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Developing Life-long Investment Literacy of Students through Initial Public Offerings (IPO) One-Stop Support Center and Stock Trading Simulation

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Abstract: Initial Public Offerings (IPO) One-Stop Support Center website is created to help students, the public and academic researchers. One of the significant features of this website is a stock trading simulation which enables stock trading practice in a simulated or virtual environment. It simulates the experience of trading equities with virtual currency. The main aim of this trading simulation is to offer students and the public (potential retail investors) a risk-free environment to learn and practice trading before entering the real stock market. This study aims to understand the influence of trading simulation as an educational tool in improving students' lifelong learning skills through the development of investment literacy. This study was conducted using a qualitative approach. To fulfill the objective of this study, an online survey was distributed through a Google Form. A total of 110 respondents consisting of students enrolling in FIN768 (Investment and Portfolio Analysis) course, public, and academics in Universiti Teknologi MARA (UiTM), Shah Alam and Puncak Alam, Selangor took part in the online survey. This study finds that 89.10 percent of the respondents agree that this stock trading simulation is very useful for their life-long learning. This study contributes mainly to the students by providing them with valuable learning experiences and practical skills that extend beyond traditional classroom teachings.

Keywords: *IPO One-Stop Support Center; Stock Trading Simulation; Investment Literacy, Life-long Learning*

1. Introduction and Background

Creativity and innovation are an important essence in the teaching and learning process. Creative approaches in active teaching and learning are used throughout higher education institutions to increase students' interest and engagement in learning a course (Moffit & McKinney, 2010; Noreen, 2022). Supporting the necessity of innovating the teaching and learning activities and current agenda of the Securities Commission of Malaysia (SCM) to promote sustainable and responsible investment (SRI), the IPO One-Stop Support Center website (can be reached from: https://sites.google.com/uitm.edu.my/ipo-one-stop-support-center/home) is established to help students, the public (potential retail investors), academics and researchers gain important information about the initial public offerings and the stock market of Malaysia. Aligning the aim with the current initiatives of policymakers (i.e., SCM and Bursa Malaysia), this website is also built to generally promote a higher level of market transparency through information disclosure to allow more effective market surveillance and drive a higher level of transparency and disclosure to strengthen and maintain the stock market sustainability.

The specific objectives of the IPO One-Stop Support Center are to provide an online platform as an initiative for students and lecturers to comprehend investment and portfolio analysis, to provide an alternative platform, especially for users to get investment training through trading simulations as an initial exposure to the real trading experience and to provide initial public offering data as an initiative to improve the integrity of data access for academic researchers and retail investors. The IPO One-Stop Support Center also aims to become a support center that helps students and academics with reference materials such as slide presentations and publication of the latest articles related to initial public offerings and the stock market. The IPO One-Stop Support Center is expected to benefit several parties as it helps users to better understand investment and portfolio analysis, course and have a general understanding of the stock market, especially the initial public offerings as well as to perform trading simulations without the potential of capital loss and improve investment literacy before real stock investment activities. Overall, this IPO One-Stop Support Center may also assist academic researchers in conducting studies in the IPO area apart from becoming an alternative platform for information search related to initial public offerings data in Malaysia.

One of the IPO One-stop Support Center's key features is the "Trading Simulation", also known as virtual

trading, which aims to provide individuals with a risk-free environment to practice and learn about financial markets and trading strategies. The IPO One-stop support Center directs visiting users to the Bursa Marketplace platform for a hands-on experience. Users can experience real-world trading scenarios using virtual money, allowing them to practice trading activities without risking their actual capital. While the trading simulation can offer educational and learning tools, users can also hone their trading skills, such as technical analysis, fundamental analysis, risk management, and decision-making, by experimenting with different approaches and gaining practical experience. A step-by-step guide is provided on the website for users to start initiating their trading activities by appropriately choosing stocks for their portfolio through the stock screeners' function.

The main objective of this stock trading simulation is to provide users (potential retail investors) with a risk-free environment to learn and practice trading before entering the real stock market. This investment simulation experience is an initial preparation for users when participating in the stock market with high uncertainty. Users need to understand the ins and outs of the stock market more deeply to brace for investment risks while guaranteeing consistent investment returns in both the short and long term. This investment literacy is also important in helping users create a source of passive side income through investment activities in the future. Ultimately, generating passive income through investments can promote financial sustainability.

The actual trading features also can complement the formal investment education if students can experience investing before becoming real traders. Some of the key features that a Trading Simulation can offer similar to actual trading activities are when users are provided virtual money to trade, eliminating the risk of financial loss. The virtual funds represent a simulated trading account balance user can use to execute trades, it typically uses real-time or delayed market data to replicate actual market conditions accurately. This allows users to experience the price fluctuations and market dynamics they would encounter in real trading, offering a wide range of assets from different financial markets. Users can trade individual stocks, exchange-traded funds (ETFs), forex pairs, commodities, options, and more, provided with various trading tools and features, including charting tools, technical indicators, order types (market orders, limit orders, stop-loss orders, etc.), and portfolio tracking and given access to historical market data, allowing users to back-test trading strategies using past market movements. Overall, users will be able to experience real stock investing activity using the trading simulation platform on the IPO One-Stop Support Center website, aligning themselves with the current agenda for sustainable finance and better income opportunities.

This website is also accessible to the public who wish to get important information and build investment literacy before performing stock trade. Overall, the IPO One-Stop Support Center website, in particular the stock trading simulation, is a platform that can benefit various parties for a transparent and important information channel in the stock market, particularly the initial public offering market in Malaysia. While publicly listed companies in Malaysia are mandated to disclose relevant information (e.g., company history, company operations, financial health, and associated risks) by Bursa Malaysia, the encouragement of potential investors to test their understanding through simulated stock trading can be done through this simulation. As a result, future investments are safer and more sustainable, especially for newbie traders. This way, users can make investments to generate measurable positive impacts alongside sustainable financial returns. Additionally, there are other information available on this website. Among others are; general information on the initial public offerings market, how to invest and list companies listed on Bursa Malaysia, knowledge sharing and educational resources for several academic courses (Investment and Portfolio Analysis, Technical Analysis, Personal Financial Planning.

From the practical implication point of view, this website supports the SCM's objectives and the ASEAN Capital Market Forum's key point, inspiring to promotion of higher transparency in information disclosure for the capital market's long-term sustainability. In this context, the investment community should be better informed by the importance of companies' information disclosure retrieved in a more accessible platform for better protection of their investment portfolio and value. Disclosing higher specificity of information can attract higher participation from potential investors to the Malaysian stock market. In other words, the IPO One-stop Support Center is in line with a part of Malaysia's 8th Sustainable Development Growth (SDG); the Malaysian market and economic growth are expected to partly improve through a more transparent, fair, and better-regulated platform and a reachable and friendlier platform to retail investors in their early stage of investment

on IPOs. Thus, this study aims to understand the role of the Initial Public Offerings One-Stop Support Center and stock trading simulation as an educational tool in improving students' lifelong learning skills through investment literacy.

This study contributes to the literature on finance education in several ways. First, it adopts the Experiential Learning Theory (Kolb, 1984) to provide an effective learning method in the context of finance education. Second, this study evaluates the role of Initial Public Offerings One-Stop Support Center and stock trading simulation as an experiential learning activity to understand if this approach improves students' understanding of the stock market and their life-long learning experience. Overall, the findings in this study should assist students, and the public (prospective investors) in developing a better investment strategy having a risk-free environment to learn and practice trading before entering the real stock market for their sustainable investment.

The remainder of this paper is divided as follows. Section 2 provides the literature review. Section 3 discusses the methods used. Section 4 presents the main results and discussion. Section 5 provides a conclusion.

2. Literature Review

Experiential Learning Theory (ELT) and Simulations: Experiential Learning Theory (ELT), proposed by David A. Kolb in 1984, is a widely used framework that describes the process of learning through experience. The theory posits that learning is a dynamic and ongoing process that entails the conversion of experience into knowledge. Kolb's model delineates a four-stage learning cycle, highlighting the significance of both tangible experience and thoughtful observation. Kolb also identified four learning styles based on the preference for certain stages of the learning cycle which include converging, diverging, assimilating and accommodating. The ELT has been widely applied in education, training, and organizational development to design effective learning experiences that engage learners at various stages of the learning cycle.

For experiential learning, simulations in business education are an exceptionally effective pedagogical tool. Ranchhod et al. (2014) defined simulation as a simplified representation of the business world environment that is both dynamic and realistic. Through the manipulation of system variables and the receipt of immediate feedback, simulations facilitate students' comprehension of the functioning of the system under investigation. Due to their interactive and dynamic characteristics, simulations are thus an optimal medium for experiential learning. By actively engaging with the simulation environment and responding to real-world challenges, students can gain an understanding of the fundamental concepts of the system under investigation (Prensky, 2001). As such, lifelong learning abilities can be developed through simulations.

Feinstein et al. (2002) posit that simulations necessitate a reduced reliance on interpersonal communication in contrast to role-playing exercises or games. However, Ranchhod et al. (2014) contend that simulations and games are complementary and can enhance the effectiveness of teaching and learning activities through mutual reinforcement. Students can be further motivated through competition and the experiential learning process can be enhanced by integrating gaming or competition into simulations. While simulations do not inherently necessitate a competitive aspect, their allure frequently stems from the game-like atmosphere they generate and their departure from traditional pedagogical approaches. Learner motivation is enhanced through the implementation of simulation techniques, according to several studies. As found by Bakoush (2022), the simulation-based experiential learning activity can provide students with a hands-on experience of real-world practice and enhance students' satisfaction.

Stock Trading Simulation: Creating a stock trading simulation involves building a virtual environment that mimics the dynamics of real stock markets. A stock trading simulation is a computerized model or program that mimics the dynamics of actual stock markets, allowing users to test and refine trading strategies in a simulated environment. The main objective of a stock trading simulation is to provide users, regardless of their level of expertise in investing, with a hands-on opportunity to make investment choices and gain practical experience, all while avoiding the potential for real financial losses (Chulkov & Wang, 2020). Stock trading simulations encompass several crucial elements, such as the replication of market dynamics. These simulations strive to imitate essential characteristics of actual financial markets, including price fluctuations,

order book dynamics, and market liquidity. Additionally, historical data is frequently employed in these simulations to generate a realistic portrayal of market behavior by utilizing past stock prices and trading volumes. The historical data is utilized to backtest trading strategies and evaluate their potential performance. In general, stock trading simulations are widely adopted by individuals, educational institutions, and professional traders alike to augment their comprehension of financial markets, perfect their trading strategies, and acquire valuable experience in a setting devoid of risk (Chulkov & Wang, 2020).

Stock trading simulations are important to students for several reasons, providing them with valuable learning experiences and practical skills that extend beyond traditional classroom teachings. It allows students to apply theoretical concepts learned in finance and investment courses to real-world scenarios by bridging the gap between academic knowledge and practical application (Ping et al., 2020; Bakoush, 2022). The stock trading simulation also provides a risk-free environment for students to experiment with different trading strategies and learn from their mistakes without the fear of losing real money. This encourages them to take calculated risks and explore various investment approaches (Noreen, 2022). Additionally, the stock trading simulation contributes to the development of financial literacy by helping students understand concepts such as stock valuation, risk management, and the impact of economic indicators on financial markets. Students learn how to diversify their portfolios, balance risk and return, and manage their assets effectively. These skills are essential for students who are interested in a career in finance or investment management. For students considering careers in finance, trading simulations provide a practical introduction to the industry and may even serve as a foundation for more advanced studies.

In summary, Stock trading simulations provide students with a dynamic and interactive platform to cultivate practical skills, deepen their comprehension of financial markets, and equip themselves for careers in finance or related fields. The acquisition of practical knowledge through simulations enhances conventional classroom instruction, rendering it a valuable asset in the field of financial education.

Stock Trading Simulation and Students' Life-long Investment Literacy: Stock trading simulations contribute significantly to the development of lifelong learning skills in students. Stock markets are dynamic, and trends are always changing. Engaging in stock trading simulations requires students to continuously learn about market trends, economic factors, and global events. This fosters a mindset of continuous learning and adaptability. Successful trading requires thorough research and analysis of various factors influencing stock prices. Students learn to gather, evaluate, and synthesize information, developing research and analytical skills that apply to various aspects of life. Stock trading simulations present students with complex problems and decision-making scenarios. They must critically evaluate information, assess risks, and make decisions under uncertainty. These critical thinking and problem-solving skills are transferable to many areas of life. Managing a virtual portfolio through the stock trading simulation also involves assessing risks and making decisions based on probabilities (Pierce, 2021). Students learn to make informed decisions, considering the potential consequences of their actions. These skills are valuable in personal finance, career decisions, and everyday life. Students gain an understanding of investment principles, budgeting, and risk management, which are essential for making informed financial decisions throughout their lives. After several simulation activities, students often reflect on their trading strategies, successes, and mistakes. This reflection encourages a habit of self-assessment and continuous improvement, promoting lifelong learning (Tian & Wang, 2022).

From another view, not every trading strategy will be successful. Simulations provide a safe space for students to experience failure, learn from their mistakes, and refine their strategies. This resilience and ability to learn from setbacks are crucial life skills. Some simulations involve team-based trading, encouraging collaboration and teamwork. Learning to work effectively with others is a valuable skill in both personal and professional life (Mukherji et al., 2018). In essence, stock trading simulations not only teach students about the intricacies of financial markets but also instill a mindset of continuous learning, adaptability, and critical thinking that serves them well in various aspects of their lives. These lifelong learning skills are crucial in an ever-changing and complex world.

3. Research Methodology

Research Design and Data Collection: This study was conducted using a qualitative approach, specifically an online survey ("IPO One Stop-Support Center" Feedback Survey) to understand the impact of stock trading simulation on students and public users. The online survey was distributed through Google Forms: https://sites.google.com/uitm.edu.my/ipo-one-stop-support-center/feedback-survey

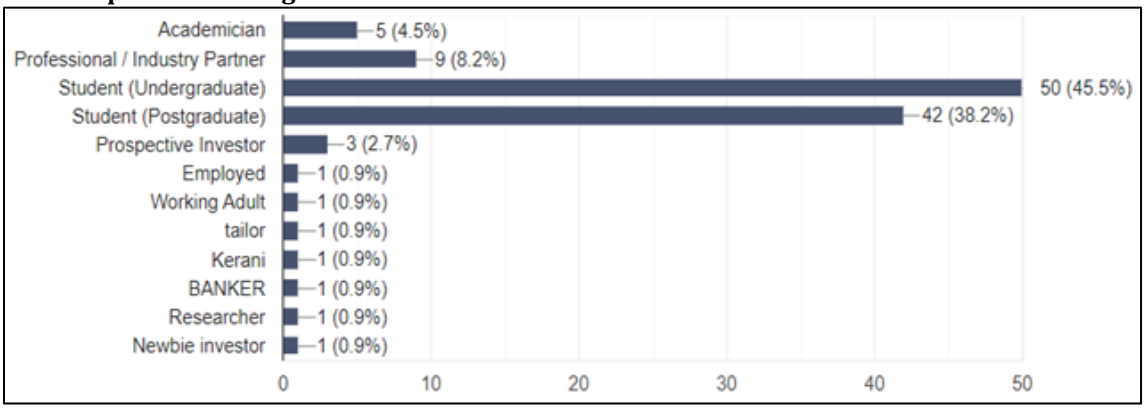
The online survey was divided into two categories, Section A: Demographic profiles and Section B: Main feedback from the user's experience of using the One-Stop Support Center and stock trading simulation. The online survey includes a section where respondents can insert their feedback for improvements to the existing platform.

Sampling and Data Analysis: To fulfill the objective of this study, the selected respondents are students enrolling in FIN768 (Investment and Portfolio Analysis) course, public, and academics in Universiti Teknologi MARA (UiTM), Shah Alam and Puncak Alam, Selangor. The total sample of this study is 110 respondents. The respondents took an online survey conducted on Google Forms that involved pre-event and post-event instruments. This study also appointed a representative (among the respondents) to monitor and guide the other respondents to answer the online survey. A total of eight questions in the main survey section were asked to the respondents including a question on the usefulness of the information on the public domain platform for potential investors, students, and academics to learn the basics of investing and conduct research in the field of IPOs and whether the IPO One-Support Center useful for improving your lifelong learning skills on investing and stock trading. All the questions were to determine the respondents' experience and level of understanding of basic investing, particularly in the area of IPOs. The feedback from all respondents was tabulated in charts for profiling and description ion of the finding's purposes.

4. Results and Discussions

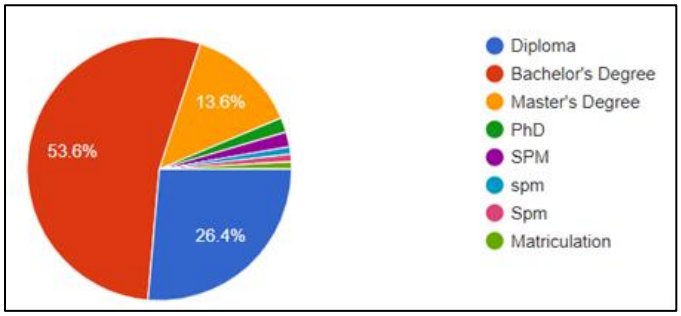
Demographic Profiles

Figure 1: Respondents Categories



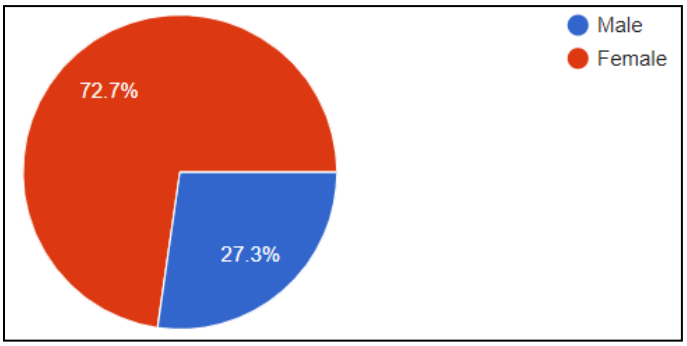
From the total number of respondents (110 people), 5 respondents (4.5%) are academics, 9 respondents (8.2%) are industrial or professional workers, 50 respondents (45.5%) are undergraduate students, 42 respondents (38.2%) are students postgraduate, 3 respondents (2.7%) are potential investors and 7 respondents (6.3%) are either researcher, banking institute employees, new retail investors and clerk.

Figure 2: Academic Qualifications



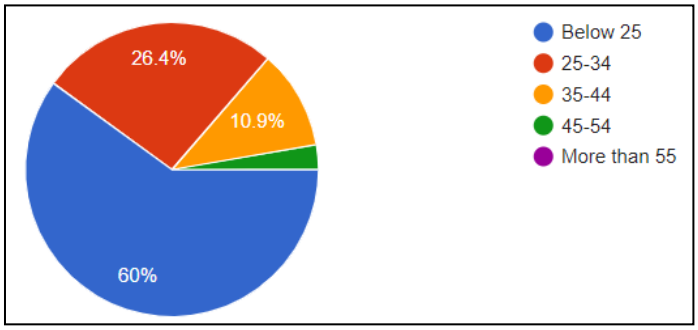
From the total number of respondents (110 people), 29 respondents (26.4%) have a diploma qualification, 59 respondents (53.6%) have a bachelor's degree qualification, 15 respondents (13.6%) have a master's degree, 2 respondents (1.8%) have a PhD qualification, 4 respondents (3.6%) are SPM graduates and 1 respondent (0.9%) is a matriculation graduate.

Figure 3: Gender



Of the total number of respondents (110 people), 80 respondents (72.7%) were women and 30 respondents (27.3%) were men.

Figure 4: Age

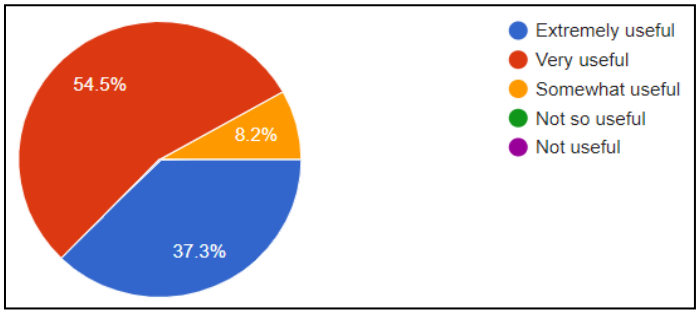


From the total number of respondents (110 people), 66 respondents (60%) were under 25 years of age, 29 respondents (26.4%) were in the age range of 25 to 34 years, 12 respondents (10.9%) were in the age range of 35 to 44 years and 3 respondents (2.7%) were in the age range of 45 to 54 years.

Main Survey Findings on the Application of IPO One-Stop Support Center and Stock Trading Simulation

How useful is the information on the public domain platform for potential investors, students, and academics to learn the basics of investing and conduct research in the field of Initial Public Offerings (IPOs)?

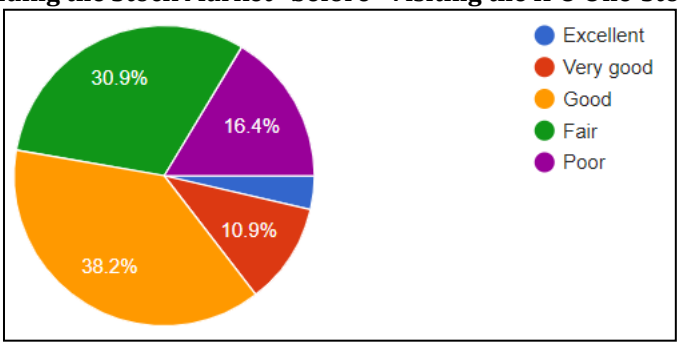
Figure 5: Use of Information on Public Platforms



From the total number of respondents (110 people), 41 respondents (37.3%) found this public domain platform extremely useful, 60 respondents (54.5%) thought that this public domain platform was very useful and 9 respondents (8.2%) thought it was quite useful for potential investors, students, academics to learn the basics of investing and conduct research in the field of Initial Public Offerings (IPOs). The responses show that information in the public domain can be incredibly valuable for potential investors, students, and academics looking to learn the basics of investing. There is a wealth of resources available, from financial news and market information to educational materials and research articles. It offers a foundation for understanding market dynamics, investment strategies, and financial concepts. For potential investors, staying informed about market trends, company performance, and economic indicators is crucial for making informed decisions. Thus, students and academics can leverage publicly available data to enhance their understanding of financial markets and conduct research.

What was your level of knowledge about investing in the stock market before visiting the IPO One-Stop Support Center?

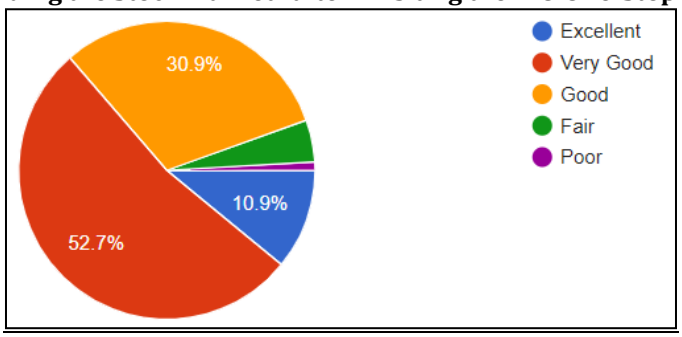
Figure 6: Understanding the Stock Market "before" Visiting the IPO One-Stop Support Center



From the total number of respondents (110 people), 4 respondents (3.6%) had an excellent understanding, 12 respondents (10.9%) had a very good understanding, 42 respondents (38.2%) had a good understanding, 34 respondents (30.9%) had a moderate level of understanding and 18 respondents (16.4%) had a low level of understanding about investing in the stock market before visiting the IPO One-Stop Support Center.

What is your level of knowledge about investing in the stock market after visiting the IPO One-Stop Support Center?

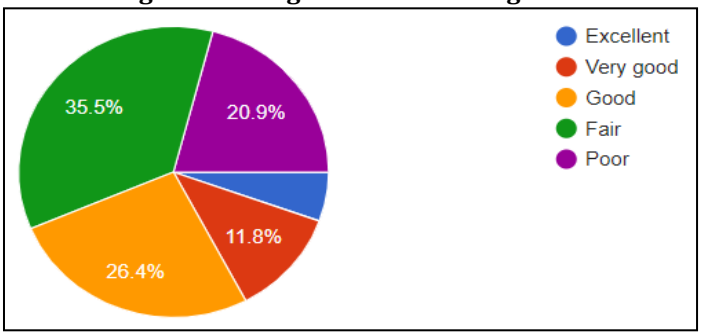
Figure 7: Understanding the Stock Market "after" Visiting the IPO One-Stop Support Center



From the total number of respondents (110 people), 12 respondents (10.9%) had an excellent understanding, 58 respondents (52.7%) had a very good understanding, 34 respondents (30.9%) had a good understanding, 5 respondents (4.5%) had a moderate level of understanding and 1 respondent (0.9%) had a low level of understanding about investing in the stock market after visiting the IPO One-Stop Support Center. The responses indicate that the IPO One-Stop Support Center can improve the understanding of users on the stock market.

What is your level of knowledge about the initial public offerings before visiting the IPO One-Stop Support Center?

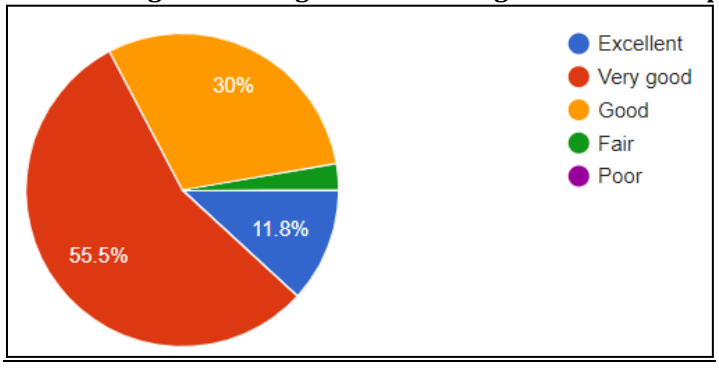
Figure 8: Initial Public Offerings' Knowledge "before" visiting the IPO One-Stop Support Center



From the total number of respondents (110 people), only 6 respondents (5.5%) had an excellent understanding, 13 respondents (11.8%) had a very good understanding, 29 respondents (26.4%) had a good understanding, 29 respondents (26.4%) have a moderate level of understanding and 23 respondents (20.9%) have a low level of understanding about the public market before visiting the IPO One-Stop Support Center.

What is your level of knowledge about the initial public market after visiting the IPO One-Stop Support Center?

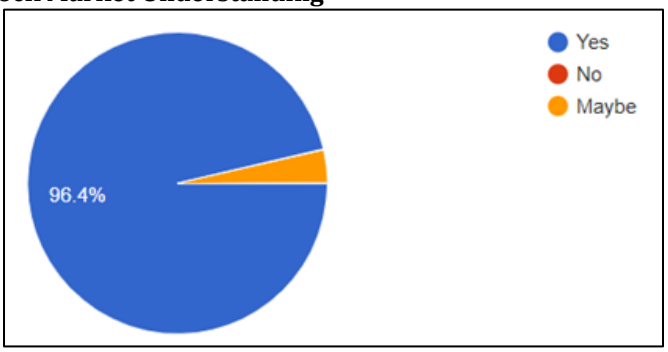
Figure 9: Initial Public Offerings' Knowledge "after" visiting the IPO One-Stop Support Center



From the total number of respondents (110 people), 13 respondents (11.8%) had an excellent understanding, 61 respondents (55.5%) had a very good understanding, 33 respondents (30%) had a good understanding, 3 respondents (2.7%) had a moderate level of understanding of the public market after visiting the IPO One-Stop Support Center. Figure 8 and Figure 9 shows an increase of 44.7% (from 11.8% to 55.5%) of respondents having better knowledge about initial public offerings after visiting the platform.

As a student, potential investor or academic, does this IPO One-Stop Support Center help improve your understanding of initial public offerings and stocks in general?

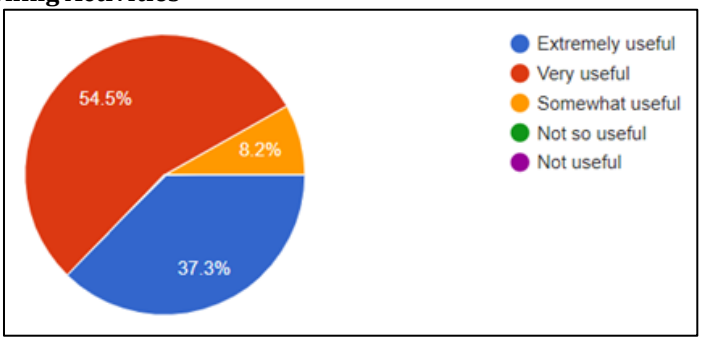
Figure 10: Improving Stock Market Understanding



From the total number of respondents (110 people), 106 respondents (96.4%) think that this support center helps to improve their understanding of initial public offerings and shares, in general. In contrast, 4 respondents (3.6%) think that there is a possibility that it can help to improve their level of understanding.

Is the IPO One-Support Center useful for your investment-related learning activities?

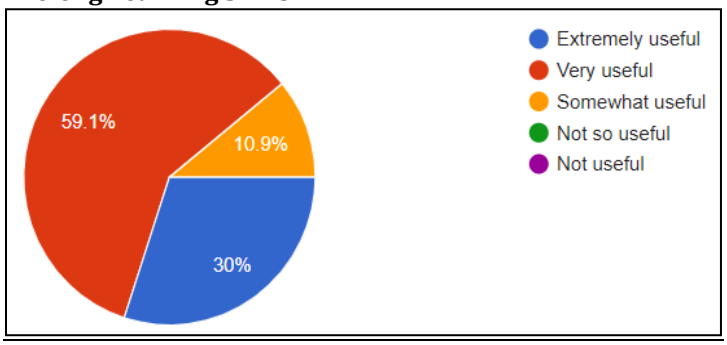
Figure 11: Uses in Learning Activities



From the total number of respondents (110 people), 41 respondents (37.3%) stated that the IPO One-Support Center is extremely useful in investment-related learning activities, 60 respondents (54.5%) stated that the IPO One-Support Center is extremely useful in investment-related learning activities and 9 respondents (8.2%) stated that the IPO One-Support Center is very useful in investment-related learning activities. This center could help users develop their knowledge and skills, make informed investment decisions, and stay updated on market trends and developments. Ultimately, the usefulness of any investment in educational support entry would depend on the quality, relevance, and accessibility of the resources and support services it provides. Users would need to evaluate whether the center meets their specific learning and investment needs and whether it offers valuable insights and guidance to support their goals (Chulkov & Wang 2020).

Is the IPO One-Support Center useful for improving your lifelong learning skills in investing and stock trading?

Figure 12: Improving Lifelong Learning Skills



From the total number of respondents (110 people), 33 respondents (30%) stated that the IPO One-Support Center is extremely useful in improving their lifelong learning skills from the investment aspect, 65 respondents (59.1%) stated that the IPO One-Support Center is very useful in improving their lifelong learning skills from the investment aspect. Meanwhile, 12 respondents (10.9%) stated that the IPO One-Support Center is useful in improving their lifelong learning skills from the investment, in particular the stock trading aspect. Figure 12 exhibits that all respondents (100%) agree that both IPO One-Support Center and stock trading simulation can improve their lifelong learning skills in investing and stock trading because the platform and the simulation provide a hands-on, practical experience that goes beyond theoretical knowledge. Users can apply concepts learned in classrooms or from textbooks in a dynamic, real-world setting. As posited by Tian and Wang (2022), incorporating stock trading simulations into teaching and learning activities can significantly contribute to the development of life-long learning skills in investing and stock trading. The responses on whether the IPO One-Support Center is useful for improving your lifelong learning skills in investing and stock trading seem to support experiential learning theory. The theory is highly applicable in the context of stock trading simulations as it helps the development of lifelong investment literacy of the users. Overall, the integration of experiential learning theory in stock trading simulations creates a useful and immersive learning environment, facilitating skill development and a deeper understanding of the complexities of financial markets.

5. Conclusion and Recommendations

This IPO One-Support Center can be the first of its kind to integrate information in catering both the needs of the Malaysian investment community (i.e., those in the early stage as investors), students and academics. This website is a "user-friendly" platform that gives interested parties free access to Malaysian stock information (i.e., IPOs) and stock trading experience. The information gathered and conveyed on this website is tailor-made to the Malaysian IPO market. From the online survey conducted, this study finds that all the respondents agree that the IPO One-Support Centre and the stock trading simulation enhance their capacity for lifelong learning regarding investing and stock trading. This is because both the platform and the simulation offer practical, hands-on experience that surpasses theoretical understanding. The feedback on the use of the IPO One-Support Centre in enhancing users' lifelong investment literacy and stock trading skills appears to support the notion that experiential learning theory is exceptionally applicable to stock trading simulations. In general, the incorporation of experiential learning theory into stock trading simulations fosters an effective and engaging educational setting that promotes the growth of competencies and a more profound comprehension of the intricate nature of financial markets (Huang et al., 2022).

Despite its practical benefits, this website must offer continuous effort, particularly in the trading simulation platform, to better serve its users. Some of the features to be included in improving the innovation are to offer information on different types of investment for students to diversify their investment interests and portfolio, a stock trading tutorial video to navigate the trading simulation experience better, weekly notification of the newly announced IPOs in Malaysia, include IPO listing day performance and to-date performance and provide a Frequently Asked Questions (FAQ) Section.

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