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TECH-DRIVEN ENTREPRENEURSHIP: INSIGHTS AND TRENDS

THE 5th MULTIDISCIPLINARY RESEARCH ON THE ENTREPRENEURSHIP AND BUSINESS

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Preface

Multidisciplinary Research on the Entrepreneurship and Business Colloquium 2022/2023 was held virtually on 30th January to expose undergraduate students to the research. Besides, it is a platform for them to exchange and share ideas across the field. The respective lecturers' supervision has assisted the undergraduate students in understanding the research process incurred.

Moreover, the learning process throughout the research project will develop the undergraduate students' writing and critical thinking skills. It will also inculcate the research culture among undergraduate students.

The editors' team would like to express gratitude to all the participants and committee for ensuring the success of the 5th Multidisciplinary Research on Entrepreneurship and Business Colloquium 2022/2023.

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CAMPUS, MALAYSIA

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THEME 2: INFORMATION SYSTEM & TECHNOLOGY

The Factor Influencing Malaysia Public University Student to Do Affiliate Marketing

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Abstract :
The purposed of this study is to investigate the factors that influencing Malaysia public university students to do affiliate marketing. This study also contained the specific objectives using the Theory of Planned Behaviour (TPB) variables. The variables are as follows to determine the relationship between personal attitude and intentions of Malaysia public university students to do affiliate marketing, to identify the relationship between subjective norm and intentions of Malaysia public university students to do affiliate marketing and to investigate the relationship between perceived behavioural control, and the intention of Malaysia public university students to do affiliate marketing. The researchers used independent variables and dependent variable by constructing questions. Researchers have obtained various information through primary and secondary sources. The primary is through online questionnaires. Meanwhile, secondary sources are from previous studies. In the next chapter, the researchers discussed the research method. This study uses quantitative methods and the online survey to gather the information from the public university students in Malaysia. Personal attitude, subjective norms, and perceived behavioural control have a significant relationship with the intention of public university students in Malaysia to do affiliate marketing. The researchers identified 384 responses to perform data collection by the online questionnaires. After analysing the data using IBM SPSS Statistics version 26, the result for the tests was obtained. Lastly, through the distribution of questionnaires, researchers gain validity and consistency for the results.

Keywords*: Affiliate Marketing, Entrepreneur Intention, Theory of Planned Behaviour*

1   Introduction

Nowadays, there are various types of online marketing that can be an option for any firm or business as a marketing strategy to increase their brand awareness. Online marketing is growing after the outbreak of Covid-19 Pandemic. Affiliate marketing is the one of online marketing strategies that have been used by any firm and business to

recover back their business activity. According to Fox and Wareham, (2010), affiliate marketing has emerged as one of the wildest growing online marketing and e-commerce strategies to increase sales. Compared to Duffy (2005), and Janssen and Van Heck (2007), they wrote that affiliate marketing is the one of online marketing that has better potential than previous online marketing activities.

Affiliate marketing are described as affiliate marketers who earn a commission after they successfully convince their customers to buy the products or services that they promoted. According to Duffy (2005), Lammenett (2017) and Mazurek and Kucia (2011), affiliate marketing means the organization hired trusted affiliate marketers (third-party publishers) to promote the goods and services of an organization through its website. Today, the number of businesses doing affiliate marketing is increasing. Affiliate marketing and networks are efficient and able to generate more sales than traditional marketing.

The emergence of affiliate marketing reveals many factors that influence someone's intention to do affiliate marketing. In this study, researchers focus on the factors that influence Malaysia public university students to do affiliate marketing. There are several factors that are discussed in this study such as personal attitude, subjective norm, perceived behavioural control and entrepreneurial intentions. This study used the conceptual framework of the Theory of Planned Behaviour (TPB) which encouraged the researchers to examine the intentions among Malaysia public universities to do affiliate marketing.

2 Literature Review

In this study, the researchers used Ajzen's Theory of Planned Behaviour (TPB) to study about the factors that influence public universities students in Malaysia to do affiliate marketing. Based on Theory of Planned Behaviour (TPB) the variables are divided by two which are independent variables and dependent variables. The researchers used three types of independent variables for this study which is Personal Attitude (PA), Subjective Norm (SN), and Perceived Behavioural Control (PBC). Next, for the dependent variable is the Entrepreneurial Intention (EI). From these variables the researchers can measure and obtain results for this study which have significant influence or not have any influence through entrepreneurial intentions. To become an entrepreneur is not only about instinct and desire, but it comes from the behavioural intentions to have successful business just like other successful entrepreneurs. The individual who is interested in doing a business, must be bold and have strong intentions to start-up the business. For this study, the researchers used Ajzen's Theory of Planned Behaviour. This model clearly predicts entrepreneurial intentions.

2.1 Previous Studies

2.1.1 *Personal Attitudes*

One of the most important personal qualities for someone to succeed as an entrepreneur is attitude, (Osman, 2020). Personal attitude (PA) is a person's position or perspective regarding a specific topic. (Dinc and Budic, 2019). It refers to the mindset toward venture creation in this specific setting. Personal Attitude signifies a person's intention

to become an entrepreneur. According to Whakatutuki (2018), the thing that causes a person to make choices that have an effect on their behaviour is that they have experience about the world around them and the situations they find themselves in. People's attitudes are fundamentally shaped by their basic values and beliefs.

All direct e-marketers now have a comprehensive understanding of the elements influencing consumer attitudes. It provides a good environment for the market and its goods to operate and generate long-term profits. The notion of affiliate marketing is also clearly explained in this paper, along with the reasons why it is significant in the present market environment, (Fahim, T., & Nabasi, P.A. 2020).

2.1.2 Subjective Norms

According to Ajzen and Fishbein (1977), subjective norms refer to the perceived social pressure to perform or avoid a behaviour. Moreover, subjective norms consist of two components which are normative beliefs and the motivation to comply with these beliefs (Ajzen and Fisbein,1980). The social capital literature demonstrates that subjective norms not only influence entrepreneurial intentions but also indirectly influence the personal attitude and perceived behaviour control antecedents because these norms construct transmit values by "reference people" that would cause more favourable perceptions of other antecedents of attitudes and perceived behavioural control (Cooper, 1993).

2.1.3 Perceived Behavioural Control

According to previous studies, Perceived Behavioural Control (PBC) is the one factor that influences entrepreneurial intentions to do a business. Perceived Behavioural Control (PBC) shown as the level of ability of individuals performance. Moreover, PBC is also an individual who believes in a person's ability and behaviour in carrying out something. PBC includes the evaluation of the "do-ability" of a target action, (Ajzen and Thomas 1986).

2.1.4 The Student Intention to Do Affiliate Marketing

Entrepreneurial intentions, according to DeNoble et al. (1999), is the natural cognition, and behavioural tendency of entrepreneurs to start a new business. According to Thompson (2009), entrepreneurial intention refers to the idea that business owners intend to launch a business venture. In order to achieve entrepreneurial achievement, entrepreneurial intentions are defined as a psychological state that directs our focus towards the company's goals or obtains something that drives us in that direction. According to new research, Kong. F. (2020, March 5), Every business starts with entrepreneurial intention which is a good indicator for business in the future.

According to Hayes (2022), affiliate marketing is a process where an affiliate marketer has to share the link that has been generated to the public and when a transaction occurs with a third party, the commissions are credited to the affiliate marketer's account. The affiliate partner is also rewarded in the form of a commission when the store's achievements are higher. Usually, the more sales made by sharing links, the more commissions to get. However, certain affiliate marketing schemes pay out for leads, trial users, website clicks or app downloads. Most affiliate program provides free

enrolment. If done seriously, the program can be a major job for an individual in earning a living.

According to Bagatsing (2022), students always aspire to make money while attending school or a university. When they finish college, they hope to earn more money than their parents did. But most people are unaware of how challenging it is to land a job. The best approach to make money online for students is through affiliate marketing. According to the Editorial Staff (2022), the majority of them must begin to comprehend the financial world as students in order to begin developing their independence. Affiliate marketing teaches communication skills and the ability to make wise decisions over time while also assisting students in passive revenue generation.

2.2   Hypothesis Statement

H1: There is a significant relationship between the personal attitude and intention of Malaysia public university students.

H2: There is a significant relationship between subjective norms and the intentions of Malaysian public university students.

H3: There is a significant relationship between perceived behavioural control and intention of Malaysia public university students.

2.3   Conceptual Framework
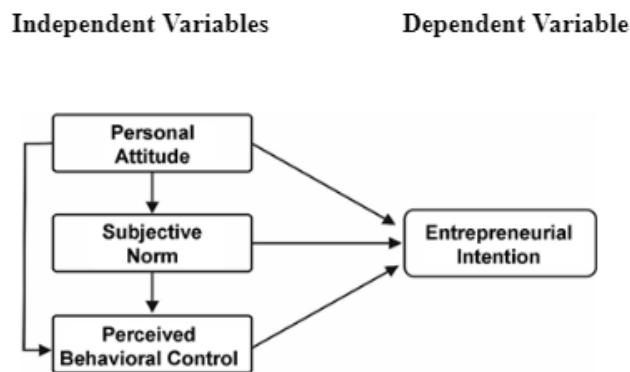
Figure 1: Conceptual Framework of The Factor Influencing Malaysian University Students to do Affiliate Marketing

(Source: Ajzen, I, 1991)

This model was created to find the significance between independent variables and dependent variables in this research. All the variables selected in this research are relevant and adapted to previous studies. This research has confirmed that all independent variables that are personal attitudes, subjective norms, and perceived behavioural control have strong relationship with an adoption of the intention of Malaysian university students to do affiliate marketing.

3   Methodology

The study used quantitative methods to analyse the relationship between the intention of Malaysia public university students to do affiliate marketing and personal attitudes, subjective norms, and perceived behavioural control. This study used primary data to conduct an online questionnaire (Google Form). The data obtained from selective respondents and secondary data by gathering all the information from the previous studies such as articles, journals, books, and more. All the characteristics were graded on a 5-point Likert scale, with endpoints ranging from strongly disagree to strongly agree.

In this study, the researchers distributed questionnaires among the Malaysian public university's students. This research is in Malaysia. The questionnaires contain respondent background. Based on the respondent's background, the questions given are regarding age, gender, races, semester level, education level, and the field of study. These data are obtained for describing the research population. This result is important for the researchers applied in research design. According to the Ministry of Higher Education Malaysia (2022), the entire population obtained from the data and resources is the number of students in public universities. The population of public universities in Malaysia is 572, 347 of students from public universities in Malaysia.

Table 1: Sample Size (Source: Krejcie and Morgan, 1970)

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size   Source: Krejcie & Morgan, 1970

According to Sekaran and Bougie (2006), the subset of a population that is necessary to ensure that there is enough data to draw conclusions is known as the sample size. The researchers used the Krejcie and Morgan (1970) method to determine the sample size. The sample size representative of the population. The result was selected by the researchers randomly from the population 572, 347 of public university students in Malaysia. The recipients of the questionnaire who fill out this questionnaire form are from among public university students in Malaysia.

4   Results and Discussions

4.1   Descriptive analysis

Descriptive analysis is a type of data analysis that helps to explain, show, or summarise data points in a constructive way so the patterns are developed to satisfy all of the data's conditions. It is one of the most important steps in the statistical data analysis process. The characteristics of the interval data described using parametric statistics such as mean, standard deviation, and variance. Furthermore, the frequency analysis used to determine the frequency or number of occurrences of each of the respondents' responses.

Table 2: Frequency of background sample

Variables	Items	Frequency	Percentage (%)
Ages	18 years old - 20 years old 21 years old - 23 years old 24 years old - 26 years old 27 years old and above	39 203 113 29	10.2 52.9 29.4 7.6
Genders	Male Female	172 212	44.8 55.2
Races	Malay Chinese Indian Iban	249 87 47 1	64.8 22.7 12.2 3
Which Semester Student Have Studied	Semester 1 Semester 2 Semester 3 Semester 4 Semester 5 Semester 6 Semester 7 Semester 8	25 7 79 28 40 13 162 30	6.5 1.8 20.6 7.3 10.4 3.4 42.2 7.8
The Level of Education	Diploma Bachelor's Degree Postgraduate Diploma Master Ph. D	26 314 19 19 6	6.8 81.8 4.9 4.9 1.6
Field of Studied	Education Art & Humanities Social Sciences, Business Law	34 41 229	8.9 10.7 59.6

	Sciences, Mathematics, & Computing	17 13	4.4 3.4
	Engineering, Manufacturing, & Construction	31	8.1
	Agriculture & Veterinary	12	3.1
	Health & Wealth Service	6	1.6

Based on the sample composition, most of the respondents in this study were from the bachelor's degree of their education level. Hence, this study shows that most of the bachelor's degrees were involved in affiliate marketing programs.

4.2   Validity. Reliability and Normality Analysis

Cronbach's Alpha was applied to measure the validity and reliability of the whole study's result. According to The Morgan Table, there are 384 respondents from university Malaysian students. The result as shown below:

Table 3: Cronbach's Alpha Analysis

Variables	Cronbach's Alpha Result	Items	Results
Personal Attitude	0.923	6	Excellent
Subjective Norm	0.891	4	Good
Perceived Behavioural Control	0.923	6	Excellent
Student Intention to do Affiliate Marketing	0.945	6	Excellent
Total	**0.908**	**22**	**Excellent**

Table 3 has shown Cronbach's Alpha Coefficient values for independent variable and dependent variable. Independent variables which are personal attitude, subjective norm, and perceived behavioural control stated the value of Cronbach's Alpha are 0.923, 0.891, and 0.923 respectively. While dependent variable which is student intention to do affiliate, marketing stated the value of Cronbach's Alpha is 0.945 indicating an excellent result.

Table 4:   Normality Test

Test of Normality						
	Kolmogorov-Smirnov[3]			**Shapiro-Wilk**		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Personal Attitude	0.186	384	0.000	0.851	384	0.000
Subjective Norm	0.211	384	0.000	0.863	384	0.000
Perceived Behavioural Control	0.166	384	0.000	0.873	384	0.000
Intention Among Public University Students.	0.209	384	0.000	0.816	384	0.000

4.3   Hypothesis Testing

The association between all four variables was examined using Spearman Correlation. Table 5 displays the correlation coefficients of student intention, personal attitudes, subjective norms, and perceived behavioural control.

Table 5: Spearman Correlations

Hypothesis Statement	Pearson Correlation (r)	Conclusion
H1: There is a significant relationship between personal attitude and intention to do affiliate marketing among university students.	0.891	Accepted

H2: There is a significant relationship between subjective norms and intention to do affiliate marketing among university students.	0.923	Accepted
H3: There is a significant relationship between perceived behavioural control and intention to do affiliate marketing among university students.	0.945	Accepted
H4: There is a significant relationship between perceived behavioural control and intention to do affiliate marketing among the Malaysian university students	0.945	Accepted

(Source: Developed by researcher from the sample output for this study)

5 Conclusion

Based on the study that has been conducted, researchers summarise the results from the running data analysis as corresponding with objectives stated by researchers. The researchers discovered "The Factor Influencing Public Universities Students in Malaysian To Do Affiliate Marketing" are personal attitudes, subjective norms, and perceived behavioural control. The number of respondents in this research is 384. Researchers provided a better understanding of the intention of public universities students to do affiliate marketing. The results of the correlation show that there is a moderate to strong positive correlation between independent variables and the dependent variable. The researchers sum up the intention of public universities students in Malaysia to do affiliate marketing because of many factors.

As a result of this study, the researchers suggested several recommendations for the future research. Encourage more people, not only students, to join affiliate marketing. Create a variety of opportunities for affiliate marketing. Increase the level of protection against affiliate marketers.

6 Acknowledgements

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Entrepreneurship Intention Among Final Year Students of University Malaysia Kelantan: The Post Covid-19 Pandemic

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Abstract:

Entrepreneurship is an opportunity to generate new business in creating profit for entrepreneurs while entrepreneurship intention is to cultivate entrepreneurship interest where it has a positive or negative effect on university students. Therefore, this study was conducted to examine the factors that influence entrepreneurship intentions among students at University Malaysia Kelantan (UMK) in the post Covid-19 pandemic. In this study it was found that the factors that influence entrepreneurship intentions among students are subjective norms, environmental factors, personality traits and family business background. This study uses an approach based on a quantitative method consisting of a questionnaire which is given online, through Google Form to the respondents. The results of this study have shown a positive relationship between subjective norms, environmental factors, personality traits and family business background on entrepreneurship intentions among students at University Malaysia Kelantan. This research paper is very important for university students to increase interest in the field of entrepreneurship as well as help in influencing students to become successful entrepreneurs. Having an understanding of the factors that influence entrepreneurship intentions among students will provide a solution to the problem of increasing unemployment by creating job opportunities in new business ventures.

Keywords*: Entrepreneurship, entrepreneurship intention, subjective norms, environmental factors, personality traits, family business background*

1 Introduction

Entrepreneurship is a new business that starts with planning and compiling a business plan and being able to deal with and accept the risks that will come with running a new business to generate profit. Entrepreneurship intention (EI) is defined as "a conscious state of mind that precedes action and directs attention towards entrepreneurship behavior such as starting a new business and becoming an entrepreneur" (De Silva & Koggalage, 2020). According to Dao, Bui et al. (2021) the first step in business formation and often intentional is entrepreneurship intention because entrepreneurship is a predictable activity. Entrepreneurship intention shows a person's interest when developing a transaction and also choosing another job path to accommodate regular jobs that do not bring profit (Karimi, 2020). The advantage of entrepreneurship

intention is to predict future entrepreneurship behaviour where there are several scholars emphasize that the stronger the entrepreneurship intention, the higher the chance of new business activity being formed. The important role of entrepreneurship intention is confirmed in the words of Dao, Bui et al. (2021) that entrepreneurship intention shows how great a person is prepared and how much effort is planned to be made to carry out entrepreneurship behaviour.

The impact of the COVID-19 pandemic on entrepreneurship intentions has two possibilities where the impact of the pandemic has a positive or negative impact on entrepreneurship intentions. This effect has the potential to prevent the creation of new businesses or can also be a source of development by offering new opportunities and business innovation (Krichen and Chaabouni, 2021). Unemployment is one of the important issues in influencing entrepreneurship intentions among graduates where this problem is not only happening in Malaysia but all over the world. As a result of the spread of the COVID-19 pandemic that has hit the world since the beginning of 2020, the Malaysian Institute of Economic Research (MIER) expects that 2.4 million people will lose their jobs (The Star, 2020; Mamat and Mahmud, 2020). The unemployment rate in Malaysia is getting higher due to graduates who have completed their studies not getting a job for a long time. Most university graduates are unemployed due to their taste for high jobs resulting in them not working in a short time. Ramli and Seman (2020) prove that entrepreneurship is very important in creating and fulfilling a healthy economy and reducing the unemployment rate. According to Godswill Agu, Okwara, Okocha and Madichie (2022) the multifaceted COVID-19 pandemic crisis has led to specific challenges faced by entrepreneurs in adapting to the new environment, including how they respond to the uncertainty faced. According to Widjaja, Wibowo, Narmaditya, Wardoyo and Saptono (2022) the drive to promote new job opportunities, reduce the unemployment rate, and reduce poverty is the effect on the creation of new businesses by entrepreneurs. The aim of this study is to explain the factors that influence entrepreneurship intentions among final year students at University Malaysia Kelantan in the post COVID-19 pandemic.

i. Is there any relationship between subjective norm and entrepreneurship intention among final year students of UMK's?
ii. Is there any relationship between environmental factor and entrepreneurship intention among final year students of UMK's?
iii. Is there any relationship between personality traits and entrepreneurship intentions among final year students of UMK's?
iv. Is there any relationship between family business background and entrepreneurship intentions among final year students of UMK's?

2 Literature Review

2.1 Entrepreneurship Intention (EI)

Entrepreneurship intention can be defined as a mental orientation such as interest, desire and hope that can influence a person's entrepreneurship choice. Based on Hong, Sha'ari, Zulkiffli, Aziz and Ismail (2020) experience, action and attention are individual mind set to achieve business goals where it is the meaning of entrepreneurship intention. According to Ghofarany and Satrya (2021), Entrepreneurship intention can also be

defined as an individual's commitment to start a new business where a person with high entrepreneurship intention can be trusted and confident in starting a business compared to those who have less entrepreneurship intention. The thought that initiates people to make the right decision to choose from self-employment instead of choosing a salaried job has been described from entrepreneurship intentions (Rahim, Pawan, Sung and Abdullah, 2020).

Over the past few years, entrepreneurship intention and starting a new business has various characteristics where it has received attention from researchers. According to Trif, Noja, Cristea, Enache and Didraga (2022) entrepreneurship intention can be increased where specific attitudes can predict intentions while prerequisites can determine entrepreneurship behaviour. Entrepreneurship intention is represented as an individual's aspiration in carrying out beneficial activities which directs them to take advantage of new business concepts related to them and implement them very effectively. According to Dao, Bui et al. (2021) the plan or desire to create a new company or business activity or start an organization is part of the entrepreneurship intention. According to Trif, Noja, Cristea, Enache and Didraga (2022), the entrepreneurship intention of university students has a great impact on entrepreneurship guidance where it is proven that their intention is doubled compared to students who do not benefit from entrepreneurship training.

2.2   Subjective Norm

Subjective norms are a belief in a person or group of important people where they will approve and support certain behaviour in making decisions. In addition, subjective norms can also be meant as one of the important factors in the theory of planned behavior where it is a method used by family members and friends in trusting the tasks carried out by individuals to complete tasks perfectly (De Silva & Koggalage, 2020). The social pressure felt by others towards an individual where they behave in a certain way and are motivated to comply with the views of important people has been determined by subjective norms (Mohd Noor, Yaacob and Omar, 2021). Social influence is the main determinant in influencing intentions towards behaviour where individuals will evaluate and perform behaviour based on the perception of value from third parties. A study by Hong, Sha'ari, Zulkiffli, Aziz and Ismail (2020) found that motivation from outsiders is a trigger for individual intentions in fostering entrepreneurship and being able to open a new firm. The intention to become an entrepreneur or to do beneficial activities in the field of entrepreneurship has been influenced by important people (Dao, Bui et al., 2021).

According to Dao, Bui et al. (2021) subjective norms are cognitive variables that play a role in changing a person's perception of whether or not to do an action based on opportunity recognition, initiative perception or recognition of actions. The study of Mohd Noor, Yaacob and Omar (2021) shows that subjective norms can be said not to be related to the intention of individuals in developing their own business. Then, there is one weakness that is most often mentioned in the theory of planned behavior which is that subjective norms and intentions have a weak relationship. Subjective norms can be measured directly by using injunctive quality questions that are consistent with subjective norms but the response itself has low variability and is supported by a clear

reason that important people agree with the desired behaviour but disagree with the behaviour that is not desired (Mohd Noor, Yaacob and Omar, 2021).

Entrepreneurship intention has a positive impact on subjective norms where it has been identified in many countries such as Taiwan and Spain resulting in individuals being influenced by subjective norms. This situation can be concluded as a subjective norm that has a positive effect on the entrepreneurship intention of individuals (De Silva & Koggalage, 2020). According to De Silva & Koggalage (2020) there is a significant effect between subjective norms and individual intentions to become successful entrepreneurs in twelve countries where subjective norms can be recognized as having the least effect on individual entrepreneurship intentions compared to other factors.

H1: There is positive relationship between subjective norm and entrepreneurship intention among final year students at University Malaysia Kelantan.

2.3 Environmental Factor

Environmental factor refers to all the observable components of the economic, political, regulatory, technological, and demographic environments that have an impact on how a firm runs, develops, and endures in the world of business. According to the environment is a multifaceted entity with many different viewpoints and facets. It is said that due to the environment's complexity, each type of setting has a unique impact on how entrepreneurship ambitions are shaped. Since entrepreneurs do not operate in a vacuum, certain environmental factors must be considered when discussing entrepreneurship. All the elements that encourage entrepreneurship make up the entrepreneurship environment. As a result, it has both positive and negative aspects. On the other hand, people will consider starting a firm if the business climate is unfriendly and undesirable. The environment is an important factor that may have an impact on one's intention to start their own business. According to De Silva and Koggalage (2020), the world's surroundings, the challenges individuals confront, and the events that have an impact on a country's and its society's growth are referred to as a country's environment.

Consequences of the environment on business planning and development for individuals. The five recognised environmental elements are social, infrastructure development, political, market, and economic considerations. Infrastructure development is one of these elements that is widely acknowledged as having a significant impact on people's intentions to become entrepreneurs at a higher rate since it affects the nation's educational system. It is concluded that one's intention to become an entrepreneur is affected by the environment. Environmental factors are identified as economic and social variables of a country in a research study conducted in Malaysia among business students to explore the factors impacting entrepreneurship intention. According to the research study's findings, there is no justification for the impact of environmental factors on people's intentions to become entrepreneurs. According to the study, the environment has little bearing on people's intentions to become.

German university students were the subjects of a study to find out what influences their desire to become entrepreneurs. Defines environment as the evaluation made by a student of the expense's pupils must incur and the anticipated rewards they will receive

from pursuing entrepreneurship as a vocation. According to the study's findings, the environment has an impact on MIT students' intentions to pursue entrepreneurship. Students who start their own businesses are impacted by the macro and microenvironments.

H2: There is positive relationship between environmental factor and entrepreneurship intention among final year students at University Malaysia Kelantan.

2.4   Personality Traits

Personality traits are integrated characteristics that determine the causes of emotions, consciousness, and behavior (Luc, 2022). Personality traits are innate or learned characteristics that influence a person's abilities, motivation, attitude, and temperament (Brandstaetter, 2022). While the realist view assumes that a person's personality traits are influenced by heredity, the nurturing view assumes that a child's childhood environment, education, and experiences will reinforce new and emerging personalities. Personality traits can predict and explain a person's behavior and behavioral differences between individuals. According to Luc (2022), a personality trait is a distinctive, generally stable behavioral correlate that persists over time for each individual. According to this theory, personality traits influence behaviour and, consequently, entrepreneurial behavior as a form of action.

According to Şahin et al. (2019), personality traits are propensities to react in a particular way under different circumstances and are very stable over time. Due to the complexity of human personality, the Big Five model was developed to explain in depth the most important personality traits in five main categories. According to , the concepts of personality and personality traits are rather fuzzy in both psychological research and common sense understanding. Personality traits broadly include abilities (general intelligence as well as numerical, verbal, spatial, or emotional intelligence), motivations (need for achievement, power, or affiliation), attitudes (including values), and temperament traits as a person's overarching style. People with closely related characteristics may behave differently in a changing environment, while people with completely different characteristics may have the same response in a correlative environment.

In a previous study, personality traits are considered as supporting factors for entrepreneurship intention. The need for autonomy, energy level, and need for achievement have been shown to be the most important variables in predicting entrepreneurship intention. Through their attitudes, students' personalities indirectly influence their intentions to start a new business. According to , personality traits can be divided into two categories: general and specific. Entrepreneurship intention is a person's desire to become an entrepreneur. People with entrepreneurship intentions can be more successful in starting their businesses. When entrepreneurs encounter difficulties in running their businesses, they may become more committed to entrepreneurship. Control beliefs, striving for success, risk tolerance, and entrepreneurship alertness are personality traits that influence entrepreneurship intention.

*H3: There is positive relationship between personality traits and entrepreneurship
intention among final year students at University Malaysia Kelantan.*

2.5   Family Business Background

The family background is also a factor that influences student's intentions to start a
career as an entrepreneur. The student from families with entrepreneurial backgrounds
are more likely to start their own business. The social influences by parents may include
the transmission of skills gained through experience, tacit knowledge, and modelling of
career options (Georgescu and Herman, 2020). Social networks play an important play
an important role in transferring tacit knowledge regarding how to seize entrepreneurial
opportunities, with parental role models serving as a substitute for tacit knowledge
obtained through entrepreneurial experience. The business ownership by a family can
greatly determine student career choices. This condition will encourage a person to
follow their parents' career path and start business independently (Irwansyah, Paminto
et al., 2021). Parents can be role models for students in continuing careers. The family
has been playing important role in supporting the economic growth of a certain country.

Family business is defined as a business that is controlled by a dominant member of the
same family and potentially sustainable across generation. A family business is a
business activity run by a family and most families run it every year, event students
from their infancy to university students. There are three things family business owners
need to remember to pass on to their children. There are studies that claim
entrepreneurship in family firms may be influenced by genetic factors (Georgescu and
Herman, 2020) and the example of entrepreneurial parents. Regarding students from
this particular family background who inherit a business environment that can influence
their future career intentions, this aspect seems to create confidence in their resources
and abilities to follow an entrepreneurial career (Georgescu and Herman, 2020).

Entrepreneurial intentions can indirectly be influenced by the family business
background (Georgescu and Herman, 2020) which has implications for entrepreneurial
antecedents. Student's entrepreneurial intentions are positively influenced by family
background and personal experience gained through family background. The student
who come from an entrepreneurial family background are more likely to continue in
their family's footsteps as entrepreneurs. Having a family background related to
entrepreneurship acts as an important factor to influence an individual's intention to
become an entrepreneur. Family businesses also inspire new graduates to generate a
supportive environment that gives them the information and resources to start their
business after finished studying.

*H4: There is positive relationship between family business background and
entrepreneurship intention among final year students of University Malaysia Kelantan.*

3   Research Methods

Data collection is a systematic approach to gathering accurate information from a variety of sources to provide insights and answers, such as testing hypotheses or evaluating outcomes. To ensure the usefulness and accuracy of this study, data obtained from primary sources through survey questionnaires will be the main sources. As a result, the questionnaire of this study is a self-administered questionnaire. This questionnaire was distributed to the respondents, who were final year students at University Malaysia Kelantan (UMK) through an online Google form generated using social media platforms such as WhatsApp and Telegram. This study will collect, record the data obtained from the questionnaire, and the researcher will reuse the collected data to conduct the new research. The questionnaire will be sent to respondents for two weeks, during which they must complete and return the questionnaire in its entirety. The researcher allocated one month to collect all the data from the respondents, and the researcher will also follow up with those who did not complete the questionnaire completely to receive the comments.

To prevent sampling errors and generalize from a random sample. A random sample must be large enough to avoid biases. A random sample must be of sufficient size to generalize from it while avoiding biases or sampling errors. What is sufficient relies on several factors that frequently confound persons doing surveys for the first time. This is because the absolute size of the sample chosen in relation to the complexity of the population, the researcher's objectives, and the types of statistical manipulation that will be used in data analysis is what matters here, not the percentage of the research population that is sampled. This is because in this faculty are more focus on business compared to other faculty, have extensive knowledge about business and have direct or indirect business involvement. The table below shows sample size for final year students for the Entrepreneurship and Business Faculty (FKP) in University Malaysia Kelantan. From the total sample size of 240 respondents were taken randomly to conduct this study.

Table 1: The total of final year's students for the Entrepreneurship and Business Faculty (FKP) in University Malaysia Kelantan

Course	Total
Bachelor of Entrepreneurship Retailing (SAR)	183 students
Bachelor of Business Administration (Islamic Banking and Finance)/(SAB)	202 students
Bachelor of Entrepreneurship Business (Commerce)/(SAK)	226 students
Bachelor of Entrepreneurship (Logistics and Distributive Trade)/(SAL)	233 students
Bachelor of Entrepreneurship (SAE)	58 students
Total	**902 students**

4   Data Analysis

4.1   Frequency Analysis

Frequency analysis is part of this section of the study. In this section, the researchers will discuss in detail the respondent profile for this research. Several inquiries about the respondents' gender, age, race, course, and business scope were included in the data from Section A of the survey. The demographic profiles of the respondents will be shown in the Table 2.

Table 2: Demographic profile of sample
(Source: Research data 2023)

Demographic Profile	Group	Frequency (N=240)	Percent (%)
Gender	Male	69	28.7
	Female	171	71.3
Age	20 – 22 Years	23	9.6
	23-24 Years	211	87.9
	25 Years and above	6	2.5
Race	Chinese	21	8.8
	India	18	7.5
	Malay	201	83.8
Course	SAB	29	12.1
	SAE	15	6.3
	SAK	50	20.8
	SAL	56	23.3
	SAR	90	37.5
Business Experience	Owned business before joining UMK	28	11.7
	No business yet for now	161	67.1
	Started a business at UMK	51	21.3

Based on Table 2, out of 240 respondents, there are (N=171) female respondents which were 71.3% of the population, and the balance of the respondents are males which are 28.7% consisting of (N=69) respondents. The difference between both genders was (N=102) respondents which were 42.6%. According to the findings, female students are more interested than male students.

Three stages of age in our research questionnaire which was 20 to 22 years old, 23 to 24 years old, and 25 years and above. The results indicated that the majority of respondents were from the age group around 23 to 24 years old, which consists of 87.9 % (N=211) respondents out of a total of 240 respondents. While there were 9.6% (N=23) respondents in the age group 20 to 22 years old. For the next stage, the minority age group of 25 years old and above contributed 2.5% which were (N=6) respondents. The highest number of race groups who were involved in this study were Malay with 83.8%

(N=201) respondents. Followed by Chinese with 8.8% (N=21) respondents. There were also Indian respondents who were in third place with 7.5% (N=18) respondents.

The analysis showed that the highest number of respondents was SAR, with 37.5% (N=90) respondents. The second-highest percentage of courses was SAL 23.3% (N=56) respondents followed by SAK 20.8% (N=50) respondents. Meanwhile, SAB with 12.1% (N=29) respondents, and the minority course were SAE consisting of 6.3% (N=15) respondents. Finally, the result indicated most respondents have no business yet now which is 67.1% (N=161) respondents out of a total of 240 respondents. Next, there were 21.3% (N=51) of respondents started a business while in UMK. Meanwhile, the minority business scope had a business before joining UMK consisting of 11.7% (N=28) respondents.

4.2   Descriptive Analysis

According to Naveed et al. (2009), to identify the type of genetic variation connected to the variables under research within each water regime, data were subjected to the generation mean analysis. Table 3 shows the overall mean analysis.

Table 3: Descriptive statistic of the research model
(Source: Based on this research SPSS Output)

Variables	Code	Mean
Subjective Norm	SN	4.2696
Environmental Factors	EF	4.0857
Personality Traits	PT	4.2875
Family Business Background	FBB	4.2274
Entrepreneurship Intention	EI	4.3173

Table 3 depicts the result of the overall mean analysis for variables. As illustrated above, subjective norm and environmental factor was measured by seven (7) items and means score is 4.2696 and 4.0857 respectively. Next, personality traits and family business background were measured by seven (7) items and for the means score is 4.2875 and 4.2274 respectively. The dependent variables of this study were entrepreneurship intention, which produce value for means score 4.3173 from seven (7) items measured.

4.3   Reliability Analysis

In this study, Cronbach's Alpha coefficients and item-total correlations were used to calculate the internal consistency. The item-total correlations were analysed to determine the degree to which each item, or incentive for work environment improvements, correlated with the total. The Cronbach's Alpha was used to measure

the internal reliability of the total 35 instruments of the five (5) constructs in this study. The closer the Cronbach's Alpha, coefficient get to 1.00, the better the instruments in general, which a value below 0.6 was considered to be poor.

Table 4 showed the result of internal consistency for the variables. As illustrated above, the environmental factor was measured by seven (7) items and generated a Cronbach's Alpha of 0.774 which was the lowest among all constructs. Next, the Cronbach's Alpha for subjective norm was 0.895 and was measured by seven (7) items and it showed a very good strength of association. The following personality traits and family business background were also measured by seven (7) items, which were 0.866 and 0.888 respectively. For variable perceived quality showed very good strength of association, also for variable family business background showed a very good strength of association. The dependent variable of this study was entrepreneurship intention, which have seven (7) items measured. The strength of association was excellent.

Table 4: Result of reliability coefficient Alpha
(Source: Based on this research SPSS Output)

Variable	Number of Item (N)	Cronbach Alpha Coefficient	Strength of Association
Subjective Norm	7	0.895	Very Good
Environmental Factor	7	0.774	Very Good
Personality Traits	7	0.866	Very Good
Family Business Background	7	0.888	Very Good
Entrepreneurship Intention	7	0.919	Excellent

Moreover, the overall alpha coefficient was 0.919. It represented an excellent strength of association. As a conclusion, the values of Cronbach's Alpha for all the five (5) constructs in this study were resulted above preferable level of 0.8, which indicated that the items had relatively high internal consistency. All the variables were reliable for further analysis.

4.4 Hypotheses Testing

Table 5 shows summary for hypotheses testing in this study. The software, SPSS gave the results in term of hypothesis acceptance or rejection and the significant levels. Based on table 11, it can be summarized that all formulated hypotheses: H1, H2 and H3 were accepted. But, in contrast H4 was rejected.

Table 5: Pearson Correlation Analysis
(Source: Established by this study according to the research output of 220 data, 2023)

	Hypotheses	Result	Decision
H1	Subjective Norm positively influence Entrepreneurial Intention (SN→EI)	$\beta = 0.422$ t-value = 7.139 p-value = 0.000	*Accepted*
H2	Environmental Factor positively influence Entrepreneurial Intention (EF→EI)	$\beta = 0.181$ t-value = 2.847 p-value = 0.005	*Accepted*
H3	Personality Traits positively influence Entrepreneurial Intention (PT→EI)	$\beta = 0.308$ t-value = 5.892 p-value = 0.000	*Accepted*
H4	Family Business Background positively influence Entrepreneurial Intention (FBB→EI)	$\beta = 0.020$ t-value = 0.432 p-value = 0.666	*Rejected*

5　Discussion and Conclusion

5.1　Discussion

There is a positive relationship between subjective norms and entrepreneurship intention among final-year students at the University Malaysia Kelantan (H1). In this study, the first research objective is to determine the relationship between subjective norms and entrepreneurship intention among University Malaysia Kelantan final-year students. Spearman correlation test was conducted to determine the relationship between subjective norms and intention to become entrepreneurial among University Malaysia Kelantan students. The result in Table 9 shows that independent variable 1 (subjective norm) is significantly correlated with the dependent variable (intention to become entrepreneurial), namely 0.710 and a p-value of 0.000 ($p < 0.01$). The result shows that there is a positive relationship between subjective norms and entrepreneurial intention. Subjective norm has a significant influence on entrepreneurial intention. This shows that subjective norms are fundamentally correlated with entrepreneurial intention. This also supports the hypothesis (H1).

There is a positive relationship between environmental factors and entrepreneurship intention among final-year students of the University Malaysia Kelantan (H2). The second research objective is to determine the relationship between environmental factors and entrepreneurship intention among University Malaysia Kelantan final-years students. Spearman correlation test was conducted to identify the environmental factors that are related to entrepreneurial intention among University Malaysia Kelantan students. The result presented in Table 9 shows that the independent variable 2 (environmental factor) is significantly correlated with the dependent variable (entrepreneurial intention). The correlation is 0.644 and the p-value is 0.000 ($p < 0.01$). The result shows that there is a positive relationship between environmental factors and

entrepreneurial intention. This proves that environmental factor is one of the dimensions of entrepreneurial intention that play a significant role and effect on students' environmental factors in relation to intention. This also supports the hypothesis (H2).

There is a positive relationship between personality traits and entrepreneurship intention among final-year students at the University Malaysia Kelantan (H3). The third research objective is to determine the relationship between personality traits and entrepreneurship intention among University Malaysia Kelantan final-year students. Spearman correlation test was conducted to determine the relationship between personality traits and entrepreneurial intention among University Malaysia Kelantan students. The previous result, Table 9, shows that there is a significant correlation between the independent variable 3 (personality traits) and the dependent variable (entrepreneurship intention) which is 0.620 and the p-value is 0.000 (p < 0.01). The result shows that there is a positive relationship between personality traits and entrepreneurial intention. It was proved that personality traits and entrepreneurship intention had a great influence on personality traits. Attitude was a factor of personality traits that positively affected a student's entrepreneurial intention. This also supports the hypothesis (H3).

There is a positive relationship between family business background and entrepreneurship intention among final-year students of the University Malaysia Kelantan (H4). The fourth research objective is to determine the relationship between family business background and entrepreneurship intention among the University Malaysia Kelantan final-year students. Spearman Correlation test was conducted to identify family business background related to entrepreneurship intention among University Malaysia Kelantan students. According to the result in Table 9, there is a fairly significant correlation between the independent variable 4 (family business background) and the dependent variable (entrepreneurship intention), which is 0.444 and the p-value is 0.000 (p < 0.01). The result shows that there is a positive relationship between the background of the family business and the intention to entrepreneur. The background of the family business was positively related to the intention to be entrepreneurial. If the family was able to gain the students' loyalty, the students would start a business. The family businesses made efforts to provide support and knowledge services that could satisfy all students. If the students are satisfied, their loyalty to the family business would increase and the background of the family business would promote the intention to start a business. This also supports the hypothesis (H4).

5.2   Implications of the Study

The results of this research have important implications for final year students at the university where they can nurture and develop entrepreneurial intentions in a student to encourage them to start a business in the future when they have the opportunity. Through the results of the research, we suggest some steps that need to be implemented by certain parties.

First, the university should encourage the implementation of programs that reduce the perception of entrepreneurial risk among students. We suggest that universities can organize extracurricular activities such as entrepreneurial idea competitions or talks with successful entrepreneurs to encourage entrepreneurial spirit in students. In

addition, universities can establish connection centres, business incubators to connect business projects with investors, universities with businesses to bring feasible business ideas to the market.

Second, parents also play an important role in supporting children who have an interest in business because they may come from families that already have their own businesses. This situation results in children having an interest in business where they want to become a successful entrepreneur just like their parents. With this, the entrepreneurial intention in them has been nurtured even earlier before they are in the university resulting in them being more active people than others after they are in the university that has the field of entrepreneurship and business. Support from parents is very important as they can help us in giving encouragement to run a business in the future.

Third, the government should also develop more communication programs for women entrepreneurs. The image of powerful and exemplary businesswomen who influence society's awareness and attitudes is limited. This causes women to have a lower intention to start a business. Promoting communication about the image of businesswomen is also an activity to promote gender equality, encouraging female students to eliminate society's views. Confucian about the family role of women and to encourage them to improve their social role.

5.3   Limitations of the Study

In completing this research, here are some limitations of the current research that need to be highlighted for future research. To begin with, this research emphasizes 240 respondents who have been set to answer the questionnaire for final year students at University Malaysia Kelantan. Based on the facts stated by Krejcie and Morgan (1970) show that the amount is very sufficient and compatible with a larger sample size where it can be used to systematize many final year students at University Malaysia Kelantan.

The next limitation of the study is that this study examines entrepreneurship intention among students where there are several factors that influence entrepreneurship intention, namely subjective norms, environmental factors, personality traits and family business background. There are four (4) factors that influence entrepreneurship intention where these factors are used in this research to complement the research conducted.

Furthermore, this research is led mainly at University Malaysia Kelantan at City Campus for final year students in Faculty Entrepreneurship and Business. Therefore, it cannot represent all University Malaysia Kelantan students at City Campus nor University Malaysia Kelantan students at Jeli and Bachok. This situation shows that it only covers a small geography at UMK at City Campus where it only focuses on final year students. This study may not be relevant for future analysts because it only focuses on final year students at Campus City, and it does not summarize entrepreneurship intentions for the whole of University Malaysia Kelantan.

Lastly for the limitation of the study is the extent to which the study develops this research where it has some autonomous factors that need to be examined in this research. The intended autonomous factor is an external factor where it can be used to explain the dependent variable which is entrepreneurship intention. Based on Table 9 shows that all independent variables are less than 0.01 where this situation shows that all variables have a significant and positive correlation between the independent variables namely subjective norms, environmental factors, personality traits and family business background with the dependent variable is entrepreneurial intention.

6   Overall Summary of the Study

This study provided further understanding on relationship of subjective norm, environmental factor, personality traits, and family business background and entrepreneurial intention among final year students at University Malaysia Kelantan (UMK). All the research question was responded, and the research objectives were accomplished by contemplating the literature and analysing the data which has been set in research methodology. In view of the Spearman Correlation analysis, all independent variables were positively related to the entrepreneurial intention among final year students of UMK. After running the Spearman Correlation analysis, subjective norm, environmental factor, personality traits, and family business background has shown a moderate relationship with entrepreneurial intention among final year students of UMK. This study had discussed about the limitations that had been experienced during the research progress and recommendation for future research.

7   Acknowledgement

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Factors Contributing Intention of Entrepreneurship Among Malaysia Public University Students

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Abstract:
The purpose of this research was to explores factors contributing intention of cyber entrepreneurship among Malaysia public university students. The Internet has become an important platform for Malaysians, including university students. The purpose of this study is to see if cyber entrepreneurship is becoming more popular among Malaysian public university students. The practice of selling goods and services over the internet, also known as e-commerce, is known as cyber entrepreneurship. This cyber entrepreneurship can be expanded through social media platforms such as Instagram, Twitter, TikTok, and many others, which are now widely used. With the latest technological advancements, students in Malaysia public university can earn a side income by selling online. Data was collected by distributing questionnaires online and a total of 384 responses were collected. Data analysis used is SPSS. The Theory of Planned Behaviour (TPB) is used in this study. Quantitative methods have been used by researchers to find out the exact factors that contributing intention of cyber entrepreneurship among Malaysia public university students to test the intended research framework.

Keywords*: Cyber Entrepreneurship, Internet, Social Media Platform, Intention*

1   Introduction

This research explores factors contributing intention of cyber entrepreneurship among Malaysia public university students. This chapter will wrap up eight sections that began with the introduction of the backdrop and a succinct description of the problem statement that has been identified by this issue. Research objectives and research questions are used to explain general and specific goals and outcomes, respectively. Not only that, but it will also continue when the study's scope includes topics that can be explored in our investigation into the study's importance and potential benefits. Additionally, the explanation of terms and the structure of the study might quickly explain how each portion is designed to accomplish the goals of the study. The final element be the conclusion.

Cyber-Entrepreneurship is an emerging approach of innovation practicing (Lian & Yen, 2017). As cyber-entrepreneurship has the advantages of having lower operating costs and lower threshold for start-ups compared to traditional business models, it has gradually grown to be the type of entrepreneurship that is more easily accepted by and accessible to the younger generation (Badaruddin, Arokiasamy, & Yusoff, 2011; Wang, Lin, Yeh, Li, & Li, 2016). This demonstrates how increasingly; students rely on and use e- commerce. Ecommerce is playing very important and basis role in online business practices. Although online shopping is one of the easiest & lowest alternate way for reaching out to new customers in the online business market, because of tremendous advantages of online shopping if online shopping implemented efficiently and effectively, it provides a smart innovative way of doing business and chances to expand more. The story of Jack Ma, the founder of Alibaba Group (Linda, 2010), demonstrated the possibility for non-IT majored entrepreneurs to successfully start an ecommerce business and highlighted the importance of cyber-entrepreneurship for non-IT college students.

Next, entrepreneurs are also individualities (or business possessors) who aim to induce value by discovering and exploiting new goods, processes, and requests by developing or expanding profitable conditioning (Mühlböck et al., 2018). They are sufficiently distinguishable from the traditional analogy thus, farther disquisition of their provocations and the programs and ecosystems that lead to such a difference is demanded (Bandera & Passerini, 2020). Unborn cyber- entrepreneurs can indeed overcome this severance issue by generating income using low investment and long-term fiscal security and will also give absolute freedom to approach original and transnational guests.

Finally, Rearmost coronavirus epidemic (COVID- 19) has also radically affected e-commerce. Some experimenters are presently assessing this epidemic's capability to homogenize the use of new technologies in incorporating processes permanently and successfully impact mortal conditioning in the future (Barnes, 2020; Papadopoulos et al., 2020). The epidemic's artistic and profitable goods have generated the reality of the new norms in the COVID period and needed a drastic change in business deals and buying systems used by people. The Star 2020 report that online retail earnings for Malaysia increased by 28.9 in April 2020 due to COVID-19. According to a disquisition conducted by Rakuten Insight Survey 2020 in Malaysia, 62 of the surveyed people said that they increased their online deals by May 2020 because of social distancing and minimizing their out-of-door time. Hence, this study investigates factors contributing intention of cyber entrepreneurship among Malaysia public university students. The continued growth of e-commerce (EC) and the evolution of mobile telecommunication technologies are driving the growth of cyber entrepreneurship.

2   Literature Review

2.1   Underpinning Theory

The Theory of Planned Behaviour (TPB) has emerged as one of the most dominant and popular frameworks in the study of human action, with the most important component being a person's intention to engage in an action. This TPB is the most significant

component of the intention model, which is frequently used in the field of entrepreneurship to achieve good research results. This TPB has three components: attitude, subjective norm, and perceived behavioural control (see Ajike et al., 2016).
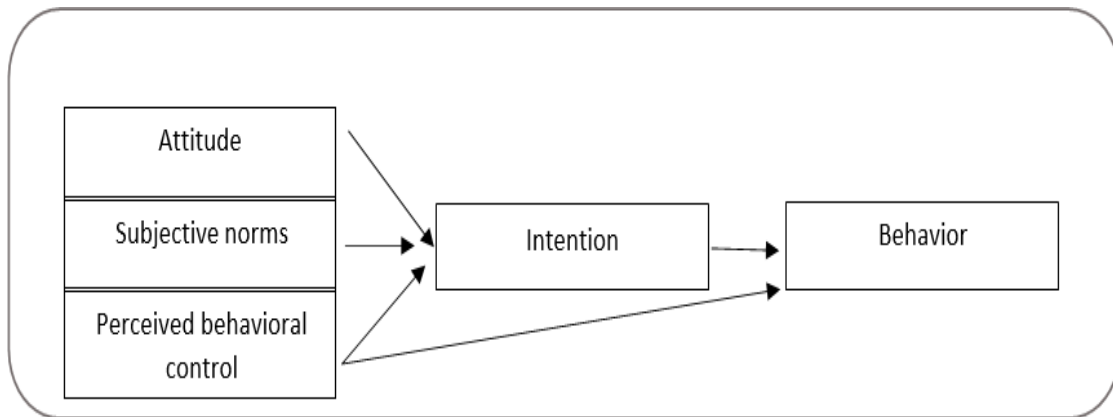

Figure 1: Theory of Planned Behaviour (TPB) framework

The components stated in the Theory of Planned Behaviour can influence the intention of public university students in Malaysia to become cyber entrepreneurs in the future. The first important factor is attitude. According to Shengyu Gu and Yingwei Wu (2019), shows that an individual's attitude is more likely to influence behaviour depending on the extent to which the attitude is formed based on experience, certainty, and strength. This is because Malaysian public university students who are creative, risk takers, technologically savvy, and so on are more likely to become entrepreneurs. As a result, it will create the intention of Malaysian public university students to choose cyber entrepreneurs as a platform to start a business because they have the advantage of their attitude to make cyber entrepreneurs an option rather than opening a physical store.

Subjective norms are the next factor discovered in the theory of planned behaviour (TPB). The user's perception of the social acceptance of perceived behaviour is known as subjective norms. Subjective norms are divided into two spheres of influence: community norms and the circle of social influence. Community norms refer to conformity with a larger social trend or a more powerful social environment, whereas the circle of social influence refers to a smaller group made up of family members, peers, and other close people (Shengyu Gu & Yingwei Wu, 2019). Those influences will influence a person and can create intentions in them. This can demonstrate that when friends or family members of Malaysian public university students have ventured into cyber entrepreneurships, they will motivate or suggest to the student that cyber entrepreneurship is a viable option for starting a business.

The final variable is perceived behavioural control. According to Justice Melebena (2014), perceived behavioural control refers to an individual's assessment of how well they can perform a behaviour. Control beliefs about factors that can help or hinder behavioural performance determine it. External or internal factors that facilitate or hinder behaviour performance include the availability of resources, opportunities, information, skills, abilities, emotions, past experiences, and other related factors. When

Malaysian public university students believe that becoming a cyber entrepreneur is better than opening a physical store because it saves time, they will do so. In general, being a cyber entrepreneur has many advantages for Malaysian public university students when compared to opening a physical store.

2.2   Personality Traits

According to Joyce and Shamuganathan (2010), personality traits are strong and predictable characteristics of a person's behaviour that explain differences in individual actions in the same situation. Implicit personal knowledge factors, beliefs, perceptions, and past experiences of the individual involved are all factors that influence personality characteristics. Personality traits can act as a catalyst to influence an entrepreneur's risk-taking when making decisions.

2.3   Time Saving

According to a study by Mohaidin, Hussien and Masmuzidin (2022) explained that with the increasing use of social media among entrepreneurs in Malaysia, it is very efficient in terms of cost efficiency and time saving. Nowadays,) the use of the internet, the development of social networks and online stores have become a popular attraction. The idea of ecommerce business as well as the applications involved that are used in the company can save time in communication with customers (Mitrovic et al., 2017).

2.4   Motivation

Sakir's (2019) research seeks to identify the factors that influence entrepreneurs' motivation to engage in cyber entrepreneurship. This study demonstrates that all factors, including relevance, autonomy, and efficiency, have a positive and significant impact on the motivation to accept cyber entrepreneurship. According to a study conducted by Md. Fadzil et al. (2002), the main factor that increases entrepreneurial motivation is dependent not only on internal motivation sources but also on external motivation, which is interacting with people - the closest person. This is due to external motivation is critical for an entrepreneur's emotions to continue to rise to deal with problems.

2.5   Conceptual Framework and Hypothesis Statement

According to the literature review and supporting theories, the researcher found that the dependent variable was influenced by the independent variables. Figure 2 is a conceptual framework of a study on the factor that contributing intention of cyber entrepreneurship among Malaysia public university students. These are as follows because of adaptions from previous studies. Thus, the hypotheses statement can be as follows.

  i.   H1: The personality traits have a positive influence towards the intention of cyber entrepreneurship among Malaysia public university students.
  ii.   H2: The time saving have a positive influence towards intention of cyber entrepreneurship among Malaysia public university students.
  iii. H3: The motivation has a positive influence towards intention of cyber entrepreneurship among Malaysia public university students.
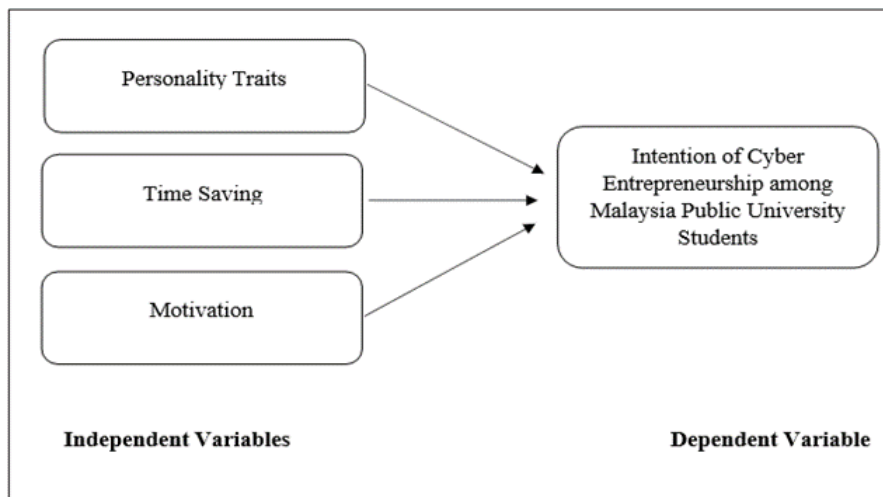
Figure 2: Conceptual framework for this study

3   Methodology

The researcher has employed a quantitative approach because the empirical evaluation is based on numerical measurement and analysis. Online surveys were used to acquire the main data. The gathered information will aid researchers in determining the intention of cyber entrepreneurship has a positive or negative impact among Malaysian public university students will learn about creating and organising research designs using this research design. Population of this study is 552702 among Malaysia public university students. To address the research purpose, this study focuses on the respondent who uses social media. There were 20 public universities in Malaysia engaged in this study. The Krejci and Morgan table states that 384 responses from 20 public institutions are needed to represent the population of 552702 students. All required fields must be filled out by respondents.

The types of sampling method that researcher use in this research is probability sampling methods. Through this method, researcher use simple random sampling which it will be used as the main type of probability sample. This research included 552702 students from 20 public universities in Malaysia (Hussin et.al 2008). 384 respondents are all that are required of the group that was chosen from the large number. This survey form will contain 5 parts consisting of Section A, B, C, D and E. The respondent's background regarding their intention to engage in cyber entrepreneurship soon or in the future using answer option "Yes" or "No." Meanwhile, the question about personality traits, time, saving and motivation rated using a Likert scale with four scales: 1- Strongly Disagree, 2- Disagree, 3- Agree, and 4- Strongly Agree. All section exclude section A will consists of 5 to 10 question and the questions asked are based on the specified dependent variable stated.

4   Result and Findings

4.1   Preliminary Analysis

Preliminary analysis is known as reliability analysis and pilot test was conducted by distributing questionnaires to the total number of 30 respondents.

Table 1: Result of reliability Cronbach's Alpha for the variables

Variables	N of items	Cronbach's Alpha
Intention towards cyber entrepreneurship (DV)	5	0.721
Personality traits (IV)	5	0.884
Time saving (IV)	5	0.716
Motivation (IV)	5	0.890

Table 1 shows the Cronbach's Alpha values of the questionnaire were above the good level which is 0.70 with the value range between 0.716 to 0.890. A total of independents variable and dependent variable has been tested using reliability Cronbach's Alpha. The first independent variable is personality trait was found to be good reliability with 5 items 0.884. The second independent variable which is time saving was also showed a good reliability with 5 items and the Cronbach's Alpha result was 0.716. Next, independent variable which is motivation was also showed a good reliability with 5 items and the Cronbach's Alpha result was 0.890. Finally, the dependent variable which is Intention towards cyber entrepreneurship result was found to be good reliability with 5 items 0.721. To conclude, all the variables that carried out for this study were very good and acceptable. Therefore, the data was considered suitable for the further analyses.

4.2   Demographic Profile

Frequency analysis is part of the study's fundamental analysis. Part A includes five questions about things like age, gender, education level, university, and running an online business. Tables and pie charts are used to illustrate the respondents' demographic information. In term of age, highest number of respondents were from 21 to 23 years old with 40.6%. The second highest number of respondents are from 24 to 26 years old with 28.4%. Followed by the age 18 to years old with 15.4%, age 27 to 30 years old with 8.9% and lastly age above.

Furthermore, majority respondents were come from female with 60.2%. followed by male with 39.8%. Next, for the education level, the majority respondents are lead from Degree background with 64.3% while the second highest of the respondents were Diploma with 18.5% followed by Master with 9.6%. Next, 4.9% are comes from foundation and lastly PhD with 2.6%. Besides, most of the respondents are from UMK (21.1%), secondly is UiTM (13.0 %), UiAM, UTHM has same percentage (4.7 %), UTM, UPSI has same percentage (4.4 %), UM, USM, UPM, UUM, UniSZA has same percentage (4.2%), UMS, UNIMAP has same percentage (3.9 %), UTEM (3.1%), UNIMAS, UMP has same percentage (2.9 %), UMT (2.6 %), UPNM (2.1%), and the lowest percentage of respondents is USiM (1.8%). Lastly, the range respondent that

running cyber entrepreneurship consist of No (51.6%) and Yes (48.4%). The result finally found that most of respondents have no experience in running cyber business.

4.3   Descriptive Analysis

The descriptive analysis tested items according to the variable and listed out the summary of the mean and standard deviation of computed in Table 2.

Table 2: Descriptive analysis

Variables	Mean	Standard Deviation
Intention towards cyber entrepreneurship (DV)	3.3573	0.64702
Personality traits (IV)	3.6214	0.43124
Time saving (IV)	3.5495	0.49398
Motivation (IV)	3.7016	0.39553

Table 2 show the number of respondents, mean and standard deviation of independent variables and dependent variables for this study. For the independent variables, the highest mean is motivation which is 3.7016 and the second highest is personality traits with 3.6214 and followed with time saving with 3.5495 and lastly the mean for dependent variable which is intention toward cyber entrepreneurship was 3.3573.

4.4   Reliability and Normality Analysis

Reliability, according to Nahid Golafshani (2003), is used to test the extent to which the results are consistent over time and the accurate representation of the total population studied. The reliability of this study is based on Cronbach's Alpha value as in Table 3 below.

Table 3: Cronbach's Alpha value

	Variables	Cronbach's Alpha	No. of items
DV	Intention toward cyber entrepreneurship	0.869	5
IV1	Personality traits	0.858	5
IV2	Time saving	0.848	5
IV3	Motivation	0.872	5

Refer to Table 3, all four variables are in the good category, for DV (Intention towards cyber entrepreneurship) with a value of 0.869, IV1 (Personality traits) with a value of 0.858, IV2 (Time saving) with a value of 0.848 and IV3 (Motivation) with a value of 0.872.

The normality test defines the distribution of the sample size. It is important to understand whether the sample collected is within the acceptable range and the sample bias. If the sample is not normally distributed, the non-parametric technique will be used for the next test and if not, the parametric technique will be used. The test of normality is shown in Table 4.

Table 4: Test of normality

Variables	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Intention Cyber Entrepreneurship	0.160	384	0.000	0.878	384	0.000
Personality traits	0.227	384	0.000	0.823	384	0.000
Time saving	0.228	384	0.000	0.837	384	0.000
Motivation	0.283	384	0.000	0.752	384	0.000

Based on Kolmogorov-Smirnova table 3, Intention toward cyber entrepreneurship, personality traits, time saving, and motivation have the same value of significant which is 0.000. This indicates the p-value is below 0.05. So, if $p < 0.05$ then the null hypothesis is rejected. According to Mortaza Jamshidian, Siavash Jalal, Camden Jansen (2014), based on the condition of normality it can be assumed that the null hypothesis is rejected at a significance level of 0.05 or below.

4.5   Hypothesis Analysis: Multiple Linear Regression

Multiple linear regression was used in this research to predict the outcome of intention of cyber entrepreneurship based on the independent variables which are personal traits, time saving and motivation.

Table 5: Summary of Multiple Linear Regression

Variables	Standardized Coefficients Beta	t	Sig.
(Constant)		.535	.593
Personality traits	.197	3.178	.002
Time saving	.332	5.631	.000
Motivation	.099	1.670	.096

a. Dependent Variable: Intention toward cyber entrepreneurship

From the Table 5 above, the result shows that the P value of time saving is 0.000 and personality traits is 0.002 where the value is less than α (0.05). It indicates that time

saving, and personality traits are intention of cyber entrepreneurship. While the P value of motivation is 0.96. it is explained that this variable is no significant factor towards the influencing intention of cyber entrepreneurship because $P>0.05$. Therefore, the summary of findings for this study was summarised as Table 6.

Table 6: Summary of Hypothesis

	Hypothesis	**Result**
H1	There is a significant positive intention of cyber entrepreneurship among Malaysia public university students and personality trait.	Support
H2	There is a significant positive intention of cyber entrepreneurship among Malaysia public university students and time saving.	Support
H3	There is a significant positive intention of cyber entrepreneurship among Malaysia public university students and motivation.	Support

5   Discussion and Conclusion

The main findings and discussion of the hypothesis that had been put forth to investigate the influencing between the factors that contributed to students at Malaysian public universities' intention to engage in cyber entrepreneurship Finally, the discussion on limitations and recommendations is also presented in this section to assist the next researcher when undertaking a similar study.

The Spearman Correlation Coefficient was used to determine the statistical link between two continuous variables (independent and dependent variables) and the normality test was also used in this study to identify the sample size distribution to determine the sample collected was within an acceptable range and sample bias. Reliability test is also used in this study to determine the extent to which stability and scale produce consistent results. was also used in this study to determine the extent to which stability and scale produced consistent results. Multiple linear regression was used in this research to predict the outcome of cyber entrepreneurship intentions among Malaysian public university students based on the independent variables of personal characteristics, time saving and motivation.

According to the results of the Spearman Correlation Coefficient all three hypotheses are accepted and show a positive influence. The results of the normality test show the strength of the model's correlation with the desire to influencing cyber entrepreneurship and show a moderately strong correlation and a strong influencing between the variables. Next is the reliability test which shows that the four variables in the study, namely intention towards cyber entrepreneurship, personality traits, time saving, and motivation are in the good category. While the results of multiple linear regression show

that only personality traits and time saving are factors that influence the in cyber entrepreneurship. Motivation is not a factor that affects the in cyber entrepreneurship among Malaysian public university students because the p value for this factor is above 0.05.

To make a conclusion from this study, it can be said that the results show the influencing between the independent variables namely personality trait, time saving, and motivation and the dependent variable is Intention towards cyber entrepreneurship is a positive influencing. Therefore, we can see that motivation has the highest value among the standardized coefficients which are not significant factors, and the other independent variables namely personality trait and time saving have the greatest influence on the intention of cyber entrepreneurship among Malaysian public university students. It clearly demonstrates that personality trait and time saving are significant independent variable factors in this study, all of which have a strong correlation with the factors that influence cyber entrepreneurship intention. As a result, the researchers hope that all the data presented in this study will be useful in the future for policy experts seeking data and information on cyber entrepreneurship. We also hope that the many people will get benefit from the findings of the study on the factors that influence cyber entrepreneurship intentions among Malaysian public university students.

In the future, the researcher can continue this study by using the specialization of which cyber entrepreneurship platform is used the most by the public and the focus on improving this platform in the business world. The study of this proposal should be carried out by the next researcher considering that the business world has already shifted to a digital focus that is growing along with the sophistication of the technology available. This project can also be continued in variety of scopes such as in the scope of consumers or sellers. Potential entrepreneurs who will venture into the field of cyber entrepreneurship can apply the findings of this research to be used as a guide to form a commitment to their business in a more advanced and successful manner. It is also useful to create, develop and implement relevant marketing and awareness interventions so that cyber entrepreneurship grows widely throughout Malaysia. Thus, this may cause more entrepreneurs in general to their business opportunities not only in the country but also abroad.

6   Acknowledgements

7　References

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The Relationship Between Technological Capability and Organisational Sustainability Among Small and Medium Enterprises in Malaysia

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Abstract:
Organizational sustainability is a key issue for manufacturing and services Small and Medium Enterprises (SMEs) to face fierce competition and to meet the modern strategies implemented by enterprises in relation to environmental and social concerns. Therefore, based on the resource-based view theory, the purpose of this study is to examine the relationship between dimensions of technological capability (TC) and organizational sustainability (OS) as being perceived by manufacturing and services SMEs. in Malaysia. Self-administered questionnaires were distributed to equity owners and managers of SMEs in Malaysia. This study used cross-sectional design and respondents involved were selected using convenience sampling. A total of 214 usable questionnaires were collected, with responses reported on a seven-point Likert scale. Furthermore, path coefficient analysis results revealed that absorptive capacity (AC) had a positive and significant relationship with OS. The relationship between human capital skills (HCS) and research and development capability (RDC) and OS were positive but not statistically significant. The results indicated that most important factors for OS was AC. Based on the findings, this study offers knowledge contributions for SME owner-managers and entrepreneurship faculty and business students better understand today's competitive business environment.

Keywords*: Absorptive capacity, Human capital skills, Organizational sustainability, R&D capability, Technological capability*

1   Introduction

In a complex, competitive business environment, the application of sustainability principles is important for the stable and sustainable growth of SMEs in Malaysia. The 21st century's global market has undergone rapid transformation due to the diffusion of old and new technology knowledge via worldwide links. In this context, the primary factor influencing national competitiveness and economic growth is the development of technological capability (Yeon, Lee, & Baek, 2020). Technological capability is the basis of the company's sustainable competitive advantage because employee capability

consists of technical awareness and valuable production skills that competitors hardly imitate in the short-term (de Queiroz Machado, Matos, & de Mesquita, 2021). SMEs are a productive way to create new technologies that support the growth and integration of all other economic sectors (Saadi & Che Razak, 2019).

When the pandemic and industrial revolution 4.0 occurred, SMEs in Malaysia were significantly impacted and several SMEs have been lowered and threatened with bankruptcy (Kozikojoukian, 2021). These weaknesses may be due to the lack of resources, capacity, knowledge, experience, and necessary development leading to sustainability (Begnini et al., 2022; Kozikojoukian, 2021; Saadi & Che Razak, 2019). Moreover, the treasurer-general and chairman of the SME committee at the ACCCIM noted that many SMEs were stepping forward to ask for help to cover their loan repayment (Poo, 2022). Thus, according to Moeuf et al. (2019), SMEs are capable of recognising possibilities but fall short of creating an essential competitive advantage.

This study has been motivated by the need to overcome the issue of insufficient research to date on technological capability by manufacturing & services SMEs, especially in Malaysia in the management literature on sustainable development. Therefore, by emphasising the connection between the dimensions of technological capability (RDC, HCS, and AC) and OS of manufacturing & services among SMEs in Malaysia, within the boundary of the Resource-Based View (RBV).

1.1   Problem Statement

The researchers underline that SMEs did not fully understand organizational sustainability as a research gap and with limited research in Malaysia, there is a need to increase understanding of organizational sustainability trends and the importance of building impact related to social, economic and environmental performance. This warrants the created need that SMEs must associate with OS for continued success. Because environmental, economic and social challenges are very aggressive for service and manufacturing SMEs (Peramuthu, 2020).

In light of the earlier discussion, dimensions of technological capability show an important role in manufacturing & service SMEs. Based on previous studies, technological capability can improve SMEs' innovation capabilities, products and processes as well as strategic sustainability (Saadi & Che Razak, 2019; Aljanabi, 2018). Researchers found that SMEs face technological barriers are the main obstacle for SMEs in Malaysia. SMEs are severely underdeveloped in terms of technology and appropriate knowledge to exploit industry advances and current production opportunities, leading to poor innovation, production processes and strategies. SMEs must respond to these changes by improving traditional manual processes to gain speed, efficiency and productivity (Sharon, 2019).

In short, this study believes that the problems mentioned about the decline of manufacturing & service SMEs in Malaysia at this time must be translated into the sustainability of the organization which can be improved using the maximization of technological capability.

2 Literature Review

2.1 Organisational Sustainability Within SMEs in Malaysia

Organisational sustainability has increased attention among Small and Medium Enterprises (SMEs) to help sustain the environment and society while sustaining their company performance over time in the marketplace. Based on Saadi & Che Razak (2019), the authors noted that SMEs recently were developing and adopting corporate responsibility strategies as their contribution towards organisational sustainability goals. These approaches have been adopted to balance organizational self-interest with public welfare in a way that benefits both parties (Law, 2010). UNWCED initially defined sustainability as development that meets the requirements of the present without jeopardising future generations' ability to meet their own needs (1987, p. 8). Willard (2012) stated that the three pillars of sustainability, economic, social, and environmental, are critical components of organisational sustainability. Saadi & Che Razak (2019); Peramuthu (2020) supported this view and emphasizing its role in sustainable development because organizations can reduce business costs, create more innovative strategies, improve company reputation in the long term, attract new customers to increase profits. Organizations need to find an overlap between business interests and the interests of society and the environment before the company can gain a sustainable competitive advantage. Thus, Amini & Bienstock (2014), have shown that economic, environmental and social factors can directly affects organisational sustainability.

Manufacturing & services SMEs in their transformation journey to Industrial Revolution 4.0 has been affected during pandemic to achieve organizational sustainability in a democratic environment (Imran, 2022). Due to they are an economic force to be reckoned with and SMEs can make a significant contribution towards the Sustainable Development Goals (Singh, 2022). Eventually, the call by SMEs to find and cultivate sources of competitive advantage is essential for them to be sustainable in the market. Organizational sustainability in this study is important for research from a strategic and performance point of view to manage social, environmental and economic elements together while linking SMEs to balance prosperity, awareness, quality of life, and continuous discovery and use of new resources (Berrone & Gomez-Mejia, 2009). The Triple Bottom Line (TBL) is a hierarchical concept that divides organisational sustainability into economic, environmental, and social pillars (Edeigba & Arasanmi, 2022; Peramuthu, 2020; Saadi & Che Razak, 2019). Also, the resource-based view (RBV) mentions that through competitive capabilities organizational sustainability is achieved and taken into account in the balance (Peramuthu, 2020). Basically, the TBL concept advocates the idea that in order for organisations and their environments to be successful. SMEs in Malaysia must pay attention to all three pillars of sustainability rather than focusing solely on economic sustainability (Peramuthu, 2020).

2.2 Dimensions of Technological Capability and Organisational Sustainability

Based on previous literature, researchers managed to compile a summary of previous studies and obtain a critical understanding of the variables, results and approaches used by previous authors where many weaknesses have been detected that limit the understanding of the relationship of RDC, HCS and AC in the context of TC on OS in

Malaysia. The three dimensions are predicted to have a major impact on OS because they are crucial in RBV's perspective, whereas RBV clearly describes organisational sustainability (Souto, 2022; Peramuthu, 2020; Ayuso & Navarrete-Baez, 2018; Roxas et al., 2017; Darcy et al, 2014).

2.2.1 Research and Development Capability

The researchers focus on employees' knowledge obtained from RDC in the context of TC towards the improvement of OS. Because technological capability is the source of the company's sustained competitive advantage and employee capability comprises of technological knowledge and production skills that are crucial for enhancing outputs and maintaining inputs (Banerjee, 2013). Consequently, this study focuses on employee knowledge derived from RDC, which promote non-substitutability, scarcity, value, and difficulty in copying towards environmental, social, and economic concerns.

Also, with increasing competition among technology-based firms, the basis of competitiveness in these firms has shifted from tangible capital and market supremacy to intangible knowledge and know-how (Grant, 1991). According to Aljanabi (2018), the author noted technology is also competitive advantage for SMEs in terms of innovation, productivity, and overall company performance. As a result, the creation of new knowledge is a firm-specific advantage that created new revenue-generating prospects and empowers the company to offer effective responses to rapidly changing environments (Bilgihan & Wang, 2016). RDC and educated staff can be swiftly and efficiently prepared to advance new items with developed technical features above their equivalent products (Wang, 2013). As technology continued to evolve and customer preferences change over time, SMEs must review their products' line and depth. Over time, this dimension is necessary for SMEs to gather new idea with the employees with the goal of optimizing innovative product development (Peramuthu, 2020; Hájek & Stejskal, 2018).

Therefore, RDC and technological capability are seen as significant resources for generating growth, which might result in the creation of sustainability (Peramuthu, 2020; Saadi & Che Razak, 2019; Aljanabi, 2018; Hájek & Stejskal, 2018). Therefore, the following hypothesis is proposed as shown below:

> $H_{1:}$ There is a significant and positive relationship between R&D capability and organisational sustainability.

2.2.2 Human Capital Skills

Human capital skills (HCS) and its relationship with organisational sustainability are the study's second dimension of TC. The concept of internal resources as a source of business growth has gained traction, supporting human resources' belief that human resources are critical to organisational longevity (Saadi & Che Razak, 2019). Because based on previous research from Patrick et al. (2001), authors asserted that feature definition is required for long-term competitive advantage, which appears to be an essential article in popularising the notion in literature and strategy. The authors also said that resources that are unique, valuable, scarce, and irreplaceable can be used to

generate sustainable resources. From the RBV theory perspective, the increased recognition of internal resources as a source of OS had given legitimacy to the human capital claim that people gave strategic importance to firm success (Savitz, 2013). So, the human capital pool has a higher potential in forming a source of increasing business sustainability with high skills. Furthermore, Lee et al. (2001) stated that technological capability without patent protection is prone to reproduction and imitation by competitors in the same business. As a result, this condition may decrease the regime of enterprise appropriateness, which refers to firms' ability to capture quasi-rents generated by skills and lower comparative advantage. This problem can be avoided by utilising the technological expertise possessed by researchers and technicians. However, technological skills are difficult to replicate since they remain widely integrated in corporate practises and routines, and follow early decisions that lead to organisational sustainability. According to Naala (2016), human capital broadly refers to the ability to carry out a certain role in the company that contributed to the firm's success.

Several conceptual and empirical studies have established the role played by HCS as a positive predictor towards organisational sustainability (Saadi & Che Razak, 2019; Langwell & Heaton, 2016; Savitz, 2013). According to RBV, the rising acknowledgment of internal resources as a source of organisational sustainability validates the human capital argument that people are strategically vital in creating competence to enable sustainable development (Sandhu, 2013). Therefore, the following hypothesis is proposed as shown below:

> **H_2:** There is a significant and positive relationship between human capital skills and organisational sustainability.

2.2.3 Absorptive Capacity

The third dimension of technological capability, absorptive capacity, has received little attention in the context of technological capability and its relationship with organisational sustainability. SMEs require acquired competencies and resources that allow the firm to be more technologically advanced than competitors. In a manner, technological capability is related to technological transformation and the absorption of workers as a method to achieve a higher technical-economic level (Reichert & Antônio Zawislak, 2014). Therefore, enterprises with a higher number of employees with technology absorption capacity have a higher facility in making external acquisitions (Anser, 2022). Nowadays, SMEs have specific technological capabilities such as the patents company owns, the number of technical personnel, or the amount of technical knowledge stored to keep up with the progress of the fourth industrial revolution era Nabil (Basaruddin, 2019).

Technology absorptive capacity enhances the employees' ability to learn new technology knowledge, leading to further innovation within the organisation (Begnini et al, 2022). To achieve organisational goals, AC is mostly determined by prior employee-related knowledge (Aljanabi, 2018). Furthermore, absorptive technology capacity can affect the SME's potential for the creation and use of knowledge needed to develop other organizational capabilities (Begnini et al., 2022). According to Begnini et al. (2022), the influence of sustainability practises on the economic, social, and

environmental performance of enterprises is beneficial to attain better performance. The literature also revealed research findings that indicated absorptive capacity as a source of sustainability practises. Previously, Albort-Morant et al. (2018) discovered that absorptive ability had a significant positive effect on the green innovation performance of Spanish manufacturing SMEs. Also, according to Nawi et al. (2020), the finding shows that AC is one of the important contributors to the achievement of ECS and the AC of SMEs needs more attention to improve sustainable economic performance. As a result, SMEs should invest more time and resources to strengthening their absorptive capacity as a strategic instrument for achieving organisational objectives.

According to Saadi & Che Razak, (2019); Aljanabi (2018), the AC of SMEs in the Kurdistan region of Iraq is largely a consequence of the level of prior enterprise-related knowledge. This strategy advocated placing resources at the core of a sustainable competitive strategy. Therefore, the following hypothesis is proposed as shown below:

H_3:   There is a significant and positive relationship between absorptive capacity and organisational sustainability.

2.3   Research Framework

The relationship between the dimensions is clearly demonstrated and summarised by establishing this conceptual framework. These variables play a role in the positive relationship with OS among manufacturing & service SMEs in Malaysia.

Technological Capability

R&D Capability

Human Capital Skills

Organisational Sustainability

Absorptive Capacity
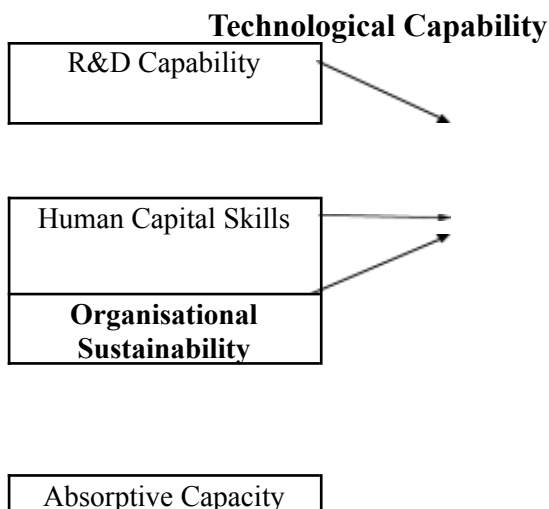
Figure 2.0: Research Framework

3   Methodology

A quantitative method and cross-sectional setting were used by researchers. This study used organisation as unit of analysis in SME industry cluster. Researchers only target owner equity or any level of manager as target respondents as they have authority in the company to able answer the questionnaire study. Researchers used G*power version 3.1.9.7 to calculate sample size with $f^2 = .15$, the statistical significance of .05 and

statistical power to reject null hypotheses of .95 (Cohen, 1992). The sample size calculation (power=0.951) is fixed at a minimum of 119 for manufacturing & service SMEs. Nonetheless, 250 responses were collected to optimise the study's results. This study was conducted using the quantitative approach where the survey was conducted by distributing questionnaires to 250 manufacturing and services SMEs to obtain their responses to the items. Researchers claimed 250 responses for data collection by distributing questionnaires, but only 214 were used in this study after doing data screening. To prevent respondents from misinterpreting the meaning of items, the questionnaire was written in Malay and English. All of the items were created concisely and understandably to elicit genuine feedback from the respondents. In addition, the questionnaire used a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

The questionnaire was divided into three sections: (a) demographic profile, (b) target respondents' perceptions of dimensions of technological capability, (c) target respondents' perceptions of organisational sustainability about factors. The data was analysed using the Statistical Programmers for Social Science (SPSS) and Analysis of Moment Structures (AMOS). Pilot study was the first evaluation that researchers conducted. As a result, 30 responses were collected from respondents to conduct the pilot study. According to Hair et al. (2012), Cronbach Alpha value for each construct must be above 0.7 which reflects respondents' understanding of the items of each variable.

The second test performed is a frequency analysis to summarize the information collected from the questionnaire. Briefly, this study evaluates and summarizes the demographic profile of 214 respondents in table form with frequency and percentage. Researchers carried out frequency analysis and mean & standard deviation analysis to fulfil the descriptive analysis using SPSS before the statistical test is performed. Finally, the AMOS-SEM analysis was used to look at the relationship between variables and assess the relationship's power. The relationship between R&D capability, human capital skills and absorptive capacity and organisational sustainability was investigated.

4   Result and Discussion

4.1   Pilot Test

Table 4.0: The Instruments' Reliability

Constructs	Cronbach's Alpha	No. of Items	Level of Reliability
RDC	0.880	5	Very good reliability
HCS	0.724	5	Good reliability
AC	0.764	5	Good reliability
OS	0.873	14	Very good reliability

Note: RDC = Research and Development Capability; HCS = Human Capital Skills; AC = Absorptive Capacity; OS = Organisational Sustainability.

Researchers found that the range of Cronbach's Alpha value is between 0.724 and 0.880 for all constructs in this study. Thus, all items for each construct in this study were understood by the respondents.

4.2 Correlation Matrix Between Variables

Table 4.1: The Correlation Matrix Analysis Result

Construct	OS	RDC	HCS	AC
OS	1			
RDC	.484***	1		
HCS	.545***	.649***	1	
AC	.660***	.597***	.701***	1

Note: RDC = Research and Development Capability; HCS = Human Capital Skills; AC = Absorptive Capacity;
OS = Organisational Sustainability.
***Significant Level at $p<0.001$.
Source: Developed Based on The Sample Output.

Researchers summarised that the study result shows the highest correlation to be between AC and HCS at 0.701. As regards the lowest correlation among variables, it was found to be 0.484 between OS and RDC. The correlation matrix indicates that correlation values remained less than 0.80 (between 0.484 and 0.701) which indicates no issue of multicollinearity among variables (Sekaran, 2016).

4.3 Frequency Analysis

Table 4.2: Demographic Distribution of Enterprises

Demographic Variable	Category	Frequency (n=214)	Percentage (100%)
Respondent position held	Equity Owner	127	59.3
	Manager	87	40.7
Duration of operation	<5 years	15	7.0
	5–10 years	59	27.6
	>10 years	140	65.4
State location	Johor	48	22.4
	Kedah	2	0.9
	Kelantan	6	2.8
	Kuala Lumpur	29	13.6
	Negeri Sembilan	14	6.5
	Pahang	10	5.7

	Perak	11	5.1
	Perlis	-	-
	Pulau Pinang	-	-
	Selangor	90	42.1
	Terengganu	4	1.9
	Sabah	-	-
	Sarawak	-	-
Types of industry	Services	106	49.5
	Manufacturing	108	50.5
Total number of employees	5-50	166	77.6
	51-100	33	15.4
	101-150	3	5.6
	151-200	12	1.4
Sales turnover per year	<RM300,000	15	6.5
	RM300,000<RM1 million	101	42.1
	RM1 million<RM10 million	58	26.6
	RM10 million<RM20 million	30	13.1
	>RM20 million	27	11.7

In this study, equity ownership shows that 127 of the total respondents are equity owners, which represents (59.3%) of the total sample, while 87 respondents (40.7%) are managers without ownership. Besides that, regarding the duration of operation have been operating in Malaysia, the majority of 140 companies have been operating for more than 10 years (65.4%), followed by 59 companies (27.6%) with 5-10 years, and 15 companies (7.0%) with less than 5 years. These results show that sample in this study constituted enterprise that has enough experience to enable them to achieve organizational sustainability. Next, the location of companies shows that there are 90 companies from Selangor (42.1%), 48 companies from Johor (22.4%), and 29 companies from Kuala Lumpur (13.6%). The high percentage in Selangor is because Selangor is the commercial capital of the state and the majority of its people reside in this state. Moreover, regarding the type of SME industry in Malaysia, 108 enterprises are from the manufacturing industry representing 50.5% of the total sample, and the service industry is represented by 106 enterprises (49.5%) of the total sample. Furthermore, regarding the number of employees in each enterprise, the majority of manufacturing enterprises consisting of 73 (68.87%) have between 5 to 50 employees while the minority of manufacturing enterprises consisting of 2 (1.89%) have between 101 to 150 employees. On the other hand, the majority of services enterprises consisting of 93 (86.11%) have between 5 to 50 employees while the minority of services enterprises consisting of one (0.93%) have between 101 to 150 employees. Lastly, in terms of the annual sales turnover, the majority of enterprises consisting of more than RM20 million are manufacturing enterprises while the majority of enterprises consisting of RM300,000 to RM1 million are service enterprises.

4.4　Descriptive Analysis

The results of mean and standard deviations of the four constructs: research and development capability, human capital skills, absorptive capacity and organizational sustainability.

<p align="center">Table 4.3: Descriptive Analysis of the Model</p>

Variables	Mean	Std. Deviation
Research and Development Capability	5.8430	.60142
Human Capital Skills	5.8888	.64725
Absorptive Capacity	5.9336	.62790
Organisational Sustainability	6.0377	.56352

According to the measurement for all construct, judging from the mean values of all construct above scale 5, where it was considered high, it concludes that many respondents pass a high level of adoption of organisational sustainability through three main factors namely RDC, HCS, and AC.

4.5　Assessment of the Reliability and Validity

<p align="center">Table 4.4: Evaluation of the Measurement Model</p>

	CR	AVE	RDC	HCS	AC	OS
RDC	0.735	0.487	**0.698^a**			
HCS	0.788	0.554	0.690	**0.744**		
AC	0.721	0.538	0.657	0.733	**0.751**	
OS	0.872	0.432	0.519	0.520	0.634	**0.657**

Note: RDC = Research and Development Capability; HCS = Human Capital Skills; AC = Absorptive Capacity;
OS = Organisational Sustainability.
AVE = average variance extracted; CR = construct reliability.
[a] Diagonal elements in bold is square root of AVE

Based on Table 4, the construct reliability (CR) range from 0.721 to 0.872 while the average variance extracted (AVE) range from 0.432 to 0.564. Based on Fornell & larcker (1981), if CR is higher than 0.6, the AVE of the construct is still adequate even if AVE is less than 0.5. Thus, the result supports the reliability of the constructs. The items chosen to measure each construct are therefore internally consistent.

To assess the convergent validity, AVE, CR, factor loadings are examined. The AVE and CR values for each construct are acceptable and factor loadings for items are significant and above 0.6. As a result, the convergent validity is demonstrated that the items used to measure the assigned construct have a positive correlation between them.

Lastly, to examine discriminant validity, the values of the square root of AVE for each construct must greater than the corresponding inter-construct correlations (Fornell & larcker, 1981). Researchers decided to remove eight items (RDC1, RDC3, HCS1, HCS5, AC1, AC2, AC3, and OS3) due to the square root of AVE are not greater than

corresponding inter-construct correlations. Hence, the discriminant validity is also supported.

4.6   Structural Model Assessment

Table 4.5: Goodness-of-fit for Structural Model

GOF statistics	x^2(df, p)	x^2/df	CFI	RMSEA	SRMR
Measurement model	124.406 (105, 0.095)	1.185	0.986	0.029	0.0449
Acceptable value*	Significant $\alpha \geq 0.05$	<3	>0.9	<0.08	<0.09

Note: df = degrees of freedom; CFI = comparative fit index; RMSEA = root square error of
approximation; SRMR = Standardized root mean.

Upon confirming that model fits the data adequately in the structural model, three hypotheses can be tested for significant, and strength. Researchers need to assessing the GOF the hypothesized relationships in terms of the significant, strength, and direction. Table 5 show the GOF for the structural model are with acceptable range based on Lowry & Gaskin (2014).

Table 4.6: The Path Coefficient Result

Hypotheses	Standardized estimate	t-value	Sig.
H_1	.147^{ns}	1.176	.240
H_2	.078^{ns}	0.525	.599
H_3	.530**	3.225	.001

Note: RDC = Research and Development Capability; HCS = Human Capital Skills; AC = Absorptive
Capacity; OS = Organisational Sustainability.
**Significant at $p<0.01$, ^{ns} not significant.

The squared multiple correlation was 0.487 for OS, this shows that 48.7% variance in OS accounted by RDC, HCS and AC. Only absorptive capacity has a significant and positive relationship with organisational sustainability (β=0.530, t=3.225, p=0.001). Comparing three predictors, absorptive capacity turns out to be a stronger predictor among others. The result also revealed that research and development capability has a positive relationship with organisational sustainability but no significant (β=0.147, t=1.176, p=0.240) and human capital skills has a positive but no significant relationship with organisational sustainability (β=0.078, t=0.525, p=0.599). Consequently, H_3 is supported, while H_1 and H_2 are not supported. The result can be interpreted as when increasing 1 per cent of absorptive capacity which indicated 54.1 per cent on organisational sustainability, while RDC and HCS does not contribute to an increase or decrease of OS. In summary, only absorptive capacity is the main factor that influences organisational sustainability as being perceived by manufacturing and services SMEs in Malaysia.

5.   Discussion

RBV perspective was fundamental for the researchers to develop the hypotheses in this study since RBV perspective was used to create organizational capabilities in

developing and achieving competitive advantage, where knowledge and skills are the main assets that can help to build competitive advantage among SMEs (Md et al., 2022). The empirical research was done using quantitative method with self-administrated questionnaires and the items in the questionnaire were adapted from past research studies and remodified to suit the environment in this study. The findings of the analysis are capable of providing an understanding of the relationship between elements of technological capability and organisational sustainability among SME owner-managers and the faculty of entrepreneurship and business students. Researchers found that research and development capability and human capital skills are positively but no significant relationship with organisational sustainability. Only absorptive capacity has a significant and positive relationship with organisational sustainability.

Besides that, the result obtained revealed that RDC has not significant relationship with OS. This relationship was expected to be consistent with Rammer et al. (2009). Thus, RDC appears to be no significant to OS, which indicated that SMEs did not perceive any benefits from the adoption of R&D capability. Thus, H_1 is not supported. According to de Luca et al. (2010), R&D activities were very difficult to manage since R&D is a process of creating new technology, goods, services, or systems. This finding is supported by de Luca et al. (2010) who appended it was not necessary to achieve OS through R&D activities. This reality could be attributed to the difficulty of managing R&D activities. Researchers justified that R&D spending did not guarantee an increase in creativity, profit and market size during pandemic.

Moreover, the result obtained revealed that HCS has no significant relationship with OS. These findings indicate that HCS is not an important determinant of OS in the Malaysian context. The findings also show that more enterprise technology skills will not give enterprises the opportunity to achieve OS during pandemic. The result is consistent with Khalique et al. (2011). Thus, the results do not support the H_2 in improving OS. This finding is supported by the study from Khalique et al. (2011) who stated that human capital is insignificant and the results are normal because the impact of intellectual capital on organizational performance can vary from organization to organization.

Next, the result shows that AC is the top crucial determinant of OS. The finding shows that the more knowledge an enterprise acquires, the greater the sustainability and survival in the market as supported by the study by Begnini et al. (2022); Nawi et al. (2020); Saadi & Che Razak (2019), Albort-Morant et al. (2018); Aljanabi (2018). The results support the hypothesis meaning that keeping SMEs abreast of new knowledge developments is important. The result shows the importance of externally generated technological knowledge in improving enterprise sustainability, due to the change-oriented AC nature of enterprises that grow and reorganize their resource base to adapt to ever-changing competitive markets. These capabilities are manifested in observable corporate structures and processes and are embedded in enterprise culture and employee relations and cannot be limited or attributed to a single employee.

5.1   Conclusions and Implications

The findings of this study are useful for the chamber of commerce and SME banks that provide financial and organizational services to manufacturing and services SMEs to assess the capabilities of these SMEs in improving OS. These findings can be a guide for decision-makers in these entities on how to assess capabilities and allocate incentives to improve SMEs' performance during pandemic, which in turn leads to organisational sustainability. SME owner-managers and students of entrepreneurship and business faculties also have a great opportunity to improve OS by understanding the relative influence of the dimension of technological capability that can help ensure sustainability.

Besides that, although the study has enough sample size, the study sample is not represented the population due to researchers being unable to collect Perlis, Pulau Pinang, Sabah and Sarawak. Also, SME Corp. Malaysia was unable to provide researchers with the latest update with the 2021 listing as a sampling frame considered the official source of information for accredited SMEs. The sampling process is not suitable for population inference because the data obtained is not randomly distributed. Therefore, its applications may not apply to all manufacturing and services SMEs in Malaysia.

Next, it is difficult to generalize the results of this study to the entire manufacturing and service sectors or different sectors, because the findings obtained about the different results of OS precursors may differ from one sector to another. The study made a small estimate due to the study was only concerned with the specific perspective and Malaysia was limited to an upper middle-income group of countries, which may be associated with intermediate technology and complexity. This study is limited to the exploration of internal influences that affect the sustainability capabilities of manufacturing and services SMEs.

Lastly, future researchers could use the same hypothesis but conduct the study in a different form, such as a longitudinal study instead of cross-sectional study. Therefore, a different study design is recommended for future studies. Additional studies could examine the relationship between the variables studied in manufacturing enterprises and public services or other private sectors. Also, researchers suggest that this study can be more interesting if the investigation relationship between demographic information and dimensions of technological capability and organisational sustainability. Researchers also recommend that future studies include more sophisticated attitudes, which can provide a better vision of the external factors that influence the OS of SMEs, such as government pressure, technological turbulence, and political & legal pressure.

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Market Orientation and Business Performance in Malaysian Food and Beverage of Small Medium Enterprises (SMEs)

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Abstract:
The purpose of this study is to examine the market orientation and business performance SMEs in Malaysian. Questionnaires are distributed to 100 respondents among business owners and managers of company Food & Beverage SMEs in Malaysian. Respondents volunteered through a distributed Google form. SPSS software was chosen to conduct the sampling method to analyze the data using the preliminary analysis, the demographic profile of respondents, descriptive analysis, normality test, hypothesis testing and multiple linear regression. In addition, the findings show that the relationship between competitor orientation and firm performance, while competitor orientation had no significant relationship with firm performance. Customer orientation was found to positively influence firm performance.

Keywords: *Business Performance, Market Orientation, SMEs*

1   Introduction

Business performance is the ability of a company, a department or an individual to achieve its or their objectives and expected result. It is measured using qualitative and/or quantitative KPIs (key performance indicators). It also closely tied to commercial effectiveness, is determined by the ability of a company to implement optimal organisation with the aim of offering a product or service that meets the expectations of consumers and customers. This also could be applied to SMEs too for their business performance (Riberolles, n.d.). SMEs appear in the Malaysian and made change in its economy since 2005 while definition of SMEs wasn't official been made yet. In 2013, a new SME definition was endorsed at 14th National Skill Development Corporation (NSDC) Meeting in July. SMEs also divided into category which is manufacturing and service & other sectors with each own characteristic for small and medium entrepreneurs (SME Corp. Malaysia, 2020). It has evolved to become key supplier and service provider to major department in the country. Most

of these SMEs are in the service sector, particularly in retail, restaurant and wholesale business that had successfully contributed 56 percent of employment creation and 19 percent for national export. The SMEs Annual Report in 2009/2010 show that SMEs sector contributes 31 percent of real gross domestic product (GDP) (Department of Statistics Malaysia (DOSM), 2021). In 2020, the Malaysia Statistics Business Register (MSBR) reports that there will be 1,151,339 or 97 SME companies in Malaysia based on the latest available data from the Department of Statistics, Malaysia (DOSM). The food and beverage (F&B) industry in the country is a fast-growing industry characterized by a large export market such as in the oils and fats category, particularly palm oil-based products. The food industry is as diverse as the cultures with wide range of processed food with Asian mostly dominated by SMEs.

Market orientation is an approach to business that identifying the needs and desires of consumers and creating products and services. there few different types of it such as sale orientation, market orientation product orientation and societal orientation with each have its own function such as product orientation that a company that take the value of its products into account along with its customer's satisfaction. Societal orientation is an approach that focuses primarily on the impact that the business has on the world around it. Sales orientation approach focuses on the process of making sales to customers in their target market.

Recent issues which is health crisis caused by COVID-19 pandemic in 2020 that had impact on SMEs. With implementation of the Movement Control Order (MCO), the SMEs GDP in 2020 had 7.3 percent reduction. It also lacks on focus on performance to keep up with current trend (DOSM, 2021). Some other issues that follow which is the of lower cash-flow that were cause by two things which is the decrease in sales and poor market access. It didn't help with sudden change from physical to digital storefront which for SMEs that didn't had any online presence causes them cut off from market and lose all their loyal customers. Estimates from 2018 suggest that this could have impacted up to 56% of Malaysian SMEs when the pandemic first struck (SME Corp Malaysia & Huawei, 2018) that will shrink going forward as more get involved in e-commerce. While the GDP in 2020 was -7.3%, the GDP value rise back in 2021 which is 1.0%. That still did not include with the higher operating costs of business for certain period of time. Oil prices have steadily rise that sustained by greater demand in China and production cuts by the Organization of Petroleum Exporting Countries and partner countries (OPEC+) (Meredith, 2020) since the commodity's crash in March 2020. The ringgit also depreciated against major currencies in 2020 (FocusM, 2020), due to improvements in China's economic activity and heightened global risks driving investors to safe haven assets. With oil are the main fuel for most transportations for logistic and supplier, the operation will be rise to keep up the demand while for the supplier will rise it price for them to still have return on spending fuel. It also didn't help the ringgit value drop that cause most foreign product become expansive. With all these happen would very likely effect and causes decreasing their overall business performance of the SMEs in the country. To improve it, they needed to prioritise their market orientation which is customer and competitor orientation. One for understand the need of the customer such as

product and service. The other is to keep up with others competitor as they would not leave behind and getting more loses.

Thus, this study will investigate the origin that created SMEs performance in SMEs context. Mainly, the objective of this study is as following:

- This study aims to investigate the relationship between customer orientation and business performance among SMEs in F&B business.

- This study aims to investigate the relationship between competitor orientation and business performance among SMEs in F&B business.

2   Literature Review

2.1   Business Performance

By exploring past author's research paper, they define performance by prioritizing it to every SME organization in the business world to remain competitive (Efrat, Hughes et al, 2018). Moreover, performance is defined as an entity's, individual's, group's, or organization's ability to achieve a certain objective via a sequence of activities (Laitinen, 2002). Performance is also defined as the firm's capacity to attain goals through work behavior and achievement when doing duties (Machmud & Sidharta, 2016). From the overview of definition given by the authors, the presence of profitable businesses is essential for countries on the rise. Many analysts consider them similarly to an engine in controlling their economic, social, and political growth. Every business has to be performance-based to make it in today's business world.

2.2   Market Orientation

Market orientation is a business culture affecting superior customer value creation through three components, such as customer orientation, competitor orientation, and inter-functional orientation (Narver and Slater, 1990). Market orientation is competitive strategy that involves all function areas and levels of the organization and embraces the different market participant. It uses eight components (Lado et. al, 1998). Market orientation also is an organization-wide generation of market intelligence pertaining to current and future needs of customers, dissemination of intelligence horizontally and vertically within the organization and organization wide action or responsiveness to market intelligence (Jaworski and Kohli, 1993). (Rivera, 1995; Gatignon and Xuereb, 1997; Hunt and Lambe, 2000) consider market orientation as a strategic notion, arguing that market orientation is a complementary contribution to strategy, and it is important to strategic orientation. (Narver and Slater, 1990a; Kohli et. al, 1993) use three components (despite being different) with one-dimensional structures to define market orientation while (Deng and Dart, 1994)

use four components with multi-dimensional and a multi factor structure to define market orientation. (Sorensen, 2005) use two constructs in a uni-dimensional structure.

2.3   Customer Orientation

Customer orientation aims to satisfy customer needs and help firms to acquire and retain their customers (Slater and Narver, 2000). To know how influenced performance towards customer orientation; first of all, the firm how to know what customers want and how could the wants satisfy them in order to improve the orientation. Every action been taking by the firms are the performance of the firm that shows the affection to their customers. According to Frambach (2016), there is a significant relationship between customer orientation and firm performance. Because, firm prioritize the needs of our clients above anything else. Based on the earlier discussion, we believe that customer orientation in SMEs in Malaysia has a strong association on firm performance – we hypothesize that (D'souza, Nanere et al, 2021):

H1: Customer orientation has a significant and positive relationship with business performance in Malaysian SMEs.

2.4   Competitor Orientation

Competitor orientation involves identifying a competitor's strengths and weaknesses which is critical for maintaining a competitive advantage (Narver and Slater, 1990). In understandings, competitor orientation is focusing on beating the competition instead of making the most money, seems to do well in business, even though it is, by definition, bad for firms that want to make the most money. From the review of performance, may include production effectiveness, price, delivery times, customer happiness, innovation, staff retention, and market share which apparently focus to increase the performance level of the firm to compete with others. Furthermore, the purpose of a competitor orientation is to provide a solid basis of intelligence pertaining to present and potential competitors for executive actions. Given that market orientation can be a leading source of competitive advantage for SMEs in Malaysia, we propose (D'souza, Nanere et al, 2021):

H2: Competitor orientation has a significant and positive relationship with business performance in Malaysian SMEs.

2.5   Research Framework

On the basis of the overview and interpretation of the literature review and underpinning theory which refer to RBV, the research model is outlined. The research model in Figure 1 shows the relationship and the connective between Market

Orientation (referred as Customer and Competitor orientation) and Business Performance in Malaysian SMEs especially in Food and Beverage sectors. The selection of Market Orientation dimensions which ignoring the inter-functional coordination because the factor involves in large company and the factor needed variety of departments to work together in order to fulfill the specification in the factor. According to Narver & Slater (1990), Inter-functional coordination facilitates the sharing of information between the different departments within an organization and the integration of resources to create superior value for the customer. Moreover, many researchers have not considered inter-functional coordination, as this construct needs to be theoretically different from the market orientation of the firm (Lengler et al., 2013). Hence, only two dimensions' market orientation is concerned in this study, that is, customer orientation and competitor orientation. Both of these dimensions crucially important to be focused in SMEs context due to the developing economies like Malaysia, customer needs and expectations are changing and the need for market-oriented business is in high demand. Hence, both of MO dimensions is directly influence the SMEs business performance in Malaysia Food and Beverage of Small Medium Enterprises

Figure 1: Research Framework of Market Orientation and Business Performance in Malaysia Food and Beverage of Small Medium Enterprises (SMEs)
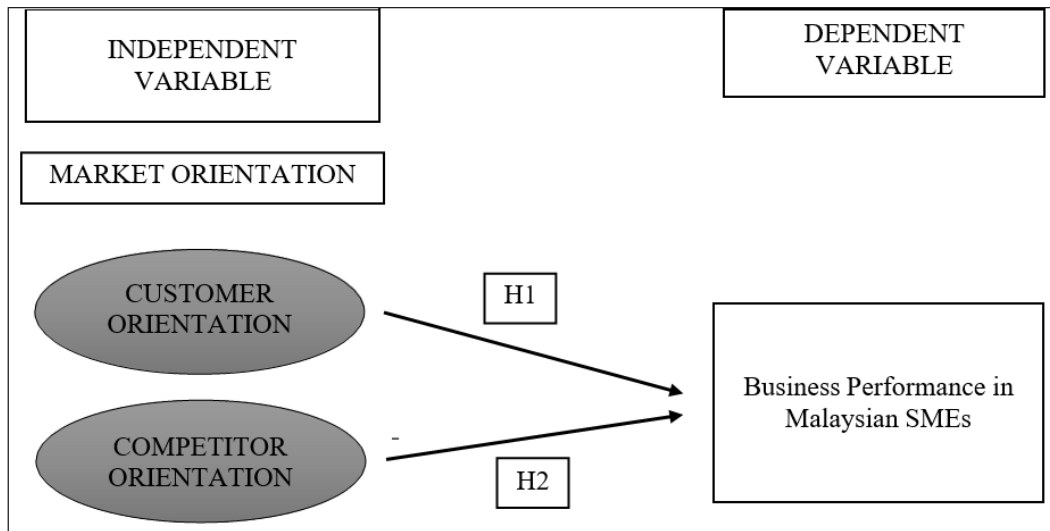
3   Research Methods

2.1   Research Design

Since the main aim and purpose of this study is to identify relationship between the market orientation and business performance. The quantitative research was chosen the correlational research design as the best fit for this investigation. It is a system designed to address and solve research challenges, according to Susan K. Grove

(2012). Raw and numerical data collection and analysis are phrases that describe quantitative approaches, which are used to collect data and then analyses it. Sample questionnaires were used to collect this data. Using a quantitative technique, a huge amount of data may be collected in a short time for this research topic.

2.2   Research Measurement

Abstract notions known as constructs are employed to convey phenomena that are challenging to quantify. In order to be more tangible, measurable, and testable in research, constructs must be transformed from abstract mental conceptions or mental abstractions. At that point, the word "measure" is used. In quantitative research, a measure is comparable to a variable. Measures specify the characteristics linked to a concept. The table below show the item measurement of dependent variable and independent variable. Business performance consist of 7 items while market orientation consists of 10 items.

Table 1: Measurement Item

	Author	**Definition**	**Items**
Business performance	Santos & Brito, 2012	Firm performance is a component of organizational effectiveness that involves operational and financial outcomes	7
Market orientation	Narver and Slater 1990	Market orientation is an approach to business that prioritizes identifying the needs and desires of consumers and creating products and services that satisfy them	10

2.3   Data Collection Method

Data collection method was start with the development of questionnaires and survey tools has been given full attention to complete this study. Questionnaire instruments are the most common method of information collection. Next, data collection was done by listing the names of food and beverage SMEs in Malaysia with a total of 30 respondents among business owners and managers to facilitate the distribution of questionnaires for the Pilot test. The pilot test was conducted online by sending a questionnaire to each company in Google Form. A pilot test will be conducted to find out any potential problems in the questionnaire, such as unclear questions. Indeed, pilot testing allows the researcher to observe and analysis various possible problems that may arise before the final questionnaire is completed while preparing and completing the questionnaire. After the questionnaire has been corrected, the researcher will make a list of 100

respondents among business owners and managers to facilitate the distribution of questionnaires for the Actual test. Data collection is based on a Google survey of respondents in this study. Both of the data obtained from the respondents will be collected for the purpose of the study and entered into the Statistical Package of Social Science (SPSS).

2.4   Questionnaires

The development of questionnaires and survey tools has been given full attention to complete this study. Questionnaire instruments are the most common method of information collection. When data was collected, a Google form was sent via email to respondents who use the online platform in their daily lives in Malaysia. These people will fill out a survey that the researcher will generate using Google Forms and email them a link to complete online. This researcher chose a questionnaire as a data collection technique because it is the most cost-effective and may be recognized as an effective data collection tool. The questionnaire was distributed to the respondents. Business owners and managers of these firms were contacted to answer survey questions. The questionnaire was structured in English and translated into Malay language to make it easier for respondents to understand when answering.

4   Results and Discussion

3.1   Sampling Characteristic

The characteristics of the sample, which consisted of 100 owners or representative SMEs, are shown in Table 2 below. For every demographic question and screening question, it may be shown by frequency and percentage.

Table 2**:** Sampling Characteristic

Demographic	Question	Frequency	Percentage (%)
Gender	Male	39	39%
	Female	61	61%
Age	20 – 25 years old	19	19%
	26 – 30 years old	24	24%
	31 – 35 years old	38	38%
	36 – 40 years old	9	9%
	41 years old and above	10	10%
Race	Malay	91	91%
	Chinese	7	7%
	Indian	2	2%

Business Category	Catering	39	39%
	Bakery	44	44%
	Other	17	17%
Sales as Per Annu m	Less than RM300,000	77	77%
	RM300,001 – less than RM1 million	21	21%
	More than RM1 million	2	2%

3.2   Relibility Analysis

`In this research, an actual test was conducted on a sample size of 100 respondents with 1 person from each company Food and Beverage of SMEs among business owner and manager in Malaysian. The results of the pilot test shown in Table 3 are based on the score of Cronbach's Alpha. According to the result of the actual test, customer orientation, customer orientation and business performance result is acceptable. This is because this variable recorded a Cronbach's alpha score of above 0.6. Based on the results of the actual test, this section can conclude that the customer orientation and competitor orientation questions in the questionnaire are reliable. This mean that that research is acceptable result of relation between the customer and competitor orientation and business performance among F&B industry in SMEs in Malaysia.

Table 3: Reliability Test Coefficient Alpha from Overall Reliability

Variable	Cronbach's Alpha
Customer Orientation (IV1)	0.898
Competitor Orientation (IV2)	0.897
Business Performance (DV)	0.896

3.3   Multiple Linear Regression

The output of the multiple regression analysis is displayed in Table 4 below. The investigation revealed that the R^2 (R squared) value is 0.663. It is demonstrated how the customer orientation and competitor orientation independent variables affect the business performance for the dependent variable. The model is therefore acceptable.

Table 4: Multiple Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.814[a]	0.663	0.656	0.30565

a.   Predictors: (Constant), competitor orientation and customer orientation
b.   Dependant variable, business performance

Model	Understand zed Coefficients		Standardized Coefficient Beta	t	Significant
	B	Std. Error			
(Constant)	0.530	0.286		1.850	0.067
Customer Orientation	0.711	0.071	0.662	10.018	0.000
Competitor Orientation	0.157	0.040	0.261	3.943	0.000

a. Dependant variable: business performance

b. $p \leq 0.05$

5 Conclusion & Recommendations

All of market orientation characteristics have a positive and significant impact on performance and the mediating function of innovation. market orientation will have a favorable impact on a SMEs' level of performance in their business activities when it is implemented in Malaysia. It is also important to note that innovation is crucial to SMEs' success overall, and specifically Malaysian SMEs' performance. In order to gain a deeper understanding of the interactive effects of market orientation and innovative capabilities on performance for SMES and to help provide rich insights into how its applicability will impact on business performance, future research should evaluate relationships between market orientation, innovation, and performance in other emerging or developing economies. A focus on the market ensures a customer-centered strategy for building a market knowledge base that is managed by coordinated, cross-functional marketing initiatives to ensure long-term company success. Numerous studies have found a strong correlation between market orientation and firm performance.

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The Influence of Entrepreneurial Competency and Sustainability Entrepreneurship among Women Student in UniversityMalaysia Kelantan City Campus, Malaysia

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Abstract:

The purpose of this study is to examine the influence of entrepreneurial competency and sustainability entrepreneurship among women students at the University Malaysia Kelantan City Campus, Malaysia. This study employs a quantitative approach. This study was conducted on 335 respondents in UMK. Through correlation analysis, it was found that the entrepreneurial competencies (opportunity recognition competency, organizing competency, strategic competency and commitment competency) have a significant relationship with the sustainability among women student in UMK. The results of the study will be helpful to Malaysia's government and non-government organisations. The power of policymakers to impact women students' understanding of the value of sustainability entrepreneurship will be consistently improved.

Keywords*: Sustainability entrepreneurship, Opportunity recognition, Organizing competency, Strategic competency,Commitment competency*

1 Introduction

International marketplaces have viewed entrepreneurship as a chance for fresh economic growth and a shifting economic environment. Realizing the importance of entrepreneurship for the creation of innovative ideas is therefore crucial. Undeniable, women also contribute to the field of entrepreneurship and the growth of the country's economy. Women are viewed as an engine of progress and a source of entrepreneurial talent, (Westhead, P.; Solesvik, M.Z, 2016) and in an economy's ability to generate wealth and innovation (Brush, C.G.; Cooper, S.Y. 2012). However, the government also needs to focus on women who are involved in the field of entrepreneurship. This is because thereare the problem of women's empowerment has gotten a lot of attention all throughout theworld. According to Mrinal S.R et. al (2019) have looked into ways to give women moreeconomic power, and among the potential solutions, entrepreneurship has been found to be the most successful.

The resulting economic crisis is disproportionately affecting women entrepreneurs (UN Women, 2020; WE Forum, 2020; Werner, 2020). Not only are women – owned businesses typically more vulnerable to economic impacts due to lower average firm

age and size, but also they are concentrated in the industry sectors hit hardest by economic shutdowns (Kalnins and Williams, 2014; McManus, 2017; WE Forum, 2020).

There are social, economic, and environmental aspects of entrepreneurship (Ramanigopal, C.; Palaniappan, G.; Hemalatha, 2012) or its effects on the economy, mental health, society, and the environment (Katsikis, I.N.; Kyrgidou, L.P.2009). The ability to start a firm is only one aspect of entrepreneurship; another is the capacity to alter social norms or mentalities (Cohen, B.; Winn, M. 2007). However, considering that sustainable entrepreneurship is a relatively new phenomenon, (Terán-Yépez, E., Marn- Carrillo, G.M., del Pilar Casado-Belmonte, M., de las Mercedes Capobianco-Uriarte el. at, 2020). Since an entrepreneur is considered to be an innovator (Ramanigopal, C.; Palaniappan, G.; Hemalatha, 2012), it is presumed that the two are related. Through the idea of "creative destruction," sustainable business owners can launch novel business models and create ground-breaking innovations (Schaltegger, S., Hansen, E.G., Lüdeke- Freund, F el. at, 2016).

According to the Abdullah F., Hamali, J., Deen, A.R., Saban, G. and Abdurahman, A.Z.A.(2009) add that the ability to recognize opportunities is the most important element in identifying and choosing suitable opportunities for a women entrepreneur to successful sustainable in business. This is why the researcher wants to do this study. So that it will be useful to other researchers, both present and future, who wish to look into the impact of entrepreneurial competency and sustainability on women student entrepreneur. Due to the fact that they are still students and new to company, women student entrepreneurs lack the courage to take risks. This study aims to ascertain how sustainability and competency in business affect women student entrepreneurs. Objective of this study is to identify the link between opportunity recognition competency, organizing competency, strategic competency, commitment competency (IV) and sustainability entrepreneurship (DV) among women student entrepreneur in University Malaysia Kelantan, City Campus.

2   Literature Review

2.1 Opportunity Recognition Competency

A study by to Minto-Coy (2019) added the opportunity are for the creation, expansion and survival of businesses is influenced by the existence of family networks, networks of fellow countrymen and friends, and other integration activities that contribute to the entry of the business into the market. Additionally, in the market segmentation, grabbing opportunities refers to a person's capacity to identify commercial prospects, new goods or services, or markets that others may not have seen. (Shane and Venkataraman el. at, 2019). According to Bergner et al. (2021), these people often work to prevent others from making money off of them, avoid regrets, and accept the risk of seizing the chance to launch a business. The capacity to see opportunities is linked to one's capacity to take advantage of them. In order to create competitive advantage and enhance microbusiness performance,

Faroque et al. (2020) believe that opportunity competence in terms of knowledge about consumers, channel members, and competitors is essential.

Ngure SW (2018) studies show that for sustainable approaches to workforce development and employment, a combination of employable skills, especially for the youth must be given priority. Shane and Venkataraman (2019) youth unemployment, resulting from mismatch between the supply of the education system and labour market needs, could be addressed through adequate skills development such as opportunity recognition competency in long period to sustain.

However, due to a lack of previous study, the researchers opted to investigate the direct influence of opportunity competence on women's entrepreneurship. The assumption that the efficiency of business prospects may inspire women to enter into entrepreneurship can foster a positive attitude toward the growth of women entrepreneurs in Malaysia. Briefly, the researchers designed the hypothesis as below:

H1: There is a significant relationship between opportunity recognition competency and sustainability entrepreneurship among women student entrepreneur in University Malaysia Kelantan City Campus.

2.2 Organizing Competency

Organizing competencies determine how an organization operates. According to Mohiuddin et al. (2022) the competency is associated with the organization's numerous internal and external human, material, financial, and technological resources, such as team building, people management, training, and business performance control. While organizational competencies are the capabilities demanded in the entrepreneurs so that it can exceed and remain competitive in the request. The competencies give a force of expected behaviours, skills and attitudes which lead to the successful performance of the association competency.

Moreover, when referring to organisational structures as an integration mechanism, it is important to note that they only provide conditions that allow knowledge integration, such as incentives that encourage collaboration between experts, but they do not necessarily create knowledge integration itself. (Becker et al., 2018). Therefore, in order to foster knowledge integration, it is vital to classify people with certain abilities as functional specialists. Second, The power of "knowing-whom" rather than "know-how" is what underpins the substitution of knowledge by offering access to information. In order to implement such a relational approach, it is necessary to organise individuals with specialised abilities into a unit where conversation and knowledge sharing are feasible. Third, in a group of professionals who have previously collaborated and consequently have the knowledge necessary to fill in the gaps (rather than merely transmit knowledge) based on experiences, the capacity to fill in knowledge gaps may be relevant. However, any newcomers to the group of specialists will find it difficult to adapt to this strategy from a study by Becker et al. (2018). Fourth, decomposition is the process of breaking down a larger work into smaller ones that may be assigned to specific people. This is dependent

on modern standards and cooperation. Finally, if there is a lack of cooperation among the professionals, grouping them into one unit may not prove to be an effective integration method (Bettley et al., 2020). As a result, minimising physical distance between team members through co-location is one technique to improve communication, which helps a development project succeed and last.

Due to a lack of previous study, the researchers opted to investigate the direct influence of organizing competence on women student. The assumption that the efficiency of business prospects may inspire women to enter into entrepreneurship can foster a positive attitude toward the growth and sustainable in surrounding. Briefly, the following is how the researchers developed their hypothesis:

H2: There is a significant relationship between organizing competency and sustainability entrepreneurship among women student entrepreneur in University Malaysia Kelantan City Campus.

2.3 Strategic Competency

According to Ken Vaughan, (2018), strategic competency determine the most efficient way to accomplish a communicative or language learning objective by performing evaluation, planning, and execution activities. Declarative, procedural, and conditional knowledge are all connected by this. Porter M (1985) has categorized six main areas related to entrepreneurial competence into the context with SMEs, namely opportunity competencies, related competencies, conceptual competencies, organizational competencies, strategic competencies, and committed competencies. They play different roles in influencing SME performance bothdirectly and indirectly. Most literature on entrepreneurship research states that entrepreneurs have the strategic competencies ability to help vision for their business.

A study by Sumawidjaja, 2019, examine how the entrepreneurial competencies of SMEs in the creative industries in Indonesia affect company performance. The balance scorecard is used to assess business performance, whereas the entrepreneurial competencies are measured using opportunity competencies, connection competencies, organizing competencies, strategic competencies, conceptual competencies, and commitment competencies. The result indicate that a company's performance in Indonesia's creative sector is influenced by its entrepreneurial competencies. The conclusion suggests that increasing entrepreneurial competencies is necessary to enhance business performance in the creative industry.

Abdullah et al., (2019), women student entrepreneurs should be aware of and ahead of competitors in order to guarantee that additional values are integrated for improved company success. In this way, women students who start businesses with an eye toward developing their strategic competency stand to benefit from a long-term competitive edge. Entrepreneurial competencies have been identified as a

specific group of competencies relevant to the exercise of successful sustainability entrepreneurship. Such entrepreneurship is often associated with the survival and development of small and new businesses long – term success for a company also depends on the entrepreneur's strategic competencies to exploit the market's competition. Briefly, the researchers designed the hypothesis as below:

H3: There is a significant relationship between strategic competency and sustainability entrepreneurship among women student entrepreneur in University Malaysia Kelantan City Campus.

2.4   Commitment Competency

Van den Brande, G., (2016) defined commitment competencies as the forces that entrepreneur to progress in advance with the business. Divers conceptual talents thatare reflected in the entrepreneurial behaviors that are decision skills and consideration of complex information is described as conceptual competencies. Therefore, in order to keep the edge over the competition, an entrepreneur needs to devote their complete devotion to the task they are doing for someone else in order to satisfy the desire and requirement of the consumer. These business owners will go above and above to make sure their client is happy with the final product. They are prepared to put in long hours and make sacrifices to reach their goals. Therefore, business owners with this skill are willing to make significant personal sacrifices, such as working long hours and keeping themselves highly motivated and energized. (Kozan et al.,2018).

A study by Ida Ayu Oka Martini, (2020), researchers looked into the impact of work competence (knowledge, skills, and attitudes) on employee commitment and performance, the impact of a work commitment on employee performance, and the function of the work commitment in mediating the relationship between competence and employee performance in Bali. The findings revealed that competences comprised of knowledge, abilities, and attitudes had a large beneficial influence on employee commitment and performance, and that work commitment had a significant positive effect on performance. Work obligations may serve as a bridge between competency and employee performance.

According to Harinoto & Bogetriatmanto, (2018), someone will produce better job results if they make better work commitments. Performance is greatly influenced by the skill and dedication of the workforce. Formal or informal educational institutions cannot provide workers with the necessary capabilities. The potential for it to decrease. The capacity to possess is acquired via repeated viewing, attempting, and trying again in order to alter it and develop its working skills. Understanding about numerous organizations is also important. Knowledge and skills are important elements of performance, according to several sources. (Almusaddar et al., 2018 ; Hanafi & Ibrahim, 2018).

According to Man T. W. Y. (2019) the entrepreneur needs to be committed

and have personal strengths. According to previous descriptions of prosperous entrepreneurs, these people have confidence in their own abilities and their capacity to reach their goals. Commitment competency helps women entrepreneur stick to their goals during the good times and the bad times when barriers get in the way to sustainable the entrepreneurship. These give big roles in women entrepreneur contribute to commitment importance and ability. Briefly, the researchers designed the hypothesis as below:

H4: There is a significant relationship between commitment competency andsustainability entrepreneurship among women student entrepreneur in University Malaysia Kelantan City Campus.
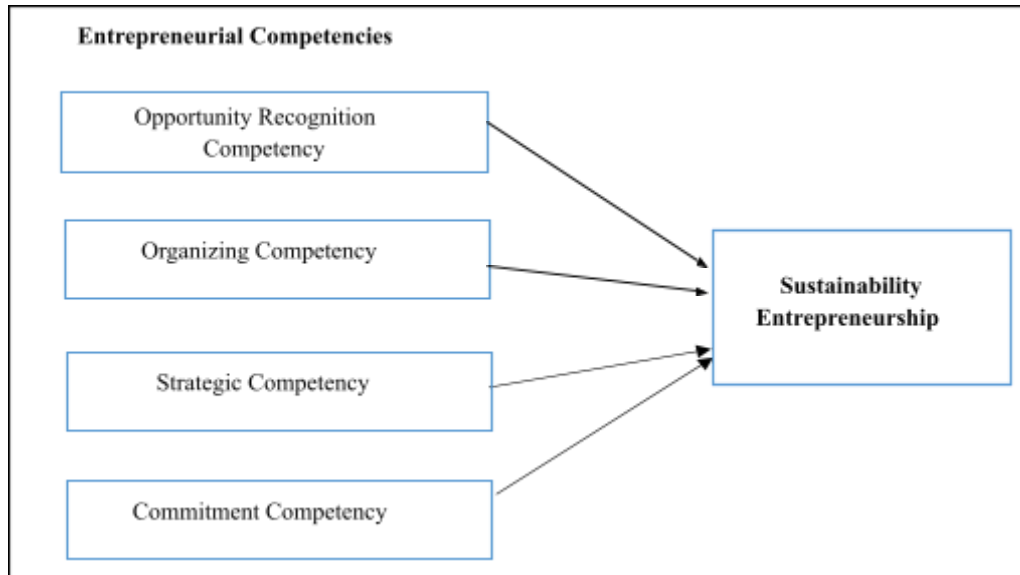

Figure 1: The framework of the entrepreneurial competency and sustainability entrepreneurship

3   Methodology

The influence of entrepreneurial competency and sustainability entrepreneurship among women student in University Malaysia Kelantan, City Campus are the subject of the current research. The research design is alienated into quantitative research. The questionnaires were answered by women student in University Malaysia Kelantan in Kelantan. The respondents were asked to rate their level of agreement with six parts (sections A through F) covering the impact of entrepreneurial competency and sustainable entrepreneurship among women students using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The business were mostly owned and managed by the same person and by group. The everyday administration and operations of these businesses were handled by these women business owners at all levels. As a result, it was thought that they could rank their own company the best.

A questionnaire was used to obtain information from the sample respondents. Both questions on women student entrepreneurs and questions about competences were posed. From the 2440 total population people in the admin administration's sample frame of Faculty Entrepreneurship and Business in managing women student, 335 sample of respondents were chosen for the study. Through January 2022, a survey was conducted. Considering that the respondents for this study were located at University Malaysia Kelantan, data collecting for this study took a while. Last but not least, 335 questionnaires were filled out and assessed for this study.

4   Result

According to Table 1 finding that the relationship between opportunity recognition competency and sustainability entrepreneurship is (P -value < 0.05, - 0.634). Therefore, hypothesis 1 is accepted. Besides, for organizing competency, the r value of organizing competency is .654. The result indicates there is High Positive between organizing competency and sustainability entrepreneurship. Based on the results, the relationship between organizing competency with sustainability entrepreneurship is (P - value < 0.05,
-0.654). Therefore hypothesis 2 is accepted. Next, the correlation coefficient value of strategic competency is .649. The result indicates there is high positive correlation between strategic competency and sustainability entrepreneurship. Based on the results, the relationship between strategic competency and sustainability entrepreneurship is (p- value<0.05, r .649). Hypothesis 3 is accepted. Lastly, based on table 4.1, the correlation coefficient value of commitment competency is .766. The result indicates there is high positive correlation between commitment competency and sustainability entrepreneurship. Based on the results, the relationship between commitment competency and sustainability entrepreneurship is (P - value < 0.05, r - .766). Here, hypothesis 4 is accepted

Table 1 : Correlation Coefficient between Opportunity recognition
competency, Organizing competency, Strategic competency, Commitment
competency with Sustainability Entrepreneurship

Variables	Correlation Coefficient (r)	P
Opportunity recognition competency	.634**	.000
Organizing competency	.654**	.000
Strategic competency	.649**	.000
Commitment competency	.766**	.000

**$p<0.005$, Pearson correlation analysis applied.

5   Recommendations

The researcher suggested expanding the sample size. Only women students in the Faculty of Entrepreneurship and Business (FKP) at the University Malaysia Kelantan's city campus make up the study's sample size. Researchers in the future can further expand the number of respondents and can include more programs andpublic universities to further increase accuracy and reliable data. Next, researchers need to extend the research period. Future researchers should conduct their research in the future with a longer period. This is because, to ensure that they can receive better and consistent results related to the influence of competency and sustainability entrepreneurship among women student.

6   Conclusion

The findings of the study can be one of the government and non-government references to improve sustainability entrepreneurship among women student entrepreneurs. They can use this study to improve sustainability entrepreneurship, which is the most important thing that women student entrepreneurs think about before achieving sustainability in their business. Government facilities that can be given to women studententrepreneurs such as the Prihatin Business Registration Scheme (SPPP), the Majlis Amanah Rakyat Loan Scheme (MARA), and the Entrepreneurial Pioneer Program (PPU)can increase the competence of entrepreneurship among women student entrepreneurs forthem to have good sustainability in business.

This study can also be useful for universities, especially University Malaysia Kelantan, to improve programs or implement conditional financial assistance to women student entrepreneurs so that they can achieve sustainability in the long term. They will also know about how business operations are carried out correctly and how it can be well sustainable despite a lot of competition in the market.

7 Acknowlegment

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The Usage of Peranti Siswa Among Students in Malaysia

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Abstract:

The usage of Peranti Siswa among students in Malaysia will be the focus of this study. In this research, researchers looked into the connections between study, entertainment and income (gaming, online business) with Peranti Siswa. This study involved all Malaysian students who get Peranti Siswa as respondents to complement this study. In collecting respondent data, an online questionnaire form has been used because it is easy to connect, obtain and analyze data from all over Malaysia. Non-probability sampling has been applied in this study. In order to accomplish the objective of this study, a quantitative method will be used. Reliability, descriptive, correlation and multiple linear regression analysis have been used in this study. The result of the analysis confirmed that only one independent variable has a relationship with the dependent variable. It showed a high positive and significant correlation exists between study and usage of Peranti Siswa. Besides, this study has identified some limitations of this research. As a result, recommendations have been made for additional investigation. Future researchers can therefore identify the strategies to enhance this problem for future study.

Keywords: *Entertainment, Gaming, Income, Malaysia students, Online business, Peranti Siswa, Study tools, Tablets*

1   Introduction

The World Health Organization declared COVID-19 to be a pandemic when it became clear that the illness was severe. Currently there are more than 1.2 billion children in 186 countries affected by school closures due to the pandemic. *Peranti Siswa* is an initiative to provide devices to students of Higher Education Institutions (HEIs) who are in the B40 family group to ensure that the students' study process is maintained. Tablets have slowly made their way into tertiary schools and universities, with the institutions working once again to catch up with technological innovation and find an educational use for it.

The Malaysian Family Student Initiative is under Budget 2022 led by the Ministry of Communications and Multimedia Malaysia (MCMM) and the Malaysian Ministry of Finance (MOF). The distribution of devices for Phase 2 can be made in October or November 2022. People who own the most popular tablets made by Samsung and Apple, also spend on average 30 minutes more per day on entertainment, than those who own other brands. The Watch tab will surface video recommendations and trending content from various streaming services like Hulu, Twitch, YouTube, and others. It will also show movies and TV shows that you can watch, rent, or buy from Google TV (Pandey, 2021).

2   Literature Review

2.1   *Peranti Siswa*

Peranti Siswa is an electronic gadget offered by the Malaysian Ministry of Communications and Multimedia (MCMM) to HEI students. The Samsung Galaxy Tab A8 LTE, the Samsung Smart Keyboard Trio 500, and the Samsung ITFIT Stylus Pen are all part of the programme. This device is compatible with a wide range of applications, including Google Apps, YouTube, and the Google Play Store. At the same time, these tablets continue to be powered by a 7,040mAh battery and 15W quick charging.

2.2   Study

With the change of the times, learning is no longer limited to the classroom. Malaysia has accelerated the pace of entering online learning. Mobile learning tools might be smartphones, laptops, or tablet computers like the iPad and tablets. Online teaching not only brings convenience to students, teachers and parents, but also the progress of the country lies in changing the way of teaching. Hence, the study suggests the following hypothesis:

H1: Study has a positive relationship with the usage of Peranti Siswa among students in Malaysia.

2.3   Entertainment

According to Oliemat et al. (2018) tablets were viewed as an entertaining tool more than as a learning tool. As of the third quarter of 2022, approximately 490,000 mobile gaming apps were available in the Google Play Store. Oliemat et al. (2018) found that 'playing games' is the most common purpose of tablets, followed by watching YouTube. Within industrial discourses entertainment is defined by a commercial business model. Within academia entertainment has not been a key organizing concept within the humanities. But the researchers still want to test from the perspective of entertainment

how many Malaysian students get *Peranti Siswa* for entertainment more than study. In view of that, the following hypothesis is suggested:

H2: Entertainment has a positive relationship with the usage of Peranti Siswa among students in Malaysia.

2.4 Income (gaming, online business)

According to Bankov & Boris. (2019), gaming has become one of the income methods of new technology in the new era. Although these online businesses can be managed with mobile phones, tablets have a larger screen and better photo quality so using tablets to manage online businesses has become a better choice. The tablets of Peranti Siswa can support these three games, so students who get *Peranti Siswa* have the opportunity to use this tablet to broadcast games live to earn extra income. Taking head of this study, the third hypothesis is stated as follows:

H3: Income (gaming, online business) has a positive relationship with the usage of Peranti Siswa among students in Malaysia.

2.5 Conceptual Framework

The conceptual framework for study, entertainment and income (gaming, online business) with the usage of Peranti Siswa among students in Malaysia is as shown in

Figure 2.0
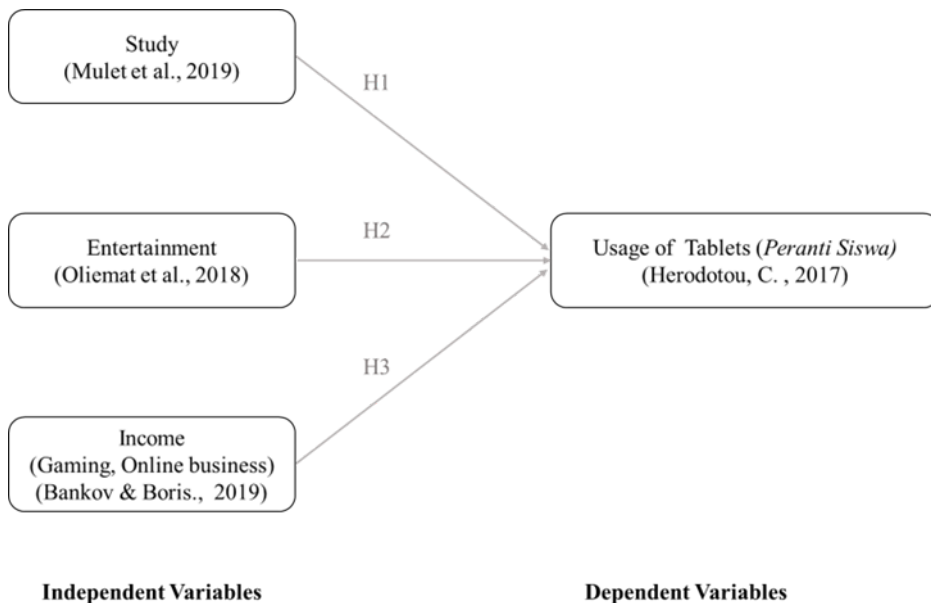
Figure 2.5: Conceptual Framework

3 Research Methodology

3.1 Research Approach and Study Design

The quantitative analysis method was selected because the researchers need to collect a large amount of data to analyze and predict the results. The method assists researchers in determining the relationship between the selected independent variables study, entertainment and income (gaming, online business) and the dependent variable (usage of Peranti Siswa). The method was chosen based on the study's objectives to do a numerical analysis of the results.

3.2 Population and Sample Size

The purpose of this study is to examine the relationship between usage of Peranti Siswa and independent variables such as study, entertainment and income (gaming, online business) among students in Malaysia. As a sample strategy, non-probability sampling was selected for the analysis. Purposive sampling is used in this study because the data are focusing on students who get Peranti Siswa, the researcher is students and the most of the respondents is people around researchers so the purposive sampling is performed in this study. According to Tan Sri Annuar Musa, Minister of Communication and Multimedia, 279,188 units of Peranti Siswa were distributed and the data from a total of 500 responses of students was collected for this study as explained by Roscoe (1975) appended the appropriate sample size for a study ranging from 30 to 500.

3.3 Constructs Measurement

The construction measurement is defined in the table below.

Table 3.0: Adoption of question details

Variable	Source
Usage of *Peranti Siswa*	Tront et al. (2006), Doering et al. (2012), Hasselbring & Glaser (2000), Al-Jarf (2021), West (2013)
Study	Coskun et al. (2018), Canuel et al. (2012), Courtois et al. (2013), Steinweg et al. (2010), Rossing et al. (2012)
Entertainment	Oliemat et al. (2018), Shepherd (2022), Clement, J. (2022), Serio et al. (2013), Oliver & Raney (2011)
Income (gaming, online business)	Bonkov & Boris (2019), Recktenwald (2017), Tang & Huang (2021), Dove & Beaton (2022), Nuseir (2020)

3.4 Research Instrument

The study employed a questionnaire with closed-ended questions and five sections: Section A consists of the respondent's demographic information including gender, age, race, parents' monthly income, education level, type of institution, year of study, and state. Meanwhile, in Sections B, C and D is about independent variables, Section E is the last section which asks about the dependent variable (usage of *Peranti Siswa*).

According to the reliability value as a whole, the Likert's scale 6 points gave the reliability by Cronbach's Alpha Coefficient higher than the Likert's scale 5 points (Chomeya, 2010). The six-point likert scale is ranging from "strongly agree" (6), to "agree" (5), "slightly agree" (4), "slightly disagree" (3) to "disagree" (2) and lastly "strongly disagree" (1).

3.5 Procedure for Data Collection and Analysis

Researchers use descriptive analysis to summarize the data on the demographic of the student who used *Peranti Siswa.* In the meantime, the frequency distribution is transformed and displayed as a pie chart. As a result, a pie chart was used to illustrate the percentage and frequency of respondents from the study's demographic data summary.

In addition, the Rule of Thumb of Cronbach's Alpha Coefficient Size is used to examine the internal consistency of independent variable (IV) and dependent variable (DV). Pearson's correlation was used to measure the position and intensity or degree of the relationship between all independent variables strong, moderate, and weak.

4 Finding and Discussion

A total of 560 respondents have answered the questionnaire and 503 respondents are used for analysis of this research, the rest of the respondent's data is not used because they didn't get *Peranti Siswa*.

4.1 Demographic profile of respondents

Table 4.0: Demographic profile of respondents

Demographic Profile	Group	Frequency (N)	Percent (%)
Gender	Male	237	47.1
	Female	266	52.9

Age	18 - 19 Year	85	16.9
	20 - 21 Year	73	14.5
	22 - 23 Year	132	26.2
	24 - 25 Year	213	42.3
Race	Malay	240	47.7
	Chinese	203	40.4
	Indian	40	8
	Others	20	4
Parent monthly income	Below RM 1000	58	11.5
	RM 1000 - RM 1999	68	13.5
	RM 2000 - RM 2999	182	36.2
	RM 3000 - RM 3999	91	18.1
	RM 4000 and above	104	20.7
Current education level	STPM	117	23.3
	Polytechnic	6	1.2
	Colleges	8	1.6
	Teacher Education Institute (IPG)	12	2.4
	Diploma	14	2.8
	Bachelor's Degree	346	68.8
Type of institution	Pre - U	110	21.9
	Public Higher Education Institution (IPTA)	365	72.6
	Private Higher Education Institution (IPTS)	28	5.6
Current year of study	Pre - U (Sem 1)	50	9.9
	Pre - U (Sem 2)	1	0.2
	Pre - U (Sem 3)	61	12.1
	Year 1	13	2.6
	Year 2	39	7.8
	Year 3	104	20.7
	Year 4	232	46.1
	Year 5	3	0.6

Current state of study Selangor	9	1.8
Kuala Lumpur	9	1.8
Johor	70	13.9
Sabah	9	1.8
Sarawak	0	0
Perak	28	5.6
Kedah	46	9.1
Kelantan	260	51.7
Pulau Pinang	17	3.4
Pahang	25	5
Negeri Sembilan	9	1.8
Terengganu	6	1.2
Melaka	8	1.6
Perlis	7	1.4

Among the 503 respondents, the majority of respondents are female, which is 5.8% more than male respondents. Secondly, there are records that those who are between 24 and 25 years old are the highest respondents with a percentage of 42.3%. In addition, respondents were mostly ethnic Malays, which is 47.7%. Next, most of the respondents'(36.2%) parents' monthly income is between RM 2000 to RM 2999.

In addition, 68.8% represented respondents with an undergraduate Bachelor's Degree. Apart from that, 72.6% are from public higher education institutions (IPTA) and 46.1% of them are Year 4 students. Finally, 51.7% of respondents are studying at Kelantan which are the largest respondents in the studying state category.

4.2   Reliability Analysis

The reliability of the questionnaires was analyzed using reliability analysis. Before being delivered to 503 respondents via the online survey method, the pilot test was conducted with 50 respondents.

Table 4.1: Result of Reliability Coefficient Alpha for the Independent Variables and Dependent Variable

Item Description	No. of item	Cronbach's Alpha	Strength of Association
Study	5	0.880	Very Good
Entertainment	5	0.846	Very Good
Income (gaming, online business)	5	0.811	Very Good

Usage of Peranti Siswa	5	0.851	Very Good

4.3 Pearson Correlation Analysis

Pearson's correlation coefficient was used to examine the statistical relationship between independent variables and the usage of *Peranti Siswa* among students in Malaysia.

Table 4.2: Pearson Correlation Analysis

		Study	Entertainment	Income (gaming, online business)	The usage of *Peranti Siswa*
Study	Pearson Correlation	1	.316**	.329**	.733**
	Sig. (2-tailed)		.000	.000	.000
	N	503	503	503	503
Entertainment	Pearson Correlation	.316**	1	.646**	.253**
	Sig. (2-tailed)	.000		.000	.000
	N	503	503	503	503
Income (gaming, online business)	Pearson Correlation	.329**	.646**	1	.193**
	Sig. (2-tailed)	.000	.000		.000
	N	503	503	503	503
The usage of *Peranti Siswa*	Pearson Correlation	.733**	.253**	.193**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	503	503	503	503

Based on Table 4, the correlation between independent variables and dependent variables is shown in the table. The table above highlighted the result that researchers get from all analysis performed, only one independent that has a strong correlation with dependent variable which is study (H1). Meanwhile, for the other two variables which are entertainment (H2) and income (gaming, online business) (H3), there is a weak correlation with dependent variables.

5 Discussions

The focus point of this study is to find out between study, entertainment and income (gaming, online business), which is the activity that students use *Peranti Siswa* for. In

this case, the primary data is performed by online questionnaire via Google Form to get feedback from respondents. The result from the SPSS shows the overall result for Cronbach's alpha coefficient value of the variables is 0.900 which ranges as "Very Good" in terms of reliability level. Through the Pearson Correlation Analysis, the result is " Study " is the only one independent variable with strong correlation with dependent variable with 0.733.

6   Conclusions and Recommendations

The researcher presents a conceptual framework for researching the usage of *Peranti Siswa* among students in Malaysia. The usage includes for studying, entertainment and income (gaming, online business). All data is collected through google form questionnaires. Data were analyzed using SPSS software based on descriptive analysis, pearson reliability test and correlation analysis. This study helps to a better understanding of the activity of Malaysian students on usage of *Peranti Siswa.*

7   Limitations

Researchers using Google form to collect data. No control over respondent duplication, so a respondent may fill out several questionnaires. There is a high possibility of misunderstanding when collecting data through google form, because researchers cannot explain questionnaires to respondents. Researchers are not able to take full advantage of portal journals because of the lack of previous research studies on the topic of researchers. It's hard to get the list so we decided to give the survey to random students in Malaysia.

8   Recommendations

Governments or institutions that get "*Peranti Siswa*" should upload a list of students' names on any website to facilitate future students doing research related to this topic.The google form for one email only for one reply or the researcher can also distribute the questionnaire face to face Researchers should also look for research materials such as journals and articles from abroad as reference sources so that more citations can be made.

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The Effect of Online Learning on UMK City Campus Student's Mental Health During Covid-19 Pandemic

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Abstract:
The main purpose of this study is to study the level of mental illness during the online distance learning period of the effect of online learning on UMK City Campus student's mental health in the case of the Covid-19 pandemic. In this study, researchers studied the relationship between social isolation, virtual learning facility and learning environment. The researchers also took the students at the University of Malaysia, Kuala Lumpur, as the subjects of the survey. Therefore, the researchers will collect data through the line questionnaire. This study also uses non-probabilistic sampling as a method to obtain samples. In addition, in order to achieve the research purpose, this study uses quantitative methods. This research adopts reliability, descriptive and correlation as data analysis. The analysis results show that there is a significant positive correlation between the social isolation, virtual learning facility and learning environment and student's mental health. In addition, the researchers found the limitations of the research during the research and put forward suggestions for research and investigation as a better strategy for future researchers.

Keywords*: Social isolation, virtual learning fatigue, learning environment, university students, mental health, covid-19*

1   Introduction

Covid-19 has demonstrated to be a significant global disruptor of human life. There has been a significant change in the way people normally live (Wieczorek, 2021). To stop the virus from spreading, educational institutions had to balance promoting teaching and learning with keeping staff and students at home. It forces all students, whether in primary or secondary school, and especially students in institutions of higher education to adapt (Hamimi, 2022). The Ministry of Health (2022) applauds the government's commitment to allocate RM34 million for the centre of excellence in the 2023 Budget. Research has shown that university students' mental health is typically poor, with high rates of depression, anxiety, and stress (U.S. Department of Health & Human Services, 2022). Mental health problems are frequently one of the primary causes of an individual's physical and social well-being.

The SARS-CoV-2 virus is the infectious disease known as coronavirus diseaseCOVID-19). Most people will experience mild to moderate respiratory illness

and will recover without the need for special care. Some people will develop serious illnesses and need to see a doctor. Serious illness is more likely to strike older people and those with underlying medical conditions like cancer, diabetes, cardiovascular disease, or chronic respiratory diseases (World Health Organization, 2020).

An extensive study from the USA on the student population of various fields during the pandemic revealed that 48.14% of participants reported increased depressive symptoms, 38.48 percent reported increased anxiety, and 18.0% had suicidal thoughts (Wieczorek, 2021). According to Hasan and Bao (2020), inadequate teaching methods are another significant factor contributing to tertiary students' elevated stress levels. Online learning has received relatively unfavourable views from students, despite being the most promising alternative to conventional learning methods. The lack of interaction with peers and teachers has been cited by tertiary students as a key factor in increased participation in educational activities. Lack of hardware support and incompatible software are two notable causes of e-learning failures (Emmanuel, 2020). Therefore, to learn more about the students' mental health because of this online learning. The stress of online learning has a negative impact on students' mental health, resulting in lower student productivity. The study's significance has also been explained, with the goal of raising awareness and learning more about the students' mental health.

2   Literature Review

2.1   Student's Mental Health

The underpinning theory in this study is the Expectancy Disconfirmation Theory. Expectancy disconfirmation theory has become the leading approach to explaining consumer satisfaction with post-purchase services as a function of expectations, perceived performance, and disconfirmation of beliefs. Satisfaction occurs when perceived performance meets or exceeds expectations. Meanwhile, according to Gillison & Reynolds (2018), expectancy disconfirmation theory is based on three intimate relationships, namely the direct effect of perceived performance on customer satisfaction and how the influence of expectations on perceived performance will eventually lead to uncertainty and satisfaction. Expectancy disconfirmation theory helps researchers understand the cognitive or mental state before an experience, the state during that experience, and the customer's feelings of satisfaction afterward or otherwise.

2.2   Social Isolation

The mental problem that arises among people during the COVID-19 pandemic is social isolation. Because social participation in community organizations and family activities has been reduced due to social distancing, this could have a detrimental effect on people's mental and physical health. A person who is single, has few close friends, and has a small or undeveloped social network may be at an increased risk of developing dementia. This effect of dementia is linked to an increase in regretful thoughts or consequences during social isolation, which causes a decline in cognitive status and an increase in the behavioural symptoms of dementia. Determinations of dementia can have a negative impact on someone's memory, personality, and ability to reason. During the COVID-19, the social isolation of students caused by online learning affects students' attention and concentration in learning, as well as their enthusiasm for online

learning, which will involve their mental health problems. All these factors have a great impact on students' mental health, no matter whether they have made the right decision in the interview or whether they are affected by these factors. Hence, the study suggests the following hypothesis:

H1: There is a significant relationship between social isolation in online learning and UMK student's mental health on case of COVID-19 pandemic.

2.3   Virtual Learning Fatigue

Virtual learning fatigue is the extent to which students feel overburdened because of their apparent constant use of technology. This will have an adverse effect on their future mental and physical health as well as their ability to learn effectively. Due to the frequent use of videoconferencing, this exhaustion emerges as burnout, anxiety, and reality-flipping, which may be detrimental to one's mental health and productivity. Another commonality is Social Media Fatigue (SMF), which students use to complete their assignments. SMF is a subjective assessment of a person's amount of exhaustion, boredom, or burnout from using social media; it manifests both physically and psychologically. Virtual learning fatigue may also make students feel very depressed, and their psychological emotions will affect their mental health. Therefore, discussing how online learning affects students' physical and mental health has profound theoretical significance in addition to significant social value. In view of that, the following hypothesis is suggested:

H2: There is a significant relationship between Virtual Learning Fatigue in online learning and UMK student's mental health on case of COVID-19 pandemic.

2.4   Learning Environment

Online learning is a subset of remote education that encompasses computer-based, web-based, virtual classroom learning, and digital collaborative apps and learning processes. Meanwhile during the pandemic students need to cope with the additional stress and adjustment of new difficulties in transitioning to higher education which may negatively impact their academic achievement. According to survey findings by certain experts, since the COVID-19 pandemic, online learning has caused kids to encounter numerous challenges in the home learning setting (lack of technical mastery, high network costs). There are a variety of elements that might have an impact on students' mental health in the classroom, such as distractions, the family environment, and time management skills. Numerous research has revealed that the stress and mental health of students enrolled in online courses would be more negatively impacted by the external negative news regarding COVID-19 cases viewed at home. Taking head of this study, the third hypothesis is stated as follows:

H3: There is a significant relationship between learning environment in online learning and UMK student's mental health on case of COVID-19 pandemic.

2.5   Conceptual Framework

This study is to study the effect of online learning on UMK City Campus student's mental health during Covid-19 pandemic. Figure 1 illustrates the framework that demonstrates the independent variables that influence online learning on UMK City Campus student's mental health.
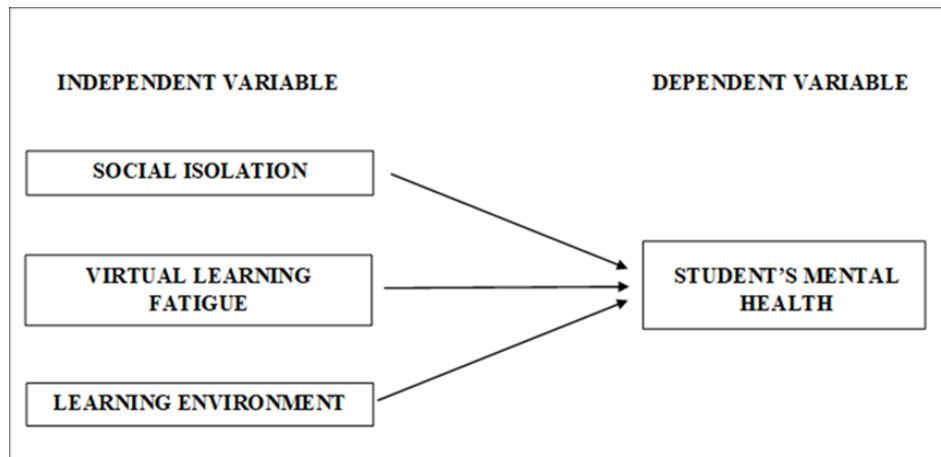

Figure 1: conceptual framework

3   Methodology

In this study, descriptive research has been used. The quantitative research qualities have been used to create the descriptive research in this study. The characteristics of the variables being examined are defined by the methods utilized in descriptive research. According to the research questions, the data will be gathered, computed, and analysed. This main research goal is to investigate the relationship between the selected independent variables (social isolation, virtual learning fatigue, and learning environment) and dependent variables (students' mental health) during the COVID-19 pandemic.

The purpose of this study is to examine the relationship between online learning and independent variables such as, social isolation, virtual learning fatigue, and learning environment students' mental health during the COVID-19 pandemic. This study chose purposive sampling as the way to collect data. The researchers collected samples in advance based on the number of senior students in UMK City campus. The sample size was taken from the population. The sample size of 361 was calculated to reflect the entire population of University Malaysia Kelantan city campus students who have online learning experience for one to 5 semesters online due to the COVID-19 pandemic. Finally, the construction measurement is defined in the Table 1.

The study uses a questionnaire with 11 closed- ended questions in three sections: Section A contains demographic profile information; Section B has three independent variables that influence online learning and section C contains the dependent variables.

The survey scale of the questionnaire is a group of answer choices, including a series of opinions. The questionnaire of this study uses the Likert Scale survey questions to make it easy for respondents to understand and answer the questions of this study. A five-point Likert scale is measured with 1 = strongly Disagree and 5 = Strongly Agree. Therefore, the questionnaire used the Likert scale, 1 Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. The final questionnaire consisted of 11 closed questions, including demographic questions, with 5 questions providing a range of answers on a five-point Likert scale; strongly agree, neutral, agree, disagree, and strongly disagree. The question covers every effect of online learning during Pandemic Covid-19.

Table 1: Adoption of question details

Variables	Sources
Students' Mental Health	Jaradat & Ajlouni (2021)
Social Isolation	Fauville et al. (2021)
Virtual Learning Fatigue	Barrot, Llenares & del Rosario (2021)
Learning Environment	Mailis et al. (2021)

The practice of gathering information from reputable, organized sources is called data collection. The foundation of data analysis is people's responses to clearly defined research questions, test, and evaluation outcomes. The Social Science Statistics Package will be used to generate and analyze the collected data (SPSS). To summarize and describe the information in a straightforward and logical manner, descriptive statistics are used. The Pearson correlation coefficient is an important way to measure the similarity of data variables. The greater the absolute value of the correlation coefficient, the stronger the correlation will be. The range of values generated by the correlation test is - 1 to 1, where 0 means that there is no correlation.

4   Finding and Discussion

4.1   Demographic profile of respondents

From 220 respondents, most of them were male respondents (21.4%), while the female respondents were (78.6%). The result showed the largest number of Malay respondents, more than half the percentage of students (55.5%). Most of the respondents were from SAR course which is as much as (32.7%). Most of the students use Smartphone/Computer/Laptop as a device to conduct online learning which is as much as (42.7%). They also use less than 3 hours to study online which is a percentage of (32.3%).

Table 2: Demographic profile of respondents
(Source: Established by this study according to the research output of 220 data, 2023)

Demographic Profile	Group	Frequency (N)	Percent (%)
Gender	Male	47	21.4
	Female	173	78.6
Age	Under 20 Years old	3	1.3
	21 – 22 Years old	25	11.4
	23 – 24 Years old	168	76.4
	Above 25 Years old	24	10.9
Race	Chinese	76	34.5
	Malay	121	55
	India	21	9.5
	Indonesia	2	10
Course	DPV	11	5.0
	SAB	27	12.3
	SAE	10	4.5
	SAH	19	8.6
	SAK	33	15.0
	SAL	23	10.5
	SAP	18	8.2
	SAR	72	32.7
	SAW	7	3.2
Device	Computer/ Laptop	49	22.3
	Computer/ Laptop/ Tablet Smart Phone	13	5.9
	Smartphone/Computer/ Laptop	21	9.5
	Smartphone/ Computer/Laptop/Tablet	94	42.7
	Smart Phone/ Tablet	28	12.7
	Tablet	8	3.6
		7	3.2
Study Hour	Less than 3 hours	71	32.3
	3-4 hours	69	31.4
	4-5 hours	28	12.7
	More than 5 hours	52	23.6

4.2　Descriptive analysis

Table 3 displays the results of the mean analysis of the model's significant determinants: social isolation, virtual learning fatigue, learning environment and student's mental

health from SPSS software. As revealed in Table 4, all variables depicted the value of mean is between 3.62 and 3.49.

Table 3: Descriptive statistic of the research model
(Source: Established by this study according to the research output of 220 data, 2023)

Variables	N	Mean
Social Isolation	220	3.49
Virtual Learning Fatigue	220	3.47
Learning Environment	220	3.62
Student's Mental Health	220	3.32

Learning environment had the highest mean which is 3.62 on the report. It shows that the learning environment influences the student's mental health in online learning. Meanwhile, the social isolation is the second highest mean which is 3.49. Secondly, the average of virtual learning fatigue was M=3.47. Thirdly, the average of student's mental health was M=3.32.

4.3   Reliability Analysis

The reliability of the questionnaire was analysed using reliability analysis. The pilot test was carried out with 30 respondents before the online survey was distributed to 220 respondents. Table 4 shows the result of reliability Coefficient Alpha for the independent variables and dependent variables.

Table 4: Result of reliability coefficient Alpha
(Source: Established by this study according to the research output of 220 data, 2023)

Variable	Number of Item (N)	Cronbach Alpha Coefficient	Strength of Association
Student's Mental Health	5	0.908	Excellent
Social Isolation	5	0.863	Very Good
Virtual learning Fatigue	5	0.843	Very Good
Learning Environment	5	0.801	Very Good

Table 4 showed the value of Cronbach's alpha for all variables was over 0.60 which is between 0.7 – 0.8. The most reliable independent variable is the social isolation, virtual learning fatigue and learning environment with five questions because Cronbach's alpha

value showed a very good coefficient value of 0.863, 0.843, 0.801. Next, the Cronbach's alpha for student's mental health with five questions the Cronbach's alpha shows an excellent value of 0.908. Accordingly, these results determined that the study model was at suitable standards.

4.4   Pearson Correlation Analysis

Pearson's correlation coefficient was used to examine the statistical relationship between independent variables and students' mental health during online learning during pandemic Covid – 19.

Table 5: Pearson Correlation Analysis
(Source: Established by this study according to the research output of 220 data, 2023)

		SI	VLF	LE	SMH
Social Isolation	Pearson Correlation Sig.(2-tailed) N	1 220	.591" .000 220	.586" .000 220	.737" .000 220
Virtual learning fatigue	Pearson Correlation Sig.(2-tailed) N	.591" .000 220	1 220	705" .000 220	.615" .000 220
Learning Environment	Pearson Correlation Sig.(2-tailed) N	.586" .000 220	.705" .000 220	1 220	.609" .000 220
Students Mental Health	Pearson Correlation Sig.(2-tailed) N	.737" .000 220	 .000 220	 .000 220	 220

Table 5 displays the correlation between the independent variables. The highlighted section of the table above shows the correlation (r) between each independent variable. No variable is more than 0.85, hence there is no correlation between any of them. Thus, the independence premise was satisfied.

5   Discussion

The purpose of this study is to evaluate the effect of online learning on UMK City Campus student's mental health in the case of Covid-19 Pandemic. The main data is obtained through an online questionnaire survey conducted by Google Form. The independent variables that can be related to the dependent variable are social isolation, virtual learning fatigue and learning environment. The reliability test conducted in this study is used to measure the consistency, repeatability, and credibility of this study. This study also tested the strength relationship between dependent variables and independent

variables. The findings discovered the existence of the relationship between the effect of online learning on students' mental health, which is social isolation, virtual learning fatigue and learning environment, which is consistent with the hypothesis put forward in previous studies.

6 Conclusion, Limitations, and Recommendations

The researchers provide a conceptual framework for studying how online learning affects mental health in the COVID-19. According to the survey results, it can be concluded that social isolation, virtual learning fatigue and the learning environment have negative effects on students' mental health. The relationship between independent variables and dependent variables has been determined from the results. This research helps to better understand the impact of online learning on students' mental health.

There are limitations during the progress towards completing the study that the researcher faces. One of the weaknesses cannot be avoided in this research is the accuracy of the data collected from the target respondents. Researchers need to find more articles and journals to get information about student mental health during the Covid 19 pandemic in Malaysia especially. The researcher only obtained 220 respondents from FKP and FHPK students. This is because, during the study of the occurrence of a natural disaster, many lines were cut off and the electricity supply was also cut off. The time allowed for the researcher to carry out this study is too limited which is not more than five months throughout the entire research progress. Therefore, it is possible to increase the bias of the findings in this research.

The suggestion for future research is that researchers want to investigate larger populations such as studies for the entire sample size of students in the face of online learning to affect mental health. Students need to remember each other to be positive and accept learning delivered online.

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