-ended questions. Most participants expressed positive emotional and experiential responses toward the two-day online training. They frequently describe it as *“very fun and interesting,” “great and helpful,”* and *“it is challenging but helpful for competition.”* A word frequency analysis was conducted to identify the dominant experiential expressions used by participants in describing the two-day Zoom-based training, as presented in Figure 4.5.

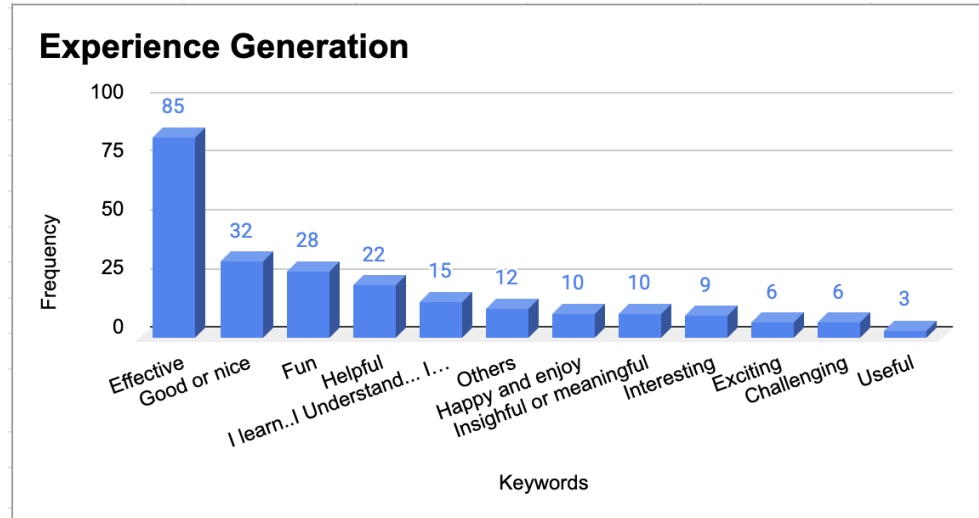


Figure 4.5 Word Frequency in Experience Generation

The graph presents that the most frequently occurring keyword was “Effective” (85 occurrences), followed by “Good or nice” (32 occurrences), “Fun” (28 occurrences), and “Helpful” (22 occurrences). Additionally, reflective learning expressions such as “I learn...,” “I understand...,” and “I gain..” (15 occurrences) indicate that participants not only enjoyed the sessions but also perceived tangible cognitive benefits. Emotional descriptors including “Happy or enjoy” (10 occurrences), “Insightful or meaningful” (10 occurrences), and “Interesting” (occurrences), further suggest that the training generated positive experiential value beyond technical instructions. The presence of “Challenging” (6 occurrences) and “Exciting” (6 occurrences) implies that participants perceived the training as intellectually stimulating rather than burdensome. Overall, the dominance of positive and learning-oriented keywords demonstrates that the online training successfully generated meaningful experiential engagement.

However, a deeper examination of the qualitative responses reveals several contextual factors that influenced overall experience generation. Although the

training was positively perceived, some participants highlighted limitations related to training duration, delivery mode, and situational constraints. For instance, several participants reported concerns, as shown in Table 4.37.

Table 4.37 Respondent Experience Generation Quotation

Respondent Code	Key Quotation
R12	“50/50 because it was delivered in English and was kind of difficult to understand, but not too much.”
R28	“Less effective, because it would be better if it were offline.”
R34	“...Include ice-breaking sessions or light activities at the beginning to make participants more relaxed and engaged.”
R46	“For me, no. because it’s so hard for me to understand through online. Due to low connection, the voice was not clear, and I couldn’t go with the flow.”
R71	“The material was delivered very well, and the Zoom media used was quite effective. However, it was quite boring due to the very long training duration on weekdays”

The responses presented in Table 4.36 reveal several moderating factors that influenced the depth and sustainability of participants’ experiential engagement. Issues related to long training duration, online delivery limitations, language barriers, and technical connectivity challenges reduced experiential

immersion for some participants. Importantly, these constraints did not negate the overall positive experience but rather explained why the EG variable did not reach a perfect or “strongly agree” level. Instead, participants’ suggestions focused on improving engagement strategies, such as incorporating ice-breaking activities and optimizing session structure. It indicates continued acceptance of the training model and a desire to enhance, rather than replace, the experiential learning design. Overall, the convergence of quantitative strength and qualitative insights confirms that the online training effectively generated meaningful learning experiences while still leaving room for pedagogical refinement.

4.7.2.2 Conceptual Understanding, Perceived Learning, and Skill Development (CUPL-SD)

Conceptual Understanding and Perceived Learning, integrated with Skill Development, reflects participants’ understanding of business process concepts and their perceived improvement in applying those concepts through practical decision-making during the training and simulation game. This combined construct captures not only how effectively the online training enabled participants to comprehend business processes, strategic decision-making, and operational flows embedded in the game, but also how this understanding translated into perceived skill enhancement in managing business simulations. Based on the descriptive statistics analysis, CUPL recorded a mean score of 4.10 with an achievement level of 81.65%, while Skill Development achieved a closely aligned mean score of 4.12 and an achievement level of 82.42%. These results indicate that participants

generally agreed that the training successfully supported both conceptual clarity and practical skill acquisition. The relatively high scores place CUPL and SD among the strong-performing variables in the training evaluation, suggesting that the Zoom-based instructional delivery was effective in facilitating meaningful learning and competency development.

Qualitative findings strongly reinforce this interpretation. Most participants explicitly stated that the training and the game itself provided new insights into how businesses operate in an integrated and strategic manner. Most participants emphasized that the training helped them understand the logic behind operational decision-making, including production planning, resource management, and sales processes, while simultaneously developing their analytical and strategic thinking skills. They reported learning outcomes such as *“how to build business strategies in the game,” “how to play the game,” “business simulation starts from scratch until it generates revenue,” “the flow and function of each department,”* and *“Day 1 helped me understand the introduction and strategy, while Day 2 made me understand more because I had practiced it.”* These statements demonstrate that participants were able to connect theoretical explanations with practical application through hands-on engagement, which is a key indicator of effective conceptual understanding and perceived learning.

A word frequency analysis was conducted to examine dominant expressions related to conceptual understanding and skill development acquired during the training, as shown in Figure 4.6.

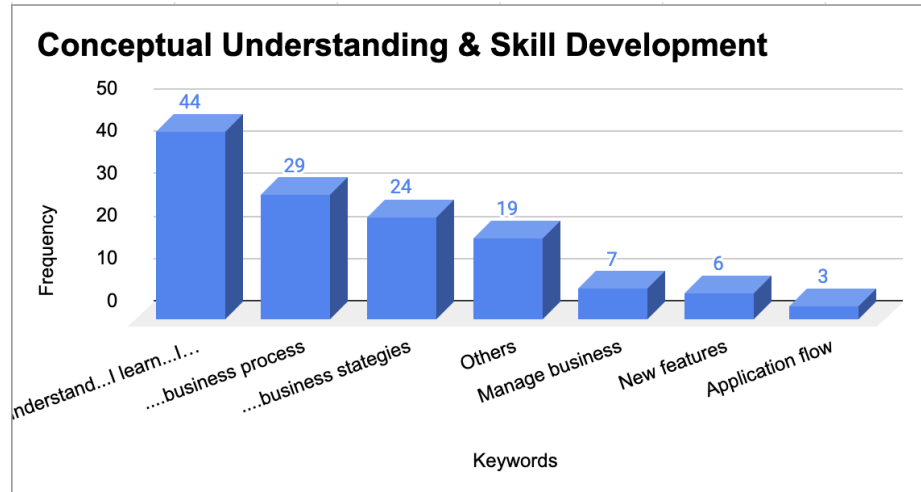


Figure 4.6 Word Frequency in CUPL and SD

The graph shows that the most frequent responses were reflective learning statements such as “I understand...,” “I learn...,” and “I gain knowledge...” (44 occurrences), indicating strong perceived cognitive acquisition. This was followed by specific references to “... business processes...” (29 occurrences), and “... business strategy...” (24 occurrences), suggesting that participants developed structured insight into operational workflows and strategic decision-making. Additional keywords such as “Manage business” (7 occurrences), “New features” (6 occurrences), and “Application flow” (3 occurrences) further demonstrate that learning extended beyond theoretical comprehension to include practical system navigation and managerial application.

This depth of reflection supports the relatively high CUPL and SD mean scores, as participants were not merely memorizing procedures but also internalizing business logic and strategic thinking through the training and game experience. The distribution of these keywords confirms that the training successfully facilitated both conceptual clarity and skill-oriented competence, as

participants were able to articulate not only what they learned but also how they applied it within the game. This alignment between knowledge acquisition and operational practice indicates effective integration of theory and experiential learning.

Nevertheless, a closer examination of the qualitative data reveals areas of improvement related to instructional scaffolding rather than conceptual failure. Several participants identified these areas for improvement as shown in Table 4.38.

Table 4.38 CUPL & SD Quotations

Respondent Code	Key Quotations
R20	“Embed reflection checkpoints and just-in-time learning resources to build participant competencies.”
R84	“Provide short pre-training modules or videos to help participants familiarize themselves with the platform. Offer a glossary or cheat sheet of key terms and strategies.”
R93	“Provide explanations in Bahasa, deliver explanations more slowly and in greater detail, include more closely guided hands-on practice with direct, step-by-step assistance.”
R110	“Provide engaging materials prior to the simulation to help participants familiarize themselves with basic concepts and the simulation interface, thereby stimulating their curiosity.”

R103	“Provide more breakout-room sessions for team discussion, add a short pre-training guide, and offer post-session feedback to help participants improve their decision-making skills.”
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The comments presented in Table 4.38 indicate that while conceptual understanding was largely achieved, some participants required additional support to fully internalize complex information within the limited training timeframe. Overall, the convergence between the quantitative and qualitative findings confirms that the online training effectively supported participants’ conceptual understanding and skill development of the Business Simulation Game. The high mean score and achievement level reflect strong learning outcomes, while the qualitative feedback provides nuanced insights into how instructional design could be further refined. Rather than questioning the effectiveness of the training, participants’ responses reflect a desire for deeper cognitive scaffolding to enhance already positive learning experiences. This suggests that the training successfully established a solid conceptual foundation while offering opportunities for further pedagogical enhancement.

4.7.2.3 Affective Evaluation and Satisfaction (AE-S)

Affective Evaluation (AE) and Satisfaction (S) reflect participants’ emotional appraisal and overall evaluative judgment toward the online Business Simulation Game training experience. While AE captures the extent to which participants formed positive emotional impressions during the training sessions, Satisfaction represents their overall contentment with the training

outcomes and delivery. These variables illustrate how participants emotionally interpreted and evaluated the quality of the learning experience. Based on the descriptive statistical analysis, AE recorded a mean score of 4.13 with an achievement level of 82.51%, while Satisfaction obtained a mean score of 4.10 with an achievement level of 81.55%. These values indicate that participants generally agreed that the training generated positive emotional impressions and satisfactory learning experiences. The high achievement levels further suggest that the training met participants' affective expectations to a substantial degree.

Qualitative responses obtained from open-ended questions reinforce this interpretation. Participants frequently described the training as *“overall good,”* *“great,”* *“the mentor was cool and great at explaining,”* *“the training was easy to understand,”* *“might be difficult at first,”* and *“great experience.”* A word frequency analysis was conducted to examine dominant affective expressions related to participants' emotional evaluation and overall satisfaction with the Zoom-based training, as presented in Figure 4.7.

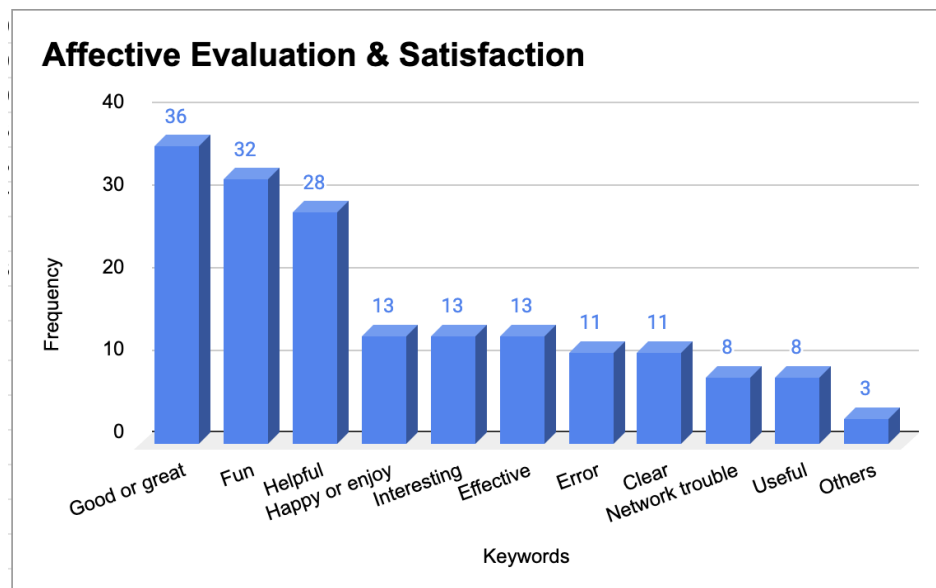


Figure 4.7 Word Frequency in Affective Evaluation and Satisfaction

The figure shows that the most frequently occurring keyword was “Good or great” (36 occurrences), followed by “Fun” (32 occurrences) and “Helpful” (28 occurrences), indicating predominantly positive emotional appraisals of both the instructional delivery and mentor guidance. Emotional descriptors such as “Happy or enjoy” (13 occurrences) and “Interesting” (13 occurrences) further suggest that participants experienced intrinsic engagement during the sessions. At the same time, the presence of “Error” (11 occurrences) and “Network trouble” (8 occurrences) indicates that minor technical disruptions were acknowledged, although these did not dominate overall responses. This indicates that while participants experienced certain operational constraints, such as system bugs, unstable connections, or unclear audio, these issues did not substantially diminish their overall emotional evaluation and satisfaction. Instead, they functioned as contextual limitations rather than determinants of dissatisfaction. Nevertheless, participants provided constructive suggestions aimed at improving future learning experiences, as presented in Table 3.39.

Table 4.39 Affective Evaluation and Satisfaction Quotation

Respondent Code	Key Quotation
R34	“Add a dedicated Q&A session at the end of each day to address questions and gather feedback from participants.”
R84	“Shorten the lectures and increase the simulation time. Provide

	immediate feedback after each round so participants can understand what went well or not.”
R103	“It would be even better with more real-life examples and interactive Q&A sessions.”

These suggestions indicate that participants seek greater interaction, clearer feedback mechanism, and a better balance between theoretical explanation and hands-on simulation. Importantly, the feedback does not reflect dissatisfaction with the overall training concept, but rather a desire to optimize engagement and experiential depth. This aligns with the relatively high mean scores of both variables, where satisfaction was strong but still open to refinement through improved technical stability, structured interaction, and more responsive facilitation.

4.7.2.4 Teamwork (TW)

Teamwork reflects participants’ collaborative engagement, communication dynamics, and collective problem-solving processes during the training and simulation rounds. Based on the descriptive statistical analysis, the Teamwork variable recorded a mean score of 4.10 with an achievement level score of 81.80%, indicating that participants generally agreed that teamwork functioned effectively throughout two day online training. These figures place TW within the “agree” category and demonstrate a relatively strong collaborative experience, although not at the “strongly agree” level.

The quantitative findings are supported by qualitative responses highlighting positive interpersonal and collaborative experiences. Several participants explicitly emphasized the enjoyable and constructive nature of teamwork, as reflected in statements such as *“I had a lot of fun with my friend discussing the best business strategies” (R118)* and *“I learned how to communicate effectively within the team.” (R86)* These responses suggest that the training successfully fostered strategic discussion, shared decision-making, and interpersonal skill development. The game environment appears to have encouraged active dialogue and collective reasoning, which are essential components of effective team-based learning.

However, a deeper examination of the qualitative responses reveals recurring challenges that moderated the strength of the teamwork experience. Some participants reported difficulties, such as *“It was difficult to communicate because the training was conducted online” (R73)* and *“The team collaboration and cohesion were not strong enough.”(R102)* These constraints indicate that the online delivery format limited spontaneous interaction and reduced team cohesion for certain groups. Communication barriers, limited non-verbal cues, and time pressure during online rounds may have hindered optimal collaboration. These contextual limitations help explain the reason why the TW score remained at the “agree” level rather than reaching “strongly agree.”

Furthermore, the important thing is that participants did not reject the collaborative model; instead they provided constructive suggestions to strengthen team dynamics, as reflected in Table 4.40.

Table 4.40 Teamwork Quotation

Respondent Code	Key Quotation
R84	“Allocate more time for team strategy discussion between rounds, assign rotating leadership roles within the team (e.g., CEO, CFO) to encourage broader participation and ownership.”
R89	“Use structured breakout room sessions with clear task lists and discussion guides.”
R114	“Create a special room where all teams with the same company code can negotiate.”

These suggestions indicate a desire for more structured collaboration mechanisms, clearer role distribution, and facilitated negotiation spaces. Rather than reflecting dissatisfaction, the feedback demonstrates participants’ awareness of teamwork’s strategic importance and their motivation to enhance it. The convergence between quantitative and qualitative findings confirms that teamwork was positively experienced and functionally effective within the training and simulation context. Nevertheless, structural and online format constraints limited the depth of collaborative cohesion for some participants. It explains the reason why the Teamwork variable reached only the “agree” category, but not the “strongly agree ” category. The consistency of improvement-oriented suggestions indicates that the participants valued teamwork highly and sought refinement rather

than fundamental change. It reinforces the overall positive evaluation of the collaborative learning environment.

4.8 Discussion

4.8.1 The Effectiveness of Edugate's Social Media as A Digital Instructional Tool in Enhancing Participants' Comprehension and Readiness for the Business Simulation Game Competition

This study examines the effectiveness of Edugate's social media platforms in delivering educational content to support participants in preparing for the Business Simulation Game competition. The social media utilized in this research consists of multiple content types and platforms. It includes YouTube video tutorials explaining game features and mechanics, Instagram carousel posts discussing business processes and strategic tips, as well as informational updates delivered through communication channels such as WhatsApp and Email. This study adopts two major analytical dimensions, which include user perception variables such as Perceived Ease Of Use (PEOU), Perceived Usefulness (PU), Perceived Enjoyment (PE), Perceived Creativity (PC), Relative Advantage (RA), and Self-Efficacy (SE), as well as affective and behavioral responses including Satisfaction (S), Attitude Toward Use (ATU), and Intention of Future Use (IOU) to evaluate effectiveness. These dimensions serve as comprehensive indicators for assessing the effectiveness of the company's social media as a digital instructional tool in supporting participants' readiness for the Business Simulation Game competition.

The descriptive statistical analysis indicates that all nine variables achieved mean scores within the "agree" category, ranging from 3.72 to 3.80, which reflects a generally

positive perception toward the use of the company's social media as a digital learning support tool. The relatively narrow range of mean scores suggests a consistent evaluation across the measured constructs, indicating that no single variable significantly underperformed in terms of participants' perceptions. In terms of ideal score achievement, most variables obtained scores between approximately 74 percent and 75 percent, demonstrating a relatively high level of perceived effectiveness. However, one variable, which is Intention of Future Use (IOU), recorded a noticeably lower ideal score of 62.43 percent compared with the other constructs. This lower score may indicate that although participants perceived the social media content as useful, accessible, and supportive during the preparation phase, their intention to continue using the platform in the future may be influenced by contextual factors such as the temporary nature of the competition-based learning activity or the availability of alternative learning resources. Nevertheless, the relatively similar score distribution among the remaining variables indicates that participants consistently perceived Edugate's social media content positively in terms of usability, usefulness, and instructional support.

From the perspective of the Technology Acceptance Model (TAM), the overall pattern of results suggests that the fundamental determinant of TAM was successfully fulfilled in this study. According to Davis (1989), Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) serve as the primary antecedents influencing users' acceptance and behavioral intention toward a technological system. In this research study, the findings reveal that both constructs achieved relatively high achievement levels, with PEOU reaching 74.56 percent and PU reaching 74.61 percent. These results indicate that participants generally perceived Edugate's social media learning content as both accessible

and beneficial in supporting their preparation for the Business Simulation Game. The relatively balanced scores between these two variables also suggest that the instructional content successfully minimized cognitive barriers while simultaneously providing practical value for understanding game mechanisms.

A closer comparison among variables reveals that Relative Advantage (RA) recorded the highest mean score (3.80) and the highest achievement level (75.63 percent). This suggests that participants perceived the use of the company's social media as offering additional benefits compared to relying solely on independent exploration of the simulation platform. According to the extended TAM framework proposed by Venkatesh and Davis (2000), PU tends to exert a stronger influence on behavioral acceptance when users recognize clear performance advantages provided by the systems. The relatively strong RA score indicates that participants not only considered the platform useful but also perceived it as providing meaningful instructional advantages, particularly through visual explanation, structured tutorials, and concise conceptual summaries delivered through Instagram and YouTube content.

Meanwhile, variables such as Perceived Enjoyment (PE), Self-Efficacy (SE), Satisfaction (S), and Perceived Creativity (PC) recorded mean scores ranging from 3.73 to 3.75, with achievement levels consistently around 74 percent. Although these variables did not significantly exceed PU or RA, their relatively stable scores suggest that participants experienced a balanced combination of functional, emotional, and motivational responses toward the digital learning content. In line with the findings of Galatsopoulou et al. (2022), video-based learning environments tend to generate positive affective engagement when learners perceive the materials as both understandable and visually structured. The

combination of YouTube tutorials and Instagram carousel posts appears to support not only cognitive comprehension but also intrinsic engagement, which contributes to sustained interaction with the learning materials (Galatsopoulou et al., 2022).

From a theoretical standpoint, satisfaction is often positioned as a mediating variable between system evaluation and behavioral loyalty. However, it is important to interpret satisfaction cautiously. Skjelbred and Daus (2022) argue that satisfaction itself is insufficient to determine the effectiveness of digital learning interventions, as positive feelings do not automatically translate into measurable achievement gains. In this study, although participants expressed satisfaction with the company's social media content, the effectiveness claim is further strengthened by the observed improvement in pre-test and post-test scores.

The statistical analysis of learning outcomes indicates a significant difference between pre-test and post-test results, suggesting that exposure to Edugate's digital instructional content contributed to improved comprehension of the Business Simulation Game. While it is acknowledged that the intensity of social media intervention was lower compared to the online-based training sessions, the data reveal that social media still played a measurable supportive role. This is further supported by descriptive data showing that 80.8 percent of participants, or 101 individuals, reported accessing Edugate's social media content, with the majority spending approximately one to three hours engaging with the materials. Such engagement duration suggests meaningful interaction rather than superficial exposure.

One notable deviation emerges in the Intention of Future Use (IOU) variable, which recorded a significantly lower achievement level of 62.43 percent despite having a mean

score that remained within the “agree” category (3.74). This discrepancy suggests that although participants positively evaluated the usefulness and accessibility of the social media content, their intention to continuously rely on the platform in the future may be influenced by contextual factors beyond the platform itself. Prior research indicates that behavioral intention is often shaped not only by perceived usefulness but also by situational conditions, learning needs, and time availability (Venkatesh et al., 2012). In this case, participants may view the social media content primarily as a preparatory tool for the competition rather than as a long-term learning platform. Consequently, while the instructional value of the platform was positively acknowledged, the motivation for repeated use may depend on whether similar learning contexts arise in the future.

The comparative pattern across variables indicates that cognitive and functional constructs (PU, PEOU, and RA) appear stronger than behavioral continuation constructs (IOU). This pattern suggests that Edugate’s social media effectively supports initial learning readiness and conceptual preparation, but its role remains primarily as a complementary instructional support rather than a standalone learning environment. Such findings are consistent with previous research highlighting that social media-based learning is most effective when integrated within broader instructional ecosystems rather than functioning independently as the primary training mechanism (Naik, 2024; Niyomsuk & Polyiem, 2022).

4.8.2 The Effectiveness of Online Zoom-Based Training in Enhancing Participants’ Comprehension and Readiness for the Business Simulation Game Competition

The evaluation of Edugate’s Zoom-based training was conducted using six analytical dimensions. It includes Experience Generation (EG), Conceptual Understanding

and Perceived Learning (CUPL), Skill Development (SD), Affective Evaluation (AE), Teamwork (TW), and Satisfaction (S). The descriptive analysis statistical findings indicate that all variables achieved mean scores within the “agree” category, as shown in Table 4.33, with achievement levels that were consistently high and slightly exceeding those observed in the social media evaluation, as shown in Table 4.30. Although the inter-variable differences were not statistically significant, the overall mean score pattern suggests a stable and positively perceived training experience. Importantly, the aggregate mean score for the training variables was higher than the social media mean scores. It indicates that synchronous two-day online training provided stronger perceived instructional value compared to asynchronous digital content. These findings highlight the pedagogical importance of structured synchronous learning environments in facilitating deeper instructional engagement and guided learning processes.

From an experiential learning perspective, the high mean score obtained for Experience Generation (EG) and Affective Evaluation (AE), both recorded at 4.13, indicate that participants did not merely receive information passively but actively constructed understanding through guided simulation exercises during the training. These findings align with experiential learning theory proposed by Kolb (1984), which emphasizes that effective learning occurs when learners actively engage in experiences that allow them to apply, reflect, and conceptualize knowledge. In the present study, the structured Zoom training sessions enabled participants to interact directly with mentors while simultaneously practicing business decision-making within the simulation environment. Such real-time interaction strengthened the cognitive integration between theoretical explanations and practical execution within the Business Simulation Game. Similarly, Cai

(2023) demonstrates that business simulation environments significantly enhance conceptual comprehension and decision-making skills when supported by guided instructional facilitation. Therefore, the strong performance of EG and AE suggests that the training environment successfully generated meaningful experiential learning conditions for participants.

This experiential learning environment appears to have directly influenced participants' perceived Skill Development (SD), which recorded the second-highest mean score at 4.12, while Conceptual Understanding and Perceived Learning (CUPL) also achieved a consistently high score. This pattern indicates that the positive learning experiences generated through engagement and affective interaction during the training contributed to participants' ability to develop analytical thinking, strategic decision-making, and operational comprehension of business processes. In other words, the experiential conditions represented by EG and AE likely served as foundational drivers that facilitated the improvement observed in SD and CUPL. Importantly, this perceived learning improvement is supported by objective learning outcome evidence derived from the pre-test and post-test analysis. As shown in Table 4.34, the mean pre-test score of 64.4 increased substantially to 91.5 in the post-test, generating a mean gain of 27.12 points and an N-Gain score of 0.75. According to Hake (1998) an N-Gain score above 0.70 indicates a high level of learning improvement, suggesting that the training intervention effectively enhanced participants' comprehension of the simulation concepts. Therefore, the alignment between the experiential learning indicators, which are EG and AE, the SD and CUPL, and the significant improvement in pre-test and post-test scores provides strong evidence that the structured online training not only generated positive learning

experiences but also translated those experiences into measurable comprehension gains before the competition.

Moreover, the substantial learning improvement observed in the post-test results is particularly significant when considering the participants' background characteristics. Approximately 42.4 percent of participants, equivalent to 53 individuals, were engaging in a Business Simulation Game competition for the first time. Although some participants had previously studied SAP or ERP-related business process concepts in their respective universities, the competitive simulation environment introduced a different level of applied complexity and real-time decision-making pressure. Therefore, the significant increase in post-test scores indicates that the online training successfully bridged the gap between theoretical classroom exposure and practical game execution. This finding supports Cai (2023), who argues that simulation-based learning becomes most effective when theoretical knowledge is reinforced through guided experiential practice.

The collaborative dimension of the training is also reflected in the Teamwork (TW) variable, which achieved a high mean score. Simulation-based learning inherently requires coordination, communication, and collective decision-making. Prior research in simulation pedagogy confirms that collaborative simulation environments strengthen team cognition and shared problem-solving capabilities (Bell & Kozlowski, 2008; Salas et al., 2012). In this research study, the use of synchronous discussion sessions through Zoom, complemented by coordination through WhatsApp, allowed participants to exchange ideas, clarify uncertainties, and collectively prepare their strategies before entering the competition environment. This collaborative interaction represents a pedagogical advantage that asynchronous learning platforms alone may not fully replicate.

Another important aspect of this training model lies in the integration of structured online learning platforms, particularly Zoom for synchronous instruction and WhatsApp for continuous communication and coordination. The structured nature of these platforms allowed mentors to deliver explanations systematically, provide immediate feedback, and address participants' questions in real time. According to Dhawan (2020), synchronous digital learning platforms significantly enhance learning effectiveness because they replicate key elements of traditional classroom interaction while maintaining the flexibility and accessibility of online education. In this study, the structured training delivery through Zoom and WhatsApp generated a more effective learning experience, which is empirically reflected in both the high perceptual evaluation scores and the substantial improvement in pre-test and post-test learning outcomes.

A distinctive aspect of this study lies in the participation of an international team consisting of five students from the Philippines. Their involvement provided an additional cross-contextual perspective on the effectiveness of the training model. Based on the content analysis of open-ended responses, the international participants did not report significant difficulties in following the training sessions. They were able to understand the instructional materials, interact effectively with mentors, and apply the concepts within the simulation environment. The limited challenges they reported suggest that the training structure remained pedagogically effective across geographical boundaries. This international participation enhances the external relevance of the study and indicates that the effectiveness of the synchronous online-based training is transferable beyond local institutional settings. Furthermore, it supports the findings of Dhawan (2020), which suggests that the digital formats reduce geographical constraints, travel costs, and

scheduling limitations. This evidence further reinforces the scalability and accessibility advantages of synchronous online learning environments.

Nevertheless, it is essential to emphasize that the effectiveness of the training platform was not solely determined by instructional design. The Experience Generation (EG) and Affective Evaluation (AE) variables were also influenced by technical conditions, including temporary network instability, minor synchronization issues between the simulation platform and Zoom, and occasional connection interruptions. Such technical constraints occasionally affected the flow of communication and clarity of explanations. Previous studies in digital learning environments emphasize that technological reliability plays a critical moderating role in determining perceived effectiveness and user satisfaction in online learning systems (Martin et al., 2020; Sun & Chen, 2016). Therefore, while the instructional structure of the training was evaluated positively, the stability of the technological infrastructure remains an important factor for ensuring optimal training performance.

The Affective Evaluation (AE) and Satisfaction (S) results further require careful interpretation. While both variables achieved high mean scores, Skjelbred & Daus (2022) argues that satisfaction alone is insufficient as a measure of learning effectiveness and must be supported by objective learning outcomes. In this research study, the strong pre-test and post-test improvement provides precisely the form of objective validation recommended by Skjelbred & Daus (2022), thereby strengthening the claim that the training was not merely enjoyable but substantively effective. The empirical learning gains reinforce the interpretation that participants' positive perceptions of the training were accompanied by genuine improvements in conceptual understanding and practical readiness.

When compared with the social media-based learning support analyzed earlier, the Zoom-based training component demonstrates stronger effectiveness across both perceptual and objective dimensions. While social media platforms such as Instagram and YouTube contributed positively to conceptual preparation, they primarily functioned as asynchronous supplementary learning tools. In contrast, the synchronous Zoom-based training delivered structured instruction, real-time interaction, collaborative engagement, and guided simulation practice. These elements collectively generated a more comprehensive learning experience, as evidenced by the higher aggregate mean scores and significant improvements in learning outcomes. Consequently, the findings indicate that while social media content supports preliminary conceptual exposure, structured synchronous online training plays a more dominant role in preparing participants for effective participation in Business Simulation Game competitions.

In conclusion, the research findings strongly support that Edugate's structured online training is highly effective in enhancing both participants' learning experiences and their conceptual comprehension. The integration of synchronous instructional delivery through Zoom, continuous coordination via WhatsApp, experiential simulation practice, and structured mentorship created a learning environment that successfully bridged theoretical knowledge and applied simulation performance. The effectiveness of this model is demonstrated not only by positive participant perceptions but also through substantial empirical learning gains and successful engagement of international participants. Nevertheless, opportunities for further enhancement remain. Improvements in the reliability of technical infrastructure, clearer segmentation between lecture delivery and

simulation practice, and a more structured allocation of question-and-answer sessions could further strengthen the overall effectiveness of future training programs.

CHAPTER V

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

This study is conducted to analyze the effectiveness of social media and Zoom-based training as digital instructional tools in preparing participants for the Business Simulation Game held by PT Harfan Tri Megah (Edugate). Based on the findings and discussion presented in the previous chapter, two primary conclusions can be drawn in alignment with the formulated research problems.

1. The findings on the effectiveness of social media as a learning and engagement medium indicate that it exerts a positive influence on participants' cognitive and affective responses. The mean scores across the evaluated variables demonstrate that respondents generally agree that social media content contributes to increasing awareness, initial understanding, engagement, and interest in the competition. However, despite the high level of achievement, the findings suggest that social media primarily functions as a supplementary learning tool. Its impact is more pronounced in information dissemination, motivation building, and initial exposure rather than in facilitating in-depth conceptual mastery. Therefore, while social media plays a strategic role in attracting attention and shaping positive perceptions, its instructional effectiveness remains limited compared to structured training environments.
2. The Zoom-based business simulation training demonstrates stronger overall effectiveness in enhancing conceptual understanding, skill development, and measurable academic comprehension. The significant improvement observed between the pre-test and post-test results provides objective evidence that the training yields substantial cognitive gains

beyond positive emotional evaluation. Compared to social media-based support, synchronous training plays a more dominant role in preparing participants for strategic decision making within the competition context. In addition, the participation of an international team from the Philippines enriches the study's contribution by providing cross-context validation of the training model. Their successful engagement and positive learning experiences indicate that the effectiveness of the Zoom-based training is transferable across geographic and institutional boundaries, thereby strengthening its relevance in a broader international educational setting.

5.2 Recommendations

Based on the findings of this research, several recommendations are proposed specifically for the company as the developer and training provider of the Business Simulation Game:

1. The company should continuously develop social media content that is aligned with Business Simulation Game materials and updated game features. The content should be visually clear, engaging, and tailored to the characteristics of university students. This approach will ensure that social media remains relevant as an effective preparatory learning tool.
2. To further improve training effectiveness, the company is encouraged to adopt a more interactive or workshop-based approach. Incorporating two-way discussions, guided practice, and collaborative activities can foster a more engaging learning environment, moving beyond a predominantly lecture-based delivery.

3. The company should enhance the game system, particularly by minimizing bugs, errors, and technical disruptions to optimize both the learning and gameplay experiences. A more stable system will strengthen perceived usefulness and overall user satisfaction.
4. To enhance global competitiveness, the company should consistently develop English-based content and communication across its platform. This approach will reinforce its international identity and support expansion into a broader regional and global audience.

5.3 Research Limitations

Despite offering valuable insights, this study is subject to limitations that should be acknowledged:

1. The data collection was conducted immediately following participants' completion of the training sessions and competition. As a result, the quality of responses may have been influenced by physical or cognitive fatigue. Participants may have provided shorter or less reflective answers, particularly to open-ended questions, which could have affected the depth and validity of the qualitative insights.
2. Variations in participants' academic backgrounds may have influenced the survey results. Some participants were affiliated with institutions that had prior exposure to SAP systems or business simulation tools through institutional partnerships. Such prior experience may have affected their level of understanding, confidence, and perceptions of training effectiveness. This factor may have contributed to differences in evaluation outcomes across respondents.

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APPENDICES

Appendix 1 - Social Media Evaluation Questionnaire

A. Fulfillment Instruction

Dear Participant,

Thank you for participating in the Business Simulation Game. This questionnaire aims to evaluate your learning experience and understanding of business processes through Edugate's educational content, including tutorial videos on YouTube, Instagram posts, informational emails, and WhatsApp communications.

Your honest responses will help us improve the effectiveness of our learning media and ensure a better experience for future participants.

Please answer each question sincerely. All responses will be kept confidential and used solely for academic and improvement purposes.

Demographics Characteristics

No	Question
Q1	Name
Q2	University
Q3	Major
Q4	Year of Enrollment
Q5	Gender

Social Media Usage & E-Learning Experience

No	Question	Answer
Q6	Which Edugate social media platforms have you accessed?	<ul style="list-style-type: none"> - Instagram - YouTube - LinkedIn - Email
Q7	How often did you access Edugate's content before/ during participation in the BusinessSim Competition?	<i>(Likert scale : Never - Very Often)</i>
Q8	How long have you used these platforms for educational purposes?	<ul style="list-style-type: none"> a. Less than 1 year b. 1 - 4 years c. 4 -7 years d. More than 7 years
Q9	How long have you used Edugate's Social Media for educational purposes?	<ul style="list-style-type: none"> a. 10 days b. 6-9 days c. 3-6 days d. Less than 3 days
Q10	On average, how much time do you spend per day on these platforms for educational purposes?	<ul style="list-style-type: none"> a. Less than 1 hour b. 1 to 3 hours c. 3 to 5 hours d. More than 5 hours

Perceived Ease of Use		
PEOU1	Instagram content and YouTube videos are easy to use during the training process.	Likert Scale 1-5

PEOU2	Learning to use Business Simulation features via YouTube videos is easy.	Likert Scale 1-5
PEOU3	Using social media and YouTube videos does not require much mental effort.	Likert Scale 1-5
Perceived Usefulness		
PU1	YouTube, email content and WhatsApp provided flexibility in communicating with mentors and team.	Likert Scale 1-5
PU2	Instagram & YouTube content helped me reflect, analyze, and think critically.	Likert Scale 1-5
PU3	The learning resources met my learning needs during Business Simulation training.	Likert Scale 1-5
PU4	By watching Edugate's YouTube videos, I gain more knowledge	Likert Scale 1-5
PU5	I learn better through videos and Instagram posts.	Likert Scale 1-5
PU6	YouTube videos give me flexibility to study anytime.	Likert Scale 1-5
PU7	YouTube tutorial videos saved me time.	Likert Scale 1-5
PU8	Tutorial videos in training met my expectations.	Likert Scale 1-5
PU9	Watching YouTube videos & Instagram posts improved my performance in the competition.	Likert Scale 1-5
PU10	Using YouTube videos increased my productivity in learning.	Likert Scale 1-5
Perceived Enjoyment		
PE1	I enjoy watching Edugate's YouTube and Instagram content.	Likert Scale 1-5

PE2	Business Simulation YouTube videos are fun to watch.	Likert Scale 1-5
PE3	Using videos in training is a pleasant experience.	Likert Scale 1-5
Perceived Creativity		
PC1	Watching Business Simulation tutorial videos & Instagram posts sparked my creativity.	Likert Scale 1-5
PC2	Videos helped me be more imaginative and provided ideas.	Likert Scale 1-5
Satisfaction		
S1	I am satisfied with the training using BusinessSim Tutorial Videos	Likert Scale 1-5
S2	YouTube videos were effective in achieving training goals.	Likert Scale 1-5
S3	The videos significantly improved my understanding of business processes.	Likert Scale 1-5
S4	The tutorial videos motivated me to spend more time studying.	Likert Scale 1-5
S5	I enjoy learning analytical skills using YouTube	Likert Scale 1-5
S6	The purpose of instruction of BusinessSim YouTube Video Tutorial is clear.	Likert Scale 1-5
S7	Mentors supported both collaboratives and individual learning.	Likert Scale 1-5
S8	I can discuss BusinessSim training with mentors through YouTube, Instagram, Email, & WhatsApp.	Likert Scale 1-5
S9	I think that YouTube and Instagram support trendy and interesting training.	Likert Scale 1-5
Relative Advantage		
RA1	Watching BusinessSim YouTube tutorial videos in BusinessSim	Likert Scale 1-5

	training helps me understand the feature	
RA2	Watching BusinessSim YouTube tutorial videos in BusinessSim training helps me understand the business process within each feature	Likert Scale 1-5
RA3	Watching BusinessSim YouTube tutorial videos on BusinessSim allows me to perceive points from lessons I did not attend	Likert Scale 1-5
Self Efficacy		
SE1	I have technical skills needed to watch BusinessSim videos.	Likert Scale 1-5
SE2	If I need help watching videos in the future, there are sources available to help	Likert Scale 1-5
SE3	I have necessary technical tools (computer, mobile phone, internet access) to access the videos and posts.	Likert Scale 1-5
Attitude Toward Use		
ATU1	All things considered using the BusinessSim Youtube tutorial videos in training is good for me	Likert Scale 1-5
Intention of Use		
IOU1	In the future, I will continue to use videos during my study	Likert Scale 1-5
IOU2	In the future, I will continue to join training classes that use videos	Likert Scale 1-5
IOU3	In the future, I will continue to participate in discussion about the videos shown in the BusinessSim Youtube Tutorial videos	Likert Scale 1-5
IOU4	In the future, I may search for other videos from different sources related to the BusinessSim for more knowledge	Likert Scale 1-5

IOU5	In the future, I may search online video lectures about the business process to learn more	Likert Scale 1-5
IOU6	I would recommend others to join BusinessSim classes in which videos are used for learning	Likert Scale 1-5

Open Questions

1. What challenges or issues did you experience while watching the YouTube tutorial videos?
What do you think should be improved?
2. What is your opinion about Edugate's Instagram content in helping you understand the Business Simulation Game Material?
3. What suggestions do you have to make communication through WhatsApp more effective & less confusing?
4. Were the emails you received during the training clear and helpful? What could be improved?
5. Which features in the Business Simulation game do you think need to be improved or added?
6. How was your overall experience using the Business Simulation Game and joining the competition?
7. Is there anything you would like to share or say to the committee?

Appendix 2 - Training Evaluation Questionnaire

Evaluasi Training Online via Zoom - Business Simulation Training

Petunjuk Skala:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

Experience Generation Total

Code	Question Indicator	Answer
EG1	The BusinessSim Training gives me the opportunity to: better grasp the application of Business Process knowledge.	Likert Scale 1-5
EG2	Experiment with different business strategy	Likert Scale 1-5
EG3	Have a strategic perspective.	Likert Scale 1-5
EG4	Enhance knowledge & understanding through discussion with the mentor.	Likert Scale 1-5

Conceptual Understanding & Perceived Learning Total

Code	Question Indicator	Answer
CUPL1	BusinessSim E-Learning Module & Mini Games Training enabled me to better understand: Overall Business Process	Likert Scale 1-5
CUPL2	Planning skills	Likert Scale 1-5
CUPL3	Understanding sales order process & strategy	Likert Scale 1-5
CUPL4	Understanding financial performance	Likert Scale 1-5
CUPL5	Understanding human resource management	Likert Scale 1-5
CUPL6	Understanding intercompany sales & negotiation	Likert Scale 1-5

CUPL7	The ability to read and analyze report/forecast data.	Likert Scale 1-5
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Skill Development Total

Code	Question Indicator	Answer
SD1	BusinessSim Training enabled me to: evaluate the success of particular strategies that were adopted.	Likert Scale 1-5
SD2	Extend knowledge that they would not normally have picked up in a class situation.	Likert Scale 1-5
SD3	Use the learned skills in future jobs.	Likert Scale 1-5

Affective Evaluation Total

Code	Question Indicator	Answer
AE1	The BusinessSim training motivated me to want to succeed in the Business Simulation Competition - Treasure 2025.	Likert Scale 1-5
AE2	The BusinessSim training motivated me to learn about business/operation strategies.	Likert Scale 1-5
AE3	I find the experience of BusinessSim Training is conducive to learning effectively.	Likert Scale 1-5

Teamwork Total

Code	Question Indicator	Answer
Q20	Teamwork draws agreement on important issues more effectively.	Likert Scale 1-5
Q21	Key decisions about our team were made by the entire team.	Likert Scale 1-5
Q22	I was comfortable sharing my strategy ideas with my team.	Likert Scale 1-5
Q23	Most of the time, members of my team asked each other for	Likert Scale 1-5

	feedback on their department progress.	
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Satisfaction Total

Code	Question Indicator	Answer
Q24	The BusinessSim Training made the Game more interesting.	Likert Scale 1-5
Q25	The skills and knowledge learned during the BusinessSim Training will be useful for my future career.	Likert Scale 1-5
Q26	Overall, I learned a lot from this training.	Likert Scale 1-5
Q27	Overall, I am satisfied with the BusinessSim Training as a learning media.	Likert Scale 1-5
Q28	I had fun when training ran.	Likert Scale 1-5
Q29	The training caught my interest from the beginning.	Likert Scale 1-5
Q30	The Zoom training & E-Learning module was easy to use and understand.	Likert Scale 1-5
Q31	I learned things from the teacher or E-Learning Module that I would not have learned if I only joined the Zoom Training.	Likert Scale 1-5
Q32	I received the necessary training in using Business Simulation Game features, so that I could focus on the business strategy.	Likert Scale 1-5
Q34	I would consider re-watching the Zoom training the next day if I have access to the Zoom recording.	Likert Scale 1-5

Open Question

Code	Question	Reference
Q1	Can you describe your experience during the BusinessSim Training?	Likert Scale 1-5
Q2	What did you understand or learn after Day 1/Day 2 of the training?	Likert Scale 1-5

Q3	What challenges or difficulties did you experience during the training?	Likert Scale 1-5
Q4	Do you think the Zoom training was effective in helping you understand BusinessSim? Why or why not?	Likert Scale 1-5
Q5	What suggestions do you have for improving the BusinessSim Training experience?	Likert Scale 1-5
Q6	Do you have any feedback for the mentor?	Likert Scale 1-5

Appendix 3 - Pre-Test and Post-Test

A. FULFILLMENT INSTRUCTION

Hello and welcome to the Business Simulation Training!

We're excited to have you join us on this valuable learning journey. This training is designed to enhance your practical skills in business decision-making, focusing on real-world business processes and strategies through simulation tools like ERP and Business Simulation platforms.

Before we begin, please take a few minutes to complete this Pre-Test Form.

 Why is this Pre-Test important?

This pre-test is intended to help you measure your current understanding of business processes and strategies before the simulation begins. It also helps us evaluate and improve the training program to ensure it suits your learning needs.

Important Notes:

- This pre-test will not affect your final score in the Business Simulation training.
- The results are purely for internal evaluation purposes.
- Please answer honestly and to the best of your ability — there are no right or wrong answers here.

In this section, please rate how much you agree with each statement below based on your current knowledge and experience.

Use the following scale:

1	—	Strongly	Disagree
2	—		Disagree
3	—		Neutral
4	—		Agree
5	Strongly Agree		

There are no right or wrong answers. Please answer honestly based on your personal perspective and understanding

B. CLOSED-ENDED QUESTIONS

Demographics Characteristics

No	Question	Answer
Q1	Name	
Q2	University	
Q3	Major	
Q4	Year of Enrollment	
Q5	Have you ever taken a course on ERP (Enterprise Resource Planning), SAP, or Business Simulation at your university?	Yes, I Have/ No, I Haven't
Q6	Have you ever participated in a Business Simulation competition, either in class, competition from Edugate, or at any other event?	Yes, I Have/ No, I Haven't
Q7	Have you access Business Simulation materials (YouTube video or modul) we provide and share before?	Yes, I Have/ No, I Haven't

No	Item Questions	Answer
1	Business Simulation (BusinessSim) is a game-based platform designed to help users understand the following, except...	<ul style="list-style-type: none"> a. SAP ERP System b. Business Process c. Business Operation d. Digital Marketing
2	What is the minimum number of periods required to run all scenarios?	<ul style="list-style-type: none"> a. 2 b. 3 c. 4 d. 12
3	What happens if "Cash in Bank" is negative when a new period is opened?	<ul style="list-style-type: none"> a. Nothing b. Disqualification c. Loan granted

		d. Need capital injection
4	What is the performance measure for a company's overall department victory?	a. Highest revenue b. Total production c. Highest profit d. Training value
5	What does In-House Production mean?	a. Production done by vendors b. Production done by company itself c. Purchasing finished products d. Full outsourcing
6	What is the key factor that affects production capacity?	a. Amount of Product Orders (PO) b. Amount of Sales c. Amount of Workers d. Amount of Vendors
7	What is "Make to Order"?	a. Production based on forecast b. Production to fulfill stock c. Production after consumer order is received d. Only applies at the end of period
8	Special periods for giftpacks sales are	a. All periods b. Periods 1,2,3,4 c. Periods 4,6,7,10 d. Flash sale periods
9	What is the benefits of providing training for sales manager?	a. Skill remind b. No salary raise needed c. Increase skill, score, and skill value d. Reduce overhead cost
10	Who can negotiate in intercompany transactions?	a. HR Staff b. Sales/Procurement Director c. Vendor Staff d. Accounting Staff

No	Item Questions	Answer
1	I had to guess the answer to several questions of previous quiz	Likert Scale 1-5
2	I was motivated to do my very best on previous quiz questions	Likert Scale 1-5
3	I believe I could have done more difficult questions	Likert Scale 1-5

4	The questions aligned with what the instructor covered during instruction in YouTube video	Likert Scale 1-5
5	What we had on YouTube was completely new to me. I have really learned new things.	Likert Scale 1-5
6	I have become better at finding solutions and strategies for business simulation	Likert Scale 1-5
7	I will likely be able to use the YouTube videos later in other parts of the course	Likert Scale 1-5
8	I like to play digital strategy games	Likert Scale 1-5
9	I like to use computer and digital platform to support learning process in my university	Likert Scale 1-5
10	I lose concentration when we use computer and digital platform to learn at university	Likert Scale 1-5

Respondent	Experience Generation				TOTAL	Conceptual Understanding & Perceived Learning (CUPL)							Skill Development (SD)				Affective Evaluation (AE)			Teamwork (TW)				Item Questions										TOTAL			
	EG1	EG2	EG3	EG4		CUPL1	CUPL2	CUPL3	CUPL4	CUPL5	CUPL6	CUPL7	TOTAL	SD1	SD2	SD3	TOTAL	AE1	AE2	AE3	TOTAL	TW1	TW2	TW3	TW4	Total	S1	S2	S3	S4	S5	S6	S7		S8	S9	S10
1	4	4	3	14	3	3	3	3	3	3	3	21	3	3	3	9	3	3	3	9	3	3	3	12	3	3	3	3	3	3	3	3	3	3	3	3	30
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44	4																																				

Respondent	Experience Generation				TOTAL	Conceptual Understanding & Perceived Learning (CUPL)							Skill Development (SD)			Affective Evaluation (AE)			Teamwork (TW)				Total	Item Questions										TOTAL			
	EG1	EG2	EG3	EG4		CUPL1	CUPL2	CUPL3	CUPL4	CUPL5	CUPL6	CUPL7	TOTAL	SD1	SD2	SD3	TOTAL	AE1	AE2	AE3	TW1	TW2		TW3	TW4	S1	S2	S3	S4	S5	S6	S7	S8		S9	S10	
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89	4	3	3	4	14	4	4	3	4	4	4	3	26	3	3	3	9	5	4	3	12	4	3	4	3	14	4	4	4	4	4	4	4	3	4	39	
90	4	5	4	5	18	4	4	4	4	5	5	5	32	5	5	5	15	5	5	5	15	5	5	5	5	20	5	5	5	5	5	5	5	4	4	46	
91	5	5	4	4	18	4	5	5	5	5	5	4	33	4	4	4	12	5	4	4	13	5	4	4	4	17	5	5	5	5	5	4	4	4	5	46	
92	5	5	5	4	19	4	4	4	5	4	4	4	30	4	4	4	13	4	4	4	12	4	4	4	3	14	3	4	4	3	3	5	4	4	4	37	
93	4	4	4	4	16	4	4	4	4	4	4	4	28	4	4	4	12	4	4	4	12	4	4	4	4	16	4	4	4	4	4	4	4	4	4	4	40
94	5	5	5	5	20	5	5	5	5	5	4	5	34	5	5	5	15	5	5	5	15	5	4	5	5	19	5	5	5	5	5	5	5	5	5	4	49
95	3	3	4	11	4	4	4	3	3	3	3	3	25	3	3	3	9	3	2	3	8	3	3	4	4	14	3	3	3	3	3	3	3	3	3	31	
96	2	3	3	3	11	2	2	2	1	2	2	2	13	3	4	3	10	3	4	3	10	3	4	3	4	14	3	5	4	2	3	3	2	3	2	30	
97	4	4	4	4	16	4	4	4	4	4	4	4	28	4	4	4	12	4	4	4	12	4	4	4	4	16	4	4	4	4	4	4	4	4	4	4	40
98	5	5	5	5	20	5	5	5	5	5	5	5	35	5	5	5	15	5	5	5	15	5	5	5	5	20	5	5	5	5	5	5	5	5	5	50	
99	3	3	3	12	3	3	3	3	3	3	3	3	21	3	3	3	9	3	3	3	9	3	3	3	3	12	5	3	3	3	3	3	3	3	3	34	
100	4	4	4	4	16	4	4	4	4	4	4	4	28	4	4	4	12	5	4	5	14	4	4	4	4	16	4	4	4	4	4	4	4	4	4	40	
101	4	4	4	4	16	4	4	4	4	4	4	4	28	4	4	4	12	4	4	4	12	4	4	4	4	16	4	4	4	4	4	4	4	4	4	4	40
102	4	4	4	4	16	4	4	4	4	3	4	4	3	26	3	4	4	11	5	3	4	12	3	3	4	3	13	3	4	4	4	4	4	4	4	3	38
103	4	4	4	4	16	4	4	4	4	4	4	4	28	5	4	4	13	4	4	4	12	4	4	4	4	16	4	4	4	4	4	4	4	4	4	3	39
104	5	5	5	5	20	5	5	5	5	5	5	5	35	5	5	5	15	5	5	5	15	5	5	5	5	20	5	5	5	5	5	5	5	5	5	50	
105	5	4	5	5	19	5	4	5	5	4	5	4	32	4	4	4	12	3	5	4	12	4	5	5	5	19	5	4	5	5	5	5	2	4	5	4	44
106	4	4	4	4	16	4	4	4	4	4	4	4	28	4	4	4	12	4	4	4	12	4	4	4	4	16	4	4	4	4	4	4	3	4	4	3	38
107	5	5	4	5	19	5	4	4	4	4	4																										

Respondent	Perceived Ease of Use (PEOU)			Perceived Usefulness (PU)										Perceived Enjoyment (PE)			Perceived Creativity (PC)			Satisfaction (S)										Relative Advantage (RA)			Self-Efficacy (SE)			Attitude Toward Use (ATU)			Intention of Use (IOU)						TOTAL			
	PEOU1	PEOU2	PEOU3	PU1	PU2	PU3	PU4	PU5	PU6	PU7	PU8	PU9	PU10	TOTAL	PE1	PE2	PE3	TOTAL	PC1	PC2	TOTAL	S1	S2	S3	S4	S5	S6	S7	S8	S9	TOTAL	RA1	RA2	RA3	TOTAL	SE1	SE2	SE3	TOTAL	ATU1	TOTAL	IOU1	IOU2	IOU3		IOU4	IOU5	IOU6
1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	50	5	5	5	50	5	5	5	10	5	5	5	5	5	5	5	5	45	5	5	5	15	5	5	5	15	5	5	5	5	5	5	5	30
2	1	2	2	5	1	4	1	2	1	2	1	2	1	2	1	19	2	1	2	5	1	2	2	2	1	2	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8
3	4	4	12	4	4	4	4	4	4	4	4	4	4	4	4	40	4	4	4	4	12	4	8	4	4	4	4	4	4	4	4	36	4	4	4	12	4	4	4	12	4	4	4	4	4	4	4	24
4	4	4	5	13	4	3	3	4	4	5	4	38	4	5	4	38	4	5	4	38	4	8	5	4	3	4	5	4	5	4	37	4	4	5	14	4	3	11	5	5	4	5	4	4	4	26		
5	4	4	12	5	4	3	3	4	4	5	40	5	4	5	40	5	40	5	4	12	5	4	9	4	4	4	5	4	5	4	37	4	4	5	13	4	4	5	13	3	3	3	3	3	3	3	4	20
6	5	5	15	5	5	5	5	5	5	5	5	5	5	5	50	5	5	5	50	5	5	5	10	5	5	5	5	5	5	5	5	44	5	5	5	15	5	5	5	15	5	5	5	5	5	5	5	30
7	4	4	3	11	4	3	4	4	4	4	4	39	4	4	4	39	4	4	12	4	4	8	4	4	4	4	4	4	4	4	36	4	4	4	12	4	4	4	12	4	4	4	4	4	4	4	24	
8	5	5	4	14	4	5	5	5	5	5	5	5	5	5	49	5	5	5	49	5	5	5	10	5	5	5	5	5	5	5	5	45	5	5	5	15	5	5	5	15	5	5	5	5	5	5	5	30
9	3	4	4	11	4	3	4	3	4	4	4	4	4	4	3	36	3	4	10	3	4	7	4	4	3	4	3	4	3	34	4	3	9	10	3	3	9	3	3	3	3	3	3	3	3	3	18	
10	3	2	3	8	2	3	3	3	3	3	3	3	3	3	3	29	3	3	3	3	3	6	4	4	4	4	4	4	4	4	35	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	18	
11	4	3	9	10	3	3	3	4	4	4	4	4	4	4	4	36	4	4	4	4	12	3	6	4	4	4	4	4	4	4	35	3	4	4	11	4	4	12	4	4	4	4	4	4	4	23		
12	4	4	12	4	4	4	5	3	4	4	4	4	4	4	4	40	4	4	4	4	12	4	8	4	4	4	4	4	4	4	36	4	4	4	12	4	4	4	12	4	4	4	4	4	4	4	24	
13	3	3	9	4	4	3	4	3	3	3	3	3	3	3	3	33	4	4	3	11	4	7	4	4	4	3	3	3	3	3	31	4	3	10	3	3	9	3	3	3	3	3	3	3	3	17		
14	3	3	4	10	4	3	4	4	3	4	4	4	4	4	4	37	3	4	4	3	3	6	4	3	3	3	3	3	3	3	29	3	3	3	9	3	3	4	10	4	4	3	3	3	3	3	20	
15	3	3	9	3	3	3	3	3	3	3	3	3	3	3	3	30	3	3	3	3	3	6	3	4	3	3	3	3	3	3	27	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	18	
16	4	3	10	4	4	3	4	3	3	4	3	4	3	4	3	35	4	3	3	3	11	3	6	4	3	4	3	4	3	3	32	3	4	3	10	3	3	9	3	3	4	4	3	3	3	21		
17	3	3	9	3	3	3	3	3	3	3	3	3	3	3	3	30	3	3	3	3	9	3	6	3	3	3	3	3	3	3	27	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	18	
18	2	2	3	7	3	2	1	1	4	2	2	2	2	2	2	21	2	2	2	2	6	3	3	3	3	3	3	3	3	3	25	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	21	
19	4	3	4	11	5	3	4	3	5	4	4	4	4	4	4	39	3	4	4	4	11	4	8	4	4	4	4	4	4	4	34	4	4	4	12	4	4	4	12	4	4	4	4	4	4	4	24	
20	5	4	13	4	4	4	4	4	4	5	4	4	4	4	4	40	4	4	4	4	12	4	8	4	4	4	4	4	4	4	36	4	4	4	12	4	4	4	12	4	4	4	4	4	4	4	25	
21	3	3	9	2	3	3	3	3	3	3	3	3	3	3	3	29	3	3	3	3	9	3	6	3	3	3	3	3	3	3	27	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	18	
22	5	5	15	5	5	5	5	5	5	5	5	5	5	5	50	5	5	5	50	5	5	10	5	5	5	5	5	5	5	5	45	5	5	5	15	5	5	15	5	5	5	5	5	5	5	5	30	
23	3	3	9	3	3	3	3	3	3	3	3	3	3	3	3	30	3	3	3	3	9	3	6	3	3	3	3	3	3	3	27	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	18	
24	5	5	15	5	5	5	5	5	5	5	5	5	5	5	50	5	5	5	50	5	5	10	5	5	5	5	5	5	5	5	45	5	5	5	15	5	5	15	5	5	5	5	5	5	5	5	30	
25	3	3	9	3	3	3	3	3	3	3	3	3	3	3	3	30	3	3	3	3	9	3	6	3	3	3	3	3	3	3	27	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	18	
26	5	3	12	4	3	4	4	4	4	4	4	4	4	4	4	38	3	4	4	4	11	3	7	4	4	4	4	4	4	4	34	4	4	4	12	4	4	4	12	4	4	4	4	4	4	4	22	
27	4	4	12	3	3	4	4	4	4	4	4	4	4	4	4	41	4	4	4	4	12	4	8	4	4	4	4	4	4	4	36	4	4	4	12	4	4	4	12	4	4	4	4	4	4	4	24	
28	4	4	12	4	4	4	4	4	4	4	4	4	4	4	4	40	4	4	4	4	12	4	8	4	4	4	4	4	4	4	36	4	4	4	12	4	4	4	12	4	4	4	4	4	4	4	24	
29	3	3	9	3	3	3	3	3	3	3	3	3	3	3	3	30	3	3	3	3	9	3	6	3	3	3	3	3	3	3	27	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	18	
30	3	3	9	3	3	3	3	3	3	3	3	3	3	3	3	30	3	3	3	3	9	3	6	3	3	3	3	3	3	3	27	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	18	
31	3	3	9	3	3	3	3	3	3	3	3	3	3	3	3	30	3	3	3	3	9	3	6	3	3	3	3	3	3	3	27	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	18	
32	3	3	9	4	4	4	4	4	4	4	4	4	4	4	4	40	4	4	4	4	12	4	7	4	4	4	4	4	4	4	36	4	4	4	12	4	4	4	12	4	4	4	4	4	4	4	23	
33	3	3	9	3	3	3	3	3	3	3	3	3	3	3	3	30	3	3	3	3	9	3	6	3	3	3	3	3	3	3	27	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	18	
34	4	4	12	4	4	4	4	4	4	4	4	4	4	4	4	40	4	4	4	4	12	4	8	4	4	4	4	4	4	4	36	4	4	4	12	4	4	4	12	4	4	4	4	4	4	4	24	
35	3	3	9	3	3	3	3	3	3	3	3	3	3	3	3	30	3	3	3	3	9	3	6	3	3	3	3	3																				

Respondent	N-Gain Test																Ideal Score	(Ideal Score - Pretest)	N Gain Score	N Gain Score (%)								
	Q1		Q2		Q3		Q4		Q5		Q6		Q7		Q8						Q9		Q10		Total Score			
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post					Pre	Post	Pre	Post				
1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%	
2	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%	
3	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%	
4	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%	
5	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	7	8	1	10	3	0.3333333333	33%	
6	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	6	9	3	10	4	0.75	75%	
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	9	1	10	2	0.5	50%	
8	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%	
9	0	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	8	9	3	10	4	0.75	75%	
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	9	1	10	2	0.5	50%	
11	1	1	0	1	0	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	6	9	3	10	4	0.75	75%	
12	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	4	9	5	10	6	0.8333333333	83%	
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	8	3	10	5	0.6	60%	
14	0	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	4	10	6	10	6	1	100%	
15	0	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%	
16	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	8	9	3	10	4	0.75	75%	
17	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%	
18	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	4	10	6	10	6	1	100%	
19	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	6	9	3	10	4	0.75	75%	
20	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%	
21	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	9	3	10	4	0.75	75%	
22	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	8	10	2	10	2	1	100%	
23	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	9	3	10	4	0.75	75%	
24	1	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	7	9	2	10	3	0.6666666667	67%	
25	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%	
26	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%	
27	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	9	3	10	4	0.75	75%	
28	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	8	9	1	10	2	0.5	50%	
29	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	4	10	6	10	6	1	100%	
30	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	6	7	1	10	4	0.25	25%
31	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%	
32	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	5	9	4	10	5	0.8	80%	
33	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	8	9	1	10	2	0.5	50%	
34	0	1	0	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	5	8	3	10	5	0.6	60%	
35	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	4	9	5	10	6	0.8333333333	83%	
36	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	6	9	3	10	4	0.75	75%
37	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	7	9	2	10	3	0.6666666667	67%	
38	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	8	9	1	10	2	0.5	50%	
39	0	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	8	8	0	10	2	0	0%	
40	0	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	6	7	1	10	4	0.25	25%	
41	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	8	8	0	10	2	0	0%	
42	0	1	0	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	3	8	5	10	7	0.7142857143	71%	
43	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%	
44	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%	
45	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	9	10	1	10	1	0	0%	
46	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	9	9	0	10	1	0	0%	
47	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	4	9	5	10	6	0.8333333333	83%	
48	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%	
49	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	6	9	3	10	4	0.75	75%	
50	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	8	10	2	10	2	1	100%	
51	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%	
52	1	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	4	9	5	10	6	0.8333333333	83%	
53	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%	
54	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	8	9	1	10	2	0.5	50%	
55	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	6	9	3	10	4	0.75	75%	
56	1	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	7	9	2	10	3	0.6666666667	67%	
57	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	9	1	10	2	0.5	50%	
58	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	7	8	1	10	3	0.3333333333	33%	
59	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	8	2	10	4	0.5	50%	
60	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	4	10	6	10	6	1	100%	
61	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	8	10	1	10	2	1	100%	
62	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%	
63	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%	
64	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	5	10	5	10	5	1	100%	
65	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%	

C. N-GAIN SCORE ANALYSIS

Respondent	N-Gain Test																								Ideal Score	(Posttest-Pretest)	Ideal Score - Pretest)	N Gain Score	N Gain Score (%)
	Q1		Q2		Q3		Q4		Q5		Q6		Q7		Q8		Q9		Q10		Total Score								
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post							
66	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	8	10	2	10	1	0.666666667	100%		
67	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	7	9	2	10	3	0.666666667	87%		
68	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	10	1	10	1	1	100%		
69	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%		
70	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	8	10	2	10	2	1	100%		
71	0	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	6	9	3	10	4	0.75	75%		
72	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	1	5	8	3	10	5	0.6	60%		
73	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	9	3	10	4	0.75	75%		
74	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	5	9	4	10	5	0.8	80%		
75	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	7	10	3	10	3	1	100%		
76	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	6	10	4	10	4	1	100%		
77	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%		
78	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	6	9	3	10	4	0.75	75%		
79	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	6	8	2	10	4	0.5	50%		
80	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	6	10	4	10	4	1	100%		
81	1	1	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	8	9	1	10	2	0.5	50%		
82	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	9	3	10	4	0.75	75%		
83	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	10	2	10	2	1	100%		
84	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	8	2	10	4	0.5	50%		
85	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	9	10	1	10	1	1	100%		
86	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	6	7	1	10	3	0.25	25%		
87	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	1	0	1	1	1	7	7	0	10	0	0	0	0%	
88	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	4	10	6	10	6	1	100%		
89	0	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	7	9	2	10	3	0.666666667	67%		
90	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	8	10	2	10	2	1	100%		
91	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	6	8	2	10	4	0.5	50%		
92	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	4	10	6	10	6	1	100%		
93	0	1	0	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	7	8	1	10	3	0.333333333	33%		
94	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	4	6	2	10	6	0.333333333	33%		
95	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	6	6	0	10	4	0	0	0%	
96	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	7	9	2	10	3	0.666666667	67%		
97	0	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	0	1	1	1	7	7	0	10	3	0	0	0%	
98	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	10	1	10	1	1	100%		
99	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	6	10	4	10	4	1	100%		
10	1	1	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	7	8	1	10	3	0.333333333	33%		
11	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	8	10	2	10	2	1	100%		
12	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	8	10	2	10	2	1	100%		
13	0	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	7	9	2	10	3	0.666666667	67%		
14	1	1	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	0	1	0	5	9	4	10	5	0.8	80%		
15	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	4	6	2	10	6	0.333333333	33%		
16	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	6	10	4	10	4	1	100%		
17	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%		
18	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	6	10	4	10	4	1	100%		
19	0	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	7	9	2	10	3	0.666666667	67%		
11	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	5	9	4	10	5	0.8	80%		
111	0	1	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	7	8	1	10	3	0.333333333	33%		
112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	6	7	1	10	4	0.25	25%		
113	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%		
114	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	8	10	2	10	2	1	100%		
115	0	1	0	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	6	9	3	10	4	0.75	75%		
116	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	7	8	1	10	3	0.333333333	33%		
117	0	1	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%		
118	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	6	10	4	10	4	1	100%		
119	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	8	10	2	10	2	1	100%		
120	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	7	9	2	10	3	0.666666667	67%		
121	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	4	7	6	10	6	1	100%		
122	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	8	7	-1	10	2	-0.5	-50%		
123	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	6	10	4	10	4	1	100%		
124	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	8	10	2	10	2	1	100%		
125	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	7	10	3	10	3	1	100%		
MEAN	0.4	0.92	0.328	0.872	0.504	0.896	0.096	0.808	0.944	0.96	0.824	0.912	0.864	0.936	0.816	0.952	0.8	0.968	0.864	0.928	6.44	9.152	2.712	3.56	0.7477142857	76%			

D. IDEAL SCORE ANALYSIS

Ideal Score						
Variable	Highest Score	Total Item Questions	Total Respondents	Ideal Score	Actual Score	Achievement Level %
PEOU	5	3	125	1875	1398	74.56%
PU	5	10	125	6250	4663	74.61%
PEOU	5	3	125	1875	1399	74.61%
PC	5	2	125	1250	937	74.96%
S	5	9	125	5625	4201	74.68%
RA	5	3	125	1875	1418	75.63%
SE	5	3	125	1875	1400	74.67%
ATU	5	1	125	625	466	74.56%
IOU	5	6	125	3750	2341	62.43%

Ideal Score						
Variable	Highest Score	Total Item Questions	Total Respondents	Ideal Score	Actual Score	Achievement Level %
EG	5	4	125	2500	2065	82.60%
CUPL	5	7	125	4375	3572	81.65%
SD	5	3	125	1875	1546	82.45%
AE	5	3	125	1875	1547	82.51%
TW	5	4	125	2500	2045	81.80%
S	5	10	125	6250	5097	81.55%

Code	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Question	What challenges or issues did you face while watching the YouTube tutorial videos? What do you think should be improved?	What is your opinion about EduGate's Game Material?	What suggestions do you have to make EduGate's WhatsApp more effective & less confusing?	Were the emails you received during the training clear and helpful? What could be improved?	Which features in the Business Simulation game do you think need to be improved or added?	How was your overall experience using the Business Simulation Game & joining the competition?	Is there anything you would like to share or say to the committee?
Variable	PEOU, PU	PU, PC, PE	S, PEOU	PU, PEOU	RA, PU, SE	S, PE, ATU	S, IOU, ATU
1	Did find	Belld	Hdj	Belld	Belld	Belld	Belld
2	-	-	-	-	-	-	Thank you
3	-	-	-	-	-	Great	-
4	-	-	-	-	-	-	For the timing, please give more notification or atleast notice us about locking account before starting or gave warning like 10 second before starting
5	-	Very helping	-	-	-	-	Thank you
6	-	Very helpful and easy to learn	-	-	-	Good	Thank you
7	-	yes, its really helpful	-	-	-	Good	Thank you that a great experience
8	nothing	-	yes, its make effective and informative	clear and helpful, enough i guess	nothing	fun and happy	-
9	-	Quite helpful	-	quite clear	Enough	quite exciting	There isn't any
10	Image quality	It's easy to understand	There isn't any	-	-	-	-
11	None	perfect	nothing	nothing	lag and server	good	nothing
12	connection	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	Explain more about what is important what's not exactly as important	-	to have a community where information could be spread without any chats disturbing it	the code, sometimes other group use the code we supposedly use	-	nervous, very nervous	thank you-3
15	the system is slow sometimes	-	-	-	-	-	-
16	Nothing	-	-	All good	The system configuration	Fun	Good
17	We can't settle while to close the period. Yes please improved	Its good to helping us.	Different language, but its not the important things.	Yes, its really helpful.	Manage purchase order.	Its good and so excited.	-
18	English skills	So interest	Nothing, its enough	-	Enough	So well	Pliss smile every time air or miss
19	no challenges, so far so good	quite helpful for learning about the features in bussam	very effective	so very helpful to understand this future	maybe there isn't any because it's already good	amazing	no
20	Adding Subtitle	Good	I don't know	Yes	Maybe don't restricted on how many people can access the site at the same time	It's alright	Don't set the timer to 20 minute, it's too fast
21	give the youtube video parts, so people could easily find the issues their looking for	Already good	Less confusing	Everything is good	Already good	8/10	Thanks for giving me the experience of being a part of the competition, it's helpful for me to simulate about how to manage a company
22	-	Quite helping	None	Yes	I think better improve the system so there is no bug before adding any	Quite fun, nervous, thrilling and really need to have a good team respon	No my committee quite helpful and fast
23	english not my style	good well	nothing	Yes	bab	naka	okay
24	I don't now	I don't now	Its not effective	I don't now	I don't now	I don't now	I don't know
25	-	-	yes, its so effective and less confusing	yes	need to improved, because menu of production bug	so excited	-
26	theres no challenges or issues	Its great and educational	-	yes	-	-	Thank you
27	-	-	a	a	-	a	a
28	the video is very helpful	The content displayed is very educational for the audience	create a community on whatsapp to make it easier for viewers to communicate	yes, very clear and complete	procurement feature is very slow due to the system	very fun and always have updates	The committee was very helpful, but I'm nervous as I'm a very shy person who has a minus income, can continue?
29	There isn't any	It's good enough	There isn't any	Yes	Fix bugs and issues in the game	Fun, but lots of bugs like double and multiple purchases. Unclear system bugs	Watch for and fix system bugs
30	more straightforward explanation	very helpful for studying and preparation	Nothing	Nothing	Human Capital	Very exciting	nothing
31	-	-	-	all were helpful	-	It was fun and a refreshing to enjoy a new experience	Thank you for doing your best. It made the whole process very smooth and fun with minimum issues.
32	-	-	-	-	-	-	-
33	Everything good	Good	No	Good	No	I think good	No
34	-	-	-	-	-	-	-
35	-	ya	Cukup effective	Cukup	labor	difficult	-
36	more video	idk	-	-	-	-	no
37	No, just good	Good for newbie	3&4 session in zoom mybee	No, its perfect	For now no	Exciting and adrenaline pumping	For at least
38	nothing	Its help a lot	no	yes, nothing	nothing	its so fun to learnt and used	keep up the good work
39	-	-	-	-	-	-	-
40	-	-	-	Yes	-	Very great	Thank you for the competition
41	There's no challenges or issues	its great and educational	No	Yes	Every features need to be improved	Excellent	Thank you
42	None	None	None	None	None	None	None
43	Not interactive	Good	More clear when declaring smth	Should be sent to other member too	Unrealistic somehow a bit confusing	Good	No
44	-	overall, its a good content	-	It's already really helpful so far	-	It was fun, in looking forward to the next session	-
45	nothing	So Helpful	-	Yes	to improve	-	The game so fun

E. OPEN-ENDED QUESTIONS

Open Ended Question							
Code	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Question	What challenges or issues did you experience while watching the YouTube tutorial videos? What do you think should be improved?	What is your opinion about Edugate's Instagram content in helping you understand the Business Simulation Game Material?	What suggestions do you have to make communication through WhatsApp more effective & less confusing?	Were the emails you received during the training clear and helpful? What could be improved?	Which features in the Business Simulation game do you think need to be improved or added?	How was your overall experience using the Business Simulation Game & joining the competition?	Is there anything you would like to share or say to the committee?
Variable	PEOU, PU	PUPC, PE	S, PEOU	PU, PEOU	RA, PU, SE	S, PE, ATU	S, IOU, ATU
46	animation	very good	nothing	nothing	aman	seruuu	thanksss for the opportunity
47	nothing	good	ya	nothing	nothing	good job	good
48	-	-	-	Yes it is	Giftpack kinda confuse me	Good	Thank you 💖
49	sudah bagus	sangat membantu karena memberikan banyak informasi	iya lebih efektif karena lebih jelas	sudah bagus	semuanya sudah ok	sangat berkesan	thank you dan terus tingkaskan menjadi lebih baik lagi
50	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-
52	Sometimes there are still some parts that are confusing when explained and must be practised or trained often.	helpful and informative as a guide	During the introduction, it is best to include the number of each group that will be the representative for communication.	Yes very helpful and thats enough	procurement features seem to need to be added to access	It was fun and challenging	-
53	-	-	-	-	-	-	-
54	nothing	nothing	effective	yes,	nothing	sangat membantu	nothing
55	Nothing	Nothing	Nothing	Nothing	Nothing	Nothing	Nothing
56	One-sided communication (passive)	-	Give each team individual training	-	-	It's alright.	-
57	-	-	-	-	-	-	-
58	Nothing	It help	-	Yes it helping	-	It was fun	there are some parts that are bugging
59	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-
61	good	good	good	good	good	good	Thankyou.
62	-	Good	-	Yes,-	Pricing of fruits and productions. There is bug around production	Disatisfied, there is a bug causing us to buy from recommend that we dont even need	good
63	None	None	none	None	None	Good	None
64	-	-	-	-	-	-	-
65	Nothing	That great	Nothing thats enough	-	-	That good but yeah there is some problem with my team but its okay.	Nopees just thank you for the experience
66	Yes	good	effective	yes	nothing	Overall okay	nope
67	Internet connection lost	It is very useful	None	None	None	interesting	None
68	-	-	-	-	-	-	-
69	Nothing	It was great	None	It was Clear	None	Good	None
70	Terima kasih	Hebat	Hebat	Hebat	Hebat	Hebat	Terima kasih banyak, semoga sukses selalu
71	-	very helpful	-	all good and enough	-	so fun	-
72	Yes	It is good	None	Yes	None	It was such a great experience	None, thankyou
73	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-
75	so far so good	helpfull	-	-	-	-	-
76	none	great content	I'm not in the group chat	yes its helpfully	none	Great to gain experience	no
77	none	simple	I'm not in the whatsapp group chat so ikad	yes	add the juice and fruits so it's not repetitive every competition	not bad	thank you
78	None	Nice content	I'm not in the WA group chat	Yes its clear and helpful	-	Nice to gain experience	Nothing, Its good enough
79	Nothing	Nothing	Sudah sangat bagus untuk saat ini	Yes	Sudah sangat bagus untuk saat ini	Jadi lebih mudah memahami bisnis	Nothing
80	None, thank you	It's great.	None, it's good.	Yes.	Timing, so that all team can start at the same time.	It was great and educational experience	Thank you for this great opportunity!
81	-	good	-	-	-	-	-
82	sometimes there are things that are unclear and less detailed	very informative	accompanied by clear procedures so that the information obtained is clear	yes, clear and useful	explanation of each result	interesting and exciting	no
83	None	-	-	Yes	When added the amount of goods, please make it more smooth and not delay	Great	No
84	no	many changes have occurred in the system, the development is good with few bugs	i think yes	yes, i have it	i think that's enough	good	enough
85	nothing	i'm not follow edugate instagram	netral	yes	server, fix bug, more efficient procurement system	fun	nothing
86	Some parts of the video were difficult to follow because the explanations were too fast and lacked detailed examples. It would be helpful to include subtitles, timestamps, or a clearer step-by-step demonstration to make the material easier to understand.	Edugate's Instagram content is visually appealing and gives useful summaries, but it could be more informative. Adding more detailed explanations or short video clips about key concepts would help improve understanding.	To improve communication on WhatsApp, message or pinned post for important information, and limit unnecessary chatting in the main group. Using bullet points and clear headings in announcements would also help.	Yes, the emails were mostly clear and helpful. However, it would be better if the subject lines were more specific, and if each email summarized all the necessary actions and deadlines in a clear list format.	The interface could be more user friendly and easier to navigate. A tutorial mode or demo simulation would be a great addition for new users to practice before the real rounds.	It was a fun and educational experience. The game helped me learn about business decision making in a practical way. Joining the competition also helped improve my teamwork and strategic thinking.	Thank you for organizing this great learning experience!
87	Erought	The content persuasive the audiens to learn things.	Yes effective	Yes. But when we send the email, there's no respond at all	Giftpack because we still confused when into the Giftpack period	Very fun and challenging	Thank you very much for the Competition because thats so usefull for us to learn about business.

Open Ended Question							
Code	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Question	What challenges or issues did you experience while watching the YouTube tutorial videos? What do you think should be improved?	What is your opinion about Edugate's Instagram content in helping you understand the Business Simulation Game Material?	What suggestions do you have to make communication through WhatsApp more effective & less confusing?	Were the emails you received during the training clear and helpful? What could be improved?	Which features in the Business Simulation game do you think need to be improved or added?	How was your overall experience using the Business Simulation Game & joining the competition?	Is there anything you would like to share or say to the committee?
Variable	PEOU, PU	PUPC, PE	S, PEOU	PU, PEOU	RA, PU, SE	S, PE, ATU	S, IOU, ATU
88	Enough	The contents persuaded the audience to learn the things	Yes effective	Very helpful but when we sent the email edugate's no response	The gift pack things, because we still confused when into the gift pack periode	Very fun & challenging	Thank you for the competition full insight
89	enough, i watched all videos and very helpful	the contents persuaded the audience to learn the things, because the layout very interesting	enough, very effective	very helpful, but when we sent the email, there's no response at all.	the gift pack things, because we still confused when into the giftpack period	very fun and challenging	Thank you very much for the competition, because that's so useful for us to learn about business
90	Nothing, it's enough	Very interesting and easy to understand	Nothing, it's enough	Enough	Maybe, need to improve the web response so it doesn't take too long to load.	It was fun and challenging	Nothing, it's enough
91	tidak ada	ya	lebih responsif	ya	procurement	good	tetap semangat
92	Nothing	Normal	Nothing	Normal	Nothing	Good	Nothing
93	-	-	-	-	-	-	-
94	none	it's clear	idk	yes, don't need improvements imo	more products	so so	thank you
95	No	No	No	No	No	No	No
96	-	-	-	-	-	-	-
97	It was all good,And no issues	It really helps a lot especially for us students	Nothing	Yes	Nothing to improve	VERY GOOD	Thank you for this experience
98	-	-	-	It is really helpful and clear	-	It's exciting	-
99	In the part of production, I need to improve the fast producing by no access	its great	Make it fast responses when someone is asking a concern	Yes it is	I think the time make it increase when its start playing	Its so happy, I want to join again	Thank you for this experience!
100	no	-	yes	nothing	nothing	nothing	nothing
101	more detail	yes karena video singkat juga membantu	no, it's good enough	yes ofc	the production section is still taking too long to load	tbh, I'm so nervous during the competition but I enjoy so far so fun	thanks a lot for the committee
102	Its great enough	good	-	-	-	-	-
103	The language, because English is not my main language. Edugate can add subtitle	its good, not much time needed to read it	Edugate can make whatsapp group for each university	Yes it is. Edugate can add 1 more team member who receive it. Because sometimes I didn't get email notifications	Edugate can make 2 people access same transaction at the same time	Its good, but in grand lucky, if I add nominal it always click at price scale	Nothing, all committee do their jobs good
104	-	-	-	-	-	-	-
105	None	None	None	None	Nothing	None	Thank you!
106	nothing	good i love it	nothing, it's good and educate team are also fast response	yes	nothing	good	thankyou guys🙏
107	It is clear in my opinion what needs to be explained more clearly more detailed explanation	The content is good and easy to understand	It's quite clear and easy because the admin is also fast response	It is clear	an explanation can be added such as cost deduction, what is the cause and others	exciting and challenging	Thank you the game committee exciting the committee is also informative
108	Edugate's Instagram content is a great supplementary resource for understanding the Business Simulation Game material. The visual format and concise points help clarify complex concepts from other sources. Its particularly useful for quick refreshers and seeing practical examples.	Edugate's Instagram content is a highly effective supplementary resource** for understanding the Business Simulation Game material. The visual and concise format makes complex concepts easier to grasp, and it's great for quick refreshers and seeing practical examples.	Clear & Effective To make WhatsApp communication more effective and less confusing, focus on these points: * **Be Clear & Concise** Get straight to the point. * **Use Visuals** Photos or screenshots can explain things better than long texts. * **Structure Messages** Use **bold text** or bullet points for key info. * **Provide Context** Don't assume the recipient knows what you're referring to. * **Include a Call to Action** Clearly state what you need from them. ("Please confirm by 5 PM"). * **Mind Your Tone** Use emojis wisely to convey your message's feeling. * **Avoid Excessive Group Chats** Send direct messages if a group isn't necessary. * **Summarize Long Threads** Briefly recap main points if a conversation gets lengthy.	yes, fun	yes	yes	yes
109	Its so fun, soo much fun, it gives me an example of business area and gimme more critical thinking to make strategy	Its helping me to choose person to become my partner	Just answer it already	Its clear, no prob	Sales and HR maybe, some less from balance sheet make me confused where this cost from	Sooo much fun!	Thankyou for gimme and my team a fun experience to learning
110	it is clear	good	Its enough	it is clear	sales deduction explanation	excited and enjoy	thanks committe 🍷
111	Edugate's Instagram content is a great supplementary resource for understanding the Business Simulation Game material. The visual format and concise points help clarify complex concepts from other sources. Its particularly useful for quick refreshers and seeing practical examples.	Edugate's Instagram content is a highly effective supplementary resource** for understanding the Business Simulation Game material. The visual and concise format makes complex concepts easier to grasp, and it's great for quick refreshers and seeing practical examples.	Clear & Effective To make WhatsApp communication more effective and less confusing, focus on these points: * **Be Clear & Concise** Get straight to the point. * **Use Visuals** Photos or screenshots can explain things better than long texts. * **Structure Messages** Use **bold text** or bullet points for key info. * **Provide Context** Don't assume the recipient knows what you're referring to. * **Include a Call to Action** Clearly state what you need from them. ("Please confirm by 5 PM"). * **Mind Your Tone** Use emojis wisely to convey your message's feeling. * **Avoid Excessive	yes, fun and challenging	yes	yes	yes

Open Ended Question							
Code	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Question	What challenges or issues did you experience while watching the YouTube tutorial videos? What do you think should be improved?	What is your opinion about Edugate's Instagram content in helping you understand the Business Simulation Game Material?	What suggestions do you have to make communication through WhatsApp more effective & less confusing?	Were the emails you received during the training clear and helpful? What could be improved?	Which features in the Business Simulation game do you think need to be improved or added?	How was your overall experience using the Business Simulation Game & joining the competition?	Is there anything you would like to share or say to the committee?
Variable	PEOU, PU	PUPC/PE	S, PEOU	PU, PEOU	RA, PU, SE	S, PE, ATU	S, IOU, ATU
112	Edugate's Instagram content is a great supplementary resource for understanding the Business Simulation Game material. The visual and concise posts help clarify complex concepts and reinforce what I learn from other sources. It's particularly useful for quick refreshers and seeing practical examples.	Edugate's Instagram content is a highly effective supplementary resource for understanding the Business Simulation Game material. The visual and concise format makes complex concepts easier to grasp, and it's great for quick refreshers and seeing practical examples.	Be Clear & Concise: Get straight to the point. Use Visuals: Photos or screenshots can explain things better than long texts. Structure Messages: Use bold text or bullet points for key info. Provide Context: Don't assume the recipient knows what you're referring to. Include a Call to Action: Clearly state what you need ("Please confirm by 5 PM"). Mind your Tone: Use emojis wisely to convey your message's feeling. Avoid Excessive Group Chats: Send direct messages if a group isn't necessary. Summarize Long Threads: Briefly recap main points if a conversation gets lengthy.	yes	yes	fun and challenging	so far so gooddd
113	good	this is good	yes	bo	manajemen yang perlu ditambahkan pengaruh spesialisasi dan perbedaannya	kerenn	is good
114	.	.	Nothing, everything is good	Yes, so clear	Nothing	Good, except Indonesia Telecom no	.
115	Nothing	Good	Nothing, everything is good	Yes, so clear	Nothing	Good, except Indonesia Telecom no	Nothing
116	Its clear	good	Its enough	Its clear	sales deduction explanation	excited ans challenge	thankas committe 🍕
117	Lost connection	None	None	Yes	The timer and also need loans	Interesting	None
118	Hard to understand	None	None	Yes	The timer	Enjoy	None
119	The videos were sometimes too fast, making it hard to follow complex steps. Adding more pauses or on-screen text for key points would help	Edugate's Instagram content was quite helpful for quick summaries and visual aids, but sometimes lacked the depth needed for detailed understanding	Establish clear "office hours" for replies, use threads for specific topics, and minimize informal chatter to keep important information prominent	The emails were generally clear, but could be improved by including a more concise summary of action items at the beginning.	The game could benefit from a more intuitive interface for financial reporting and a real-time chat function for team collaboration.	My overall experience was very positive, providing valuable insights into business strategy and fostering healthy competition.	Thank you for organizing such an engaging and educational competition, it was a truly enriching experience.
120	.	.	.	+	.	.	.
121	Nothing	Ya	.	Yes	No	Good	No
122	.	.	.	.	.	.	Thanks
123	Nothing, everything is clear	Good I can understand	This is already good enough	Yes	Maybe just bug and the delay nothing	Good	Nothing
125	network	good	nothing	yes	nothing	very nice	good job for all comitte

Code	Q1	Q2	Q3	Q4	Q5	Q6
Question Variable Related	Can you describe your experience during the BusinessSim Training?	What did you understand or learn after Day 1 and Day 2 of the training?	What challenges or difficulties did you experience during the training?	Do you think the Zoom training was effective in helping you understand BusinessSim? Why or why not?	What suggestions do you have for improving the BusinessSim Training experience	Do you have any feedback for the mentor?
	EG	CUPL	AE + SD	CUPL + EG	EG, SD, TWS, & AE	AE + S
35	Cukup seru	Saya paham keseluruhan game	Mencari profit yang besar	Cukup efektif	Strengthening team collaboration	No thanks
36	I can understand the basic that is being shared by the edgipate team, and also the communicator is so nice and responsive	Know more about the strategy to play this game, and implementing the strategy when the training code given to us	Nothing	Yes, the host is so responsive and nice when we are asking, we are not judged even if we ask the question that had been explain	Nothing, the current training is already had the requirement that is needed to play in the competition	No, the mentor or communicator is nice
37	It was great experience and a lot of new stuff that I can learn	I understood about how to play the game and how these process should be done	Intercompany is kinda difficult especially we need to communicate via zoom chat and it takes a lot of time	You quite effective	BusinessSim can improve participant experience and competencies by BusinessSim system and essort sothat participant can gain a lot of knowledge from it	I don't have any feedback
38	Interesting	The complete knowledge about the overall juicisim web	Nothing to be honest	Yes, because in the zoom ms Salma explain a lot of thing	Probably need more interactive engagement with the participant	None
39	Overall it was fun.	I learn that each team with different fruit specialty has their own benefits.	None.	Yes.	None.	None.
40	Fun	I understand so much	Network	Yes, I do	Strengthening team collaboration	No
41	Fun, but kinda bored	I understand the strategy in business	Team engagement	Yes, I do	Strengthening team collaboration	No
42	Fun, but kinda bored	Almost all of it	Team engagement	Yes, I do	Strengthening team collaboration	No
43	Sangat membantu saya untuk mengetahui pertandingan	Saya jadi lebih mengerti cara menjajalanan busim	Intercompany	Yes effective	Improving participant competencies	SD
44	I learn a lot of things to plan strategy	Saya jadi lebih mengerti cara menjajalanan busim	Intercompany	Yes effective	Improving participant competencies	SD
45	The experience I gained during the training, I learned more deeply about the busimn process from the beginning to the introduction of new features.	I learned something new about the history of the creation of busim and also how to play it.	Nothing	Yes, the host is so helpful and friendly and make me to understand BusinessSim	Nothing	Nothing, All is good
46	I experienced nervous because this is my first time and I have know idea how this game be played on the first day	On how to produce products according to needs and wants of the other company and especially my own company	I didn't understand the flow of explanations, and I'm still don't know clearly some parts of this game	For me No, Because its so hard for me to understand through online. In terms of low connection, voice of someone while speaking is not clear and I can't go with the flow.	Increasing participant satisfaction	S
47	Fun	many knowledge	trouble network	yes	make good communication	voice unclear
48	Great	Manage a company	Self gripback	yes, the trainer was interactive	strengthening team collaboration	Really good, keep it up
49	It was such a great training that eases us to understand new features in BUSIM.	The new features, such as cold storage, food spoilage, etc.	Some technical error occurs during Intercompany.	Yes, because it helps in visualize the BUSIM tutorial.	strengthening team collaboration	No, it was great, thank you!
50	Yes	Good	Network	Not bad	Enhancing participant experience	Everything is bad
51	Yes	Good	Network	Not bad	Enhancing participant experience	Everything is bad
52	Yes	Good	Network	Not bad	Enhancing participant experience	Everything is bad
53	The training very interesting	We can ask for loan bank	This system error last period	Yes	More attractive features	Enough, the mentor delivered the material easily understood
54	Happy to be able to learn	the importance of business, and the strategy in this busim day 2 + I understand even more because I have practiced it	because this is my first time using it so I'm a little confused about the features.	Effective, but more effective if offline	More attractive features	Enough, the mentor delivered the material easily understood
55	sewa yg. bisa trial error	banyak terdapat tentang busimn simulation ini	karena kami tim merasa aja jadi masih laku	Yes because understand it better	More attractive features	Enough, the mentor delivered the material easily understood
56	It was all good and interesting	I've learned a lot	The difficulty of the signal	Yes, it's more efficient with zoom training because I can do it anywhere	More attractive features	Enough, the mentor delivered the material easily understood
57	It's fun	I found that the competition make my point of view about busimn more interesting	None	Yes, it's more efficient with zoom training because I can do it anywhere	More attractive features	Enough, the mentor delivered the material easily understood
58	Culture meeting tapi menyenangkan	Saya memahami beberapa hal	mempertahankan jumlah barang	Yes	More attractive features	Enough, the mentor delivered the material easily understood
59	good	so far so good	the flow	Yes	More attractive features	Enough, the mentor delivered the material easily understood
60	I'm excited during training	We cannot borrow money from the bank when our credit is not available	This system is error sometimes, so we cannot execute the plan directly	Yes, I think it's effective. Because we can see the tutorial and ask directly if we have problem	More attractive features	Enough, the mentor delivered the material easily understood
61	I was excited to follow this training and its an nice session for me.	About how to play this busim.	To make the best planning capacity	Yes, because when we had a trouble the mentor directly explain it.	More attractive features	Enough, the mentor delivered the material easily understood
62	great	everything	yes	Yes	More attractive features	Enough, the mentor delivered the material easily understood
63	Very nice	How to used business simulation well	-	Of course	More attractive features	Enough, the mentor delivered the material easily understood
64	Very nice	How to used business simulation well	-	Of course	More attractive features	Enough, the mentor delivered the material easily understood
65	Very nice	How to used business simulation well	-	Of course	More attractive features	Enough, the mentor delivered the material easily understood
66	Very nice	How to used business simulation well	-	Of course	More attractive features	Enough, the mentor delivered the material easily understood
67	Very nice	How to used business simulation well	-	Of course	More attractive features	Enough, the mentor delivered the material easily understood
68	Very nice	How to used business simulation well	-	Of course	More attractive features	Enough, the mentor delivered the material easily understood
69	Very nice	How to used business simulation well	-	Of course	More attractive features	Enough, the mentor delivered the material easily understood
70	sempat disamping dengan materi bank dan client di group tapi cukup membekalkan karena direktur yang lama	how to play the business sim game	bug dan error	Yes	More attractive features	Enough, the mentor delivered the material easily understood
71	I gained valuable hands-on experience in strategic decision-making and crisis financial business management	After Day 2	One challenge I experienced during the training was understanding some pronunciation differences, not because of confusing at first.	Yes, we can directly ask questions if there is a problem and the mentors explain it directly	More attractive features	Enough, the mentor delivered the material easily understood
72	Cukup menyenangkan, karena mentor menjelaskan dengan santai dan mudah dimengerti, dan juga ada beberapa pertanyaan partisipan cukup mudah dijawab.	Pada Hari 1, mempelajari lagamannya cara kerja cold storage karena pada itu merupakan fitur baru. Pada hari 2 mulai mempelajari tentang busimn simulation, dan juga ada beberapa pertanyaan partisipan cukup mudah dijawab.	Kesulitananya hari ini pada waktu yang cukup lama, sehingga cukup melelahkan.	Yes, it's more efficient with zoom training because I can do it anywhere	More attractive features	Enough, the mentor delivered the material easily understood
73	My experience during BusinessSim training is very pleasant	What I can understand or learn during the training is about the busimn process from the beginning to the introduction of new features.	difficulty in getting maximum profit and constraints in busimn	Yes, because we can easily understand the procedures or processes that exist in business	More attractive features	Enough, the mentor delivered the material easily understood
74	My experience during BusinessSim training is very pleasant	What I can understand or learn during the training is about the busimn process from the beginning to the introduction of new features.	difficulty in getting maximum profit and constraints in busimn	Yes, because we can easily understand the procedures or processes that exist in business	More attractive features	Enough, the mentor delivered the material easily understood
75	My experience during BusinessSim training is very pleasant	What I can understand or learn during the training is about the busimn process from the beginning to the introduction of new features.	difficulty in getting maximum profit and constraints in busimn	Yes, because we can easily understand the procedures or processes that exist in business	More attractive features	Enough, the mentor delivered the material easily understood
76	Fun	How to run Business	Planning	Yes	More attractive features	Enough, the mentor delivered the material easily understood

[illegible]

Open Ended Question - Training Evaluation					
Code	Q1	Q2	Q3	Q4	Q5
Question Variable Related	Can you describe your experience during the BusinessSim Training?	What did you understand or learn after Day 1 and Day 2 of the training?	What challenges or difficulties did you experience during the training?	Do you think the Zoom training was effective in helping you understand BusinessSim? Why or why not?	What suggestions do you have for improving the BusinessSim Training experience
	EG	CUPPL	AE + SD	CUPPL + EG	EG, SD, TWS, & AE
Q6	Do you have any feedback for the mentor?				
	AE + S				
77	si fun	Financial Accounting and Production	Mybee just a language	Sure, because without training maybe more kompleks	no
78	That's good	to play busim	Nothing	Maybe	Nope
79	good and interesting	persaingan bisnis dalam perusahaan ternyata sangat detail dan banyak hal yang harus dipelajari	-	akan lebih efektif jika berkesan offline	S
80	It's very fun and impressive to be able to learn like playing games with friends.	about business plans and strategies and understand the flow of the game	-	Yes, because it makes it easier for many people in various regions and they can ask questions directly when they feel confused	S
81	It was a great experience for me. With the BusinessSim Training, we have a lot of time to learn about the simulation and the zoom is always available to answer our question	We understand and learn about the detail of the simulation, so we can set up our strategy soon.	We have communication difficulties with team because we are not in the one place	I think the zoom meeting was effective in helping us to understand because we can talk directly or direct message	-
82					No, its good enough.
83					-
84	During the BusinessSim Training, I gained valuable hands-on experience in managing a virtual company through multiple business cycles. I was involved in making strategic decisions across various departments including finance, marketing, production, and HR. One of the key takeaways was learning how each department's decisions are interconnected and how they impact overall company performance.	After Day 1 and Day 2, I gained a clearer understanding of how different departments in a business (such as marketing, finance, production, and HR) interact and contribute to the company goals. I also learned the importance of strategic planning, data analysis, and the impact of timely decision-making.	Time pressure during decision rounds, which made it difficult to align strategies as a team.	Yes, the Zoom training was moderately effective. The mentor provided clear instructions and answered questions patiently. However, due to the time constraints, some topics were not fully explored, and visualizing how to use the system.	EG, SD, TW, S Yes – the mentor was very knowledgeable and guided us patiently through the simulation. The mentor's clear instructions were answered clearly, even under time constraints.
85	Great	Good	Nothing but a great experience	Sure	No very great
86	Good	That business has so many things to do	Don't have at	Effective	No
87	good	how to operate	confusion	Yes, cause we can ask directly to the host about what we want to ask	-
88	Great	I can understand how the application work	I kinda confuse with the process, like the step	-	-
89	My experience during the BusinessSim Training was both exciting and challenging. It gave me a realistic understanding of how a business operates, from financial management to production and marketing. I learned the importance of teamwork and strategic thinking in business operations. The simulation pushed me to think critically, collaborate with my team, and make decisions under pressure. I also gained an eye-opening experience that showed the importance of teamwork and strategic thinking in business operations.	On Day 1, I learned about the basic structure of the company, the roles of each department, and how to navigate the SAP ERP system. I also understood how early decisions in HR, finance, and production can affect the overall performance of the company. On Day 2, I learned more about financial analysis, production planning, data analysis, and the impact of timely decision-making. The simulation emphasized the need for clear communication and alignment within the team.	The biggest challenge was understanding the SAP ERP interface in a limited time, especially for someone with no prior experience. Additionally, working with a team through issues or different interpretations of the tasks. The fast pace of the simulation also made it difficult to analyze everything in detail before making decisions.	Zoom training was quite effective in delivering the content and guiding us through the simulation. The mentor gave clear instructions and answered questions patiently. However, due to time constraints, some topics were not fully explored, and having struggled to fully grasp the concepts. In-person or hybrid training could improve hands-on learning and foster better communication among team members.	EG, SD, TW, S The mentor explained the concepts clearly and was very patient to answer our questions. The mentor could share some strategic tips or common mistakes from past simulations to help us make smarter decisions. The guidance and encouragement throughout the training.
90	Slow capital internet	everything	ZS04	very helpful and really increases the teams confidence to finish the new well	SD
91	really adds to your knowledge	just realized that this busim has several new features	There are restrictions on access to busim operators	improving participant competencies	SD the mentor was very kind and helpful
92	sangat menantang untuk belajar	lupa jadi belajar bagaimana proses bisnis berjalan di dunia nyata	beberapa error terjadi saat saya mencoba memainkan game	yes	thankyou
93	Aku merasa sangat bersyukur bisa belajar mengenai hal ini	Sebetulnya saya merasa pelajaran detail alur penggunaan dan praktik nya belum terlalu jelas	Bagaimana cara saya memahami alur penggunaan, dan membuat strategi terbaik	Tidak terlalu efektif, akan lebih efektif jika bisa belajar secara langsung	CUPPL SD Thankyou
94	Sangat sangat menyenangkan, tapi memang strategi kami yang belum matang menyebabkan loss star rugi. Tapi kami jadi memaliti pengalaman lebih banyak dengan loss	Semua alur dan fitur baru yang ada di busim	Menyusun strategi dalam mengelola labor dan penjualan	Sangat membantu, karena banyak tim yang belum paham tentang busim dan juga saya mengetahui fitur baru yang ada di busim	TW Nopeee That's enough. All mentor is really helpful
95	Helping for competitions soon	yes	time and money management	yes do	no, so far so good

Appendix 5 - Data Reliability

A. TRAINING EVALUATION QUESTIONNAIRE

Experience Generation (EG)					
Respondent	Item Questions				TOTAL
	EG1	EG2	EG3	EG4	
VAR	0.5183225806	0.4894193548	0.5002580645	0.5281290323	6.041935484
AVERAGE	4.232	4.136	4.088	4.064	16.52

Variable	Description	Score	Interpretation
k	Total Items	4	Item pengukuran sudah reliable > 0.70
$\Sigma\sigma^2$	Variance Amount	2.036129032	
σ^2 total	Total Variance	6.041935484	
α	Cronbach's Alpha	0.8840007119	

Conceptual Understanding & Perceived Learning (CUPL)								
Respondent	Item Questions							TOTAL
	CUPL1	CUPL2	CUPL3	CUPL4	CUPL5	CUPL6	CUPL7	
VAR	0.5673548387	0.5138064516	0.5189677419	0.5486451613	0.5157419355	0.4887741935	0.4873548387	18.66554839
AVERAGE	4.072	4.048	4.072	4.088	4.128	4.056	4.112	28.576

Variable	Description	Score	Interpretation
k	Total Items	7	Item pengukuran sudah reliable > 0.70
$\Sigma\sigma^2$	Variance Amount	3.640645161	
σ^2 total	Total Variance	18.66554839	
α	Cronbach's Alpha	0.9391127118	

Skill Development				
Respondent	Item Questions			TOTAL
	SD1	SD2	SD3	
VAR	0.5390967742	0.5055483871	0.4894193548	3.78283871
AVERAGE	4.096	4.136	4.136	12.368

Variable	Description	Score	Interpretation
k	Total Items	3	Item pengukuran sudah reliable > 0.70
$\Sigma\sigma^2$	Variance Amount	1.534064516	
σ^2 total	Total Variance	3.78283871	
α	Cronbach's Alpha	0.8917010608	

Affective Evaluation Total				
Respondent	Item Questions			TOTAL
	AE1	AE2	AE3	
VAR	0.4580645161	0.5049032258	0.4612903226	3.52683871
AVERAGE	4.24	4.056	4.08	12.376

Variable	Description	Score	Interpretation
k	Total Items	3	Item pengukuran sudah reliable > 0.70
$\Sigma\sigma^2$	Variance Amount	1.424258065	
σ^2 total	Total Variance	3.52683871	
α	Cronbach's Alpha	0.8942487104	

Teamwork					
Respondent	Item Questions				Total
	TW1	TW2	TW3	TW4	
VAR	0.4918709677	0.4712258065	0.4350967742	0.5196129032	5.925806452

AVERAGE	4.008	4.112	4.128	4.112	16.36
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Variable	Description	Score	Interpretation
k	Total Items	4	Item pengukuran sudah reliable > 0.70
$\Sigma \sigma_i^2$	Variance Amount	1.917806452	
σ^2 total	Total Variance	5.925806452	
α	Cronbanch's Alpha	0.9018181818	

Satisfaction											
Respo ndent	Item Questions										TOTA L
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	
	0.4894		0.4526	0.5621	0.5258	0.5371	0.6451	0.5138		0.5944	
	19354	0.4834	45161	93548	06451	61290	61290	06451		51612	35.384
VAR	8	83871	3	4	6	3	3	6	0.532	9	90323
AVER AGE	4.136	4.128	4.176	4.048	4.12	4.056	4	4.048	4.016	4.048	40.776

Variable	Description	Score	Interpretation
k	Total Items	10	Item pengukuran sudah reliable > 0.70
$\Sigma \sigma_i^2$	Variance Amount	5.336129032	
σ^2 total	Total Variance	35.38490323	
α	Cronbanch's Alpha	0.9435528668	

B. SOCIAL MEDIA EVALUATION QUESTIONNAIRE

Perceived Ease of Use (PEOU)				
Respondent	Questions Items			TOTAL
	PEOU1	PEOU2	PEOU3	
VAR	0.7558709677	0.752516129	0.6810322581	5.610709677

AVERAGE	3.776	3.752	3.696	11.224
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Variable	Description	Score	Interpretation
k	Total Items	3	Item pengukuran sudah reliable > 0.70
$\Sigma \sigma_i^2$	Variance Amount	2.189419355	
σ^2 total	Total Variance	5.610709677	
α	Cronbanch's Alpha	0.9146678012	

Perceived Usefulness (PU)											
Respondent	Item Questions										TOTAL
	PU1	PU2	PU3	PU4	PU5	PU6	PU7	PU8	PU9	PU10	
	0.6163	0.7081	0.6107	0.7881	0.5913	0.6190	0.6429	0.6545	0.7281	0.6636	
	87096	29032	09677	29032	54838	96774	67741	80645	29032	12903	50.275
VAR	8	3	4	3	7	2	9	2	3	2	87097
AVERAGE	3.888	3.744	3.776	3.776	3.624	3.816	3.776	3.784	3.736	3.736	37.656

Variable	Description	Score	Interpretation
k	Total Items	10	Item pengukuran sudah reliable > 0.70
$\Sigma \sigma_i^2$	Variance Amount	6.623096774	
σ^2 total	Total Variance	50.27587097	
α	Cronbanch's Alpha	0.9647387803	

Perceived Enjoyment (PE)				
Respondent	Questions Items			TOTAL
	PE1	PE2	PE3	
VAR	0.603483871	0.7144516129	0.623483871	5.08283871
AVERAGE	3.688	3.792	3.752	11.232

Variable	Description	Score	Interpretation
k	Total Items	3	Item pengukuran sudah reliable > 0.70
$\Sigma\sigma^2$	Variance Amount	1.941419355	
σ^2 total	Total Variance	5.08283871	
α	Cronbach's Alpha	0.9270664094	

Perceived Creativity (PC)			
Respondent	Questions Items		TOTAL
	PC1	PC2	
VAR	0.6073548387	0.6436129032	2.300387097
AVERAGE	3.752	3.744	7.496

Variable	Description	Score	Interpretation
k	Total Items	2	Item pengukuran sudah reliable > 0.70
$\Sigma\sigma^2$	Variance Amount	1.250967742	
σ^2 total	Total Variance	2.300387097	
α	Cronbach's Alpha	0.9123850123	

Satisfaction (S)										
Respondent	Item Questions									TOTAL
	S1	S2	S3	S4	S5	S6	S7	S8	S9	
VAR	0.6473548387	0.6107096774	0.5468387097	0.6294193548	0.5629677419	0.6758709677	0.6513548387	0.6513548387	0.6913548387	41.18090323
AVERAGE	3.768	3.776	3.744	3.704	3.744	3.744	3.816	3.816	3.776	33.888

Variable	Description	Score	Interpretation
k	Total Items	9	Item pengukuran sudah reliable > 0.70
$\Sigma\sigma^2$	Variance Amount	5.667225806	
σ^2 total	Total Variance	41.18090323	
α	Cronbach's Alpha	0.9701799613	

Relative Advantage (RA)

Respondent	Questions Items			TOTAL
	RA1	RA2	RA3	
VAR	0.7096774194	0.6707096774	0.6774193548	5.480387097
AVERAGE	3.8	3.784	3.8	11.384

Variable	Description	Score	Interpretation
k	Total Items	3	Item pengukuran sudah reliable > 0.70
$\Sigma\sigma^2$	Variance Amount	2.057806452	
σ^2 total	Total Variance	5.480387097	
α	Cronbach's Alpha	0.9367715961	

Self Efficacy (SE)

Respondent	Questions Items			TOTAL
	SE1	SE2	SE3	
VAR	0.6516129032	0.6838709677	0.6709677419	5.280645161
AVERAGE	3.76	3.76	3.72	11.24

Variable	Description	Score	Interpretation
k	Total Items	3	Item pengukuran sudah reliable
$\Sigma\sigma^2$	Variance Amount	2.006451613	
σ^2 total	Total Variance	5.280645161	

α	Cronbach's Alpha	0.9300549786	> 0.70
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Intention Of Use (IOU)							
Respondent	Item Questions						TOTAL
	IOU1	IOU2	IOU3	IOU4	IOU5	IOU6	
VAR	0.7202580645	0.6997419355	0.6718709677	0.6516129032	0.6752258065	0.627483871	20.11290323
AVERAGE	3.752	3.816	3.752	3.76	3.776	3.744	22.6

Variable	Description	Score	Interpretation
k	Total Items	6	Item pengukuran sudah reliable > 0.70
$\sum \sigma_i^2$	Variance Amount	4.046193548	
σ^2 total	Total Variance	20.11290323	
α	Cronbach's Alpha	0.9585911788	

Appendix 6 - Letter of Acceptance

PERJANJIAN PEMAGANGAN

HTM/MAG/2025/I

Pada hari ini, Senin, tanggal 10 bulan Februari tahun dua ribu dua puluh lima, yang bertanda tangan dibawah ini:

Nama : Hanry Dharmawan Kumala
Jabatan : Managing Director
Perusahaan : PT. Harfan Tri Megah (EDUGATE)
Alamat : Edugate Building, Lt. 3
Jl. RS Fatmawati No.99
Jakarta 12430

Selanjutnya disebut PIHAK PERTAMA (PERUSAHAAN)

Nama : Salima Fadhilatus Sholihah
Alamat : Jl. Bima Sakti III RT 3 RW 1, Deja Keji,
Kec. Ungaran Barat, Kab. Semarang, Jawa Tengah
No. KTP : 3502166010030001
Institusi : Universitas Islam Indonesia

Selanjutnya disebut PIHAK KEDUA (PESERTA MAGANG)

Dengan ini PIHAK PERTAMA dan PIHAK KEDUA sepakat untuk memenuhi ketentuan-ketentuan dalam perjanjian sebagaimana tercantum dalam pasal-pasal di bawah ini:

Pasal 1

KESEPAKATAN

PIHAK PERTAMA bersedia menerima PIHAK KEDUA sebagai peserta Program Pemagangan, dan PIHAK KEDUA menyatakan kesediaannya untuk mengikuti program Pemagangan yang dilaksanakan oleh PIHAK PERTAMA di PT. Harfan Tri Megah (EDUGATE)

Pasal 2

JANGKA WAKTU PEMAGANGAN

Jangka waktu pelaksanaan pemagangan adalah terhitung sejak tanggal 17 Februari 2025 sampai 30 Juni 2025. Pemagangan dilaksanakan pada setiap hari kerja mulai pukul 08.00 WIB sampai pukul 17.00 WIB (kecuali jika dibutuhkan perpanjangan waktu kerja sesuai dengan kebutuhan perusahaan).

Pasal 3

JENIS KEJURUAN DAN PROGRAM

Pemagangan yang dilaksanakan oleh PIHAK KEDUA adalah :

Jenis : Magang dengan Konversi Mata Kuliah

Kejuruan : Manajemen

Pasal 4

HAK DAN KEWAJIBAN PIHAK PERTAMA

1. PIHAK PERTAMA mempunyai hak-hak sebagai berikut :
 - a. Memberhentikan PIHAK KEDUA yang melanggar ketentuan yang tercantum dalam perjanjian tanpa kompensasi apapun juga, dalam hal antara lain:
 - i. Melakukan kelalaian, walaupun telah mendapat peringatan, serta melakukan tindakan yang tidak bertanggung jawab.
 - ii. Dengan sengaja merusak, merugikan atau membiarkan dalam keadaan bahaya barang milik PIHAK PERTAMA.
 - iii. Melakukan tindak kejahatan misalnya berkelahi, mencuri, menggelapkan, menipu, dan membawa serta memperdagangkan barang-barang terlarang baik di dalam maupun diluar perusahaan.
 - iv. Absen atau mangkir tanpa alasan yang sah sesuai dengan peraturan yang berlaku di perusahaan.
 - v. PIHAK KEDUA melanggar ketentuan perjanjian yang telah disepakati.

- b. Memiliki hasil kerja PIHAK KEDUA selama pelaksanaan Pemagangan di perusahaan.
 - c. Merekrut PIHAK KEDUA menjadi karyawan bagi yang belum bekerja, setelah selesainya pemagangan. Dalam hal ini bilamana PIHAK PERTAMA bersedia.
2. PIHAK PERTAMA mempunyai kewajiban - kewajiban sebagai berikut:
- a. Memberikan hak-hak PIHAK KEDUA sesuai dengan pasal 5 ayat (1) huruf a,b dan c.
 - b. Melaksanakan program pemagangan hingga selesai.
 - c. Memberikan pembinaan dan pengarahan kepada PIHAK KEDUA.
 - d. Melakukan evaluasi secara berkala tentang perkembangan PIHAK KEDUA dalam hal mengikuti pemagangan.

Pasal 5

HAK DAN KEWAJIBAN PIHAK KEDUA

1. Selama masa pemagangan PIHAK KEDUA mempunyai hak-hak sebagai berikut :
- a. Memperoleh bimbingan dari instruktur/karyawan senior perusahaan.
 - b. Memperoleh uang saku dan/atau uang transport sesuai dengan kedatangan sebesar Rp. 75,000,- per hari dari perusahaan yang akan di transfer setiap tanggal 3 ke rekening Mandiri.
 - c. Memperoleh izin untuk melakukan pengambilan data melalui survei kepada anggota perusahaan yang menjadi klien PIHAK PERTAMA.
2. Selama masa pemagangan PIHAK KEDUA mempunyai kewajiban sebagai berikut:
- a. Mengikuti pemagangan hingga selesai .
 - b. Mematuhi segala peraturan yang berlaku di perusahaan.
 - c. Mentaati segala instruksi dari instruktur/karyawan senior perusahaan.
 - d. Menjaga nama baik perusahaan.

Pasal 6

SANKSI

1. Bagi PIHAK PERTAMA.

Bila PIHAK PERTAMA tidak dapat melanjutkan kegiatan program pemagangan dikarenakan keadaan/situasi perusahaan, maka PIHAK PERTAMA berkewajiban membantu mencari tempat magang yang sesuai kepada PIHAK KEDUA.

2. Bagi PIHAK KEDUA.

Bila PIHAK KEDUA melanggar perjanjian yang mengakibatkan kerugian PIHAK PERTAMA dapat dikeluarkan dari program.

Pasal 7

PERSELISIHAN

Jika terjadi perselisihan antara Kedua Belah Pihak maka akan diselesaikan secara musyawarah untuk mufakat, dan jika tidak tercapai penyelesaiannya maka Kedua Belah Pihak dapat meminta bantuan dari instansi terkait setempat, untuk menyelesaikannya sesuai dengan hukum yang berlaku.

Pasal 8

LAIN-LAIN

Jika isi ketentuan dalam perjanjian ini ada yang bertentangan dengan hukum atau peraturan yang berlaku maka akan diperbaiki sesuai dengan peraturan/hukum yang berlaku tersebut.

Hal-hal lain yang belum diatur dalam perjanjian ini akan diatur sesuai dengan kesepakatan Kedua Belah Pihak.

Appendix 7 - Internship Application Letter

Subject : Application for Internship in Marketing PT Harfan Tri Megah (Edugate).

Salima Fadhilatus Sholihah

+6281239951002

salimafadhilatus.s@gmail.com

<http://www.linkedin.com/in/salima-fadhilatus>

Jan, 10th 2025

HR Manager

PT Harfan Tri Megah (Edugate)

Jakarta, Indonesia

Dear Hiring Manager,

I am excited to apply for the Marketing Internship at PT Harfan Tri Megah (Edugate). With a background in business management, hands-on experience in digital marketing, and an ERP SAP01 certification, I have built a solid foundation in marketing principles and social media management. I am particularly drawn to Edugate's commitment to innovation in enterprise solutions, and I believe my skills and enthusiasm will help contribute to driving this vision forward.

As a marketing enthusiast focused on engaging Millennial and Gen Z audiences, I have honed my social media management skills. In my role as Head of Digital Marketing for the Media and Marketing Creative Team at Management UII, I led initiatives that grew our social media following by over 2,000 and achieved an impressive 46% engagement rate. I conducted market research, developed branding and promotional strategies, and built strong relationships with prospective students and key stakeholders. These experiences have equipped me with the ability to craft targeted, data-driven marketing campaigns that resonate with digital-savvy audiences and drive measurable results. I am excited to apply these skills to Edugate's mission of broadening its market reach and engaging tech-savvy decision-makers.

I am confident that my strategic analysis skills will complement Edugate's goals of expanding its market reach and delivering innovative business solutions. I would welcome the opportunity to discuss how my skills and experiences align with Edugate's needs. Please feel free to contact me via email at salimafadhilatus.s@gmail.com or by phone at +6281239951002. Thank you for considering my application. I look forward to the possibility of contributing to Edugate's continued success.

Sincerely,



Salima Fadhilatus Sholihah