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Determinants of Social Entrepreneurship Intention: A Longitudinal Study among Youth in Higher Learning Institutions

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Abstract: Social entrepreneurship had been acknowledged as an important solution to highlight various social issues, which many are compounded by the COVID-19 pandemic. Locally, the Malaysian government launched the first Social Entrepreneurship policy framework in 2015 with an allocation of RM 20 million to produce 1000 social enterprises by 2018. However, as of June 2022, the reported number of social enterprises in Malaysia was only 414. This raised questions on the viability of the agenda. Nevertheless, in April 2022, the government expressed continued political will by launching the Malaysian Social Entrepreneurship Action Plan 2030 (SEMy2030). To ensure success, it is important to understand the determinants of social entrepreneurship intention, especially among youth, the leaders of tomorrow. A previous study on another emerging economy observed changes to the social entrepreneurship dynamics due to the COVID-19 pandemic. Thus, the analysis for this study was performed following a longitudinal design on a sample of 486 respondents before and after the COVID-19 pandemic. The findings found Social Awareness, Self-Efficacy, Prior Entrepreneurship Experience, and Cosmopolitanism consistently to be significant determinants of Social Entrepreneurship Intention both pre- and post-pandemic. Meanwhile, Perceived Social Support became significant post-pandemic. Furthermore, gender was found to have a moderating role in several relationships. These insights can lead to the formulation of effective policies and programs to encourage, as well as enable, new generations of social entrepreneurs.

Keywords: social entrepreneurship intention; youth; Malaysia

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1. Introduction

Given its ability to generate innovations, create job opportunities and the development of engines of economic growth, entrepreneurship has been acknowledged as a key intervention in developing nations to alleviate poverty (Baron and Shane 2008). Additionally, entrepreneurship is also recognized as an important strategy for empowering and developing youth.

According to Jilenga (2017), entrepreneurship is not limited to profit-making business, although profit is necessary for a long-term business, profit is not always the main objective. Entrepreneurs can benefit the community and address social issues while also making a profit. This explains the recent emergence of social entrepreneurship as a new social innovation mechanism. In regards to creating jobs, standard of living, and social inclusion, the new social innovation mechanism and principles seek to enhance the welfare of individuals, communities, and regions (OECD 2011). Haverkort (2016) defines a social enterprise as a business that specifically highlights social needs by the goods and services or the engagement between the business and the underprivileged individuals. Nasir and Subari (2017) addressed that social entrepreneurship was discovered by studies, being one of the primary methods for enhancing people's socioeconomic well-being. Specifically, social enterprises offer values to solve societal issues and enhance the quality of life in

communities by allocating all profits to their social mission. It was also suggested that entrepreneurs and small enterprises with social objectives are able to bridge the gaps in rural areas and environmental issues with products or services developed via the social enterprise model.

Malaysia is known as a developing nation that actively motivates students to pursue careers in entrepreneurship. According to the Malaysia Education Blueprint 2015–2025 (Higher Education)[1], emphasizing entrepreneurship can be deemed to be of great importance. The government also recognized social entrepreneurship specifically as an important component of the national entrepreneurship agenda. This can be seen from the formation of the following policies, Malaysian Social Enterprise Blueprint 2015–2018[2] and the Malaysian Social Entrepreneurship Action Plan 2030 (SEMy2030)[3] that was launched in April 2022.

The idea of social entrepreneurship has attracted the nation's attention; many became interested in social entrepreneurship after the Malaysian Social Enterprise Blueprint was unveiled in 2015. It was the first policy specifically focused on social entrepreneurship in the country, outlining strategic initiatives designed to boost the sector towards a rapid expansion over the three-year period. It came with an allocation of RM 20 million for the Malaysian Global Innovation and Creativity Centre or MaGIC to fund and produce at least 1000 social enterprises by the year 2018. However, as of the third quarter of 2022, the number of registered social enterprises in Malaysia was 414, well below the specified target.[4]

In April 2022, the Ministry of Entrepreneur and Cooperatives Development introduced the Malaysian Social Enterprise Action Plan 2030 (SEMy2030).[5] SEMy2030 is a comprehensive blueprint for how Malaysia may embrace social innovation in this decade and determine how Malaysia should strengthen its social entrepreneurship and social enterprises. SEMy2030 also outlined the following targets, (i) to produce 5000 and 10,000 social enterprises by the year 2025 and 2030, respectively, (ii) the registered social enterprises are to generate RM 1.3 billion and 2.6 billion in revenue by 2025 and 2030, (iii) the number of jobs created by registered social enterprises will be 47,000 in 2025 and 95,000 in 2030. It was further specified in SEMy2030 that the development and competitiveness of social enterprises can be encouraged by increasing market awareness, ability, and competency on social entrepreneurship and innovation via training programs on technology adaptation and digitalization, market access, access to financing, etc. As of November 2022, the ministry only reported 47 accredited social enterprises.[6]

Based on research done by Thomson Reuters Foundation (2016), Malaysia was ranked 5th among 44 countries as the best place in the world to be a social entrepreneur for females and Malaysia was ranked 9th among the top 10 countries for social entrepreneurs. Other research by Radin A. Rahman et al. (2016) among ENACTUS members in the Malaysian HILs revealed that despite the high level of social entrepreneurship activity, the majority of the students have only a moderate or average level of intention towards social entrepreneurship. According to Jabar and Asung (2016), boosting social entrepreneurship in Malaysia could contribute to lessening the struggles of those who are socially excluded or underprivileged. Particularly, they highlighted the potential amongst university students in becoming social entrepreneurs in Malaysia. As a strategy for reducing unemployment, the Malaysian government supports youth to move towards self-employment. Further, Pillai and Ahamat (2018) found that youth entrepreneurs in Malaysia are particularly inclusive in social networking. Specifically, young social entrepreneurs in Malaysia have shown that early exposure to pro-social groups and activities in the community and at school under the guidance of parents and families has a big impact on the development of their future goals. Furthermore, the young social entrepreneurs were inspired by numerous critical experiences and critical acquaintances (Ahrari et al. 2019). In addition, a recent study by Samsudin et al. (2022) found the motivation for social entrepreneurship is influenced by self-efficacy and entrepreneurship education among undergraduate students in Malaysia. There have been numerous studies on students' entrepreneurial intention in Malaysia (Ismail et al. 2009; Ambad and Damit 2016; Al-Jubari et al. 2019; Hassan et al. 2020; Imm Song et al. 2021). However, there is a lack of studies specifically on

their intention towards social entrepreneurship within the Malaysian context. The search was done using the Lens.org platform. The benefits of using this platform are increasingly recognized by researchers (Martín-Martín et al. 2020; Kirkham et al. 2020). A simple search for scholarly works on the platform for works on "social", "entrepreneurship", and "intention" (https://link.lens.org/AphJ8CQ38F) (accessed on 1 February 2022) produced a result of 5446 works produced over the past decade (2011–2022). However, only 186 of the works originated from Malaysia. Meanwhile, those from the "Western" countries are around 2000. It was found that quite a number of the works both from the "Western" and Malaysian context, anchored their work using the Theory of Planned Behavior by Ajzen (1991) and frameworks by Mair and Noboa (2006), also Hockerts (2017). This paper is not suggesting that Malaysia is particularly special over other nations but given the desire of the government over recent years to develop the social entrepreneurship sector, this paper hopes to provide some insights that can assist towards better outcomes. Specifically, building upon the existing body of work, this paper strives to contribute by exploring new antecedents, such as cosmopolitanism and cultural intelligence, which are yet to be tested in the social entrepreneurship study for both "Western" and Malaysian contexts.

Over the years since gaining independence, Malaysia has had some notable successes in nurturing entrepreneurship but more still needs to be done to further strengthen it (Ariff and Abubakar 2003). Currently, given the importance of the social entrepreneurship agenda in Malaysia, the observed lackluster achievements of the policy targets, and the compounding impacts of the COVID-19 pandemic on the various social issues or needs, it is crucial to examine the factors affecting social entrepreneurship intention among youth in higher learning institutions. The insights can lead to the enhancement of policies and formulation of effective interventions. This study is longitudinal, using data from two periods, before the COVID-19 pandemic (2018–2019) and after the pandemic in late 2021, collected from students in institutions in Malaysia, with the first sample of 277 and the subsequent sample of 209.

2. Literature Review

2.1. Social Entrepreneurship

The concept of social entrepreneurship was introduced by Bill Drayton[7]. Through Bill Drayton's work at the Ashoka Foundation[8], he helped social entrepreneurs all over the world by offering them financial support. As a result of initiatives created by policies that primarily addressed the problems of the oppressed and the poor, thousands of lives have been transformed (Alvord et al. 2004). Social entrepreneurs lead social enterprises with innovation (Dees 1998b) by tackling social issues (Johnson 2000) whilst simultaneously generating public wealth (Wallace 1999). Weerawardena and Sullivan-mort (2001) indicate that social entrepreneurship encourages businesses to develop a long-lasting competitive advantage that will enable them to carry out their social missions. A social entrepreneur is someone who shows prosocial traits, like assertiveness, positive social motivation, moral authority, and ethical behavior (Dees 1998a).

In total, three factors explain the emergence of social enterprise. First, there is a strong interest in resolving social issues. It has led to the continuous innovative and sustainable solutions to challenging social issues (Santos 2009) and liberate communities from struggles (Thompson et al. 2000). For instance, unemployment, inequality in health care and access to education (Catford 1998), poverty, crime, and exclusion from society (Blackburn and Ram 2006). However, it was perceived that the public sector had failed to address the problems effectively, but at the same time, the private sector appeared uninterested in taking on the responsibilities more actively (Darby and Jenkins 2006). Third, the rise of social capital globally has been facilitated by business leaders in the social sector (Shaker et al. 2008) and created wealth for society (Wallace 1999). Subsequently, Perrini and Vurro (2006) concluded that social enterprises, private, public, and voluntary philanthropic or social activities overlap. However, social enterprises are seen as more sensitive

to the needs of the most disadvantaged segments of society than traditional non-profit organizations, which place emphasis on donation or charity.

According to Nicholls and Cho (2006), the concept of social entrepreneurship in the geographic region is diverse. According to Kerlin (2006), these variances result from the many factors that model and reinforce the territory in each location. Studies also have highlighted a number of best practices, such as the Szimbiózis Foundation in Hungary (Lipták et al. 2022), Masala Wheels, Project B, and Pit Stop Community Café in Malaysia (Wong Abdullah et al. 2022).

2.2. Social Entrepreneurship Intention

The concept of someone who has the intention to become an entrepreneur is known as entrepreneurial intention. However, the focus of social entrepreneurship intention is mostly on the person's intention to pursue a career in social entrepreneurship. Bosma et al. (2016) stated that over the last decade, practitioners, politicians, and academics have all shown a greater interest in social entrepreneurship. Individuals' actual behaviors or activities tend to be aligned with their personalities. Nga and Shamuganathan (2010) explored the personality traits of social entrepreneurs. They asserted that certain personality traits, such as agreeableness, openness, and conscientiousness, have an impact on social entrepreneurship.

Radin A. Rahman et al. (2016) conducted a study to determine the level of entrepreneurial intention and social entrepreneurship among Malaysian higher education students. It was found that even though they showed a greater interest in social entrepreneurship programs, it was found that students in higher education institutions had relatively mild entrepreneurial intentions. It is believed that Malaysian university students are more passionate and interested in social issues and activities. This is consistent with the long-term global trend of activism among university students. The students have the potential to generate novel and innovative social entrepreneurial solutions. They were partially influenced by their awareness level, which is the attitude toward social entrepreneurship, the influence, the subjective norm, and the program on social entrepreneurship, which is the perceived behavioral control (Jabar and Asung 2016). The university can assist the students in understanding that social entrepreneurship involves the development of a business that focuses on meeting both financial and social goals, rather than focusing on profitmaking (Jabar and Asung 2016). Therefore, universities ought to put effort to raise awareness of social entrepreneurship's value for society so that students would be more likely to choose social entrepreneurship as a career when they graduate (Radin A. Rahman et al. 2016).

In order to effect social entrepreneurship intention, which would result in social entrepreneurship behavior, it is essential to comprehend and explore the factors that motivate an individual's intention. Thus, the following section will review theories and models that have been offered to explain social entrepreneurship intention.

2.3. Social Entrepreneurship Intention in Emerging Markets

Malaysia was recognized as one of the leading emerging economies in Asia (Chan 2014). Based on a study in another set of key emerging markets, the BRIICS countries (Brazil, Russia, India, Indonesia, China, and South Africa), by Sengupta et al. (2017), 123 research papers on social entrepreneurship were found after a few exclusions were made. The studies were found to discuss the concept of social entrepreneurship according to five sub-concepts, namely, social entrepreneur, social capital, social welfare, collective endurance, and economic value creation. The MSCI (2022) Emerging Market Index factsheet for 30 December 2022 identified 24 emerging market countries, namely Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Kuwait, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates. The following Table 1 provides the measures of the countries' Entrepreneurial Intentions from the Global Entrepreneurship Monitor (GEM) website. The measure indicates the percentage of 18–64 population (individuals

involved in any stage of entrepreneurial activity excluded) who are latent entrepreneurs and who intend to start a business within three years.

Table 1. Emerging markets entrepreneurial intentions.

Country	Entrepreneurial Intention	Year (Most Recent Data Available)
Brazil	53.00	2021
Chile	50.29	2021
China	21.42	2019
Colombia	20.87	2021
Czech Republic	13.73	2013
Egypt	55.29	2021
Greece	9.58	2021
Hungary	8.07	2021
India	18.14	2021
Indonesia	26.00	2020
Korea	26.72	2021
Kuwait	57.50	2020
Malaysia	17.61	2017
Mexico	16.30	2019
Peru	39.70	2018
Philippines	37.11	2015
Poland	2.85	2021
Qatar	50.37	2021
Saudi Arabia	18.02	2021
South Africa	19.96	2021
Taiwan	15.50	2020
Thailand	31.51	2018
Turkey	31.30	2021
United Arab Emirates	35.86	2021

Kuwait reports the highest level of entrepreneurial intentions with 57.5% and Poland reports the lowest with 2.85%. Malaysia's 17.61% is lower than the group's average. This suggests that there is still more developmental work needed to drive entrepreneurship in the country. However, the most recent available data for Malaysia is from 2017 and GEM is yet to report social entrepreneurship intentions specifically. Ayob et al. (2013) investigated the Social Entrepreneurial Intention among business undergraduates in Malaysia using a research framework adapted from Shapero and Sokol (1982) and Krueger and Brazeal (1994). The study found that exposure to social entrepreneurship and perceived feasibility are both positively correlated with the perceived desirability of initiating social entrepreneurship activities, which then significantly influence their intention to form social enterprises. It was found that empathy influenced social entrepreneurial intention in developing/emerging countries, but this was not the case for the developed countries (de Sousa-Filho et al. 2020). This could be a result of the increased social issues in emerging countries, which expose people to more situations that stimulate their empathy. Akter et al. (2019) suggested four critical success factors for social businesses, which are social goals, collaboration, simplicity, and starting from home. Del Giudice et al. (2019) pointed out that emerging countries have huge growth potential through social entrepreneurship and innovation. Furthermore,

Rosca et al. (2020) found women are more particularly important as social entrepreneurs because they are highly motivated by social issues with which they are directly related. Al-Qudah et al. (2021) stressed on the importance of social entrepreneurship for emerging economies as their study found a positive relationship between social entrepreneurship and sustainable development. Youth entrepreneurial intention in emerging economies was found to be positively influenced by high proactiveness and internal locus of control and self-esteem (Nungsari et al. 2021). Youth entrepreneurs engage in fewer startup activities in countries with weaker capital market systems, but higher levels of financial support from families enable youth entrepreneurs to overcome the capital market gaps (Manolova et al. 2019). Next, according to Crupi et al. (2021), the outbreak of COVID-19 is redefining, for many aspects, entrepreneurial dynamics in general and for social innovation as well as social entrepreneurship specifically. The findings highlighted the change from the usual bottom-up pattern to more top-down-initiated social innovation and social entrepreneurship activities in China. This also supports the need for exploring the changes to social entrepreneurship dynamics in other emerging markets such as Malaysia.

2.4. Social Entrepreneurship Intention Model Formation

The earliest work to propose a specific model for social entrepreneurship intention was by Mair and Noboa (2006). The model was proposed based on earlier works explaining entrepreneurial intention (Shapero and Sokol 1982; Krueger 1993; Krueger and Brazeal 1994; Krueger et al. 2000), all of which can be seen to be supported by the Theory of Planned Behavior (TPB) (Ajzen 1991). Specifically, Mair and Noboa (2006) proposed the following four determinants for SE intention: Empathy, Moral Obligation, Self-Efficacy, and Perceived Social Support. Next, based on the model by Mair and Noboa (2006), Hockerts (2017) offered his model by including "Prior Experience with Social Organizations" as a new determinant for SE intention.

Specifically, Hockerts (2017) proposed experience with the types of issues that social entrepreneurs strive to solve as a catalyst for behavioral intention. Additionally, the variables suggested by Mair and Noboa (2006) were adapted as mediators to the relationship between experience and intention. His model also suggested that having access to and participation in social organizations also promotes the formation of social entrepreneurship intention.

3. Research Design

3.1. Research Framework and Hypotheses Development

This study referred to Hockerts' model as the theoretical framework and then adapted the model following the tradition set by the earlier researchers. Specifically, Empathy (EMP), Self-Efficacy (SE), and Perceived Social Support (PSS) are retained as part of the research framework for this study. Thus, the study proposed:

- Empathy has a significant relationship with social entrepreneurship intention.
- Self-efficacy has a significant relationship with social entrepreneurship intention.
- Perceived social support has a significant relationship with social entrepreneurship intention.

Next, the study adapted the model:

1. Substituting "Moral Obligation" with "Social Awareness". Hockerts (2017) (p. 108) defined "moral obligation" as "being positioned between the act of moral judgment and the formation of moral intent." "Moral Obligation" was the proxy for TPB's social norms since it is defined as the variable measuring the feeling of being obligated to act. This study proposes "Social Awareness" as a new proxy because it will measure the knowledge and understanding of one's communal situation or ecosystem that can compel one towards action (Kwong et al. 2012). The groups of skills included in social awareness, namely assessing other peoples' differences, understanding and taking their viewpoints, taking care of them, showing compassion and consideration, sympathy and empathy with the experiences with the emotion of other people (Beamish and Bryer 2015). Meanwhile, individuals' flexibility, behavioral change, and adaptation

are elements of social awareness that vary depending on the situation (Davidson 2011). Furthermore, social awareness has a critical aspect; the ability to comprehend the issues around the world and the feelings of other individuals under different circumstances (Bruce 2010). It can be seen as an alternative to moral obligation used in Hockerts (2017). Thus, the study proposed:

- Social awareness has a significant relationship with social entrepreneurship intention.

2. "Prior Experience with Social Organizations" is substituted with "Prior Entrepreneurship Experience". The proposition for this is that entrepreneurship experience provides individuals with insights that can be more conducive for forming entrepreneurial ideas for social needs, i.e., social entrepreneurship ideas and leading to intent, as seen in (Zappe et al. 2012). It was presented that the prior experience of individuals will influence intention (Ardichvili et al. 2003). Davidsson and Honig (2003) also concluded that entrepreneurial intention could be influenced by another type of prior entrepreneurship experience. Prior entrepreneurship experience, such as knowledge of markets, customer issues, and customer service knowledge, would affect the exploration of opportunities by individuals, thus influencing their entrepreneurial intention (Shane 2013). Thus, the study proposed:

- Prior entrepreneurship experience has a significant relationship with social entrepreneurship intention.

3. Thirdly, this study introduced cosmopolitanism as a possible antecedent determining social entrepreneurship intention. Cosmopolitanism is a set of values that includes attitudes, behaviors, and practices, one of which is society's openness to entrepreneurship (Kendall et al. 2009). Douzinas (2007) suggested cosmopolitan entrepreneurs as showing similar behaviors, personalities, and high levels of adaptability as they move quickly from one place to another and benefit from a favorable environment to do business. One of cosmopolitanism's essential features is the positive attitude towards global protection of the environment, human rights, aesthetics, consumption, and social diversity (Woodward et al. 2008). In addition, cosmopolitan values involve social inclusion and tolerance (Jack et al. 2004; Honig et al. 2010). It can be said that cosmopolitanism is the subscription to the notion that all human beings belong to a single community based on shared morality, which forms a relationship of moral aspects that leads to the mindset of global citizenship which puts the interest and values of all mankind above the interest of separate nation and state. Based on the points highlighted, it is believed that cosmopolitanism can also be a factor that influences the formation of social entrepreneurship intention in an individual. Specifically, such orientated individuals might have a higher predisposition towards social entrepreneurship. Thus, it is proposed:

- Cosmopolitanism has a significant relationship with social entrepreneurship intention.

4. Next, this study introduced cultural intelligence as another possible antecedent determining social entrepreneurship intention. In the development of entrepreneurial intention, culture plays a significant role. Cultural intelligence is the ability of individuals to function effectively in culturally diverse environments (Van Dyne et al. 2008) and be able to handle and operate effectively in these situations (Ang et al. 2015). Thus, cultural intelligence can be seen as an ability that can contribute towards better performance when an individual seeks to address societal issues via social entrepreneurship. Cultural intelligence's motivational dimension is presumed to indicate a person's ability to focus his attention and energy on understanding and functioning in a cross-cultural context. Meaning, someone with highly motivated cultural intelligence could adapt to tasks involving global or cross-cultural aspects (Templer et al. 2006). An individual with high cultural intelligence has adequate knowledge about similarities and differences across cultures.

- In the social entrepreneurship context, entrepreneurs may need to solve social issues from different cultures, such as helping refugees or engaging with different ethnicities for heritage conservation, educating others for cultural preservation, and many more. Thus, cultural intelligence is seen as another dimension that can influence the formation of social entrepreneurship intention in an individual. Precisely, someone who is culturally intelligent might be more inclined towards social entrepreneurship. Thus, it is proposed:
- Cultural intelligence has a significant relationship with social entrepreneurship intention.

5. Next, this study explores the moderating role of gender. Gender is one of the most commonly studied demographic factors correlated with the desire of a person to become an entrepreneur. Kolvereid (1996) discovered that men have higher entrepreneurial intentions than women. However, according to the survey done by Thomson Reuters in 2016, females were recorded as having a higher intention to be social entrepreneurs. Thus, it is deemed beneficial to explore the possible differences according to gender in the context of this study for better insights.

The resulting research framework (see Figure 1) consists of the following independent variables—Empathy (EMP), Self-Efficacy (SE), Perceived Social Support (PSS), Social Awareness (SA), Prior Entrepreneurship Experience (PEE), Cosmopolitanism (CSM), and Cultural Intelligence (CQ). The dependent variable for this study is: Social Entrepreneurship Intention (SEI). Plus, Gender is a moderator.

Based on the proposed research framework, the following are the finalized hypotheses tested in this study;

H1. *EMP significantly relates to SEI.*

H2. *SA significantly relates to SEI.*

H3. *SE significantly relates to SEI.*

H4. *PSS significantly relates to SEI.*

H5. *PEE significantly relates to SEI.*

H6. *CSM significantly relates to SEI.*

H7. *CQ significantly relates to SEI.*

H8a. *Gender moderates significantly the relationship between EMP and SEI.*

H8b. *Gender moderates significantly the relationship between SA and SEI.*

H8c. *Gender moderates significantly the relationship between SE and SEI.*

H8d. *Gender moderates significantly the relationship between PSS and SEI.*

H8e. *Gender moderates significantly the relationship between PEE and SEI.*

H8f. *Gender moderates significantly the relationship between CSM and SEI.*

H8g. *Gender moderates significantly the relationship between CQ and SEI.*

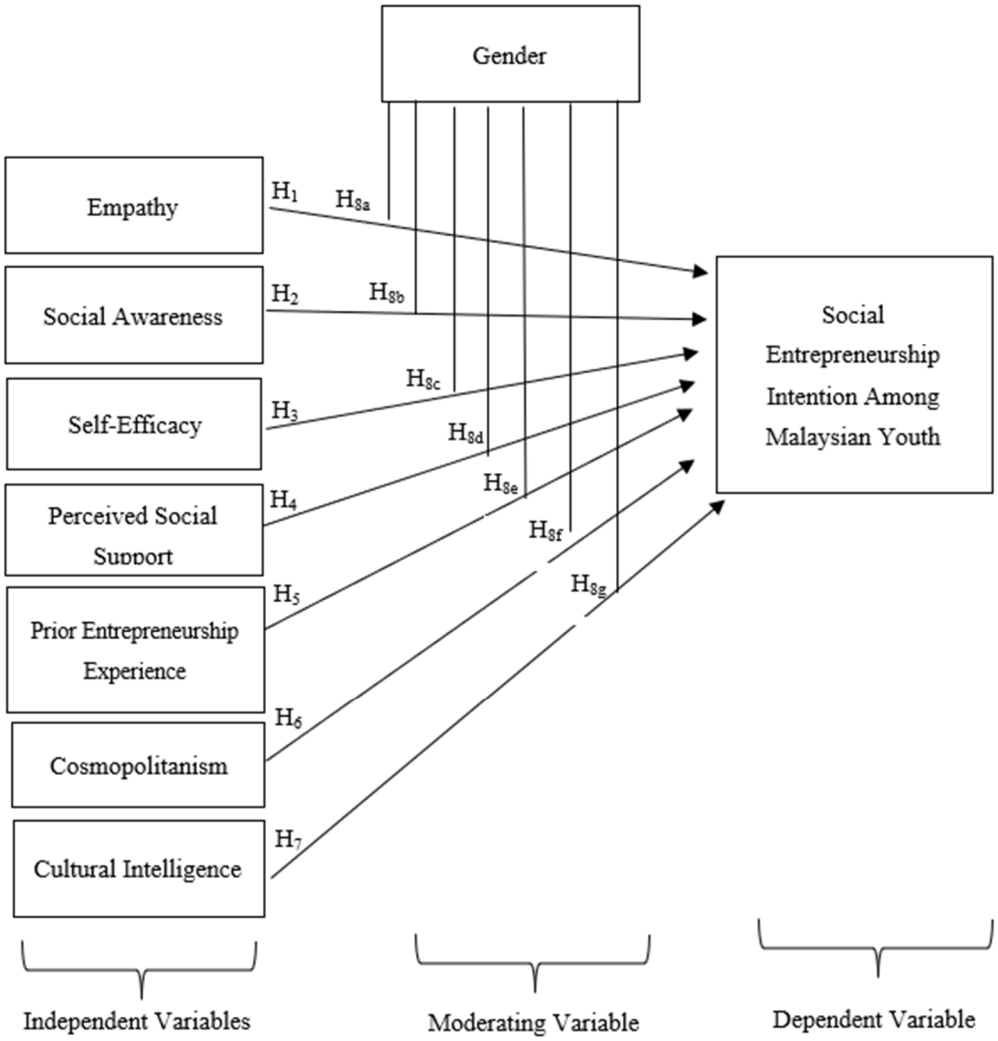

Figure 1. Research framework.

3.2. Research Methodology

The research design adopted for this research is a quantitative study. To collect data for the given research objectives, an online survey was created based on the research framework. The online survey was distributed to students in Malaysia's higher learning institutions. There are nine sections in the survey. The first section comprises the respondents' demographic data, while the remaining sections comprise the framework's constructs, namely EMP, SA, SEE, PSS, PEE, CSM, CQ, and SEI. The survey's items are measured using a 5-point Likert scale (Kothari 2008). Purposive sampling was chosen as the sampling technique since it was not possible to establish a sampling frame for the target population. Specifically, the unit of analysis was individuals who met the following inclusion criteria: individuals in the youth category (The National Youth Development Policy (NYDP) 1997 defines youth as individuals between 15–40 years[9]) and enrolled in a Malaysian institution of higher learning (enrolment is normally from the age of 18 onwards[10]), thus the target age range is 18 to 40. Google Forms was used to distribute the online survey to the target respondents. This encouraged the respondents to finish the survey and helped to ensure that it was easy for respondents to access. As for the data analysis, the 14 hypotheses proposed were analyzed using SmartPLS software. The results are presented and discussed in the next section.

3.2.1. Determining the Sample Size

The G*Power application 3.1.9.2 version was used to determine the recommended sample size for this research. The "Linear Multiple Regression: Fixed model, R2 deviation from zero" procedure provides power analyses for omnibus F-tests of the null hypothesis of multiple square relationships among a dependent variable and several predictor variables (Rindskopf 1984), and according to the research framework (Figure 1) there are seven predictors for this study. The sample size required for a priori analysis is generated using user-specified values for the acceptable level of significance (a), desired statistical power (1-b), and the population effect size to be identified (Bredenkamp 1969; Cohen 1988). This effect size used in the analysis reveals that in a test based on a = 0.05, a sample size of n = 153 is required to reach a power of 0.95. Some researchers argue that it might be problematic in analyzing a sample that is primarily made up of students and not actual entrepreneurs. However, since this study is to determine the social entrepreneurship intention and not actual behavior, this study considers the sample of students to be particularly suitable to illustrate the hypothesized relationships. This is in line with several prior works (Kuckertz and Wagner 2010; von Arnim and Mrozewski 2020; Dragin et al. 2022).

3.2.2. Longitudinal Design and Data Collection Periods

COVID-19 has impacted numerous countries and territories around the world, causing many countries to close their national borders immediately and restrict the movement of people to curb the unprecedented global health crisis in public health history. As of 5 December 2022, World Health Organization (WHO)[11] reported 641,435,884 confirmed cases of COVID-19, and more than 6 million deaths were recorded worldwide. Many agree that the disease will not disappear any time soon. The disease is seen as becoming endemic in most countries around the globe[12]. The impacts are not only towards physical health but also on mental health and socioeconomic well-being. It is important to explore the implications the COVID-19 pandemic has had on various aspects of life. Thus, this research adopted the longitudinal study in order to investigate the effects of the pandemic towards social entrepreneurship intention among youth in Malaysian institutions of higher learning.

Specifically, this research applied a quantitative approach and longitudinal study which is a correlative research technique that facilitates identifying the relationship between variables in a specific target population. In a longitudinal study, variables are observed over a period of time, and any changes in how they relate are recorded. Data collection was done by a fixed set of variables at regular but distant intervals, which can span several years using data collection methods such as surveys (Thomas 2020). Data collection was done twice, pre-COVID19 pandemic and post-COVID19 pandemic. Pre-pandemic data were collected between Q4 2018 and Q2 2019. Meanwhile, post-pandemic data were collected between Q3 2021 and Q1 2022.

3.2.3. Data Collection Strategy

The online survey was administered to the targeted respondents using Google Forms. This helped to ensure ease of access to the survey for the respondents and motivate them to complete it. Using Google Forms also ensured that the responses were automatically stored digitally and avoided any possible data entry errors common when using printed survey forms.

Specifically, the link for the online survey was shared with the researchers' contacts, consisting of students, academics, and officers of entrepreneurship development centers at the institutions. The contacts were encouraged to share the survey to target respondents in their networks. Inclusion criteria were confirmed via demographic questions, namely, age, nationality, and studentship (program and year of study).

The first 35 collected responses were analyzed to verify the reliability of the scales used for the survey. According to Cortina (1993), Cronbach's Alpha above 0.70 is acceptable, 0.80 or greater is preferred, and higher is generally better. The results showed all scales to be acceptable and good with values greater than 0.70. Thus, the survey was deemed

reliable and good for the study. Since no changes were made to the survey, the first 35 responses used for the pilot test were then included as part of the main data analysis for the pre-pandemic dataset.

3.2.4. Survey Instrument

The instrument can be utilized in two ways in the research. The first method is to take the instrument almost entirely without altering it, known as adopting the instrument. Meanwhile, adapting the instrument means making changes to the instrument. This research has used both methods (see Table 2). For the construct SA, the items were developed based on the definitions.

Table 2. Survey instruments.

Construct	Total Items	Items	Source of Items
EMP	6	1–3 4–6	Adopted (Hockerts 2017) Adopted (Mehrabian and Epstein 1972)
SA	12	12	Adapted (Transforming Education 2017)
SE	10	1–2 3–10	Adopted (Hockerts 2017) Adopted (Wilson et al. 2007)
PSS	5	1–2 3–5	Adopted (Hockerts 2017) Adopted (Ayob et al. 2013)
PEE	2	2	Adopted (Razavi and Ab Aziz 2017)
CSM	6	6	Adopted (Saran and Kalliny 2012)
CQ	10	10	Adopted (Thomas et al. 2015)
SEI	11	1–3 4–11	Adopted (Hockerts 2017) Adopted (Ayob et al. 2013)

3.2.5. Analysis Strategy

This research used PLS-SEM to examine the established hypothesis and the proposed research framework as it enabled for the exploration of the relationships between the variables. The two-step PLS-SEM analysis process was employed, namely, the first step is to evaluate the measurement model for its reliability and construct validity, followed by an evaluation of the structural model to test hypothesized relationships. The software used for this research was SmartPLS version 3.0.

To evaluate the measurement model, the reliability was assessed by using Composite Reliability (CR) and Outer Loading, while validity was assessed by Average Variance Extracted (AVE). On the other hand, the evaluation of the structural model was assessed by using structural model path coefficients, coefficient of determination (R^2), and model fit (SRMR and RMS_{theta}). As for the moderation effect, the first step of moderation analysis was done using the product indicator approach in PLS-SEM. The next step was to determine the strength of the moderating effect by using the slope plots. One way to analyze the slope plots is by using the online tools by Prof. Jeremy Dawson for corresponding computations and simple plot extractions. The following section presents the findings.

4. Findings

4.1. Respondents' Profile

A descriptive analysis was conducted to study the respondents' demographic pro-files and verify the inclusion criteria. Table 3 presents the profile of the respondents. Specifically, it presents the profiles of the two sets of respondents, pre-pandemic and post-pandemic.

Table 3. Profile of respondents.

Variables	Pre-Pandemic (n = 277)		Post-Pandemic (n = 209)	
	Frequency	%	Frequency	%
Gender				
Male	168	60.6	99	47.4
Female	109	39.4	110	52.6
Age				
≤17	0	0	0	0
18–19	14	5.1	22	10.5
20–25	243	87.7	164	78.5
26–30	14	5.05	17	8.1
31–35	4	1.45	6	2.9
36–40	2	0.72	0	0
≥41	0	0	0	0
Race				
Chinese	75	27.1	51	24.4
Indian	47	17.0	32	15.3
Malay	150	54.1	119	56.9
Others	5	1.8	7	3.4
Hometown				
Federal Territory of Kuala Lumpur	22	7.9	14	6.7
Federal Territory of Putrajaya	2	0.7	5	2.4
Johor	29	10.5	19	9.1
Kedah	23	8.3	12	5.7
Kelantan	28	10.1	10	4.8
Malacca	9	3.2	20	9.6
Negeri Sembilan	8	2.9	12	5.7
Pahang	20	7.2	10	4.8
Penang	9	3.2	12	5.7
Perak	21	7.6	21	10.0
Perlis	5	1.8	6	2.9
Sabah	4	1.4	5	2.4
Sarawak	3	1.1	4	2.0
Selangor	77	27.8	50	23.9
Terengganu	17	6.1	9	4.3
Program Level				
Certificate	1	0.4	1	0.5
Foundation	8	2.9	15	7.2
Diploma	23	8.3	3	1.4
Degree	226	81.6	157	75.1
Master	17	6.1	22	10.5
PhD	2	0.7	11	5.3
Field of Study				
Architecture	10	3.6	5	2.4
Business and Management	45	16.2	78	37.3
Communication	41	14.8	19	9.1
Creative Multimedia	21	7.6	21	10.0
Engineering and Technology	32	11.6	57	27.3
Information Technology	17	6.1	13	6.2
Science	15	5.4	7	3.3
Others	96	34.7	9	4.4
Year of Study				
1st Year	56	20.2	62	29.7
2nd Year	93	33.6	97	46.4
3rd Year	88	31.8	33	15.8
4th Year	32	11.6	15	7.2
5th Year and above	8	2.9	2	1.0

Table 3. *Cont.*

Variables	Pre-Pandemic (n = 277)		Post-Pandemic (n = 209)	
	Frequency	%	Frequency	%
Higher Learning Institutions				
Heriot-Watt University	6	2.2	2	1.0
Kolej Kemahiran Tinggi Mara	5	1.8	2	1.0
Kolej Matrikulasi	4	1.4	2	1.0
MSU	3	1.1	2	1.0
MMU	47	17.0	86	41.0
Nottingham University	3	1.1	2	1.0
Polytechnic	5	1.8	2	1.0
Sunway University	4	1.4	3	1.4
UCSI	3	1.1	2	1.0
UITM	102	36.8	3	1.4
UM	7	2.5	5	2.2
UMK	44	15.9	33	15.7
UNITAR	3	1.1	2	1.0
UPM	3	1.1	53	24.3
USM	3	1.1	2	1.0
UTEM	10	3.6	2	1.0
UTHM	13	4.7	2	1.0
UTEM	10	3.6	2	1.0
Xiamen University	2	0.7	2	1.0
Household Monthly Income				
≤MYR 2500	113	40.8	76	36.4
MYR 2501–MYR 5000	81	29.2	57	27.3
MYR 5001–MYR 7500	30	10.8	32	15.3
≥MYR 7501	53	19.1	44	21.1
Recipient of Bantuan Sara Hidup Rakyat				
Yes	132	47.7	84	40.2
No	145	52.3	125	59.8

The pre-pandemic dataset has a total of 277 respondents, the majority 168 (60.6%) respondents were male and 109 (39.4%) were female. Next, 243 (87.7%) respondents were between 20–25 years old and all were between 18–40 years old. Other than that, 226 (81.6%) respondents were enrolled in bachelor's degree programs. Second-year is the mode for the "Year of Study" category with 93 (33.6%) of the respondents. Additionally, all respondents were enrolled in a program in an institution of higher learning. Thus, the inclusion criteria were met. Interestingly, 113 (40.8%) respondents reported monthly household income of RM 2500 and below. This places them around the nation's RM 2208 household monthly income poverty line. Furthermore, 132 (47.7%) reported having received the government cost-of-living financial assistance scheme (Bantuan Sara Hidup Rakyat).

The post-pandemic dataset has a total of 209 respondents, 110 (52.6%) respondents were female and 99 (47.4%) were male. Similarly, most of the respondents (78.5%) were between 20–25 years old, enrolled in bachelor's degree programs (75.1%), and most of the respondents (46.4%) were in their second year of study. It was confirmed that the second dataset also satisfied the inclusion criteria. Additionally, a significant number of the respondents' (36.4%) monthly household income were RM 2500 and below. Lastly, the majority of the respondents (59.8%) were not recipients of the cost-of-living financial assistance scheme.

Table 4 shows the result of the social entrepreneurial intention level among the Top 3 institutions with the highest number of respondents and the descriptive statistics of the constructs. The result revealed that UITM students have the highest level of social entrepreneurship intention for Pre-Pandemic while UPM students have the highest level of social entrepreneurial intention for Post-Pandemic. Overall, the samples indicated moderate levels of SEI and there is an increase in SEI after the pandemic.

Table 4. Social entrepreneurship level.

HLI	Pre-Pandemic		HLI	Post-Pandemic	
	Frequency	SEI Mean		Frequency	SEI Mean
UITM	102	3.52	MMU	86	3.12
MMU	47	3.23	UPM	53	3.70
UMK	44	3.43	UMK	33	3.59
Descriptive Statistics					
Constructs	**Pre-Pandemic (n = 277)**		**Post-Pandemic (n = 209)**		
	Mean		**Mean**		
EMP	3.81		3.90		
SA	3.74		4.09		
SE	3.66		3.68		
PSS	3.54		3.63		
PEE	3.37		3.55		
CSM	4.28		4.23		
CQ	4.00		4.03		
SEI	3.78		3.99		

4.2. PLS-SEM

The analysis was done using PLS-SEM since the objective is to predict key target constructs and the research is an exploratory extension of an existing structural model. The analysis was assessed using SmartPLS 3 software. Two evaluations were assessed: first, the reflective measurement models using internal consistency reliability, convergent validity, and discriminant validity. Second, the evaluation of the structural model using structural model path coefficients, coefficient of determination, and model fit. Figure 2 shows the structural model used in PLS-SEM for this study.

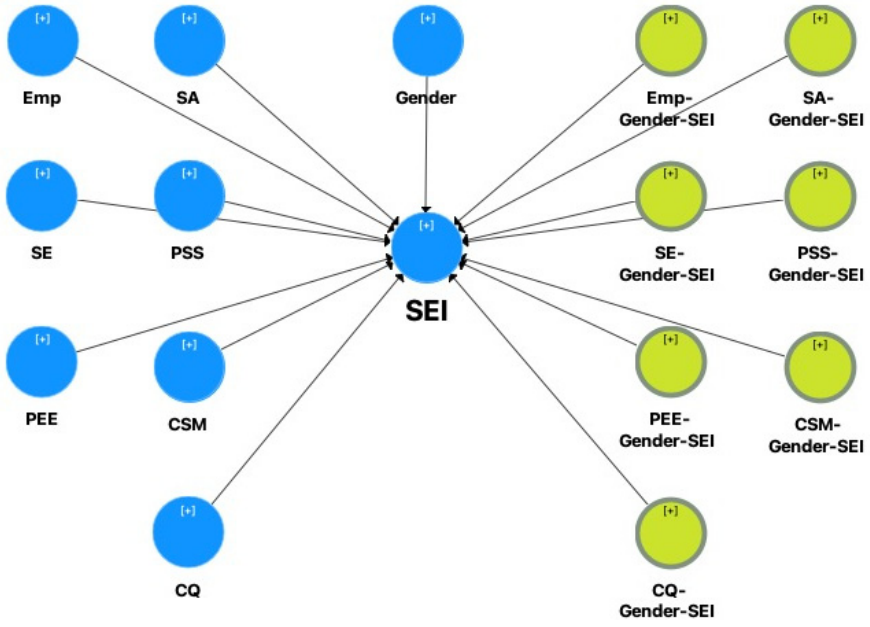

Figure 2. Structural model.

4.2.1. Reflective Measurement Model

The reliability was assessed by using Composite Reliability (CR) and Outer Loading, while validity was assessed by Average Variance Extracted (AVE). The measurement model was assessed using SmartPLS 3.0. The composite reliability scale is from 0 to 1, with a higher value indicating greater reliability. Composite reliability values must be more than 0.7 to achieve measurement model internal consistency reliability (Hair et al. 2017b). Referring to Table 5, the CR values for all constructs are above 0.70, which exceeds the threshold value of 0.7. Additionally, loading values 0.7 and above are deemed acceptable (Hair et al. 2017b). Referring to Table 5, all loading values are above the threshold value of 0.7, hence no removal of items was required. The AVE threshold value is 0.5 (Hair et al. 2022) and Table 5 shows the AVE of the reflective constructs are greater than the threshold of 0.5, fulfilling the convergent validity, meaning the measurements (indicators) and variables are valid to be used in this model.

Table 5. Reflective measurement model.

Construct	Item	Pre-Pandemic (n = 277)			Post-Pandemic (n = 209)		
		Loadings	AVE	CR	Loadings	AVE	CR
EMP	1	0.738	0.589	0.896	0.721	0.557	0.883
	2	0.769			0.752		
	3	0.809			0.726		
	4	0.744			0.775		
	5	0.784			0.783		
	6	0.756			0.717		
SA	1	0.707	0.571	0.941	0.795	0.592	0.946
	2	0.795			0.752		
	3	0.754			0.821		
	4	0.719			0.710		
	5	0.716			0.749		
	6	0.739			0.780		
	7	0.809			0.814		
	8	0.838			0.764		
	9	0.805			0.780		
	10	0.704			0.716		
	11	0.736			0.762		
	12	0.731			0.781		
SE	1	0.722	0.549	0.924	0.705	0.564	0.928
	2	0.749			0.723		
	3	0.756			0.761		
	4	0.703			0.755		
	5	0.771			0.778		
	6	0.722			0.756		
	7	0.704			0.720		
	8	0.747			0.764		
	9	0.730			0.749		
	10	0.798			0.791		
PSS	1	0.805	0.606	0.885	0.801	0.687	0.916
	2	0.821			0.867		
	3	0.733			0.844		
	4	0.703			0.836		
	5	0.824			0.794		

Table 5. *Cont.*

Construct	Item	Pre-Pandemic (n = 277)			Post-Pandemic (n = 209)		
		Loadings	**AVE**	**CR**	**Loadings**	**AVE**	**CR**
PEE	1	0.841	0.704	0.826	0.773	0.657	0.793
	2	0.837			0.847		
CSM	1	0.822	0.667	0.923	0.796	0.642	0.915
	2	0.782			0.807		
	3	0.832			0.772		
	4	0.817			0.842		
	5	0.819			0.850		
	6	0.825			0.734		
CQ	1	0.770	0.599	0.937	0.772	0.633	0.945
	2	0.704			0.737		
	3	0.732			0.759		
	4	0.789			0.796		
	5	0.786			0.781		
	6	0.764			0.795		
	7	0.765			0.807		
	8	0.820			0.841		
	9	0.808			0.815		
	10	0.792			0.846		
SEI	1	0.766	0.776	0.974	0.772	0.803	0.978
	2	0.840			0.885		
	3	0.891			0.863		
	4	0.874			0.903		
	5	0.916			0.912		
	6	0.888			0.898		
	7	0.895			0.914		
	8	0.906			0.920		
	9	0.905			0.928		
	10	0.910			0.937		
	11	0.890			0.916		

By empirical standards, the measure to which a construct differs from other constructs is known as discriminant validity. Thus, a construct is different from each other in the model and framework and also describes phenomena that other constructs do not, as suggested by the discriminant validity. The discriminant validity analysis in this research will be assessed by the criterion suggested by Fornell-Larcker. The criteria by Fornell-Larcker compares the reflective measured variables' relationship to the square root of the AVE values. Referring to the result in Tables 6 and 7, the square root of the AVE for both pre and post-pandemic for the reflective measured variables EMP, SA, SE, PSS, PEE, CSM, CQ, and SEI in the path model are higher than their relationships with other lantern variables, which shows that they are a valid measure of a unique concept for all constructs.

Table 6. Pre-pandemic inter-correlation matrix.

	EMP	SA	SE	PSS	PEE	CSM	CQ	Gender	SEI
EMP	**0.767**								
SA	0.521	**0.715**							
SE	0.449	0.687	**0.730**						
PSS	0.382	0.384	0.538	**0.778**					
PEE	−0.013	0.054	0.141	0.077	**0.839**				
CSM	0.558	0.401	0.401	0.304	0.031	**0.817**			
CQ	0.518	0.526	0.504	0.419	0.021	0.672	**0.774**		
Gender	0.023	0.032	0.148	0.145	−0.079	−0.090	0.025	**1.000**	
SEI	0.240	0.337	0.540	0.401	0.106	0.117	0.244	0.081	**0.881**

Table 7. Post-pandemic inter-correlation matrix.

	EMP	SA	SE	PSS	PEE	CSM	CQ	Gender	SEI
EMP	**0.746**								
SA	0.653	**0.769**							
SE	0.614	0.727	**0.751**						
PSS	0.545	0.614	0.634	**0.829**					
PEE	0.107	0.076	0.201	0.133	**0.811**				
CSM	0.483	0.572	0.508	0.390	0.008	**0.801**			
CQ	0.547	0.669	0.692	0.529	0.088	0.691	**0.796**		
Gender	−0.088	0.030	0.154	0.145	−0.079	−0.090	0.025	**1.000**	
SEI	0.391	0.448	0.549	0.563	0.220	0.269	0.470	0.081	**0.896**

4.2.2. Structural Model Evaluation

Hypotheses Testing

The analysis of relationships between EMP, SA, SEE, PSS, PEE, CSM, CQ, with SEI is represented in Table 8. For two-tailed tests, the *p*-value is 5% (Hair et al. 2017b). *p*-values test the probability of an error occurring. As an example, for an exploratory study, a *p*-value of 10% significance level is recommended. However, in this study, the researcher used a *p*-value of 5% significant level, which is usually used in social science studies (Hair et al. 2017b). It was found that the relationships between SA, SE, PEE, and CSM with the dependent variable SEI are significant for both samples. Thus, H2, H3, H5, and H6 are supported for both periods. EMP and CQ relationships towards SEI were found not significant pre and post-pandemic. H1 and H7 are not supported. Next, PSS was found to not have a significant relationship with SEI for pre-pandemic. However, the result shows the relationship to be significant post-pandemic. Thus, H4 is not supported pre-pandemic but it is supported for the post-pandemic dataset.

Table 8. Hypotheses testing.

H	Construct	Pre-Pandemic (n = 277)			Post-Pandemic (n = 209)		
		p-Values	T-Values	Hypothesis	*p*-Values	T-Values	Hypothesis
1	EMP → SEI	0.201	0.836	Not Supported	0.420	0.484	Not Supported
2	SA → SEI	* 0.048	2.663	Supported	* 0.046	2.493	Supported
3	SE → SEI	* 0.000	2.456	Supported	* 0.039	2.334	Supported
4	PSS → SEI	0.079	1.409	Not Supported	* 0.000	2.075	Supported
5	PEE → SEI	* 0.048	2.668	Supported	* 0.025	2.370	Supported
6	CSM → SEI	* 0.024	2.984	Supported	* 0.048	2.873	Supported
7	CQ → SEI	0.470	0.076	Not Supported	0.358	1.518	Not Supported
8	Gender → (EMP → SEI)	0.348	0.390	Not Supported	0.378	0.639	Not Supported
9	Gender → (SA → SEI)	* 0.038	2.776	Supported	* 0.029	2.370	Supported
10	Gender → (SE → SEI)	* 0.028	2.911	Supported	0.233	1.594	Not Supported
11	Gender → (PSS → SEI)	0.278	0.589	Not Supported	0.336	0.534	Not Supported
12	Gender → (PEE → SEI)	* 0.017	2.118	Supported	* 0.021	2.050	Supported
13	Gender → (CSM → SEI)	0.382	0.299	Not Supported	0.247	0.154	Not Supported
14	Gender → (CQ → SEI)	0.323	0.460	Not Supported	0.146	0.560	Not Supported

* 95% Significance Level (*p*-Value $\leq$ 0.05).

Table 8 also shows the results of the moderation effect between the independent and dependent variables (H8–H14). Gender was found to consistently have significant moderating effects on the relationships between SA with SEI and PEE with SEI, respectively. Thus, H9 and H12 are supported in both periods. Contrastingly, gender was found to have no significant moderating effects both pre and post-pandemic for the relationships between EMP, PSS, CSM, and CQ with the dependent variable SEI. H8, H11, H13, and H14 are not supported according to the findings from both samples. Lastly, gender was found to have a significant moderating effect on the relationship between SE with SEI pre-pandemic. However, this is not true for the post-pandemic data. Thus, H10 is only supported for pre-pandemic and not supported for post-pandemic.

Additionally, for the moderation analysis (H8–H14), the direct effects and total effects values are reported in Table 9. There is no indirect effects value to be reported as this research only explored gender's moderating role and no mediator was suggested. In particular, the moderation analysis is done using the product indicator approach in PLS-SEM. Since the moderator in this study is gender, i.e., binary moderator, thus the product indicator approach is one of the commonly recommended analysis techniques (Fassott et al. 2016) as it enables us to calculate interaction effects. This approach involves multiplying each indicator of the exogenous latent variable with each indicator of the moderator variable. When interpreting the results of a moderation analysis, the primary interest is in the significance of the interaction effect. If the interaction effect on the endogenous construct is significant, we can conclude that the moderator variable tested has a significant moderating effect on the relationship between the independent and dependent variables.

Table 9. Direct and total effects.

H	Construct	Pre-Pandemic (n = 277)			Post-Pandemic (n = 209)		
		Direct Effects	Indirect Effects	Total Effects	Direct Effects	Indirect Effects	Total Effects
8	Gender → (EMP → SEI)	−0.092	-	−0.092	−0.076	-	−0.076
9	Gender → (SA → SEI)	0.508	-	0.508	0.396	-	0.396
10	Gender → (SE → SEI)	−0.542	-	−0.542	−0.492	-	−0.492
11	Gender → (PSS → SEI)	0.157	-	0.157	0.137	-	0.137
12	Gender → (PEE → SEI)	−0.193	-	−0.193	−0.191	-	−0.191
13	Gender → (CSM → SEI)	0.077	-	0.077	0.039	-	0.039
14	Gender → (CQ → SEI)	0.139	-	0.139	0.165	-	0.165

When there are significant moderation effects indicated from the analysis using the product indicator approach in PLS-SEM, the next step is to determine the strength of the moderating effect. A common way to illustrate the results of a moderation analysis is by slope plots. One way to analyze the slope plots is by using the online tools by Prof. Jeremy Dawson[13] for corresponding computations and simple plot extractions. The tools were developed based on the procedures for plotting interaction effects by Aiken et al. (1991), Dawson (2014), and Dawson and Richter (2006).

Slope plots were generated for the three significant moderation hypotheses (H9, H10, and H12). First, Table 10 presents the Sample Mean (M) values derived from the product indicator approach in PLS-SEM. Then, using the values, the slop plots of the interaction effects are produced. Figures 3–5 present the slope plots for the three significant hypotheses. Figures 3 and 4 show the moderation effect for the pre and post-pandemic for SA and PEE. Meanwhile, Figure 5 shows the moderation effect for the pre-pandemic for SE.

Table 10. Sample mean values.

Construct	Pre-Pandemic (n = 277)	Post-Pandemic (n = 209)
	Sample Mean (M)	Sample Mean (M)
SA *(Independent Variable)*	−0.145	0.114
SE *(Independent Variable)*	0.583	-
PEE *(Independent Variable)*	0.111	0.471
Gender → SEI *(Moderator)*	−0.102	−0.192
Gender → (SA → SEI) *(Interaction)*	0.629	0.397
Gender → (SE → SEI) *(Interaction)*	−0.661	-
Gender → (PEE → SEI) *(Interaction)*	−0.143	−0.353

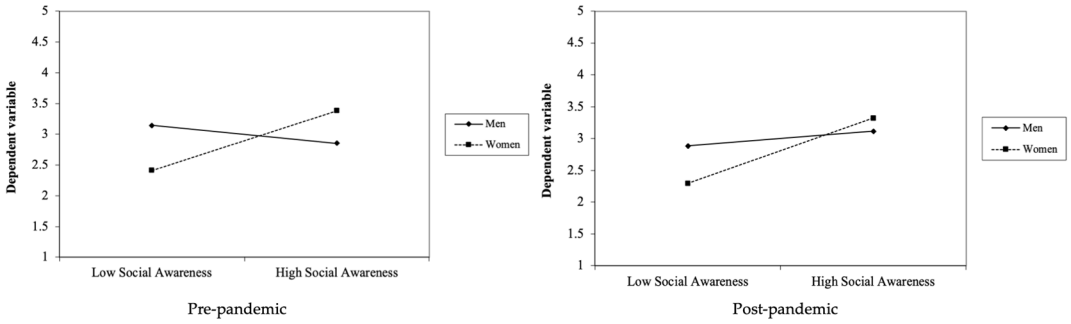

Figure 3. Social awareness moderation effect.

Figure 4. Prior entrepreneurship experience moderation effect.

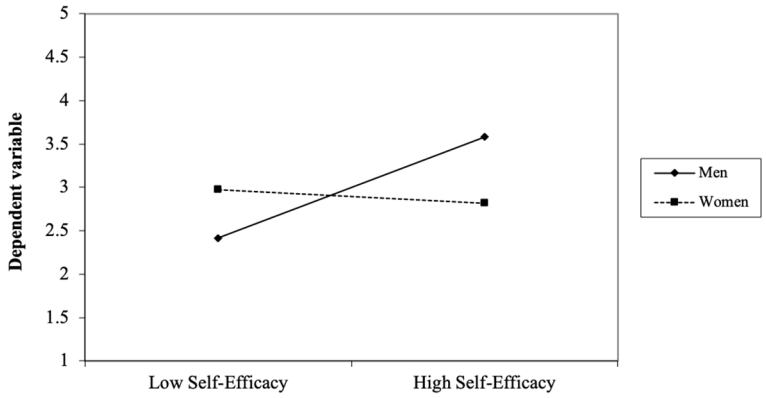

Figure 5. Self-efficacy moderation effect (pre-pandemic).

Coefficients of Determination (R^2)

The coefficient represents the sum of the exogenous and endogenous latent factors' impacts on the endogenous latent variable. The coefficient indicates the amount value of variance in the endogenous constructs. Thus, all correlated exogenous constructs provide an understanding of the findings. The R^2 ranges from 0 to 1, with higher values indicating a greater explanatory power. According to Hair et al. (2011), the R^2 values are divided by three threshold values, namely 0.75 indicates substantial, 0.50 indicates moderate, and 0.25 indicates weak. Thus, as shown in Table 11, the prediction power of the endogenous variable Social Entrepreneurship Intention pre and post-pandemic is 0.527 and 0.519, indicating the model consistently has moderate explanatory power.

Table 11. Coefficients of determination (R^2).

Variable	Pre-Pandemic (n = 277)		Post-Pandemic (n = 209)	
	R^2	Predictive Power	R^2	Predictive Power
SEI	0.527	Moderate	0.519	Moderate

Model Fit

Model fit indices SRMR and RMS_{theta} are used to determine the goodness-of-fit for the models. For SRMR, a satisfactory fit is commonly defined as a value of less than 0.08, but a value less than 0.10 also can be deemed acceptable (Hu and Bentler 1998). The root means square residual covariance RMS_{theta} is another model fit measure that works similarly to SRMR but uses covariances. The threshold value for RMS_{theta} is 0.12, which means values below 0.12 represents a model that is a perfect fit. However, according to Henseler et al. (2014), to indicate a good model fit, the measure should be close to 0, implying that the correlations between the outer model residuals are minor. Referring to Table 12, the result shows that the model fit values are below the threshold suggested for both SRMR and RMS_{theta}. Thus, the models are deemed to have a good fit for both pre and post-pandemic.

Table 12. Model fit indices.

Model Fit	Pre-Pandemic (n = 277)	Post-Pandemic (n = 209)
	Value	Value
SRMR	0.068	0.076
RMS_{theta}	0.115	0.117

However, some experts cautioned, for PLS-SEM, goodness-of-fit indices are not suitable for model validation (Henseler and Sarstedt 2013; Hair et al. 2017a, 2017b). Model estimate causes a discrepancy in PLS-SEM results, which aims to maximize the endogenous construct(s) variance. More study is needed since there is yet too little knowledge about the behavior of these indicators across a wide range of data and model combinations. Nevertheless, it was stated that for a "path model that only includes reflectively measured constructs (i.e., common factor models), one may be interested in the model fit."[14]

5. Discussion

Four antecedents, namely SA, SE, PEE, and CSM, were found to be significantly related to SEI both pre and post-pandemic. These can be taken as key determinants for SEI among youth in Malaysian institutions of higher learning. SA is one of the new variables added to the model as an alternative to replace "Moral Obligation" in Hockerts (2017). The findings confirmed the proposition that SA is a suitable alternative for moral obligation. SA is the ability to understand the issues around the world and the feelings of other individuals under different circumstances. This awareness then may positively impact social behavior. SA also suggests an appreciation of the issues and concerns of others, thus this may compel action to assist. This can be seen as particularly true for the youth nowadays because they are social media natives and hyper-networked, which increases the opportunity for them to be aware of the social issues and happenings around them. Next, SE was found to be another significant determinant for SEI. This finding is in line with a number of prior works (Mair and Noboa 2006; Hockerts 2017; Kedmenec et al. 2015). SE measures a person's belief that individuals can help solve societal issues. Thus, SE encourages a person to see the formation of a social venture as a feasible choice, which significantly affects the creation of the associated behavioral intention. Thirdly, PEE was found to be a significant predictor for SEI. Originally, Hockerts (2017) added prior experience with

social problems as the new variable in his research framework. This study proposed PEE as the substitute for Hockert's because it is suggested that it will be a stronger motivator for SEI (Shane 2013). The results confirmed this proposition. This finding is consistent with Quan (2012). This suggests that practical experiences, such as venturing into business and involvement in entrepreneurship training or workshops, will influence an individual's intention to be a social entrepreneur. Other than that, experiences gained by association when one is surrounded by those with an entrepreneurial mindset and engaging with entrepreneurs also influence an individual's intention to be a social entrepreneur. Lastly, CSM also was found to significantly relate to SEI. CSM is another new variable added to the framework in this research. Cosmopolitanism measures a person's behaviors, attitudes, and adaptability, whether he or she moves easily from one location to another and benefits from a favorable business environment. CSM has proven to be an effective driver of economic growth and active entrepreneurship (Mouraviev and Kakabadse 2021). This would be the same for entrepreneurial ventures that are socially focused. Cosmopolitan entrepreneurs are adaptable since they may move with agility from one place to another, exploiting and profiting from each business ecosystem. Therefore, dynamic cosmopolitan individuals can be a key factor in becoming social entrepreneurs because they can adapt to various environments, situations, or needs and do things differently. This shows that if we ensure our youth are open to the world's vast human diversity in terms of language, ethnicity, customs, interests, and orientations, they will have a better propensity to form social entrepreneurship intentions. The results confirmed CSM as a key determinant for SEI among youth in Malaysian institutions. This also can be attributed to them mostly being social media natives and hyper-networked which promotes CSM orientation.

Contrary, two of the tested antecedents, EMP and CQ, were found to be not significantly related to SEI in both periods. The findings for H1 are consistent with Ernst (2011), who found that EMP had no effect on a respondent's attitudes toward creating a social enterprise and had no relationship with it. Moreover, this hypothesis result is also consistent with Rashid et al. (2018), where EMP was found to have no significant relationship with SEI. Critical or major life events often trigger empathy (Stephan and Drencheva (2017), specifically, when individuals with specific sensitivity and connection to a target group are moved by something, they are more likely to take action (Lambrechts et al. 2020). Arguably, youth are yet to live long enough for them to experience critical life events that could trigger such emotions. Next, Cultural Intelligence or CQ is the last new variable added in this research. CQ was found yet to be explored in the context of social entrepreneurship. Since Malaysia is a multicultural nation, a rich melting pot of different races, ethnic groups, religions, cultures, and lifestyles, it was believed to be an important factor to study. However, the results indicated that CQ is not a significant determinant for SEI. Probably, CQ did not influence youth in Malaysia towards social entrepreneurship intention because they no longer view the Malaysian society as a diverse group but instead, they hold a unified view of one Malaysia. This unity campaign had been a major feature of the government policies over the past decade (Ismail and Ahmad 2014; Mustapha et al. 2014), designed to promote racial harmony and avoid the unrest experienced before[15]. The youth studied are of the generations which grew up with the policies and campaigns and thus are more likely to have such unified view. The unified view may have led to less emphasis on knowing and understanding the differences, i.e., lower CQ. Probably, the orientation is more toward acting and assisting, as one and in unity instead of helping others according to race, religion, and culture. However, further research may be needed to first determine the levels of CQ among Malaysian youth.

Interestingly, PSS was found to be not significant pre-pandemic but a significant determinant for SEI post-pandemic. Previous work by Mair and Noboa (2006) and Hockerts (2017) both found that social entrepreneurship intention to be highly impacted by perceived social support. Before COVID-19, social entrepreneurship in Malaysia was still a relatively new concept, thus, there might be a perceived lack of strong social support encouraging youth in Malaysia towards social entrepreneurship. However, things may have changed

during the pandemic and due to the various impacts, including the enforced lockdowns as well as other preventive measures. Specifically, Malaysia's response to COVID-19, in general, is like the rest of the world, with the healthcare system focusing on combating the surge of cases, lockdowns, or movement control orders to reduce risks of exposure and spread. However, a close look will show a chaotic picture of confusing SOPs and strategies[16]; political turmoil[17]; suffering and dissatisfaction among the people[18]. The government was criticized[19], from within and the international community. One of the significant outcomes during the period is the "kita jaga kita" movement[20], which basically means the people are the ones that will look after themselves (Kasri and Ismail 2022). Numerous, private initiatives and organizations were initiated as part of this movement to assist the community facing challenges and impacts of the pandemic. There is even a matching app or a "kita jaga kita" marketplace (https://kitajaga.co/, 17 December 2022) created by the team at Terato Tech (https://teratotech.com/, 17 December 2022). This can be seen as in line with the giving back to society sentiment central to social entrepreneurship. Basically, it can be said that the PSS for social entrepreneurship is much clearer and higher post-pandemic. Thus, the youth studied, are likely to perceive strong social support from their surroundings towards social entrepreneurship and thus promote better SEI.

The analysis of gender's moderating effect towards the relationships tested indicated that gender significantly moderates the relationships of both SA and PEE to SEI, respectively, in both samples. Specifically, females show a higher intention to be social entrepreneurs when their social awareness is higher. This result aligns with Thomson Reuters Foundation (2016) research, which identified that most social entrepreneurs are female. Furthermore, according to Queller (1997), females were found to be more likely to provide care than their male counterparts. Next, the results showed that males recorded higher intention to be social entrepreneurs when their PEE is high. Males often are risk-takers and prefer to learn through experience. Unlike females, the more experience they have, the more cautious they become. More experience means more opportunities to perceive the many challenges when establishing a business venture in general and a social enterprise specifically. That is probably why females showed lower intent to start a social enterprise when they have high PEE. Schneider (2017) suggested that females were unlikely to establish a business if they lack fundamental knowledge, but men prefer to learn through experience rather than education. Thus, it can be said that the findings from this study are consistent with the earlier observations.

The results indicated a significant moderating effect by gender towards the relationship between SE with SEI in the pre-pandemic study. However, this was no longer the case for the post-pandemic data. Pre-pandemic, males showed high SEI when their SE is higher. This suggests that pre-pandemic, male youth appear to have more confidence in their ability to start businesses than female youth. Post-pandemic, gender no longer significantly moderates the relationship. Suggesting SE equally affects SEI in both female and male youth of Malaysian higher learning institutions. Possibly, the experiences during the pandemic have let youth, both female and male, see that all they need is confidence in their abilities to achieve what they set their minds to. This can be linked to the "kita jaga kita" movement highlighted earlier. Finally, gender was found to not have any significant moderating effect towards the relationships of EMP, PSS, CSM, and CQ with the dependent variable SEI in both periods. Qualitative data, i.e., interviewing some of the target respondents may provide better insights that can help explain the findings.

6. Conclusions

This research has adapted the theoretical framework by Hockerts (2017) by proposing four new independent variables: Social Awareness, Prior Entrepreneurship Experience, Cosmopolitanism, and Cultural Intelligence. Furthermore, the longitudinal study highlighted there were changes affected by the pandemic on the dynamics of SEI. The results from this study found that Social Awareness, Self-efficacy, Prior Entrepreneurship Experience, and Cosmopolitanism as key determinants of social entrepreneurship intention

among youth in Malaysian institutions of higher learning. These are recognized as being the key determinants because of their being significant both pre- and post-pandemic.

Researchers can further explore different aspects of the four constructs to gain deeper insights as to how exactly these factors drive the formation of social entrepreneurship intention. Next, this study also found the new variable, cultural intelligence, to not have a significant relationship with youth intention to become social entrepreneurs. Thus, researchers should investigate the aspects and levels of cultural intelligence among youth in Malaysia to better understand their implications for social entrepreneurship. Researchers can further enhance the body of knowledge by exploring other possible variables.

This study also explored the possible moderation effects of gender towards social entrepreneurship intention. It was found that gender has a moderating role in some of the relationships. Researchers are recommended to investigate other possible moderating factors, such as geographical, generational, and socio-economic, to name a few, for better insights into factors that can impact the social entrepreneurship agenda.

In terms of practice, it is recommended for social entrepreneurs to place emphasis on SA, SE, PEE, and CSM characteristics when recruiting members to drive their organizations. Those with high levels of SA, SE, PEE, and CSM will likely have high SEI which can mean highly motivated team members. In terms of training and development, programs that can enhance the members' SA, SE, and CSM would be beneficial to further strengthen their passion to achieve their organizational vision. Moreover, accelerators and incubators are another set of important social entrepreneurship practitioners. They nurture and develop new social enterprises and entrepreneurs. Additionally, enterprises can obtain much-needed funding or grants by participating in accelerator or incubator programs. Thus, the accelerators and incubators can use the findings from this study to re-fine their programs and ensure higher success in producing social entrepreneurs as well as social enterprises. Other important practitioners are the university's entrepreneurship departments that provide entrepreneurship education and promote entrepreneurship activities on the campuses. Given the significance of PEE, efforts should be put in to ensure higher levels of participation in their initiatives among the students. It is also recommended that they offer short introduction courses to guide the students on finding the social and environmental issues that can be solved via social enterprises. Beyond, introductory courses on social entrepreneurship, universities also can offer programs to enhance the students' SA, SE, and CSM.

For policymakers, it is recommended that the Ministry of Higher Education should include social entrepreneurship either as a standalone course to ensure good understanding amongst students on the concept or incorporate it as one of the topics in the existing entrepreneurship syllabus. Furthermore, SA and PEE were found to have a significant relationship with SEI in this research. Thus, including social entrepreneurship in the study syllabus could enhance youth awareness of social and environmental issues happening around them, thus at the same time, enhancing their understanding of the social entrepreneurship concept. In order to enhance CSM among students, it is recommended to include provisions in the various policies on entrepreneurship, social entrepreneurship, education and youth development, which will enable initiatives and programs designed to provide global exposure and experiences. Moreover, the policies should promote collaborations with international partners. It is also recommended that the responsible agencies should provide networking, matching, and knowledge exchange platforms for youth and social entrepreneurs in the country to enhance their cosmopolitanism and self-efficacy.

Lastly, this study has achieved the research objectives, to investigate and discuss the factors affecting SEI among youth in Malaysian higher learning institutions both pre- and post-pandemic. The COVID-19 pandemic impacted not only physical health but also mental health and socioeconomic well-being. It is important to explore the implications the COVID-19 pandemic has had on various aspects of life. This longitudinal study has uncovered the effects of the pandemic towards social entrepreneurship intention among youth in Malaysian institutions of higher learning. Similar to what had been observed in

other emerging markets (Crupi et al. 2021), Malaysian social entrepreneurship dynamics changed pre- and post-pandemic.

Future studies could extend the study to explore how the new normal and the endemic phase of COVID-19 influence the social entrepreneurship ecosystem. Further studies that capture a bigger sampling of the target population or different perspectives according to generations, such as Generations Y and Z (Musinszki et al. 2020), would provide a better understanding of the subject. Additionally, comparative analysis amongst the various subgroups within the population and qualitative studies would also enrich our knowledge on the subject. It would be also worthwhile to follow up on how the target population's views on social entrepreneurship change observed. It is hoped that the findings and recommendations from this study can lead to the formulation of effective policies and programs to encourage as well as enable new generations of social entrepreneurs.

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Notes

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