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# Technopreneurs' Intention of IT Students: An Application of Ajzen's Theory of Planned Behavior

John Jethro Hernandez<sup>1,\*</sup>, Norma Nunez<sup>2</sup>

<sup>1,2</sup>Department of Graduate School, University of the East, Manila, Philippines. hernandez.johnjethro@ue.edu.ph<sup>1</sup>, norma.nunez@ue.edu.ph<sup>2</sup>

Abstract: This Study assessed factors influencing technopreneurs' intention in three areas of Self-Efficacy, namely Information and Communications Technology (ICT), Academic, and Individual Entrepreneurial Orientation, within the conceptual framework of Ajzen's Theory of Planned Behavior (TPB). Descriptive research was conducted using qualitative methods, collecting data through a questionnaire from Information Technology students. SPSS was employed for analysis, utilizing Weighted Mean and Standard Deviation to measure the relationship between demographic profiles and factors influencing Technopreneurial intention. Validity and reliability were assessed utilizing the Chi-Square Test and Cronbach's Alpha. The survey results on the technopreneurial intention of the IT students at STI College Global City confirm the Three components' favourable effects. The null hypothesis was rejected, signifying significant differences among these factors. ICT Self-efficacy emerged as the most influential indicator, with the highest mean and lowest standard deviation. Academic Self-efficacy followed, contributing significantly to students' perception of technopreneurship. Lastly, despite being the least indicator, individual entrepreneurial orientation positively influences intention, fostering desire and motivation for business pursuits.

**Keywords:** Technopreneurship and ICT-Knowledgeable People; Information Technology; Self-Efficacy and Entrepreneurship; Theory of Planned Behavior; Technology-Based Entrepreneurship; Lowest Standard Deviation; Technopreneurial Intention.

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#### 1. Introduction

Technopreneurship, also known as technology entrepreneurship, is a movement that aligns with the rubrics of the envisioned fourth iteration of the industrial revolution. Innovative, youthful, and ICT-knowledgeable people are needed for technopreneurship [31]. Nations worldwide, including the Philippines, have worked hard to help young people, particularly students, develop entrepreneurial abilities. However, creating competitive young technopreneurs in the nation is still difficult. A new kind of technology-based entrepreneurship is referred to as "technopreneurship." Thus, there are several challenges in educating and producing skilled technopreneurs [34]. It means assembling a group of people with marked creativity, passion, enthusiasm for new technology, determination, and willingness to take calculated risks. The idea of entrepreneurial intention is also applicable within the realm of technopreneurship. Similarly, a person's chances of success increase with the degree of their intention to be an entrepreneur [28]. Despite many government and private organization-implemented initiatives in the Philippines, students typically show little interest in entrepreneurship. According to statistics from a study by Rivera and Gozun [15], 86.12% of the 5,953 juveniles were classed as having a permanent job, short-term employment, working different occupations every day or every week, and unclassified. By comparison, only 578 people, or 9.71%, were self-employed, while 248 people, or 4.17%, were unemployed. This suggests that rather than pursuing entrepreneurial endeavours, the majority of young people are employed [36]. However, as the scant literature in this field demonstrates, most research focuses only on the traditional form of entrepreneurship, meaning that technopreneurship has received less attention. Furthermore, a lack of

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<sup>\*</sup>Corresponding author.

literature has left a gap in our knowledge of the elements that support the intention and goals of technopreneurial endeavours [3]. Therefore, this research aimed to close this gap by adding to the body of knowledge about Filipino university students' intentions to pursue technopreneurs endeavours. For this purpose, the author had chosen STI College, one of the country's biggest ICT-centered educational institutions, as its research locale, particularly investigating the technopreneurial intention of STI Global City Campus students in Taguig City.

#### 1.1. Statement of the Problem

This research evaluated the variables affecting STI Global City Campus's intention to pursue technology entrepreneurship. It specifically aimed to respond to the following queries:

What is the respondents' demographic makeup in terms of:

- Age
- Gender
- Year Level

How do the following factors affect the STI Global City information technology students' intention to pursue technopreneurship?

- ICT Self-Efficacy
- Academic Self-Efficacy
- Individual Entrepreneurial

Is there a statistically-significant difference between the demographic profiles of students and the following characteristics that impact their intention to become entrepreneurs?

- ICT Self-Efficacy
- Academic Self-Efficacy
- Individual Entrepreneurial Orientation

#### 1.2. Significance of the study

This study will gain the following since the researcher's goal was to pinpoint the elements that encourage entrepreneurial action.

Universities/Colleges: As a distinction between theoretically and practically-oriented courses in entrepreneurship has been drawn and technopreneurial intentions strengthened, the study will highly benefit universities and colleges that focus on the academic design and outreach of entrepreneurship/technopreneurship programs, more specifically, the non-business students.

Students: The research will shed light on a vast understanding of technopreneurship and the development of skills in it. As the students become aware of the factors, they will be able to understand their potential as technopreneurs fully, identify the behavioural risks in the process, and focus on their strengths, thus ultimately unleashing their entrepreneurial skills.

Researchers: The researchers, particularly those with business and business interests, will benefit from knowing the factors that may increase their intent and behaviour in choosing a business career.

Lastly, considering the limited number of studies produced concerning technopreneurship, this research will pave the way to a better understanding of the studies of technopreneurial intention by enriching the education entrepreneurship literature. It will comprise diverse and unique cultural differences in the Philippine academic set-up. The study focused on a technology-related course, Information Technology, unlike previous research that only catered to a general non-business-related course.

#### 1.3. Scope and Delimitation of the Study

The main goal of this study was to evaluate and identify the variables influencing the technopreneurial intention of Information Technology students at the STI BGC Campus. The investigation highlighted the following elements: three important factors that may lead to a technopreneur endeavour are individual entrepreneurial orientation, academic self-efficacy, and ICT self-efficacy. Aizjen's Theory of Planned Behavior core includes parameters like Attitude, Subjective Norm, and Perceived Behavioral Control. Each factor consists of 9 questions, which may be broken down into 3 segments from the earlier parameters to provide in-depth studies and relevant results. The study relies on samples from the population of information technology

students at STI College BGC Campus, who use an online form to complete survey forms [7]. This quantitative research will use statistical tools such as weighted mean, chi-square test, and standard deviation calculations. The dependent variables that we are using are (1) ICT Self-Efficacy, (2) Academic Self-Efficacy, and (3) Individual Entrepreneurial Orientation. At the same time, the independent variable is the Information Technology students of STI College Global City. The demographics are confined to the Information Technology students inside the campus and with limited sample and selection for statistical significance. Using a Stratified Distribution Sampling for 223 Information and Technology students from STI College BGC Campus for the First Semester of school year 2023-2024 (August 2023 to December 2023), out of a total population of 530 Information Technology students from the aforementioned educational institution.

#### 2. Review of Related Literature

The theory of Planned Behavior (TPB) will be the backbone of this study. This theory aims to describe how our intention can foresee our future behaviour. This is one of the most widely used theories to predict and explain a certain behaviour of a person. The TPB was hypothesized by Ajzen [13] and embraced by Krueger and Carsrud [23]. According to the theory, entrepreneurial behaviour is intimately related to entrepreneurial intentions [1].

The TPB offers three primary justifications for intention. The first is behaviour appraisal, or the extent of an individual's inclination toward exhibiting a specific behaviour, whether positive or negative. We call this behaviour attitude toward behaviour (ATB). Subjective norm (SN), or social pressure to engage in the action, is the second determinant. Perceived behaviour control (PBC), often known as perceived difficulty in doing the behaviour, is the third component. According to the TPB, an individual's intention to exhibit a specific behaviour must be increased by a more positive attitude, a more favourable subjective norm toward that conduct, and a larger perception of behaviour control [16]. Accordingly, an individual's intent to carry out a particular action should be stronger when the attitude, subjective norm, and perceived behaviour control are more positive [13]. The creation of various types of businesses is blandly vital to the growth of an economy. It can be called a national asset of an economy, and entrepreneurship significantly plays an important role in affecting our society. That is why we must nurture, inspire, and reward this national asset to the utmost degree we can exhaust. Regarding efficiency, entrepreneurship utilizes resources, labour, and capital. Entrepreneurs take risks for profit, while social entrepreneurship focuses on its role in solving community problems. Considering these, we can say that the role of entrepreneurship is beyond the business world and, therefore, requires further attention for research and development. Moreover, top key takeaways on the importance of entrepreneurship include the following: Accelerating economic growth, fostering innovation, fostering social change, fostering industrial development and research, and enhancing already-existing businesses are all benefits of entrepreneurship.

On the other hand, technopreneurship is a merging of the words technology and entrepreneurship. It is a kind of entrepreneurship that primarily focuses on technology. A technopreneur is a tech-savvy, resourceful, inventive individual who, just like an entrepreneur, is apt to take a deliberate risk. Technopreneur comprises a group of dedicated people with various skills working to accomplish a certain goal, while an entrepreneur can sometimes be a lone performer. Science and technology are the trademarks of technopreneurship, which means that he/she is a trailblazer and can potentially create a new resolution to societal problems from the orthodox way people are used to doing. Both technopreneurs and entrepreneurs launch new companies that are related to independent work. Technopreneurial intention can thus be understood as a modified form of entrepreneurial intention. According to Hoque et al. [4], technopreneurial intentions are a mindset that drives and leads an individual's predisposition toward creating and implementing novel tech-based entrepreneurial concepts [8].

ICT self-efficacy, academic self-efficacy, and individual entrepreneurial orientation were the three variables considered for this study's goals as potential influences on technopreneurial intention. The information and technology (IT) sector is one of the critical areas in which we can focus on technopreneurship [24]. Hence, IT students may play a vital role in the future development of technopreneurship and economic success. Information communication technology uses integrated telecommunications, such as mobile phones, personal computers, applications, and other systems, allowing users to transmit and receive information quickly and conveniently. Nearly everyone interacts with one another in the modern digital world via computers, social media, mobile phones, and other networking apps, all of which are classified as information and communication technology (ICT) [30]. ICT self-efficiency directly influences technopreneurial intention based on their analysis conducted on Bumiputra undergraduate students. As ICT also affects the strategies of the business, their recommendation points out more proactive opportunities for students and upskilling using ICT courses to increase capabilities.

Donath and Boyd proposed the theory that information communication technology (ICT) allows people to obtain knowledge from unreliable sources and connections with less work and expense, as Sardar et al. [30] reported. Consequently, the work and challenges entrepreneurs face in running the business are greatly reduced. Enhancing their desire to launch their own business by taking advantage of the possibilities and potentials presented by the development of information and technology. Computer self-efficacy is impacted by everything we do, just as human self-efficacy does. The demands created and associated with information and communication technology (ICT) have produced relevant knowledge and skills known as ICT self-efficacy.

Thus, it also connotes belief in one's ability to utilize information and communication technology to attain explicit goals, particularly in technical aspects such as computer programming, network/database administration, and hardware servicing. According to research, an individual with robust ICT self-efficacy is more likely to innovate new solutions for a particular task, utilize ICT to perform a job, and be more confident in understanding, adapting, and maximizing the present and future technologies. ICY self-efficacy is a critical factor in determining individual engagement and success in the ICT field. Educational programs focused on building technical skills and knowledge through training are great ways to develop ICT self-efficacy. Through this training, the individual will be equipped to use tools and further explore their creativeness in performing technical tasks, boost their confidence in solving analytic problems of computer programming, and further develop their technical skills to surpass difficulties in this chosen field.

A collaborative and supportive environment is another vital factor in developing ICT self-efficacy. Access to the experts acquired from peers, professors, or mentors creates a foundation that may provide supervision and relevant criticism, which may work as well in ICT projects in which they may use their learned ICT skills. In addition to the aforementioned individual factors contributing to ICT self-efficacy, broader societal and cultural factors can influence an individual's beliefs and attitudes toward ICT. For example, a social norm around gender and technology can influence how individuals distinguish their ability to use ICT effectively, creating an obstacle in ICT self-efficacy development. In general, self-efficacy in using ICT tools and skills thus significantly determines an individual's success in ICT. By providing sufficient learning materials, educational platforms, technical training, and supportive environments, students can improve their skills and self-confidence to successfully utilize ICT to achieve their short- and long-term goals.

An individual's self-trust in their aptitude to thrive academically is called Academic Self-efficacy. The ability is created on students' awareness of their capabilities and self-confidence to perform their academic responsibilities positively. Based on research, academic self-efficacy is a vital factor in achieving academic excellence. A high level of academic self-efficacy from an individual will be more likely to establish stimulating academic goals, persevere in the appearance of hindrances, and ultimately accomplish higher academic achievements. Academic performance, social or environmental support, and responses from teachers/peers are some of the factors that can influence academic self-efficacy. A good example is when a student who often receives encouraging and helpful guidance/feedback from his/her teachers and peers is most likely to progress into a strong intellect of academic self-efficacy. However, other factors, such as undesirable feedback, apparent failure, and lack of support, can result in an inferior academic self-efficacy level. For instance, an individual who receives a low grade on an activity from his/her module and observes this as a disappointment may experience a reduction in his/her academic self-efficacy. Educators play a vital role in fostering students' academic efficacy. It can be done by fostering an environment conducive to learning, where constructive feedback is provided. Every student has opportunities for achievement and an established supporting environment that will allow them to foster and thrive academically. In addition, educators can assist students by providing strategies to overcome difficulties in learning tests, which, in the long run, can further increase their academic selfefficacy. Considering all these factors, academic self-efficacy is dynamic in every academic success, particularly among students. By recognizing the factors that influence academic self-efficacy and formulating stages to improve it, teachers can support their learners to reach their ultimate goal and full potential.

Individual entrepreneurial intention refers to the belief in generating, growing, and organizing a business, particularly by an entrepreneur. This belief is considered by the entrepreneur who takes all the risks and is accountable for operating the business for profit instead of being an employee of a corporation/organization. According to research, entrepreneurship is the driving force for economic development and job/opportunity formation. A student/individual who chooses entrepreneurship as a career often innovates new goods and services, resulting in an amplified economic activity. Personal attitude and characteristics, such as the desire for independence and sole control, and external factors, such as economic conditions and availability of resources from the environment, have been some factors that can significantly affect an individual's inclination to be an entrepreneur. Certain programs can provide aspiring entrepreneurs with the relevant skills, knowledge, and proper resources necessary to kick start and nurture their businesses; this can be possible with entrepreneurial education and training that can also play a key role in fostering developing entrepreneurship among individuals.

In addition, certain policies and government programs that assist small businesses, such as admittance to government financial support programs and regulatory assistance, can help establish a more advantageous business environment for a starting entrepreneur. Nevertheless, individual entrepreneurial orientation similarly emanates its trials and perils. An entrepreneur may incur difficulties regarding finances, their ability to control/manage their cash flow, and organizing their regulatory requirements during the operation. An entrepreneur may also experience a high level of stress and anxiety due to the uncertainty of the business during the start of the business cycle. Individual entrepreneurship can play a vibrant share in economic development, creative social growth, and technological innovation. By considering and understanding the factors that influence individual technopreneurship and providing the utmost support and appropriate resources to future technopreneurs, policymakers and educators can further assist in establishing a more ecstatic and sustainable business environment. A person's likelihood of becoming an entrepreneur increases with their level of intention [32].

Numerous research on the variables influencing entrepreneurial inclinations have been conducted in various nations, especially catering to the university student population. A common theoretical framework for evaluating such elements that motivate students to pursue careers as technopreneurs is the theory of planned behaviour. Amos and Kubasu [1] investigated some major variables influencing Kenyan university students' inclinations to pursue entrepreneurship. The study involving 326 students from 3 Kenyan universities looked at Ajzen's [13] TPB elements, contextual variables and demographics, and the Kenyan students' entrepreneurial intention (EI). The findings show that important factors influencing entrepreneurial intention included gender, influence from entrepreneurial parents, subjective norms, perceived behaviour control, individual attitudes, positive environmental circumstances, and academic assistance.

Similar research was done in Indonesia involving 600 final-year university students by Astuti and Martdianty [25] using Fishbein and Ajzen's [13] theory of planned behaviour to investigate students' intentions in entrepreneurship. This extensive study involved 600 final-year university students at six state universities (Universities A to F) in Indonesia. While subjective norm was the most significant variable in the modelling, the outcome demonstrates that the theory of planned behaviour has been relevant in simultaneously predicting students' entrepreneurial ambition. However, upon independent analysis, notable distinctions were discovered between the outcomes from each university. While the model only made a major difference in Universities D and F, it had varying partial impacts on each university. The authors of University C believe that additional variables may account for the student's entrepreneurial intention there, as the model only marginally predicted it. In contrast, some variables do not significantly influence entrepreneurial intention in universities A, B, or E.

In Greece, Tsordia and Papadimitriou [6] conducted a study involving Greek students with two main goals: (1) to assess the impact of the curriculum by measuring and comparing the entrepreneurial intention of students enrolled in a Greek university's first and fourth years of business studies, and (2) to investigate the role of the TPB in explaining the students' entrepreneurial inclination. With a sample population of 186 students, the study found that the three elements of the TPB appear to have distinct roles in how business students shape their intention to pursue entrepreneurship, with subjective norms having little bearing on this process. Additionally, entrepreneurial coursework and content had little impact on business students' flimsy plans to become independent contractors. Remarkably, the study discovered that fourth-year students had, on average, weaker entrepreneurship goals than first-year students, even after taking several business-related courses. This study is the first comprehensive quantitative attempt to assess and compare first- and fourth-year Greek university students' aspirations to pursue entrepreneurship and investigate the impact of TPB's parts.

In Vietnam, Doanh and Bernat [9] conducted a comprehensive study involving 2218 students at 14 universities to utilize a mediated model to examine the connection between entrepreneurial self-efficacy and intention. The study also looked at how subjective norms influence the intentions of entrepreneurs. Based on the TPB and employing a meta-analytic path analysis, the authors showed that while subjective norms have a significant indirect impact on entrepreneurial intention through perceived behavioural control, attitude toward entrepreneurship, and entrepreneurial self-efficacy, they do not directly affect entrepreneurial intention. Furthermore, it was discovered that attitude toward entrepreneurship and perceived behavioural control mediate between self-efficacy and entrepreneurial intention. The findings show that, in terms of direct effect, entrepreneurial self-efficacy is the factor that has the greatest influence on entrepreneurial intention among the students, followed by attitude toward entrepreneurship. The results also demonstrated planned behaviour's applicability to Vietnam's transitional economics.

Some studies focus particularly on the technopreneurial intention of university students, not just entrepreneurial intention in general. In Malaysia, Hoque et al. [4] conducted a study utilizing structural equation modelling to examine the effects of technopreneurial learning (TL) as a mediator in the relationship between technopreneurial self-efficacy (TSE) and technopreneurial intention (TI). Involving a sample of 384 university students across Malaysia, the study found that the following direct effects were found to be positive and significant: (1) technopreneurial learning on technopreneurial intention, (2) technopreneurial self-efficacy on technopreneurial learning, and (3) technopreneurial self-efficacy on technopreneurial intention. Additionally, the study discovered partial mediation by technopreneurial learning in the association between technopreneurial self-efficacy and technopreneurial intention.

Finding the variables influencing Bumiputra students' intentions to pursue technopreneurs endeavours was the goal of a different study conducted in Malaysia by Koe et al. [33] involving 138 Bumiputra undergraduate students. The study created a model that combined individual entrepreneurial orientation (IEO) ideas with self-efficacy theory. Two characteristics of IEO favourably and significantly influenced technopreneurial intention: risk-taking and proactiveness, as well as information and communication technology (ICT) self-efficacy. But, innovation has little effect on technopreneurs' aim. Therefore, this study recommended that higher education institutions recognize the value of technopreneurial education in helping Bumiputra youth become competitive technopreneurs. Additionally, students should have more chances to actively look for business ventures, manage real-world projects to gain risk management experience and enrol in ICT classes to advance their ICT skills.

In Bulgaria, Yordanova et al. [11] also sought to investigate universities' role in cultivating technopreneurial intentions in a sample of entrepreneurially inclined STEM (science, technology, engineering, and mathematics) students. The study's empirical results are consistent with prior research on university support's role in encouraging students to pursue entrepreneurial goals. Additionally, the results indicate that students who attend universities with stronger research programs in their respective fields are more inclined to be technopreneurs. The literature's identification of factors that influence entrepreneurial intents, such as gender, willingness to take risks, social network support perception, and entrepreneurial role models, may not apply particularly to technopreneurial aspirations.

In Indonesia, Machmud et al. [3] focused on ICT self-efficacy, with computer and Internet self-efficacy as metrics used to quantify ICT self-efficacy. The indicators of Desire, Preference, Plans, and Behavior Expectancies are used to quantify Technopreneurial Intention. Contextual learning, social and personal emergence, and negotiated enterprise are the metrics used to measure technopreneurial learning. The Explanatory Survey method was the research approach employed; 222 out of 501 participants in the West Java region of Indonesia who belong to the younger generation were given a questionnaire as part of the data collection process. The findings showed a significant relationship between ICT Self-Efficacy and Technopreneurship Intention. Additionally, Technopreneurial Learning was found to affect Technopreneurship Intention significantly and mediates the relationship between the two. These results suggest that raising ICT Cell Efficacy and Technopreneurship Intention Learning will increase Technopreneurship Intention Effectiveness.

Salhieh & Al-Abdallat [29] conducted a study concentrating on Academic Self-Efficaciousness in Jordan. In particular, the study examined the significance of academic and intrinsic creativity on technopreneurial self-efficacy and honing technopreneurial intents. In order to do this, a conceptual model connecting technopreneurial goals, academic self-efficacy, technopreneurial self-efficacy, and intrinsic innovativeness is developed. Using a self-administered questionnaire survey, 378 undergraduate engineering students enrolled at a Jordanian institution provided the data. Technopreneurial self-efficacy positively and significantly influenced technopreneurial intents, according to the results of the structural equation modelling (SEM) using AMOS. Technopreneurial intention benefited both directly and indirectly from academic self-efficacy. An increase in technopreneurial self-efficacy was the indirect impact. Unlike what was first thought, intrinsic innovativeness directly impacted technopreneurs' intents but had no discernible indirect influence through technopreneurship self-efficacy. According to the findings, people who lean toward start-up tech-based businesses do so because they are driven to explore new and innovative technological advancements and have strong confidence in their capacity to carry out the required technological and entrepreneurial tasks.

The literature on entrepreneurship and entrepreneurial intention is expanding in the Philippines. Notably, the studies have a wide array of demographic subjects, from secondary school students, college and university students, entrepreneurs and non-entrepreneurs alike, and even indigenous people. In a landmark 2013 study, Dr. Veloso presented the situation of entrepreneurship education in the Philippines. Through a review of Philippine entrepreneurship education practices and curriculum, the study assessed the level and development of entrepreneurship education, intending to recommend governmental actions to support the development, creation, expansion, and sustainability of more entrepreneurial endeavours. According to Velasco [2], the development of entrepreneurs and the promotion of start-ups are the country's main foci of entrepreneurial education. Nonetheless, it was found that the formal education system should focus more on helping students develop an innovative and creative attitude. She also mentioned that industry and academia provide little assistance for fledgling businesses looking to expand and remain in operation.

Diamante et al. [26] conducted a research dissertation in 2019 that explored the innovative and entrepreneurial potential of Jose Rizal University and Pamantasan Lungsod ng Muntinlupa. As part of their study, the researchers employed the HEInnovate tool, a self-assessment instrument designed for higher education institutions looking to unleash their creative potential. In eight important areas of entrepreneurial capacities, it leads the participants through identification, prioritization, and action planning. Furthermore, HEInnovate assesses the institution's areas of strength and weakness, promotes conversation and debate regarding the institution's creative and entrepreneurial nature, and enables a side-by-side analysis of the institution's historical development. The study found that both educational institutions have the same weakest areas and recommended that these universities think of strategies to boost the university as an internationalized institution to give better opportunities for exploring entrepreneurial global educational learning. While most universities in the West and Europe have adopted an entrepreneurial mindset, Biray [12] observed that this is not the case in the Asian region, especially in the Philippine setting. The orientation gained from entrepreneurship education is at the heart of the idea of an entrepreneurial university. However, Biray [12] noted that the Commission on Higher Education (CHED) started offering entrepreneurial education as an official degree program in 2005. To put it another way, compared to their counterparts in Western nations, higher educational

In his research, Biray [12] assessed the capacity of a state university in Aklan, Visayas, to develop into an entrepreneurial institution. According to the results, the university is usually going entrepreneurial, especially in leadership and governance, organizational capacity, people, incentives, teaching and learning entrepreneurship development, and entrepreneurial pathways.

The political leadership's willingness to assist, the potential and focus on eco-tourism, cultural and heritage tourism, and agricultural tourism, the thriving commercial environment in the region, the provision of scholarships and fellowships for staff and students, the willingness of commercial banks to offer loans, and the existence of institutions and learning centres within the private sector are among the challenges and issues that have been identified as potentially affecting the internal system. The strategy plan should review and incorporate an entrepreneurial agenda; funds should be allocated to faculty, staff, and students to support their entrepreneurial endeavours; and functional relationships with external (local and international) stakeholders, experts, and entities that could provide funding or expertise for the establishment of science parks, incubators, and the like should be explored. These are some recommendations for internal policy consideration.

In 2016, Huang et al. [18] conducted a study in Los Banos, Laguna, involving entrepreneurs and non-entrepreneurs alike to determine the factors influencing an individual's inclination towards the entrepreneurial route. The study's respondents include 100 non-entrepreneurs and 100 entrepreneurs in Los Baños, Laguna. The likelihood of a person starting their own business was estimated using probit regression to a few different parameters. According to the analysis, six factors stand out from the rest: risk tolerance, years of education, entrepreneurship in the parents, gender, family size, and money. Research indicates that women are more likely than men to pursue entrepreneurial endeavours. Conversely, the likelihood that a person will become an entrepreneur falls with the number of years of education. In the meantime, the choice to start your own business is directly correlated with the size of your family. Furthermore, the likelihood that someone will launch a firm increases with wealth. In conclusion, the likelihood of an individual becoming an entrepreneur is higher if one or both of their parents are entrepreneurs and if they have a higher risk tolerance. The report suggests that would-be business owners should have access to low-interest loans, small business insurance policies, and personal entrepreneurial development (PED) programs [20].

By concentrating on a less-researched population, Arcega [14] offered a novel and innovative look at entrepreneurship among the Ati (Aeta) people of Capiz. Arcega [14] did a descriptive study using Mishra and Zachary's entrepreneurial theory. Qualitative research methodology was employed to study the Indigenous Peoples' entrepreneurial leadership and practices to support social advancement and economic success. The findings show there aren't many Indigenous or Ati business leaders, and the Indigenous people of Dumarao haven't established any long-lasting businesses. The author also discovered that several entrepreneurship-related obstacles face Indigenous People (IP), primarily rooted in their customs and culture. As a result, the outcomes will serve as a standard for evaluating the projects, activities, and even policies that hopefully will improve the Ati community's overall quality of life.

Several studies focused primarily on the student demographic in secondary schools, colleges, or universities in the Philippines. Recently, Castro et al. [10] conducted a descriptive-correlational study involving 180 Grade 12 students of a vocational high school in Bulacan. The study collected primary data on entrepreneurial mentality using a modified research instrument, while secondary data on academic performance was obtained from the subject instructors' permanent records. According to the findings, all of the student's academic performance was very satisfactory; none of them fell short of expectations or failed the course, and their opinions on the items that make up the cognitive, affective, and behavioural aspects of the entrepreneurial attitude were generally divided. It also showed that there is no discernible link between students' academic achievement and their entrepreneurial orientation. This indicates no correlation between the student's level of academic success and how much they agree with the items on the entrepreneurial attitude scale. Castro et al. [10] suggested that besides sustaining the students' highly satisfactory academic performance, the school's stakeholders should offer them meaningful entrepreneurial activities and technical support. This will help the students develop an appreciation for entrepreneurship, raise their level of interest, and motivate them to run their businesses in the future.

Velasco [27] conducted a cross-cultural study with university students in Oman and the Philippines. The study conducted a cross-dimensional analysis in three ways: it evaluated the entrepreneurial aspects of the Final Year Project (FYP) and the project's application as a start-up. It examined the students' difficulties in realizing the FYP as a start-up. Participants from the two private higher education schools in Oman and the Philippines numbered 281 in the survey and 24 in the targeted interviews. Despite having a strong sense of entrepreneurship, none of the FYP students in either country or specialization used the projects as a start-up. The study discovered that a deficiency in business acumen, entrepreneurial mindset, and abilities posed certain obstacles to converting the initiative into a business endeavour. One out of every six students planned to establish their own business, whereas one out of every six teachers thought students could. Three out of four teachers thought that their pupils would work for them. The findings unequivocally highlighted a culture of "employee" and an educational trajectory from "employment to entrepreneurship." Hence, by connecting the entrepreneurial support programs to the FYP, colleges and universities can take advantage of the students' strong entrepreneurial spirit and desire to launch start-ups. Promoting sustainable campus entrepreneurship is necessary to address the lack of business ideals, knowledge, and skills.

However, it can be observed from the literature landscape that inadequate studies within the local setting deal precisely with technopreneurial intention and the factors that influence it. Recently, Belmonte et al. [34] looked into the impact of ICT self-efficacy on technopreneurs' intention, mediated by technopreneurs' learning, among undergraduate Engineering Students in

the country. During the COVID-19 Pandemic, the researchers recruited 200 randomly chosen participants from engineering students in the Philippines and employed an explanatory survey as their study approach. Utilizing structural equation modelling, the gathered data was examined (SEM). According to the results, Technopreneurial Intention and Technopreneurial Learning are positively and significantly impacted by Information and Communications Technology Self-Efficacy. Furthermore, this study demonstrated that the association between information and communications technology self-efficacy and technopreneurship intention is mediated by technopreneurs' learning. The findings suggest that increasing technopreneurship Intention Learning and Information and Communications Technology Self-Efficacy will lead to greater success in enhancing technopreneurship intention. In another paper, Belmonte et al. [35] sought to identify the variables related to technopreneurial intention. Similarly, using simple random selection, the required data was gathered from 200 undergraduate engineering students at particular Philippine colleges. The relationships between variables were investigated, and hypotheses were tested using statistical tools such as regression and Pearson correlation analyses. The results showed that just three of the five factors, namely self-efficacy in the form of computer skills, availability of funds, and entrepreneurial familiarity, had a statistically significant and favourable impact on the engineering students' intent to engage in technopreneurship.

Belmonte and Lira [34] expanded their investigation to identify the variables influencing Philippine engineering students' propensity to choose a career in techno-entrepreneurship. Stratified random sampling was used to choose 200 engineering students, and correlation analysis was utilized to assess the importance of the parameters. According to the results, students' propensity to pursue a career in techno-entrepreneurship was determined more by their Locale, e-commerce proficiency, and general internet aptitude than by equipment availability. According to Belmonte and Lira [34], this suggests that to promote techno-entrepreneurship as a career, academic staff and educators must ensure that students have the necessary knowledge, ability, and aptitude to contribute to their entrepreneurial creativity and innovativeness.

#### 3. Synthesis

Over the past few decades, entrepreneurial intention has become a significant component of entrepreneurship literature and has drawn the attention of numerous experts because of its role in the growth of numerous nations. As the overview of relevant studies above shows, Ajzen's Theory of Planned Behavior is still a widely used paradigm for researching the different variables that may alter or influence intention. On the other hand, with the emergence of technopreneurship, there has been a focused interest in studying factors affecting technopreneurial intention. As culled from some of the research cited above, some common themes in these studies included ICT self-efficacy, academic self-efficacy, and other factors affecting an individual's entrepreneurial orientation. Previous studies focused as well on university students, as well as ICT students in particular. This was premised on the similar goal of increasing the effectiveness of educational systems in fostering the growth of entrepreneurship and technopreneurial intention among the student population.

It can be readily observed that most of the research on these subjects was foreign. However, as can be observed in the studies, the results indicated that the factors influencing entrepreneurial or technopreneurial intention vary depending on demographics and many variables. What may be considered significant for a student population in one university may not hold for other universities, more so for students in other countries. There have been inadequate studies dealing with technopreneurs or entrepreneurial intention in the local setting. Thus, this research was a modest attempt to fill the research gap by leveraging the author's previous experience teaching in one of the country's largest ICT schools by student population. By studying the three factors affecting entrepreneurial intention among ICT students of STI Global City Campus using the lens of Ajzen's Theory of Planned Behavior, the study sought to determine which established factors hold in the Philippine setting and whether there was a significant difference among these factors. Through this study, the author aimed to contribute to this growing literature to improve the curriculum and manner of teaching ICT students and increase students' entrepreneurial and technopreneurial intention.

# 3.1. Hypotheses of the Study

H<sub>0</sub>: There is no significant difference in the assessment of respondents on the factors that influenced the Technopreneurial Intention in terms of ICT self-efficacy, Academic self-efficacy, and Individual Entrepreneurial Orientation. There is a significant difference in respondents' assessment regarding the factors influencing technopreneurial intention regarding ICT self-efficacy, academic self-efficacy, and individual entrepreneurial orientation.

#### 3.2. Theoretical Framework of the Study

Donath and Boyd proposed the theory that information communication technology (ICT) allows people to obtain knowledge from unreliable sources and connections with less work and expense, as Sardar et al. [30] reported. Thus, this reduces the effort and difficulties an entrepreneur has in the business's operations as a whole. Increasing their intention to start their enterprise by maximizing the potentials and opportunities brought about by the advancement of Information and Technology. Naivinit claims that information and communication technology (ICT) encompasses a wide range of technologies that enable individuals to communicate with one another across distances [30]. According to their examination of Bumiputra undergraduate students,

ICT self-efficiency positively and significantly influenced technopreneurial intention. They recommended that students be given more chances to actively look for business prospects and take ICT courses to improve their ICT skills since ICT also influences business tactics.

Even though it has been suggested that entrepreneurship education can affect students' intents and attitudes toward entrepreneurship, straightforward empirical comparisons do not provide much new information [22]. For instance, graduates with an entrepreneurship degree are likelier to launch a new business and have noticeably stronger entrepreneurial goals and aspirations than other graduates, according to a 1997 study by Kolvereid & Moen [16]. Considering various research and evidence on the impact of entrepreneurial education on entrepreneurial intention. It was highly recommended to explore its impact, particularly technopreneurship, as it will bridge the gap and further reinforce the pieces of evidence that academic rigour could contribute to the technopreneurial intention of an information technology student. An idea of individual entrepreneurial orientation (IEO) is a continuation of firm-level EO. It comprises three components: proactivity, inventiveness, and risk-taking. Previous studies have also demonstrated how IEO components might strengthen an individual's desire to pursue entrepreneurship. Since this was a part of the paradigm, it directly addressed technopreneurship by drawing on earlier, pertinent entrepreneurship-related research.

#### 3.3. Conceptual Framework

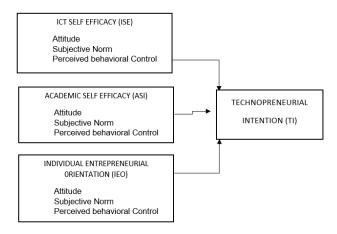


Figure 1: Conceptual Framework of the Study

Figure 1 shows that the first box indicates the participation of 223 students, the minimum recommended sample size for the survey out of 530 population Information Technology students of STI Global City Campus. We will be using Slovin's Formula to calculate the sample size (n) given the population size (N) and a margin of error (e). -It is computed as n = N / (1+Ne2). On the other hand, the second box signifies the Factors that Influence the technopreneurial intention of the Information Technology students identified from various research papers, including ICT Self-Efficacy, Academic Self-Efficacy, and Individual Entrepreneurial Intention. Considering the above stages, proposed strategies to strengthen entrepreneurial intention were considered while resolving the main and secondary questions from the problem statement (Figure 2).

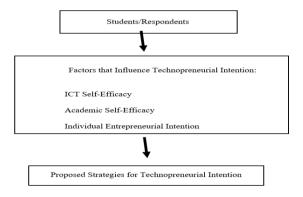


Figure 2: Research Paradigm

The following definitions of terms came from the research variables and key concepts in which vital words were selected to highlight their significance. Academic Self-Efficacy (ASE) - refers to an individual's self-trust in one's aptitude to thrive academically. The ability is created on students' awareness of their capabilities and self-confidence to perform their academic responsibilities positively. ICT Self-Efficacy (ISE) – refers to assessments of individuals' capacities to plan and carry out actions necessary to achieve unified communications related to ICT, which includes integrated telecommunications, such as mobile phones, computers (including laptops), software, and other systems that facilitate easy information sending and receiving. Information and communication technologies (ICT) - a broad range of technology resources and techniques used for information creation, sharing, transmission, storing, and exchange. Individual Entrepreneurial Intention (IEO) - refers to assessments of individuals' capacities for planning and carrying out actions necessary to achieve coordinated communications regarding individual-level concepts that are expanded from firm-level entrepreneurial orientation. It comprises three components: being proactive, taking risks, and being innovative.

# 4. Research Methodology

The methods utilized to carry out the research are covered in this chapter. The research design, study location, data collecting, ethical issues, study participants, sampling strategy, research tool, instrument validation, data collection process, and data analysis are all covered.

#### 4.1. Research design

The quantitative method was used to solve the research study problem. It is known as the systematic investigation of phenomena by collecting quantifiable data and applying statistical, mathematical, or computational techniques. The study's nature is descriptive since it was designed for observation and prediction. A survey questionnaire is a series of questions answered by a group and used to collect data. This is used to gather essential data and perform accurate statistical analysis. The questions should be condensed based on the study's objectives. The questionnaire is one of the most popular data collection instruments used in research [5]. The survey form used a Likert scale (Range of 1-4: 1- Strongly Disagree, 2 - Disagree, 3 - Agree, and 4 - Strongly Agree) comprised four sections. The first section contained the nominal data and demography, while the remaining three sections were allocated for the independent variables: ICT Self-Efficacy, Academic Self-Efficacy, and Individual Entrepreneurial Orientation. Each independent variable's questionnaire had nine items, carefully selected and modified from the previous and established studies to ensure consistency with the theoretical framework (Table 1).

Point	Scale Range	Verbal Interpretation
4	3.25 - 3.99(4.0)	Strongly Agree
3	2.50 - 3.24	Agree
2	1.75 - 2.49	Disagree
1	1.00 - 1.74	Strongly Disagree

**Table 1:** Likert Scale Verbal Interpretation

#### 4.2. Research Locale

The study was conducted in the Philippines. Specifically in Taguig City, which is home to the STI College Global City campus. Taguig, located in Metro Manila, Philippines, is a first-class, heavily urbanized city. As to the 2020 census, the population of that area was 886,722. The city, well-known as Bonifacio Global City, is situated on the northwest coast of Laguna de Bay. Within college grounds, the responders completed the Google Sheet Form. The respondents were given enough time to complete and return the form to the faculty. The researcher selected the site because many Information Technology students on campus could supply accurate data for the study in the first semester of the 2023–2024 academic year (August 2023 to December 2023).

#### 4.3. Respondents of the study

The researcher derived a sample size of 223 Information technology students, completing the selection process wherein stratified distribution sampling was used. The strata used by the researcher was the year level since all IT students from first to fourth year take Entrepreneurial Mind and Technopreneurship subjects, which were their common characteristics among the observed variable. The survey commenced in October 2023 during the 2nd semester of the current school year, covering August to December 2023. From the 530 total population of Information Technology students. To identify the total sample, Slovin's formula was used by the researcher to achieve a certain confidence interval when sampling a population:

Slovin's formula is calculated as:

$$n = \frac{N}{(1 + Ne^2)}$$

Where:

n = sample size

N = population size

e = acceptable margin of error

The researcher calculated a total of 223 as the total sample. To identify the sample size from each department, the researcher used the following formula:

Proportionate Stratified Random Sampling Formula:

$$n = \frac{n}{N} x 100$$

$$n = \frac{223}{530} \times 100 = 42\%$$

Computation of total number of samples per strata is calculated below:

1st year (6 sections)  $-190 \times .42 = 79$ 

2nd year (4 sections)  $-140 \times .42 = 59$ 

3rd year (3 sections) - 128 x.42 = 54

4th year (2 sections) -72 x. 42 = 31

Two hundred twenty-three samples were obtained using a Raosoft online calculator with a margin of error of 5% from the provided population of 530 Information Technology students (Table 2).

Year Level **Population Percentage** Sample 1st Year 190 36% 79 2nd Year 140 26% 59 24% 54 3rd Year 128 4th Year 72 14% 31 Total 530 100% 223

Table 2: Total Population per Year Level

# 4.4. Research Instrument

The author chose and prepared the questionnaire as a research tool to achieve the study and goal because it collects, analyzes, and interprets the different perspectives of STI-Global City IT students. The survey questionnaire was divided into ICT Self-Efficacy, Academic Self-Efficacy, and Individual Entrepreneurial Intention. Each section had nine validated questions based on the Theory of Planned Behavior, encompassing the concepts of Attitude, Subjective Norm, and Perceived Behavioral Control. The forms were prepared using Google Forms and distributed among the Information Technology students using Facebook Messenger as a tool for data gathering. The survey questionnaire incorporated the data privacy statement and was included in the appendices. Three business experts confirmed the validity and adequacy of the prepared questionnaire.

# 4.5. Data Gathering Procedure

Data was gathered upon the experts' validation by deploying the survey forms to STI-Global City faculty, electronically distributed inside the campus through Facebook Messenger. The STI-Global City faculty then dispersed the forms (in the form of Google Sheets) to their respective classes, targeting the appropriate number of students based on their year level following the computed stratified distributed sampling formula. The completed data was then downloaded from the Google Form as an Excel file. The extracted data was converted into quantity and subjected to analysis and further interpretation.

#### 4.6. Reliability Testing

Most commonly used to quantify internal consistency (also known as "reliability") is Cronbach's alpha. It is most frequently used in surveys and questionnaires where a scale is formed by several Likert questions to assess the scale's reliability. A pilot test was carried out with a distinct group of STI College Global City campus IT students to guarantee reliability. Below is the formula for the Cronbach's alpha:

$$\alpha = \frac{N\bar{c}}{\bar{v} + (N-1)\bar{c}}$$

Here, N equals the number of items, c is the average inter-item covariance among the items, and v equals the average variance (Table 3).

Cronbach's alphaInternal consistency $\alpha>=0.9$ Excellent $0.9>\alpha>=0.8$ Good $0.8>\alpha>=0.7$ Acceptable $0.7>\alpha>=0.6$ Questionable $0.6>\alpha>=0.5$ Poor $0.5>\alpha$ Unacceptable

Table 3: Cronbach's Alpha Internal Consistency

After using the formula, the researcher came up with the following results (Tables 4 and 5):

		N	%
Cases	Valid	30	100.0
	Excluded	0	.0
	Total	30	100.0

**Table 4:** Case Processing Summary

Table 5: Reliability Statistics

Cronbach's Alpha	N of Items
.938	27

With this result of .938 and internal consistency of Excellent, it can be said that the researcher-made questionnaire for the research titled "Factors That Influence Technopreneurial Intention of Information Technology Students of STI College Global City Campus: An Application of Ajzen's Theory of Planned Behavior" was considered a reliable instrument and a source of data to support the objectives of this study.

#### 4.7. Data Analysis Procedure

After collecting all the data, it was meticulously documented using tables so that statistical techniques could be used to examine it. This study used the weighted mean and percentage ranking to determine the respondent profile.

# 4.8. Statistical Treatment of Data

Percentage Formula

Percentage Formula

p = f/n x100

Where:

f = frequency

n = total number of responses

Weighted mean: Weighted mean was used to calculate the average value for Statement of Problems 2 and 3. Below is the formula to calculate the weighted mean.

Where:

$$w = \frac{\sum_{i=1}^{n} wiXi}{\sum_{i=1}^{n} wi}$$

w = weighted mean

n = number of terms to be averaged

wi = weight apply in x values

Xi = number of terms to be averaged

The researcher employed standard deviation to assess the data quality and establish dependability. Standard deviation is a statistical tool used to quantify the degree of variation or dispersion in a collection of data points. It offers a means of comprehending how certain data points within a dataset diverge from the dataset mean (average). The standard deviation shows the "average" degree of variation or dispersion in the data. The standard deviation calculation formula is shown below.

#### 4.9. Chi-squared test

The researcher used the following formula to test the hypothesis and see if there was a statistically significant difference between the respondents' assessments of the factors that influence Technopreneurial Intention in terms of ICT Self-Efficacy, Academic Self-Efficaciousness, and Individual Entrepreneurial Orientation:

$$\chi^2 = \sum_{i=1}^c rac{(O_i-E_i)^2}{E_i}$$

where

c is the number of columns
Oi = is the observed count in each cell
Ei = is the expected count

#### 4.10. Quantitative Research

A statistical data treatment was performed to get the mean, median, and standard deviation to yield the result from the Likert scale survey. SPSS processed the data to demonstrate the reliability.

#### 5. Results and Analysis

This covers the findings and analysis of the study's quantitative data, the qualitative data's results and analysis, and the pertinent questionnaire's development.

# 5.1. Demographic Profile of the Respondents

Table 6: Age

Age	Frequency	Percentage
16-20 Years old	95	43%
21-25 Years old	122	55%
26-30 Years old	3	1%
Above 30 Years old	3	1%
Total	223	100%

Table 6 shows that out of 223 respondents, fifty-five percent were aged 21-25 years old, forty-three belonged to ages 16-20 years old, one percent was within the ages 26-30 years old, and another one percent was above 30 years old.

Table 7: Gender

Gender	Frequency	Percentage
Female	46	21%
Male	177	79%
Total	223	100%

Table 7 shows that out of 223 respondents, seventy-nine percent were males, and forty-six percent were females.

**Table 8:** Year Level

Year Level	Frequency	Percentage
First Year	79	35%
Second Year	59	26%
Third Year	54	24%
Fourth Year	31	14%
Total	223	100%

Table 8 shows that out of 223 respondents, thirty-five percent were first-year students, twenty-six percent were second-year students, twenty-four percent were third-year students, and fourteen percent were fourth-year students.

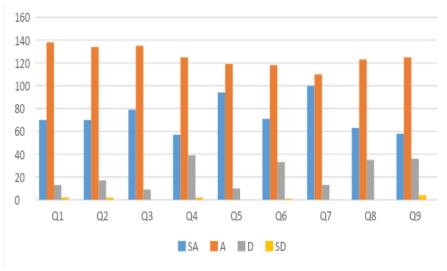
# 5.2. How do the respondents assess the factors that influence the Technopreneurial Intention in terms of:

Table 9: ICT Self-Efficacy

Indicators	SA	A	D	SD	Total	Weighted Mean	Verbal Interpretati on	SD(σ)	Verbal Interpretation
Choosing a business using my ICT skills makes me feel good	70	138	13	2	223	3.23	Agree	0.594	Reliable
I think my ICT skills can develop in a career in business	70	134	17	2	223	3.22	Agree	0.616	Reliable
The ICT skill I choose will help me become successful in life	79	135	9	0	223	3.32	Agree	0.545	Reliable
People who are important to me think that I should choose a business relevant to	57	125	39	2	223	3.06	Strongly Agree	0.682	Reliable
My classmates believe that ICT can lead to better opportunities and/or careers in business	94	119	10	0	223	3.38	Agree	0.571	Reliable
Meeting successful ICT practitioners and technopreneurs increased my motivation to start my own ITC company in the future	71	118	33	1	223	3.16	Strongly Agree	0.678	Reliable
I guess I would choose a particular ICT skill (programming,	100	110	13	0	223	3.39	Strongly Agree	0.597	Reliable

networking, database administration, hardware servicing									
My developing skills in ICT encourage me to choose business in the ICT field	63	123	35	0	221	3.1	Agree	0.683	Reliable
My increasing competence in ICT skills will give me the self-confidence to start a business	58	125	36	4	223	3.05	Agree	0.701	Reliable
					GWM	3.21	Agree		

Legend: 3.25 – 3.99(4.0) - Strongly Agree, 2.50 – 3.24 – Agree, 1.75 – 2.49 – Disagree, 1.00 – 1.74- Strongly Disagree



Legend: SA = Strongly Agree, A = Agree, D, Disagree, SD = Strongly Disagree

Figure 3: ICT Self-Efficacy

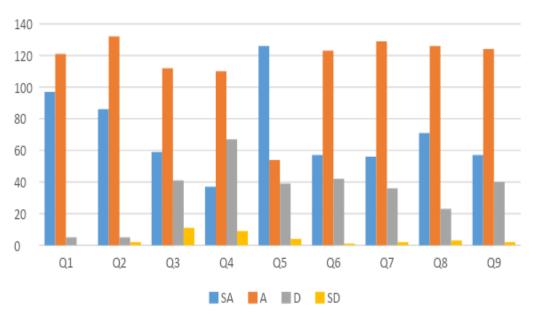
Question 7 for perceived behavioural control got the highest weighted mean of 3.39 (Figure 3). This suggested that the Information Technology students connote that their perception is anchored toward choosing a particular technical ICT skill for programming, networking, database administration, and/or hardware servicing (Table 9). Research from Siragusa & Dixon [17], wherein undergraduate students in higher education participated in a survey, which was equipped with the components of the Theory of Planned behaviour to determine the students' planned use of ICT, noted that the qualitative findings showed that some students experienced feelings of anxiety and intimidation when working with ICT interaction. The study was behavioural in concept but could provide an understanding of the perception of ICT students regarding their confidence and/or self-efficacy in developing their ICT skills. Also, the study further established the use of the Theory of Planned Behavior in researching ICT skills (Table 10).

Verbal Weighted Verbal **Indicators** SA A D SD **Total Interpret** SD(σ) Mean Interpretation ation Strongly Choosing a business where I 97 5 0 121 223 3.42 0.537 Reliable excel academically is good Agree Choosing a business where I can practice what I learned Strongly 132 5 2 223 3.37 0.527 Reliable 86 from school makes me feel Agree good

Table 10: Academic Self-Efficacy

If I achieve good grades in technopreneurship, I might try doing business	59	112	41	11	223	2.94	Agree	0.805	Reliable
My teacher thinks that I should choose technopreneurship	37	110	67	9	223	2.75	Agree	0.764	Reliable
Many people choose to improve their technopreneurs skills, so I want to improve my technopreneurs skills, too	12 6	54	39	4	223	3.34	Strongly Agree	0.700	Reliable
People who are important to me love doing business	57	123	42	1	223	3.06	Agree	0.679	Reliable
Having the technopreneurship module in my course will help me in choosing to be a technopreneur	56	129	36	2	223	3.07	Agree	0.667	Reliable
I will choose a business relevant to my ICT skill	71	126	23	3	223	3.18	Agree	0.665	Reliable
I would have the necessary skills to be a technopreneur right after I graduate from college	57	124	40	2	223	3.05	Agree	0.685	Reliable
					GWM	3.13	Agree		

 $Legend: 3.25 - 3.99 \\ (4.0) - Strongly \ Agree, \\ 2.50 - 3.24 - Agree, \\ 1.75 - 2.49 - Disagree, \\ 1.00 - 1.74 - Strongly \ Disagree, \\ 1.00 - 1.74 - Strongl$ 



Legend: SA = Strongly Agree, A = Agree, D, Disagree, SD = Strongly Disagree

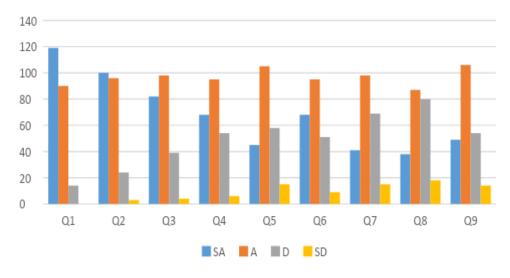
Figure 4: Academic self-Efficacy

Question 1 for Academic Self-Efficacy got the highest weighted mean of 3.41, 'strongly agree' (Figure 4). This suggested that the "Attitude" (From the Theory of Planned Behavior) was pinned on choosing a business where a student excels academically. Mehndroo & Vandana [19] state that motivation is the main factor for everyone's actions, desires, and needs. Motivation is a crucial factor in a student's desire to learn. According to the results of this study, there was a substantial association between student academic motivation and job interest, which denotes future career outlooks (Table 11).

Table 11: Individual Entrepreneurial Orientation

Indicators	SA	A	D	SD	Total	Weighted Mean	Verbal Interpretation	SD(σ)	Verbal Interpretation
Having my own business is good	119	90	14	0	223	3.48	Strongly Agree	0.614	Reliable
Making myself an expert in doing business is what I want	100	96	24	3	223	3.3	Strongly Agree	0.717	Reliable
I am going to choose to be a business owner	82	98	39	4	223	3.14	Agree	0.770	Reliable
I feel under pressure when people important to me want me to enter the business	68	95	54	6	223	2.99	Agree	0.811	Reliable
Many people choose a career in business, so I want to choose a business career, too	45	105	58	15	223	2.74	Agree	0.835	Reliable
My parents think I should choose a career in business	68	95	51	9	223	2.96	Agree	0.821	Reliable
I think it is easy for me to set up my own business	41	98	69	15	223	2.68	Agree	0.835	Reliable
I am now well- equipped to start a career in business	38	87	80	18	223	2.57	Agree	0.856	Reliable
I am confident enough to start my own business someday	49	106	54	14	223	2.79	Agree	0.833	Reliable
					GWM	2.96	Agree		

Legend: 3.25 – 3.99(4.0) - Strongly Agree, 2.50 – 3.24 – Agree, 1.75 – 2.49 – Disagree, 1.00 – 1.74- Strongly Disagree



Legend: SA = Strongly Agree, A = Agree, D, Disagree, SD = Strongly Disagree

Figure 5: Individual Entrepreneurial Orientation

Question 1 for Individual Entrepreneurial Orientation got the highest weighted mean of 3.47, 'strongly agree.' This suggested that the "Attitude" (From the Theory of Planned Behavior) affirms that students think having their own business is good (Figure 5). The research by Al-Qadasi et al. [21] employed the theory of planned behaviour, wherein graduating students of Sana'a

University, Yemen, had intentions of starting their businesses. The results suggested that by ignoring social norms and entrepreneurial self-efficacy, students' perceptions of entrepreneurship significantly influence their intention to engage in self-employment. University students need more training and instruction to improve their entrepreneurial abilities to launch new businesses (Table 12).

Table 12: Standard Deviation Categories and Reliability

Categories	Score	Reliability level
High Dispersion	1.00 a 1.50	Low Reliability
Low Dispersion	0.50 a 0.99	Reliability
Very Low Dispersion	0.00 a 0.49	High Reliability

Asymptotic significances are displayed with a significance level of 0.05; therefore, the researcher rejected the null hypothesis. The analysis of the gender variable indicated that 79% of the respondents were males, whereas 21% were females. The higher rank was the males. The analysis of the age variable indicated that 55% of the respondents were 21-25 years old, 43% were 16-20 years old, while there was only 1% for the age bracket 26-30 years old and above 30 years old. The highest rank was ages 21-25 years old. The analysis of the year-level variable indicated that 35% of the respondents were first-year students, 26% were second year, 24% were third year, and 14% were fourth year. The highest rank was in the first year. ICT Self-Efficacy has been the best indicator of technopreneurial intention, considering the highest mean and the lowest standard deviation from the data gathered. In this regard, the students must develop a focus on the skills of ICT (such as computer networking, database administration, programming, and hardware servicing) during their early years in college. The normative behaviour of respondents' classmates performing the skills mentioned earlier will give the students the utmost drive and confidence to do business and ultimately use it in their venture to technopreneurship, regarding Q5 with a mean of 3.06. Also, an increase in the competency of ICT skills may correlate to an increase in technopreneurial intention, which might open an opportunity for further studies of technopreneurship. I may say that the ICT Self-Efficacy is the most important factor in technopreneurship. Thus, this study will provide an established notion of this term and contribute to its limited related literature.

Academic Self-Efficacy- Academe has a vital role in moulding the perception of Information Technology students, particularly in business. Technopreneurship will not take place without proper guidance and drive from academic practitioners. In light of this, a specialized ICT skill must co-exist with a tailor-fit module from an academic institution designed to develop the entrepreneurial opportunities relevant to the ICT field chosen by the students, and this will bolster their intention toward technopreneurship. As Q8 indicates a mean of 3.19, students will consider a business where they have relevant ICT skills. On the other hand, leniency in marking grades (as a student performance indicator) in doing business has been a pertinent indicator of their attitude towards technopreneurship, with a Q3 mean of 2.98. This means that good grades in business will encourage them to consider a career in doing business and ultimately increase their intention to do so. Lastly, it is noted a significant number of respondents agreed to Q9: I would have the necessary skills to be a technopreneur right after my graduation in college, a mean of 3.06, which means that the respondents agreed that they will be well-equipped with the necessary skill to be a technopreneur after graduation. Therefore, we must increase current entrepreneurial activities in the program and improve the business curriculum so that IT students can see technopreneurship as an opportunity and/or a career after graduation.

Individual Entrepreneurial Orientation- Based on this study, the individual entrepreneurial orientation has the least indicator of the technopreneur's intention based on its mean of 2.96. However, considering the rich related literature on entrepreneurship, an individual entrepreneurial orientation must still not be taken for granted. A well-guided perception could still drive desire and motivation to pursue business. Based on the gathered data from Q5, "My parents think I should choose a business career," a noteworthy mean of 2.84 agreed with the statement. Hence, since it is lower than other indicators, it demonstrated that many students were not encouraged by their parents to choose business as a career. Therefore, it is highly recommended that parents be involved in the motivational factor of the IT students. A portion of the parents' orientation must be allocated to discussing the students' opportunities toward technopreneurship. This will pave the way for an increase in the subjective norm of the IT students' perception, which drives business intention. Lastly, it is recommended that future studies be conducted in other branches of STI College to complement the existing study and add literature to the growing focus on entrepreneurship and technopreneurship.

### 6. Conclusion

ICT Self-Efficacy, which refers to choosing a particular ICT skill, has the highest weighted mean in the variable ICT Self-Efficacy, which indicates a strong "perceived behavioural control." Academic Self-Efficacy, which refers to choosing a business where students can excel academically, had the highest weighted mean in the variable Academic Self-Efficacy, which indicated a strong "Attitude" in the perceived intention. Individual Entrepreneurial Orientation, which indicates that having a business is good, has the highest weighted mean in the variable Individual Entrepreneurial Orientation, which indicates a strong "Attitude"

in the perceived intention. Individual Entrepreneurial Orientation had the lowest weighted mean among the three factors mentioned earlier that influence technopreneurial intention.

Statistical Decision using Chi-Square Test: Since Asymptotic significances are displayed with a significance level (0.05) therefore, the researchers reject the null hypothesis; there is a statistically significant difference between students' demographic profile and the assessment of respondents on the factors that Influenced the Technopreneurial Intention in terms ICT Self-Efficacy, Academic self-efficacy, and Individual Entrepreneurial Orientation

Demographic Profile and ICT Self-Efficacy: After conducting a chi-square test analysis with a significance level of 5%, the researcher determined that variations in demographic profile among Information Technology students at STI College Global City do not have a distinguished impact on the connection between factors influencing their Technopreneurial Intention, particularly concerning ICT Self-Efficacy. Therefore, the demographic profile appears to be unrelated to the strength or nature of the relationship between ICT Self-Efficacy and the students' intentions to engage in technopreneurial activities.

Demographic Profile and Academic Self-Efficacy: After conducting a chi-square test analysis with a significance level of 5%, the researcher determined that variations in demographic profile among Information Technology students at STI College Global City do not have a distinguished impact on the connection between factors influencing their Technopreneurial Intention, particularly concerning Academic Self-Efficacy. Therefore, the demographic profile appears to be unrelated to the strength or nature of the relationship between Academic Self-Efficacy and the students' intentions to engage in technopreneurial activities.

Demographic Profile and Individual Entrepreneurial Orientation: After conducting a chi-square test analysis with a significance level of 5%, the researcher determined that variations in demographic profile among Information Technology students at STI College Global City do not have a distinguished impact on the connection between factors influencing their Technopreneurial Intention, particularly concerning Entrepreneurial Orientation. Therefore, the demographic profile appears to be unrelated to the strength or nature of the relationship between Individual Entrepreneurial Orientation and the students' intentions to engage in technopreneurs activities.

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**Data Availability Statement:** This Study contains respondent demographics, performance statistics, and work process surveys. To answer research inquiries, the research includes diagnostic information.

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