MODEL OF PHYSICAL ACTIVITIES AND SPORTS IN LEISURE OF UNIVERSITY STUDENTS IN HO CHI MINH CITY

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2020

รูปแบบกิจกรรมทางกายภาพและกีฬาในช่วงเวลาว่างของนักศึกษาระดับมหาวิทยาลัยเมืองโฮจิมินห์

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ปริญญานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตร
ปรัชญาดุษฎีบัณฑิต สาขาวิชาการจัดการกีฬาและนันทนาการ
คณะพลศึกษา มหาวิทยาลัยศรีนครินทรวิโรฒ
ปีการศึกษา 2563

MODEL OF PHYSICAL ACTIVITIES AND SPORTS IN LEISURE OF UNIVERSITY STUDENTS IN HO CHI MINH CITY

LE CONG BANG

A Dissertation Submitted in Partial Fulfillment of the Requirements

for the Degree of DOCTOR OF PHILOSOPHY

(Sport and Leisure Management)

Faculty of Physical Education, Srinakharinwirot University

2020

THE DISSERTATION TITLED

MODEL OF PHYSICAL ACTIVITIES AND SPORTS IN LEISURE OF UNIVERSITY STUDENTS IN HO CHI MINH CITY

BY

LE CONG BANG

HAS BEEN APPROVED BY THE GRADUATE SCHOOL IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DOCTOR OF PHILOSOPHY
IN SPORT AND LEISURE MANAGEMENT AT SRINAKHARINWIROT UNIVERSITY

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Title	MODEL OF PHYSICAL ACTIVITIES AND SPORTS IN LEISURE OF UNIVERSITY STUDENTS IN HO CHI MINH CITY
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Degree	DOCTOR OF PHILOSOPHY
Academic Year	2020
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The purpose of this study is to identify a model of physical activities and sports in leisure time among university students in Ho Chi Minh City in terms of participation characteristics in physical and sports activities. The research type of research was qualitative research. The sample consisted of students from Ho Chi Minh City who were Keyword: selected from five universities: Hoa Sen University, Saigon University, Ton Duc Thang University, Hong Bang International University and Ho Chi Minh City Industrial University. The research tool was a questionnaire on participation levels of physical activities and sports. The data was collected from 1468 students. The results of the study revealed that university students in Ho Chi Minh City had a high level of participation at 21.7% and non-participants at 1.4%. Students tended to choose simple physical activities and sports for activities, such as running, walking and soccer. There were different participation levels in activities based on demographics. Males had higher levels of attendance than females and 19-year-old students had the highest level of participation. The second-year students had the highest levels for four years. The students in the central district had higher attendance than other districts and the participation level from private universities was higher than government universities. A five-point Likert scale was used for motivation and constraint scales. In the experimental research step, after group discussions and interview experts; the author randomly conducted a survey of 100 students on the adjusted questionnaire based on expert opinions. After collecting the statistical data, reliability in this step was strong and good. The Cronbach alpha reliability was 0.918 for the motivation scale and 0.817 for the constraint scale. In official study, appearance-related motivations had the greatest impact on student sports and physical participation. The three constraints were as follows: (1) lack of social support; (2) lack of knowledge; and (3) a lack of facilities. The study noticed an inverse association between participation and constraint. From these results, seven recommendations were proposed for specific departments with the intention of minimizing constraints, increasing motivation and increasing the level of participation in physical activity and sports. The researcher suggested that they pay more attention to the university facilities and to organize competitions at the university to encourage student participation.

Keyword : Physical Activity, Leisure, Sport, Ho Chi Minh City, University Students

ACKNOWLEDGEMENTS

Foremost, I would like to express my sincere gratitude to my advisor Assoc. Prof.Dr. Supranee Kwanboonchan for the continuous support of my Ph.D study and research, for her patience, motivation, enthusiasm, and immense knowledge. Her guidance helped me in all the time of research and writing of this thesis. Besides my advisor, I would like to thank the rest of my thesis committee: Dr. Saravudh Chaivichit and Asst. Prof. Wipongchai Rong Khankaew, for their encouragement, insightful comments, questions and guidance.

My sincere thanks also goes to Faculty of Physical Education, Dean and Vice Dean for offering me the scholarship opportunities in Srinakharinwirot University. Thank you, Lecturers of Srinakharinwirot University and Lecturers of Vietnamese for all knowledge for my Ph.D study and research. I thank my fellow classmates, staffs of SWU and staff of Faculty of Physical Education for all supporting me.

Last but not the least, I would like to thank my family supporting me spiritually throughout my life.

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CHAPTER 1
INTRODUCTION

1.1 Background

Physical activities and sports leisure there are a lot of benefits and concern to everyone regardless of age or level of ability. Sport activities are in all life phases, particularly on adolescence and adults. The culture of physical activities vary in some stages of life and environments are different. such as countries and regions, rural or urban areas.(Cerar, Kondric, Ochiana, และ Sindik, 2017). Sports activities are a good precondition for health, normal physical and mental development of young people. Proper and regular sporting activities help maintain vitality. In terms of social progress People also understand physical education. It plays an important role in our daily lives. For example, it makes a difference in improving our physical and mental quality.

In view of health, World Health Organization (World Health Organization, 2010) recommended levels of physical activity for adults, physical activity includes recreational or leisure-time physical activity to improve cardiovascular and musculoskeletal fitness bone health and reduce the risk of NCDs and depression Therefore, according to the World Health Organization physical activity is so important to health that everyone should follow the advice.

There are many benefits about physical activities and sports but student in university there are some constraint that cannot to achieve the level as WHO recommended as the research of Vietnamese teens devote more of their free time to cyberspace than reality, the surveys shown Vietnamese teens spend more than ten hours a day studying and four hours on entertainment. But there is almost no time to devote to exercise. Vietnamese youth face a serious imbalance in consumption and leisure time activities. (TuoiTreNews, 2018)

As known, sports are necessary exercises for everyone to improve their health status. This will help a citizen's lifespan to be longer if it is practiced regularly. However, it is evident that getting people involved in sports to change their lifestyles through

exercise habits takes a lot of effort from the people. related to community health, government policy and school education.

Extracurricular sports activities for students after study time which is out of the physical education program and are participated voluntarily. Students can participate in extracurricular sports activities at university or in society with many different options. The extracurricular sports activities provided by the universities, these activities are also one of the important forms of activity to develop students' physical and intellectual condition as well as to build healthy lifestyles in the universities. Additionally, in fact, the physical education curricular in Vietnam only provides one class per week for most of freshman and sophomore. Hence the extracurricular sports activities are ideal to provide training and recreation opportunities, which meet students' needs of workout more frequently than the physical education curricular.

Information from World Health Organization (2018), there is study of Noncommunicable Diseases (NCDs) in Vietnam found that people at higher risk of NCDs were more likely to have both abdominal obesity and high blood pressure trend.

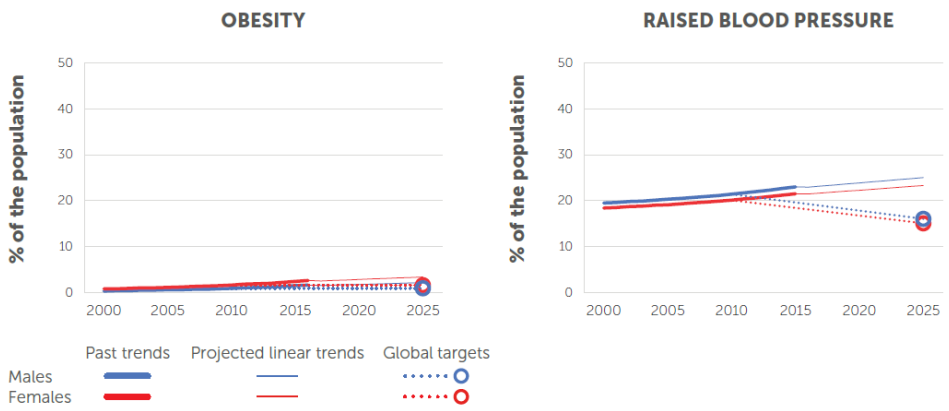

Figure 1 Obesity and Raised blood pressure trends in Vietnam

Source: World Health Organization (2018), Noncommunicable Diseases (NCDs) Country Profiles ,Vietnam. P218

In year 2016 Vietnam found noncommunicable diseases (NCDs) are estimated to account for 77% of all death that quite high, 2016 total population: 94,569,0000 & 2016 total death: 549,000 (World Health Organization, 2018)

In addition, a study by Vu, Bui, Nguyen, และ Hoang (2020), in year 2015 there is population study in Vietnam, found that 28.1% of the population in the country had lower levels of physical activity than the World Health Organization recommends.

Understanding current situations of physical activities & sports participation, motives and constraints mentioned above is very necessary. They are very important factors in the development of extracurricular sports activities movement, enhancing the duration of physical activities, improving health, develop physical and intellectual condition for students, which help to promote studying ability. There were studies examined extracurricular sports activities' motivations and constraints at several universities in Ho Chi Minh City. However, there are not any study investigate these factors in the context of multi-universities. Thus, this study aimed to examine students' needs, motivations, and constraints to participate in extracurricular sports activities in several universities in Ho Chi Minh City and puts forward solutions to attract more participation in these activities.

1.2 The purposes of this research

1. To study demographic profile participation physical activities and sports in Ho Chi Minh City

2. To study the Type of physical activities and sports

3. To study the constraints and motivation influence participation

4. To develop the model confirmation factor analysis model of physical activities and sports in leisure among university student in Ho Chi Minh City.

1.3 Significance of the Study

The findings of this research can be used by relevant departments (e.g. universities, ministry of education, transport departments) to improve the current

situation and provide an environment consistent with the participation of university students in the leisure time or students with adult leisure education.

1.4 Scope of the Study

Target population

Population for this research is students at university in Ho Chi Minh City. At Ho Chi Minh City there are 39 universities within 19 districts and have student about 458,392 in year 2016 from Statistical Documentation and Service Centre (General Statistics Office of Vietnam, 2016)

Research Sampling

According to limited time to study and big amount of population, researcher decided sampling the university from 5 location in Ho Chi Minh City. The location of university will be selected from five big university in difference area in Ho Chi Minh City to represent total population. The selected universities are as follows:

(1) Hoa Sen University: The private university, there are 1 HQ and 4 campuses located in Ho Chi Minh City with approximate 10,000 students. Headquarters located on district 1, Cao Thang campus in district 3, two Quang Trung campus in district 12 and Vatel campus in district 1.

(2) Hong bang International University: The private university, there are 1 HQ and 3 campus in Ho Chi Minh City with approximate 12,000 students. Headquarters located on Binh Thanh District, others campus are at Tan Phu District two campus and at Go Vap District 1 campus.

(3) Industrial University of Ho Chi Minh City (IUH.): The public university, there are about 30,000 students here. The university located on Go Vap district.

(4) Saigon University (SGU): The public university that located in Ho Chi Minh City, there are students about 15,000 students. Headquarters locates at District 5 and 3 campuses are Campus 1 at District 3, Campus 2 at District 1 and Campus 3 at District 3.

(5) Ton Duc Thang University (TDTD): The public university that located in Ho Chi Minh City, there are students about 20,000 students. Headquarters locates at District 7 at Ho Chi Minh City and other 4 campuses are located at another province, Bao Loc city (Lam Dong), Nha Trang City (Khanh Hoa) and Ca Mau City (Ca Mau).

Due to the target population for this research is students at university in Ho Chi Minh City that there are a lot, but we don't know exactly quantity of the student. So, this research included 65 variables (excluding demographic variables) for measured of physical activities and sports participation levels, constraints and motivation that effect to the engagement level in students' leisure time. According to this number of variables and Kostas Alexandris, Barkoukis, Haralambos, และ Grouios (2003) recommended that the sample size should be 325 (65*5) respondents from setting for this research. The sample was drawn from the five universities in difference area within Ho Chi Minh City including public and private universities. Thus, this research sample consisted of approximately 1,500 respondents who were invited to participate in the study. Random sampling method was used when selecting the participants and it is tried to get the same ratio between universities, genders, majors, etc.

Variant of Study

Independent variable

1) Gender

2) University Type

3) Age

4) Class year

5) Cumulative academic GPA

6) Accommodation type

7) Living Region (location in Ho Chi Minh City)

8) Income per month

Dependent variable

1) The physical activities and sports participation levels among university students in Ho Chi Minh City

2) The motivations that influence university students in Ho Chi Minh City about physical activities and sports participation levels

3) The constraints that influence university students in Ho Chi Minh City about physical activities and sports participation levels

1.5 Definition of terms

Physical Activity (PA): Movement of the body produced by skeletal muscles that require energy. (World Health Organization, 2018)

Physical activity duration: The duration of the physical activity in minutes. (Alfred, 2016)

Recreational physical activity: Physical activity during recreation or sports

Physical activity as a means of transport: Physical activity such as walking or cycling to cover distances such as going to school, working, or shopping.

Physical activity at home or at work: Physical activity when doing housework or work-related activities.

Muscle-strengthening physical activity: increase muscle tension from the weight Gymnastics exercises or moving objects

Physical activity frequency: Frequency of physical activities units per day or per week

Physical inactivity: The basic activity status does not come with a physical activity, moderate or heavy.

1.6 Research Framework

A conceptual model showing the interconnection of key variables considered there are constraints and motivations for participation level of physical activities and sports in leisure of university students in Ho Chi Minh City. The frameworks as show at figure 2 how social demographics relate to motivation and constraints dimensions then the constraints and motivations variants effect to physical activities and sports for university students in Ho Chi Minh City

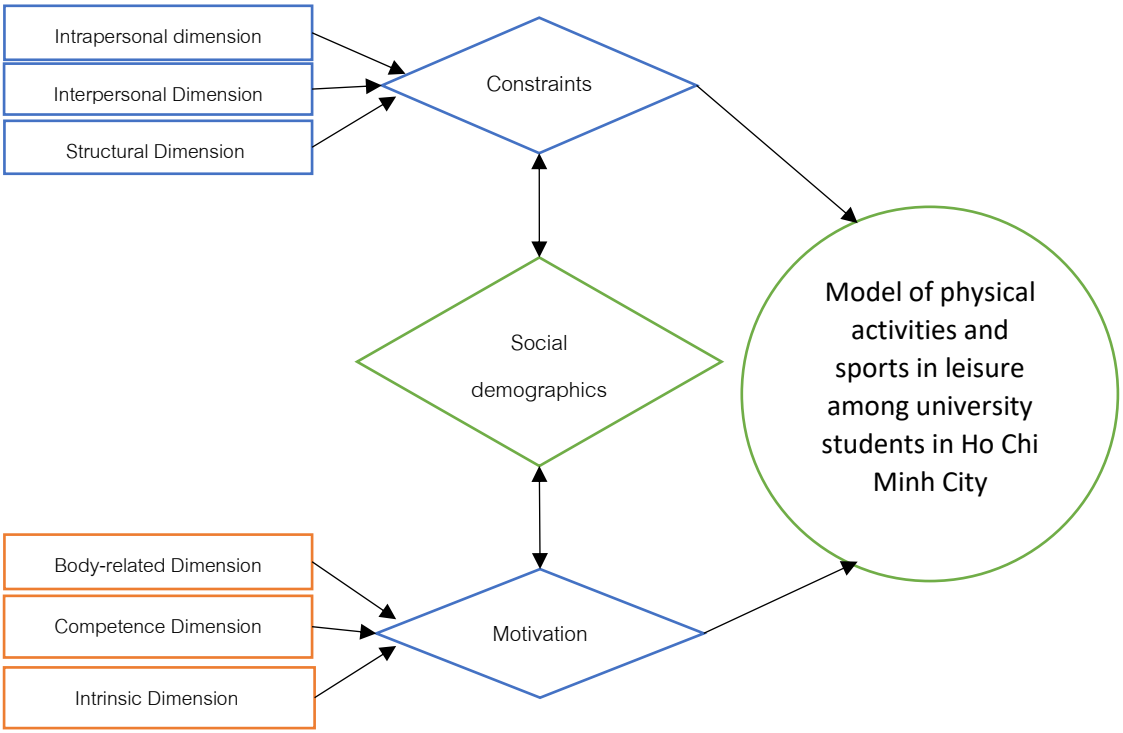

Figure 2 Framework of correlation between constraints factor and motivations factor with participation levels of physical activity

1.7 Research Questions and Hypotheses

The purpose of this research was to study physical activities and sports model for university students in Ho Chi Minh City. The research method element provides information about this study questions and uses several statistics for testing the relation and difference of hypotheses. The hypotheses helped to guide for analyzing studied questions the questions and hypotheses are following.

Q1. What are the levels of physical activities and sports participation among university students in Ho Chi Minh City, according to gender, age, university type, class year, GPA, accommodation, living region and income per month?

Q2: What are the constraints and motivations that influence university student's participation in physical activities and sport in Ho Chi Minh City according to gender, age, university type, class year, GPA, accommodation, living region and income per month?

Q3: What is the model of physical activities and sports in leisure among university students in Ho Chi Minh City?

CHAPTER 2
LITERATURE REVIEW

2.1 The concepts in research

2.1.1. The Concept of Leisure

When we discuss about leisure sports, we should define it clearly first. Leisure is English word; Leisure is time free from from work or duties. when can rest Enjoy hobbies or sports, etc. (http://www.dictionary.com)

Leisure is time when you're not working or studying and are able to relax and do what you enjoy. (Longman Dictionary of Contemporary English)

Roberts (Roberts, 2001)said Leisure Time is the time we have when we are not working or doing necessary activities and it is the time when we have the greatest influence to control and do what we enjoy.

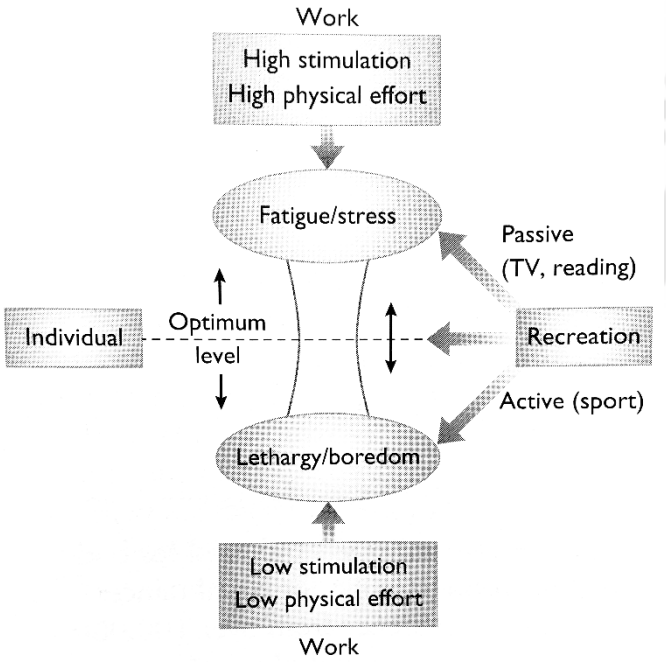

Figure 3 one function of recreation is to repair the balance between boredom and stress caused by work

Source: Roberts (2001) Advanced Leisure and Recreation P2

Conceptually, leisure may be accessed at three different levels. (Rojek, 2005). “First, it can be investigated in residual terms as the surplus time and space left over once the necessities of life have been fulfilled. Second, it can be explored as the time and space that are used consciously for personal enrichment and pleasure. Third, it may be examined as functional activity that achieves socially defined ends such as social integration, cooperation and mutual understanding or physical and psychological health and well-being.”

John Tribe (Tribe, 2004) defined leisure as discretionary time is the time remaining after work, commute to work, sleep, and other necessary household and personal tasks which can be used in the selected method as shown in the diagram below.

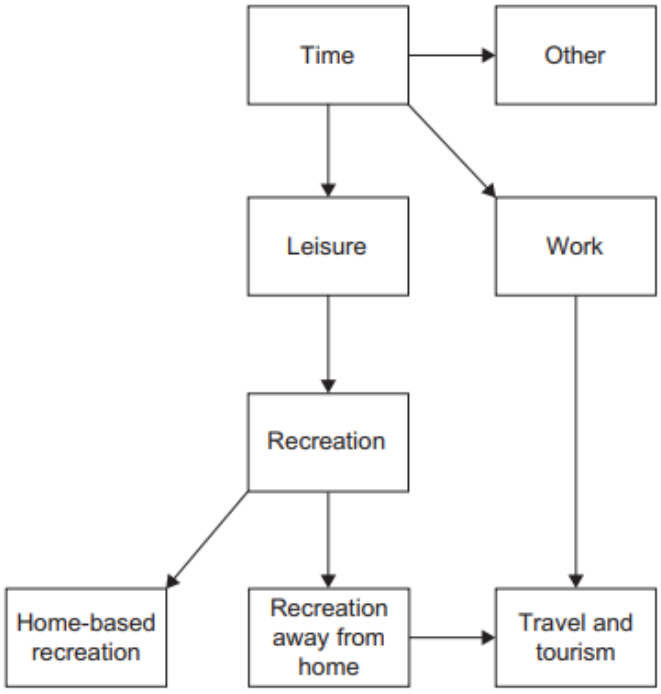

Figure 4 Diagram to explain about Leisure and tourism

Source: Tribe (2004). The Economics of Recreation, Leisure and Tourism P3

Leisure is manifest activity in free time. Anonymous activity is a positive activity that people want to do and can be done on a personal or deeper level of satisfaction using their own abilities and resources. (Stebbins, 2009)

2.1.2. Leisure and Recreation classification

There are two examples of the classification of leisure and recreation one is active and passive recreation. Another way to classifying recreation are home-based and non-home-based recreation.

1) Active recreation & Passive Recreation

1.1) Active recreation

When a person engages in activities that involve a significant degree of physical or mental exertion, such as playing sports, playing a musical instrument, amateur theatrical performances, roaming, gardening, crafts and other hobbies.(Roberts, 2001)

1.2) Passive recreation

When a person receives or consumes entertainment from another person or activity such as watching television or sports, listening to music, reading a book, playing computer games. go to a restaurant or pub. (Roberts, 2001)

2) Home-based and non-home base recreation.

2.1) Home-based

For past 80 years the technologies about digital TV, computer, internet have been growth so much that has opened a new world of home entertainment and communication. These lead to breakdown society and people become led inclined to participate in group activity (Roberts, 2001)

Figure 5Home-based leisure activities

Source: Roberts (2001) Advanced Leisure and Recreation, P4

2.2) Non-home based

The recreation activities that are away from home as sample as below figure

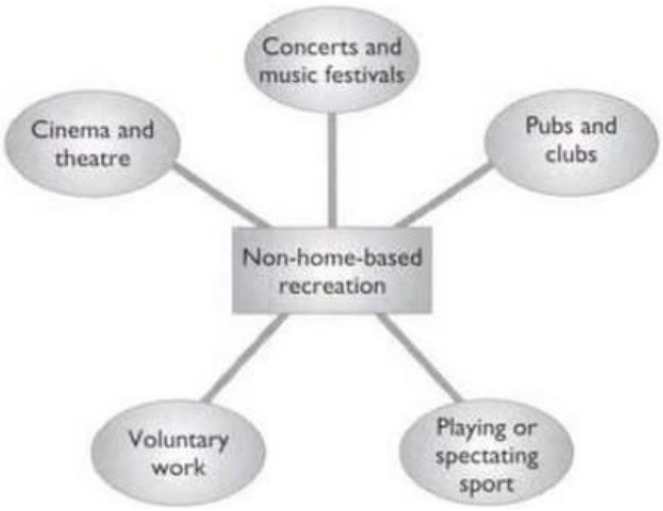

Figure 6 Non-home-based leisure activities

Source: Roberts (2001) Advanced Leisure and Recreation, P4

2.1.3. The concept of Physical activities and sports

Physical activity according to body movement that produced by working muscles that increase energy expenditure. It is a comprehensive term that includes physical "exercise". (World Health Organization, 2020)

The World Health Organization also defines physical activity in the same way that physical movement is happened by skeletal muscles that need energy. (World Health Organization, 2020)

At dictionary.com defines “SPORT” as activities that require physical skills or abilities and often have competition.

2.2. Physical activities and sports participation.

2.2.1. Physical activities and sports participation benefits

Centers of Disease Control and Prevention, USA (CDC, 2018) explain in website about the benefits of physical activity that is one of most importance things to do for heath. The World Health Organization also recommends about the benefits of exercise where regular, moderate-intensity exercise, such as walking, cycling, or playing sports, has significant health benefits. In every age, the benefits of physical activity far outweigh the potential dangers, such as from an accident. Regular and adequate physical activities can improve musculoskeletal and cardiovascular fitness, improve bone health and function, reduce the risk of high blood pressure coronary heart disease stroke, diabetes, several types of cancer and depression, reduce the risk of falls and hip or spine fracture and is the basis of energy balance and weight management. Strong evidence shows that physical activity has many beneficial effects for both physical and mental well-being: approximately 25% decreases the risk of many disorders associated with physical inactivity (such as cardiovascular disease, stroke, and type 2 diabetes) significantly reduces the risk. of high blood pressure and some cancers and reduce stress, anxiety, depression and possibly delaying the effects of Alzheimer's disease and other forms of dementia. (WHO-Europe, 2020)

2.2.2. Physical Inactivity associated problems

Levels of insufficient physical activity (World Health Organization, 2010) globally, about 23% of adults aged 18 and over had insufficient physical activity in 2010. Partly as a result of the lack of activity in leisure time and sedentary behavior at work and at home. Likewise, the increase in the use of modes of transport "passive" also contributed to the lack of exercise, as well as around the world, 81% of adolescents aged 11-17 years, there is not enough physical activity in 2010. Teenage girls are less active than teen boys, with 84% vs. 78% not meeting WHO suggestions. There are many environmental factors connected to urbanization that can keep people from moving more, such as: fear of violence and crime in the outdoors, heavy traffic, air pollution, deficient of parks, footpaths, sports/ recreational equipment, and places.

2.2.3. Physical Activity Measurement

There are many method to measure the PA Didache list up tool to measure and give advantage and disadvantage for each method (Ndahimana และ Kim, 2017)

(1) DLW, doubly labeled water, is accurate method, considered a gold standard for the measurement of TEE (total energy expenditure) and premits freedom of activity to participants. This method there are limitation that has high cost of the method, need for specialized personnel, the method does not provide specific details about the physical activity. They are rarely used for research studies because they are expensive. It is burdensome, takes a lot of time, and is unable to collect qualitative data. (Louisa G. Sylvia, 2014)

(2) Direct calorimetry to quantify the direct heating is the most precise way to measure the metabolic rate but it’s high costs. Subjects must be quarantined for 24 hours or more.

(3) Indirect calorimetry is a precise and non-invasive method by providing information about the metabolic fuel burn. This makes it possible to estimate the energy in the environment field. This cost is quite high, and staff trained to use it properly.

(4) Accelerometers: can be used both in laboratory and field settings, a less invasive and less burdensome approach for volunteers and inexpensive. However, a

limitation of this method is the inaccuracy of the translation activity is predicted to cost energy, especially when using with variety of activities.

(5) A heart rate monitor is a elatively low-cost tool to measure exercise and energy consumption.

(6) Pedometers: Affordable and non-invasive method which is used to evaluate the most common activity (walking) to encourage people to exercise, but not limited to measuring the activity of walking only. which is inaccurate for estimating distance covered and power consumption.

(7) The self-reporting method or self-report questionnaire is low-cost. This makes it possible to use in studies with large samples. Have a low burden on volunteers Provides information about exercise patterns but with low accuracy and reliability, it was linked to the participants' memory dependence. These questionnaires are a common method of evaluating PA and are based on participants' recall abilities. (Louisa G. Sylvia, 2014)

Four main characteristics of PA measurements could be considered while selecting one for the study: (1) PA measured quality (e.g. activity type, intensity, frequency, duration) (2) data integrity. the burden of the matter (such as the time and/or effort required to complete); (3) the administrative costs/burdens; and (4) the specific limitations mentioned above. In the selection of additional PA assessments, we considered key factors of the study population according to demographic that may influence the choice of PA measurement. (Louisa G. Sylvia, 2014)

For this study to measure physical activity, both subjective and objective methods must be considered. Factors to consider before choosing a procedure include precise, activity type, the participant age and the ability of that procedure to obtain precise information that would use self-reported questionnaires due to the population level and limitations of cost and time frame, incorporating self-report information about activity type (for intensity measuring) of the study. Frequency and duration will provide useful insights about Ho Chi Minh university student participation in sport and physical activity.

2.2.4. Physical Activity Guidelines for adult

According to university student age about 18-24 years old that age rank are in adult classification as WHO specified in Global Recommendations on Physical Activity for Health of 18–64 years old.(World Health Organization, 2010)that recommend In adults 18-64 years of age, suggestions to improve cardiovascular and musculoskeletal performance, healthy bone, bring down the risk of NCDs and depression as follows: (1) Adults aged 18-64 have better to perform at least 150 minutes of moderate-intensity aerobic exercise all over the week or minimum 75 minutes of intense aerobic exercise all through the week or doing activities that require a compound of moderate and intense intensity. (2) Aerobic activity ought to do for at least 10 minutes. (3) Health benefits to more adults should exercise moderately intense aerobics class is 300 minutes per week or 150 minutes of light intensity aerobic exercise per week or an equivalent activity between moderate to very heavy. (4) Strengthening activities should be performed on the major muscle groups 2 or more days per week. Therefore, the info from the World Health Organization exercise is so important to health that everyone should follow the recommendations.

2.3 Constraints on Participation

Constraints are theoretical and empirical study in leisure research. Public health policies and programs to maintain active shuttle in Ho Chi Minh City and to encourage leisure on physical activities and sports in both genders and in all age groups, especially among teenagers. It will be crucial in a comprehensive national plan to deal with inactivity. (Oanh TH Trinh, 2008)

In 1991, Crawford, Godbey, and Jackson (D. W. Crawford, Godbey, และ Jackson, 1991) developed a hierarchical model of leisure constraints that combine three types: interpersonal constraints (e.g. lack of a suitable partner), intrapersonal constraints (e.g. lack of skill, excessive stress) and structural constraints (e.g., excessive cost). Each of these three important dimensions are reviewed below.

2.3.1. Classification of Constraints

(1) Intrapersonal constraints, Godbey, Crawford, และ Shen (2010) reported that they are primarily related to perceptions or subjective assessments of the suitability and participation relevance activities in leisure by the person. The Intrapersonal constraints are related to the mental state inherent in the person, for example most personality factors are related to the mental state and attributes such as lack of skills, perception of health problems. and perceptions of the availability of opportunities for participation, attitudes, or more transient mental states, such as emotions.

(2) Interpersonal constraints, Godbey และคนอื่น ๆ (2010) reported that the outcome of interpersonal interaction and the correlation between individuality. Interpersonal constraints are concerned with considering social interactions and as well as factors such as the lack of support from partner, parents, and other important people.

(3) Structural constraints are any obstacles arising from external conditions in the environment, such as financial or accessibility issues (Stanek, Rogers, และ Anderson, 2015). According to D. W. Crawford และคนอื่น ๆ (1991) and D. Crawford และ Godbey (1987), these limits generally include: to readiness (or lack of amenities) of facilities and services access to amenities and services. People's financial situation and available time can be classified as structural constraints. Not every study found a lack of amenities and difficulty accessing amenities bring to reduced attendance. For example, Konstantinos Alexandris และ Carroll (1997) wind up that structural constraints had no crucial correlation with sport participation or non-participation. in these situations, people tend to change their preferences for relaxation or will they work to overcome constraints to better manage their engagement patterns. (D. W. Crawford และคนอื่น ๆ, 1991)

According to Crawford & Godbey (D. Crawford และ Godbey, 1987) and Crawford (D. W. Crawford และคนอื่น ๆ, 1991) each of the three dimensions works with a hierarchical structure. The basic of the hierarchy there are limits within the person. This is because interpersonal and structural factors have slight impact on participation. The internal factors such as lack of engagement, little knowledge and no heavy interest in

decision-making. If the interpersonal constraints are few and interested but there are many limitations between individuals. Structural factors will not significantly affect participation. Finally, structural constraints are effective only when constraints are negotiated between individuals and internally. These influences were later assort into three dimensions, as figure 8 shown. (Konstantinos Alexandris และ Carroll (1997); D. Crawford และ Godbey (1987); D. W. Crawford และคนอื่น ๆ (1991))

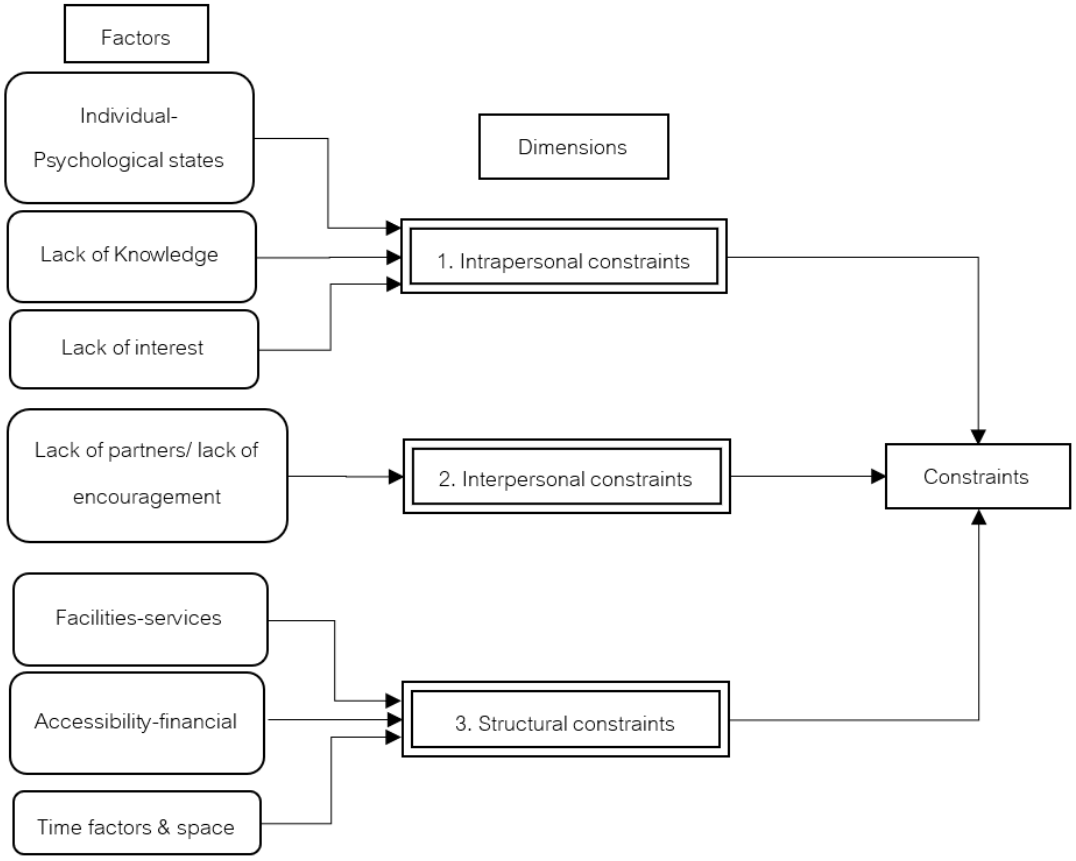

Figure 7 Constraint Model

Source: Alahmad (2016) Constraints and Motivations on the Participation of Saudi Arabian High School Students in Physical activities and sports. P75

2.3.2 Vietnamese constraints on Physical Activity Participation

Bui el al. (Bui และคนอื่น ๆ, 2015) studied about the national physical activity (PA) assessment for Vietnam, to examine problems act on accuracy has been measured

by applied the Global Physical Activity Questionnaire (GPAQ) from a trial of representatives across the country of 14706 people aged 25-64, selected by random sample stratified. The result was that about 20% of Vietnamese do not have PA measurable during a ordinary week, but 72.9% (men) and 69.1% (women) followed WHO suggestions for PA by adults based on sample's age. On average, 52.0 (men) and 28.0 (women). Metabolic Equivalent Task (MET)-hours/week reported all jobs and PA values are higher in rural areas and vary from season to season. So, it concluded that approximately seven in 10 Vietnamese aged 25-64 received the World Health Organization recommendation for all PAs, mostly from activities in working and higher in country areas. Almost respondents were able to give detail of their activities using GPAQ. However, with the exaggerated and seasonal changes in the report. Data transformations give reliable conclusions, but energy level correlation analysis works best.

2.3.3 Correlation between leisure constraints and levels of participation

In 1991 Crawford, Jackson and Godbey (D. W. Crawford และคนอื่น ๆ, 1991) the intended constraints are met in a hierarchy. First at the intrapersonal level (Figure 8). Leisure preferences arise when there are no intrapersonal constraints of the species described previously. or the effects of these being faced through a combination of privilege and the execution of human will. Next, depending on the type of activity, the individual may face limitations on a personal level. Only when this kind of restriction is overcome will the structural constraints be met. The engagement will report in no or debate through, structural constraints. If structural constraints are strong enough, however, the result will not contribute.

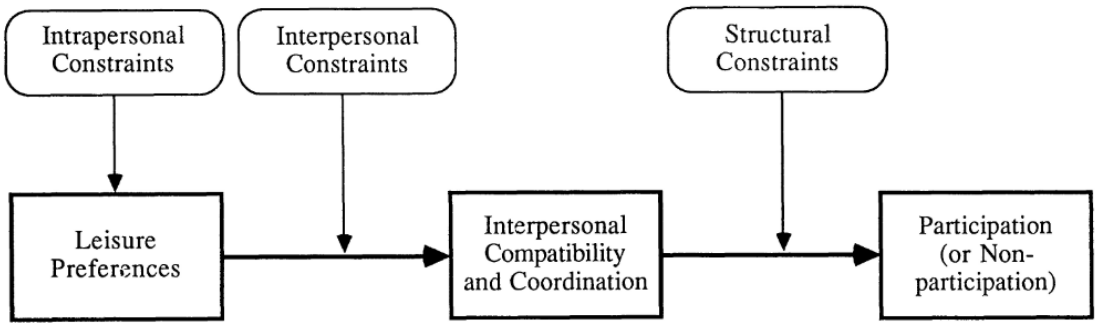

Figure 8 Leisure constraints hierarchical model.

Source: D. W. Crawford และคนอื่น ๆ (1991). A hierarchical model of leisure constraints. P.313

While inspecting the correlation between constraints and levels of participation, there are many multiplex problems. Several studies have examined limitations on participation in physical activity and realized that the recognize limitations had clear perform on the level of participation.(Stanek J, Rogers K, และ J., 2015)

A study by Konstantinos Alexandris และ Carroll (1997) recommended about interpersonal and structural constraints in social demographic were significantly correlated with level of participation more than intrapersonal constraints.

2.3.4 Differences in Constraint Variables among Social Demographics

Alexandris และ Carroll (1997(2)) studied demographic differences in perceived limitations in participating in recreational sports. A study in Greece found that gender was particularly affected by intrapersonal restrictions. Graduation level Perceived limitations were significantly increased in minority-educated individuals. Had an inverted U correlation between perceived limitation and age. And married individuals are more constrained than singles regarding time concern constraints. The research has shown evidence to be similar in perception of limitations in studies conducted in different countries and cultures. Although there are differences in the provision of sports and recreation. In summary, constraints will vary based on demographic variants.

2.4 Motivation on Participation

Motivation was defined as the catalyst factor for engaging in behaviors leading to increased participation in physical activities and sports. (Laverie, 1998; Sallis, 2000)

Such motivation is applied to explain people's leisure behavior to show what drive can motivate people to be more intended, engaged and join the physical activities, programs, or activities of social. A person's level of involvement in physical activity is often due to their own motivation. (Havitz, Kaczynski , และ Mannel, 2013)

Self-Determination Theory (SDT) assumes that individual has a place of control both internally and externally. The position of internal control makes an individual feel like they are initiating and supporting their actions. The SDT require satisfaction: (1) Competence (2) Relatedness (3) Autonomy. This theory is based on the context of a variety of physical activities. The exercise program to lose weight for relaxation and clinical populations and different ages. (Fortier, Duda, Guerin, และ Teixeira, 2012; Kilpatrick, Hebert, และ Bartholomew, 2005; Ryan และ Deci, 2000; Teixeira, Carraça, Markland, Silva, และ Ryan, 2012).

The different motivations for participation were significantly different in functioning based on their internal external orientation (Markland และ Ingledew 1997) Adequate understanding of goal orientation will help health make the right recommendations for individuals to participate in suitable activities, therefore maximizing gratification. All human behavior could be attributed to the happiness experienced when driven tension is reduced. The weak point of this theory is that it cannot explain the actions of humans who created it, rather than reducing the tension.

Physical activity motivation was recognized as an key factor in the starting and keeping up of physical activity levels, frequency and good effect. (Christina M. Frederick และ Morrson, 1996). This is because there is evidence that university students' participation is low, not only around the world but also in Vietnam.

Motivations often mentioned in youth participation include fun, skill development, challenges, fitness, opportunities to have new friends, coping with emotions and stress and socialization. (Cooper, Schuett, และ Phillips, 2012). The habits

learned in childhood continues to grow. Moreover, early stay of life may lead to habits that are not active in adulthood. (Hardcastle แ ล ะ Hagger, 2011; Perkins, Jacobs, Barber, และ Eccles, 2004).

2.4.1. Motivation Measurement

In this research, motivators are considered from three perspectives. The first is the motivational dimension related to the body, the second dimension, the motivation, ability. and third true motivational dimension. C. M. Frederick แ ล ะ Ryan (1993) applied this approach to analyze participation of physical activity and sports to categorize intrinsic and competence dimension as real motivators and apply body-related factors to be an example of extrinsic motivation. That's mean intrinsic and competence motivations are linked to more satisfy and confidence feeling in the activities. Earlier studies have confirmed the three factors have a strong influence on adolescents' physical activities and sports levels (Cooper และคนอื่น ๆ, 2012) As the model details are shown in Figure 9.

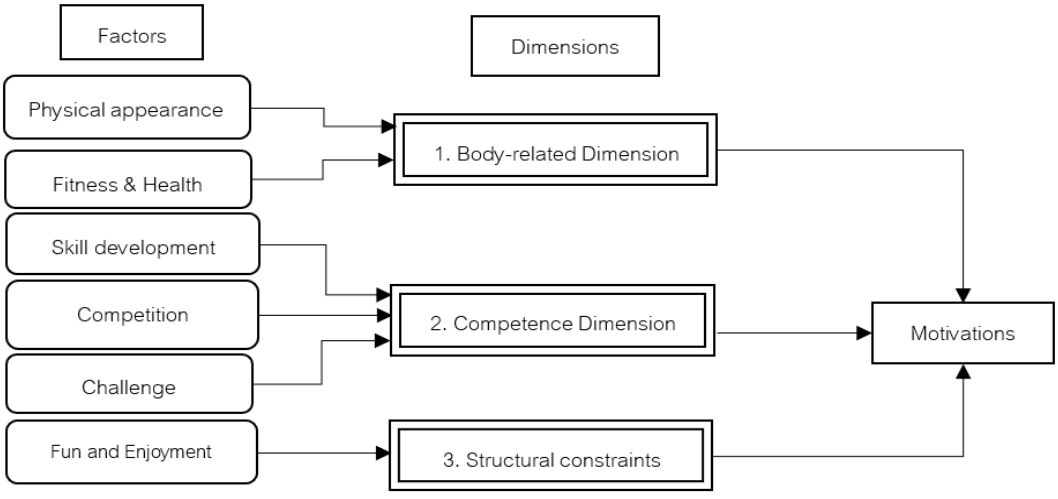

Figure 9 Three-pillar Motivation Dimensions

Source: Alahmad (2016). Constraints and Motivations on the Participation of Saudi Arabian High School Students in Physical activities and sports. P105

The above model will be used in the Motivation Discussion Framework. Earlier study has examined each of the three motivation above. They noted that these dimensions had a significant influence on adolescents' levels of physical activity participation. Many similar research projects used it successfully. It covers and covers all motivations for participating in sports and physical activities.

Dimension of Body-related motivation

Who participated in physical activity showed higher levels of physical motivation. with a bad image linked to physical characteristics caused by a loss of interest in participation and physical performance. (C. M. Frederick และ Ryan, 1993)

Competence motivation dimension.

In the field of sports behavior, competence is the basis of ability development, competition, and challenge. (C. M. Frederick และ Ryan, 1993). Although efficacy is a key motivator. However, different abilities can be assessed among different participants. Several studies have found that boys have higher cognitive abilities than girls. (Cooper และคนอื่น ๆ, 2012). Efficacy also influences the quality of leisure experiences. The study from Frederick & Ryan (1993), cognitive ability was a common topic in studies that found high levels of youth engagement. Along with the acquisition of skills who is most likely to participate in long-term sports or leisure programs. Therefore, physical efficacy is an important variable to explain differences in youth readiness for physical activities and sports. (Deci และ Ryan, 2008; C. M. Frederick และ Ryan, 1993)

Intrinsic motivation dimension.

Intrinsic motivation is motivation from within a certain action without clear external reward. You do it because it's fun and interesting. rather than because of external motivation or pressure to do so, such as rewards or deadlines (Santos-Longhurst, 2019). Example join a sport because it's fun and enjoy it more than it does for prizes or exercise because like to challenge body rather than to lose weight or wear clothes. Examples of the most frequently cited motivations for engaging in physical activity among young people are shown in Table 1. There are no known studies of university student in Ho Chi Minh City adolescent motivation for physical activities and sports. Therefore, this research will contribute significantly to existing knowledge about

physical activities and sport motivation. for university student in Ho Chi Minh City, Vietnam.

Table 1 The motivation variables and citation reference

Motivation variables	Citation
Body-related	Cecchini, Méndez, และ Muñiz (2002); Vasickova, Hrebickova, และ Groffik (2014); Kilpatrick และคนอื่น ๆ (2005); Ball, Bice, และ Parry (2014)
Competence motivation	Cooper และคนอื่น ๆ (2012); Woods, Mays, N., Graber, และ Crull (2007)
Intrinsic motivation	Seghers, Vissers, Rutten, Decroos, และ Boen (2014); McCarthy, Jones, และ Clark-Carter (2008); Kilpatrick และคนอื่น ๆ (2005)

2.4.2 Correlation between Motivation and Participation Levels of Physical Activity.

The Correlation about motivation variables and physical activity is a key to know both the dismissal and the engagement of young people. (Lawman, Wilson, Horn, Resnicow, และ Kitzman-Ulrich, 2011). Several studies have observed a correlation between motivation factors affecting the level of participation of physical activity. Previous studies from Kostas Alexandris, Funk, และ Pritchard (2011) and Lawman และคนอื่น ๆ (2011) revealed a strong relationship between physical activity and motivation. (Litt, Iannotti, และ Wang, 2011)

2.4.3. Correlation between Motivations and Constraints

The correlation between motivation and constraints was essential for eliminating inappropriate constraints and promoting appropriate incentives. (Konstantinos Alexandris และ Carroll, 1997). Numerous studies have examined the correlation between constraints and motivations. Some studies have found a significant negative correlation. In other words, eliminating constraints such as the absence of a partner increases motivation. Kostas Alexandris และคนอื่น ๆ (2011) identified the

negative relationship between constraints and motivations, a positive correlation was observed between motivation and activity engagement as well as between motivation and future behavioral intentions. These results provide empirical support for attachment interactions with restrictive activities and motivation.

Participation in physical activities has been possible driven by the preference to improve. This is especially true when it guide to practical transform in body image and health strengthening. Ebben และ Brudzynski (2008) identified the most common motives for physical activities and sports participation are good health and fitness management along with Body-related motivation such as appearance/weight management which was the second common motivation and the stress relived was the third common motive in their study.

2.5 Related Research

Previous research into exercise constraints and motivations on the levels of physical activities and sports participation there are a lot of knowledge about constraints and motivations that effect to physical activity and sports participation levels. Participate in sports past researches have suggested models for constraints and motivations: some models have also been empirically examined at physical activities and sports levels. In 2016 Alahmad (2016) studied about constraints and motivations on the participation of Saudi Arabian high school students in physical activities and sports that applied the leisure constraints hierarchical model that developed by C. M. Frederick และ Ryan (1993), the research explored the determinants of students' physical activity and their level of sports participation. A comparative study of constraints and motivation variables according to social demographic in male high school students only. Other studies Data of additional respondents, such as gender, should be considered to know the similarities and differences in the level of constraints, motivation and physical activity and women's participation in sports. Cho และ Price (2018) also used the leisure constraints hierarchical model designed by D. W. Crawford และคนอื่น ๆ (1991) same as Alahmad (2016) For recreational restrictions studied in participation in competitive and intramural sports activities, comparing international and domestic students from a

university located in the southwestern United States. But the study did not identify demographic differences regarding recreational constraints. Examining demographic differences, such as length of stay, gender, also provides a better understanding of the cultural influence on leisure restrictions in competitive and intramural sports. Chiu และคนอื่น ๆ (2016) researched to determine the level of participation m motivation and constraints in physical activities and sports among Malaysian youths who are inactive. They used a cross-sectional survey questionnaire composed of open and close-ended items related to level of sport participation, motivations and constraints, and socio-demographic characteristics were conducted. A descriptive analysis was performed using frequency and percentage to present the demographics of the survey respondents as well as motivations and constraints to participating in physical activities and sports. Overall sports and physical activities participation levels are calculated for each dimension to identify respondents' categorization based on the following criteria of active people engaged in sports or exercise. Exercise more than three times in a week for 30 minutes at a time. Less active. If participating in less than three sports or physical activity in a week with 30 minutes at a time and not being active If there is no participation at all, refer to the participation level recommended by World Health Organization (2010). The study found that respondents cited reasons for not participating in sports or physical activities include cultural experiences, health, fitness, psychology and society. Liu และ Dai (2017) studied levels of physical activities in leisure of the university students in China and to investigate the relation between the level of physical activity and the self-efficacy to deal with constraints to physical activity by using IPAQ (the International Physical Activity Questionnaire) and adopted of the Self-Efficacy to deal with constraints to Physical Activity Scale (SOBPAS). Özdemir (2020) studied to regulate the intrinsic leisure motivation level of university students at the province of Ankara and Zonguldak in Turkey and evaluated the correlation and differences between variables. The data were collected with Intrinsic Leisure Motivation Scale and used demographic questions tool to collect the data.

CHAPTER 3
RESEARCH METHODOLOGY

The objective of this chapter is to dive some detail and prove study methods for answer the questions and hypotheses of this study. Quantitative monitoring of the perception of motivation, constraints for participation in physical activities and sports. It informs the understanding of question about constraints and motivations why they are limited or increase university student's participation in physical activities and sports. The study steps are following,

1. Identify population and research sampling
2. Research tools development
3. Research data collection
4. Data analysis

3.1. Population

Population for this research is students at university in Ho Chi Minh City. At Ho Chi Minh City there are 39 universities within 19 districts and have student about 458,392 in year 2016 from Statistical Documentation and Service Centre (General Statistics Office of Vietnam, 2016)

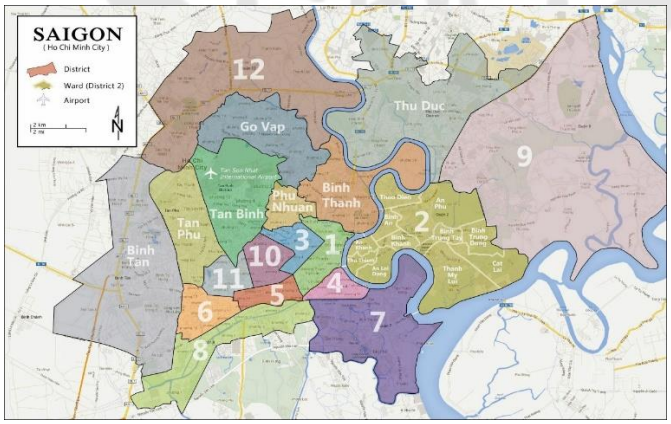

Figure 10 Map of Ho Chi Minh City, Vietnam

Source:https://www.orangesmile.com/travelguide/ho-chi-minh-city/high-resolution-maps.htm

3.2. Research Sampling

According to limited time to study and big amount of population, researcher decided sampling the university from 5 location in Ho Chi Minh City. The location of university will be selected from five big university in difference area in Ho Chi Minh City to represent total population. The selected universities are as follows:

1) Hoa Sen University: The private university, there are 1 HQ and 4 campuses located in Ho Chi Minh City with approximate 10,000 students. Headquarters located on district 1, Cao Thang campus in district 3, two Quang Trung campus in district 12 and Vatel campus in district 1.

2) Hong bang International University: The private university, there are 1 HQ and 3 campus in Ho Chi Minh City with approximate 12,000 students. Headquarters located on Binh Thanh District, others campus are at Tan Phu District two campus and at Go Vap District 1 campus.

3) Industrial University of Ho Chi Minh City (IUH.): The public university, there are about 30,000 students here. The university located on Go Vap district.

4) Saigon University (SGU): The public university that located in Ho Chi Minh City, there are students about 15,000 students. Headquarters locates at District 5 and 3 campuses are Campus 1 at District 3, Campus 2 at District 1 and Campus 3 at District 3.

5) Ton Duc Thang University (TDTD): The public university that located in Ho Chi Minh City, there are students about 20,000 students. Headquarters locates at District 7 at Ho Chi Minh City and other 4 campuses are located at other province, Bao Loc city (Lam Dong), Nha Trang City (Khanh Hoa) and Ca Mau City (Ca Mau).

3.3. Research Tools

The tools that will be used for this research, the researcher will use self-administrated questionnaire contained the questions correlating to the constraints and motivation that may effect participation levels in physical activities and sports with of university students in Ho Chi Minh City with main 3 section:

1. Personal Profile questionnaires

2. The students' participation level in physical activities and sports.

3. Motivation and Constraints measurement questionnaires.

3.4. Questionnaires Creation

Section 1: The demographic profile questionnaires.

This section of the questionnaire contains questions to deliver the individual information with general demographic information of the students. The questionnaire will ask the respondents to specify their gender, age, location, birth order. elementary school level and living location, grade point average (GPA), type of university (private or public university), and monthly income of the responder, class year and region of residence were selected to compare constraints, levels of physical activity participation and motivations. Measurements of respondents' personal data and demographics enable comparisons between all participants. Table 2 lists the variables included in the demographic profile.

Table 2 University Students' Demographic Profile

Item	Demographic	Option 1	Option 2	Option 3	Option 4	Option 5
1	Gender	Male	Female			
2	Age	18 Years old	19 Years old	20 Years old	21 Years old	22 Years old
3	Class year	1st	2nd	3rd	4th	5th or more
4	University	Hoa Sen University	Hong bang International University	Industrial University of HCMC	Saigon University	Ton Duc Thang Uni

Table 2 (Continue)

Item	Demographic	Option 1	Option 2	Option 3	Option 4	Option 5
5	GPA	Excellent	Well done	Well	Accepted	Fail
6	Accommodation	Boarding house	Dorm	Live with family	Other	
7	Region lived	North (District 12, Thu Duc, Go Vap)	South (District 6,7,8)	East (District 9, 2)	West (District Binh Tan, Tan Phu)	Central (District 1,3,4,5, 10, 11, Tan Binh, Phu Nhuan, Binh Thanh)
8	Income per month	<3.000.000	4.000.000 – 5.000.000 VND	5.000.000 – 6.000.000 VND	> 6.000.000 VND	

Section 2: The questions are related to university students' participation level in physical activities and sports.

The levels of physical activity participation in previous research also used the Physical Activity Questionnaire for young people that provide seven-day and twelve-month time recalls. There are many ways to measure physical activity levels such as LTEQ, Adolescent Physical Activity Questionnaire and Questionnaire (APARQ), Adolescent Physical Activity Questionnaire (PAQ-A), GPAQ, Seven-Day Physical Activity Recall Questionnaire, and IPAQ.

The intensity of exercise (hard, moderate, and low) asking respondents to type of physical activities and sports that they are often to choose to participate in the past seven days. Then measure the MET value, MET is the ratio of the rate of metabolism in your work, compared with the resting metabolic rate. Metabolic rate is the

rate of energy used per time unit. t describes the intensity of an physical activity.(Roland, 2019)

Table 3 List of MET Value for Physical Activities and Spots

No.	Physical activities And sports	Intensity			MET
		Low	Moderate	Hard	
1	Soccer			✓	7.0
2	Yoga Power		✓		4.0
3	Volleyball			✓	8.0
4	Basketball			✓	8.0
5	Tennis			✓	8.0
6	Table tennis		✓		4.0
7	Swimming			✓	8.0
8	Walking		✓		3.8
9	Gymnastics		✓		4.0
10	Aerobics (water, step, dance)			✓	6.5
11	Weight training			✓	6.0
12	Water skiing		✓		6.0
13	Camping	✓			2.5
14	Golf		✓		4.5
15	Handball			✓	8.0
16	Rugby				4.5
17	Athletics			✓	6.0
18	Running			✓	8.0
19	Martial Arts (e.g. self-defense, karate, and judo)			✓	10.0
20	Bicycling		✓		8.0
21	Billiards	✓			2.5
22	Electronic games	✓			1.5
23	Rock climbing		✓		5.0
24	Baseball			✓	6.0

Frequency could measure by question how often they had engaged in physical activities and sports over the past seven days, see Table 4.

Table 4 Physical Activities and Sport Measurement Scale

No.	Items	Example of choice options	Instrument
1	Frequency	(i.e. 3 time per week)	LTEQ
2	Duration	(i.e. less than 30 min)	APARQ
3	Type of intensity	(i.e. low)	Standard energy costs

The physical activity scale created by frequency, duration, and intensity variables.

(1) High Level

A high level of fitness meets below requirements

- Participate in strenuous activities 3 or more days per week with a continuation of 60 minutes or more

- Participate in moderate activity seven days a week. It lasts between 30 to 60 minutes.

(2) Moderate Level

A defined moderate level of physical activity meets below requirements.

- Participate in hard activities 3 or more days a week with a continuation less than 30 minutes.

- Participate in moderate activity 5 days a week with a continuation at minimum 30 minutes in one day.

(3) Low Level.

A fitness that does not meet the above criteria of high or moderate levels.

To create scale for the Ho Chi Minh University student's physical activities and sports will use frequency, duration, and intensity variables.

The questionnaire about the level of physical activity participation used for analysis the effect on physical activity and sport levels there are addition behavioral variable such as place, travel to and from university, participate under organized or non-organized physical activities and sports, current participation, mainly person participating with, encouragement person, university sport facility availability and accessibility of university's sport facilities

Section 3: The questionnaire uses a defined measurement scale for constraints and motivation to participate in physical activities.

for exercise motivation Measures assess three types of motivation for participation in physical activities and sports. As reported by C. M. Frederick และ Ryan (1993), there are three motivations dimensions: 1) body-related dimension; 2) competence dimension and 3) intrinsic dimension. The body-related dimension includes to desire to improve appearance and physical fitness such as weight management (loose or keeping weight). The competency dimension consists of seven items related to skill development, competition, and challenge. The intrinsic dimension consists related to fun / enjoyment. (Alahmad, 2016).

For measure about constraints in items that have 3 dimensions are intrapersonal, interpersonal, and structural to measure the constraints as show in table 9. The constraints scale by using a five-point Likert-type scale. In this research use value=5 'strongly agree' to value = 1 'strongly disagree'.

3.5. Research process

The study was performed according to the following procedure:

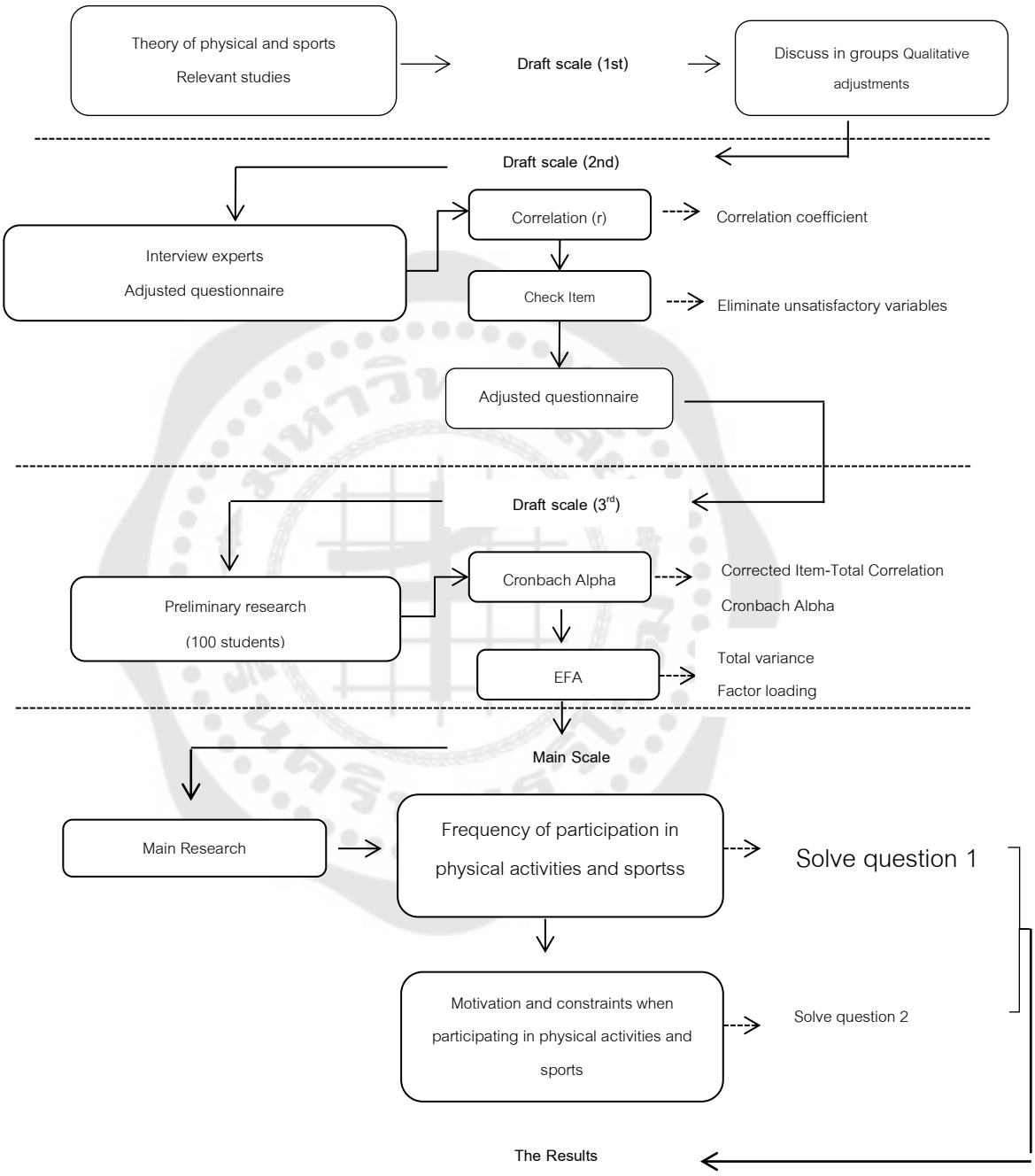

Figure 11 Research Process Diagram

3.6. Data Analysis

Quantitative methods are used to collect numerical data that is organized, interpreted, and analyzed using computer statistical programs. Descriptive analysis is used to describe samples and lay the groundwork for later analysis.

(1) Missing data.

Missing data is defined as an un-stored data value for the variable in the observation of interest. The problem of missing data is common in most research studies. and may have a significant impact on the conclusions drawn from the data. Missing data causes problems. First, the lack of data reduces statistical power. This refers to the probability that the test will reject the null hypothesis when it is false. Second, lost data can cause bias in parameter estimates. Third, it can reduce the representativeness of the sample. Study analysis is more difficult. Each of these distortions could threaten the validity of the experiment and could lead to incorrect conclusions.(Kang, 2013)

(2) Normality test.

This study needs the sample to be the normal population. Therefore, it is necessary to examine the normal level by means of a normalization test to test the suitability of statistical analysis data by investigate the data distribution.

(3) Descriptive analysis.

Describe the characteristics of the sample. The descriptive analysis procedure was used to assess the nature of the data, emphasizing mean, mode, and standard deviation to describe the study structure of motivations, constraints, and levels of physical activity participation. That enables researchers to describe the data with the number one. Demographic data by categories such as social life. type of university Class and region of residence in Ho Chi Minh City Use frequency and percentage to describe results.

(4) Cronbach’s alpha

Cronbach's alpha is a measure of internal consistency, measure of the reliability of the scale. A "high" alpha does not mean that the measurement is a single

unit. In addition to measuring internal conformity If you want to provide evidence that the scale in question is one-dimensional. can do further analysis. Exploratory factor analysis is one way of checking dimensions. Technically, Cronbach's Alpha is not a statistical test. but is a reliability coefficient. (or regularity).

Hair, Black , Babin, แ ล ะ Anderson (2014)also said the scale ensuring unidirectionality and reliability should reach Cronbach's Alpha threshold of 0.7 or greater. However, according to preliminary findings studies, Cronbach's Alpha threshold of 0.6 is acceptable.

(5) EFA - Factor analysis.

This study is required to determine the fundamental structure of the constraints and motivations by two main reasons. (1) this scale has not been used for students at universities of Ho Chi Minh City and (2) to define the structure of a set of constraints and motivation variables to compare with the original scale. The following sections describe the exploratory factor analysis in detail.

(6) CFA – Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) presents a model based on a structural equation modeling. It is s related to EFA (also called latent factor and the weight of the load factor) but is not affected by several limitations of EFA research forum. It is executed on the means and variance - covariance matrix instead of on the correlation matrix. It is performed with method and variance - covariance matrix instead of correlation matrix.(Fontaine, 2005)

(7) Correlation.

Correlation analysis is used for any set of two or more items or ratings that should measure structures of particular interest, differences between participants the structure of interest then create relationships between the rest of the list or different scorers that are proportional to these differences (Leppink, 2019), for example Pearson's correlation coefficient γ can be used as an estimator of the linear correlation between items or ratings parametric statistics, and Spearman's correlation coefficient ρ for non-parametric statistics. The value of the Pearson's correlation coefficient (-1.00 to

+1.00) indicates the strength of correlation. A relation of 0 means that there is no correlation between the variables. The correlation coefficient of the Pearson product moment explained the strength and direction of a linear correlation to determine the relationship between motivation and constraints. Contribution that is the result or dependent variable. while motivation and limitation are descriptive variables.

(8) T-test.

T-test is a type of inferential statistic to investigate if there is a significant difference between the methods of the two groups. which may be concerned to some features that mainly used while a data set, such as a data set recorded as the result of 100 flips of a coin, will be a normal distribution and possible there are unknown differences. A hypothesis testing tool will use the t-test. This accept the testing of hypotheses applicable to the population. To investigate statistical significance use the t-test considers the t-statistic, the t-distribution, and the degree of freedom to conduct a test, one must use an variance analysis(Hays, 2020). In this study use independent-sample T-tests to find the difference between constraints and motivations variables.

(9) One-way ANOVA.

When independent samples in conditions with more than two groups One-Way ANOVA is be used. It will be applied to test the difference in a single dependent variable between two or more groups generated by a single independent variable or classification. (Bhunia, 2013). In this research, between-groups one-way ANOVA with POST-HOC that presents the result of the comparison between all the possible pairs (Bhunia, 2013). The tests were used to investigate the differences among three constraints dimensions and the three motivating factors according demographic among university students. ANOVA sensitive to detect differences, but the post-hoc test has more stringent levels of significance to reduce the risk of type 1 errors. Type one error occurs when the null hypothesis is rejected while it is true. The error accepts the alternative hypothesis. Although caused by chance(Pallant, 2011).

(10) MANOVA

MANOVA is helpful to experiment situations where at least some independent variables are manipulated. There are many advantages over ANOVA. By measuring multiple dependent variables in a single experiment. Have more opportunities to discover what factors are truly important and it can prevent Type I errors that can occur if multiple ANOVAs are operated independently. In this study, one-way MANOVA was applied to identify the difference between the variables of constraints and motivation by demographic among university students in Ho Chi Minh City.

CHAPTER 4
RESULTS

In chapter 4, the results on the participation of students in physical activities and sports are presented throughout the research methodology and tools used in chapter 3. There are 4 sections in this chapter: [1] 4.1. Descriptive demographic. This section includes demographic data (age, type of university, residence area, education level, etc.). [2] 4.2. Physical & Sport participation: This section examines whether the questionnaire is suitable for the participants, explains the measurement items, the screening and cleaning process, and ensures the reliability of the questionnaire. Then description of participation levels in physical activities and sports in Ho Chi Minh city: Present information about the level of participation in physical activities and sports in leisure of university students in Ho Chi Minh City regarding duration, frequency, peers, types of participation, etc. These are the main parts that provide information for research questions and hypotheses. [3] Motivations & Constraints result: rate the motivation and constraint. [4] Hypotheses & CFA: Examine the model of motivation and constraint when taking part in sports of students in Ho Chi Minh City on the official format of this thesis: find out the relationship between motivation and constraints, constraints and levels of participation, etc.

4.1. Descriptive demographic

General information about the sample of the research includes demographic factors as introduced in the above section. The research samples are selected by the norm selection method. The total number of surveys distributed in the official research is 1500. The valid number was 1489, accounting for 99.2%. When selecting the participants, it is tried to get the same ratio between universities, genders, majors for easier comparison; however, some invalid samples were eliminated and appeared a small difference, but it is not too large compared to the overall number.

The analytical method used in this section is descriptive statistics, which includes several data analysis options to describe in detail the participants in this

interview. The algorithms are typically used such as percentage, frequency, and so on. The results are presented in detail as follows:

Table 5 Descriptive statistics of the research sample

Demographic factors		Frequency	Percent
Gender	Male	755	50.7
	Female	734	49.3
	Total	**1489**	**100.0**
University	Hoa Sen University	299	20.1
	Hong bang International University	297	19.9
	Industrial University of Ho Chi Minh City	296	19.9
	Saigon University	299	20.1
	Ton Duc Thang University	298	20.0
	Total	**1489**	**100.0**
Age	18 Years old	396	26.6
	19 Years old	367	24.6
	20 Years old	423	28.4
	21 Years old	273	18.3
	22 Years old	30	2.0
	Total	**1489**	**100.0**
Class year	1 st	396	26.6
	2 nd	458	30.8
	3 rd	332	22.3
	4 th	278	18.7
	5 th and more	25	1.7
	Total	**1489**	**100.0**
GPA	Excellent	21	1.4
	Well done	51	3.4
	Well	411	27.6
	Accepted	1005	67.5
	Fail	1	.1
	Total	**1489**	**100.0**

Table 8 (Continue)

Demographic factors		Frequency	Percent
Accommodation	Dorm	271	18.2
	Boarding house	938	63.0
	Live with family	217	14.6
	Other	63	4.2
	Total	**1489**	**100.0**
Region Lived	North (District 12, Thu Duc, Go Vap)	566	38.0
	South (District 6,7,8)	242	16.3
	East (District 9, 2)	119	8.0
	West (District Binh Tan, Tan Phu)	60	4.0
	Central (District 1,3,4,5, 10, 11, Tan Binh, Phu Nhuan, Binh Thanh)	502	33.7
	Total	**1489**	**100.0**
Monthly income	<3.000.000	319	21.4
	3.000.000 – 5.000.000	772	51.8
	More than 5.000.000 – 7.000.000	221	14.8
	> 7.000.000	177	11.9
	Total	**1489**	**100.0**

University

There are 1489 participants in total, male is 50.7% and female is 49.4%. Hoa Sen University and Sai Gon university have the same number of participants at 299 students (20.1%). The number of Ton Duc Thang University students is 289 (20%). Hong Bang International University has 297 participants (19.9%). Ho Chi Minh City Industrial University has 296 participants (19.9%).

Ages

There are 396 students in the age of 18 (26.2%), students in the age of 19 are 367 students (24.6%), students in the age of 20 are 423 (28.4%). The number of 21 years old students is 273 (18.3%). Students in the 22-year-old group (2%).

Class year

There are 458 students currently in the second year (30.8%), students in the first year are 396 (26.6%), students in the third year are 332 (22.3%). The number of students in the last year is 278 (18.7%). Additionally, 25 students are studying longer than 4 years (1.7%).

Academic performance

In the last year, there are 1012 students rated "Accepted" (68%). Students with "Well" capacity ranked second (27.9%). In 3rd place is “Well done” (4%). 1.4% of students had an "Excellent" rating, and only 1 student had a "fail" rating (0.1%)

Accommodation

The Boarding house accounted for the highest number (63%). The second is Dorm (18.2%). In third rating is Live with family (14.6%). 4.2% of participants live in other types of accommodation.

Region Lived

The participants currently live in North (District 12, Thu Duc, Go Vap) accounts for the highest number (38%). Second is Central (District 1, 3, 4, 5, 10, 11, Tan Binh, Phu Nhuan, Binh Thanh) (33.7%). The number of students in the South (District 6,7,8) accounts for 16.3%. The East area (District 9, 2) has 8% of students. The least is in the West (District Binh Tan, Tan Phu) of Ho Chi Minh City with 4% of students.

Monthly income

Regarding monthly income, most of the participants reported that the income ranges from 3 to less than 5 million VND per month (51.8%). Ranked second is below 3 million (21.4%). Next, monthly income is more than 5,000,000 - 7,000,000 (14.8%). 11.9% of participants spent in the range of over 7 million VND.

The survey data also shows that the number of students with motorcycles to commute accounts for 64.7% while 70.4% of the participants said that there is no athlete in their family.

4.2. Physical & Sport participation

4.2.1. Experimental research

Discuss in groups and interview experts

There were several studies related to the sports field; however, the participation in sports and physical activities is different due to the location, facility, social culture, and environment. To assess the importance of the questionnaire in social research, the author gradually develops the questionnaire to suit the characteristics of students studying in Ho Chi Minh City.

When developing the questionnaire at the beginning, the author is based on the research of physical and sports activities of some countries around the world and in Vietnam - especially research on student's activities. After the synthesis and group discussion, the statistical results are presented as below:

+ 11 survey questions on demographics.

+ 13 questions related to the level of participation in physical activities and sports of college students.

+ Scale measuring motivation to participate in physical activities and sports of university students, including 23 variables.

+ Scale measuring obstacles to participation in physical activities and sports of university students, including 29 variables.

Besides, open-ended questions, used for interviewees to fill in themselves, aims at discovering new ideas that are closer to reality and more comprehensive.

As described in the research process, the author synthesizes the theory to develop the questionnaire, then discuss it in groups with advisors to ensure the objectivity of the questionnaire. After that, the author delivers the questionnaire to experts once again to enhance the scientific, objective, and broader research.

The group of experts participating in the interview consists of 12 members, including university administrators, academic advisors, lecturers, scientists in sport and physical training (called "experts" in this research)

The questionnaire is designed in two parts. In part 1, experts evaluate the synthesized research content on a scale of 1 to 5: (1) Totally disagree, (2) Disagree, (3)

Neutral, (4) Agree, (5) Strongly agree. In part 2, there are some open questions for additional comments or suggestions if any.

The questionnaire is delivered twice after a month. Contents that received more than 80% approval from experts are selected. 12 questionnaires are delivered and all of them are collected, accounted for 100%. The draft questionnaire includes the parts described in section 3.4 and is indicated in the appendix.

The result shows that experts all agree with the suggested content, some suggest editing variables description; however, the amount remained unchanged. Thus, the study continues to test the correlation coefficient to ensure the stability between two interview's times, the description of the correlation coefficient as below:

Table 6The description of the correlation coefficient

Range of values r	Description
± 0.50 to ± 1	Strong correlation
± 0.30 to ± 0.49	Medium correlation
± 0.1<± 0.29	Weak correlation

Condition: The Pearson correlation coefficient r is significant only if the observed significance number (sig.) is less than the significance of α = 5%.

Analysis results show that there is a correlation between the two interviews, the correlation coefficient fluctuates from 0.767 to 1, which is a strong correlation. Therefore, experts have a strong agreement on the answers after two interviews.

Preliminary research

The author randomly conducted a survey of 100 students on the adjusted questionnaire based on experts' opinion (Appendix 1). After collecting data, algorithms are used to eliminate unreliable items in the questionnaire.

Using algorithm intrinsic reliability and discovery factor analysis EFA to create the scale of measurement in the study. Specifically, it is used to analyze the

questionnaire on a 5-level scale (Likert 5-point scale). This questionnaire is a sociological type of survey so that the study only analyzes the intrinsic reliability of the two scales of measurement: Scale to measure motivation to participate in physical activities and sports of university students consists of 23 variables and scale to measure constraints of them in participation consists of 29 variables. The inspection results are presented as below:

Scale to measure motivation to participate in physical activities and sports of university students

Rreliability analysis:

Table 7 The results of testing the reliability of student's motivation on participating in physical activities and sports.

No	Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	Feel too tired after did it	.434	.917
2	Weight management purpose	.322	.918
3	I want to handle stress	.478	.916
4	I want to have good looking	.520	.915
5	I want to increase my energy	.610	.914
6	I want to build muscles	.592	.914
7	I want to be charming.	.431	.917
8	I want to improve body appearance	.385	.918
9	I will feel bad to myself if I don't	.520	.915
10	I want to have better cardio fitness	.672	.913
11	I want to do better daily activity	.572	.914
12	I like the contesting	.646	.913
13	I want to have new ability	.652	.913

Table 7 (Continue)

No	Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
14	I want better of existing ability	.654	.912
15	I like the challenge	.561	.914
16	I want to maintain existing ability	.790	.909
17	I like the exciting activity	.486	.916
18	It's joy	.664	.912
19	It's interesting	.589	.914
20	It makes me feel good	.446	.916
21	I'm happy to do this activity	.537	.915
22	I find motivation in this activity	.540	.915
23	I enjoy the activity	.610	.913

According to Hair และคนอื่น ๆ (2014), the measurement that ensures unidirectional and reliability should reach Cronbach's Alpha from 0/7; however, this is preliminary research so that the Cronbach's Alpha is acceptable at 0.6. Cristobal, Flavian, และ Guinalíu (2007) said that a good scale means the Corrected Item - Total Correlation of variables value is from 0.3. The results in Figure 4.1 show that all variables have strong and good reliability coefficients, that are greater than 0.6, total variable correlation is greater than 0.3.

Looking at the requirements above, 23 variables on motivation to participate in student's physical and sports activities are satisfactory and used to conduct the next

step of the research.

Exploratory Factor Analysis (EFA):

After analyzing factor by Principal component analysis and Varimax rotation method, 11 variables are divided into 3 groups with KMO and Bartlett's test,

which has KMO = 0.640 (>0.5), Bartlett's Test = 0.000 (<0.01). The coefficients of each variable are greater than 0.4, with the total extracted variance is 81.95%.

Table 8 KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.640
Bartlett's Test of Sphericity	Approx. Chi-Square	2547.194
	df	253
	Sig.	.000

Table 9 Results of factor EFA analysis to measure motivation to participate in physical and sports activities

No	Items	Component			
		1	2	3	4
1	I want to do better daily activity	.851			
2	I like the exciting activity	.818			
3	I like the contesting	.826			
4	I like the challenge	.769			
5	I want to have new ability	.723			
6	I want to maintain existing ability	.633			
7	I want better of existing ability	.584			.679
8	I feel bad to myself if I don't		.920		

Table 9 (Continue)

No	Items	Component			
		1	2	3	4
9	Weight management purpose		.895		
10	I want to be charming		.881		
11	I want to have better shape		.851		
12	I want to have better cardio fitness		.793		
13	I want to handle stress		.781		
14	I want to have good looking		.636		
15	I want to build muscles		.634		.667
16	I want to increase my energy		.583		
17	Feel too tired after did it		.511		.572
18	I enjoy this activity			.914	
19	It's joy			.876	
20	I find motivation in this activity			.840	
21	It's interesting			805	
22	It makes me feel good			.664	
23	I'm happy to do this activity			.630	

The minimum sample size is 100, Hair และคนอื่น ๆ (2014)assumed that the absolute value of Factor Loading is between 0.3 and 0.4: the minimum condition for the observed variable to be retained is considered. The results in the table show that 4 factors are formed. However, the variables " I want to define my muscles", " I want to improve my current skills" and " Feel too tired after did it" are unsatisfied about the different value because the load factor in both groups is not greater than 0.3. If an

observed variable of factors in two groups is less than 0.3, it should be removed. After removing the three variables, factor analysis is conducted once again. The result of the second analysis with 3 groups of 20 variables shows that KMO = 0.703 (>0.5), Bartlett's Test = 0.000 (<0.01). The load factors of each variable are greater than 0.4, with a total variance of 79.15%. Factor Loading

Table 10 KMO and Bartlett's Test (second time)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.703
Bartlett's Test of Sphericity	Approx. Chi-Square	1978.614
	df	190
	Sig.	.000

Table 11 Results of factor EFA analysis to measure motivation to participate in physical and sports activities (second time)

No.	Items	Component		
		1	2	3
1	I enjoy this activity	.925		
2	It's joy	.894		
3	I find this activity stimulating	.885		
4	I think it's interesting	.816		
5	I love to do this activity	.722		
6	It makes me happy	.631		
7	I want to get better at my activity		.843	
8	I like the contesting		.805	
9	I like the challenge		.769	

Table 11 (Continue)

No.	Items	Component		
		1	2	3
10	I want to have new ability		.772	
11	I like the exciting activity		.753	
12	I want to maintain existing ability		.591	
13	I will feel bad to myself if I don't			.907
14	I want to be charming			.874
15	I want to improve body appearance			.866
16	I want to have better cardio fitness			.809
17	I want to have better body shape			.757
18	I want to handle stress			.715
19	I want to increase my energy			.691
20	Weight management purpose			.650

Thus, 20 variables to measure student's motivation to participate in physical and sports activities were defined and presented via 3 groups of factors, groups of factors are named under Frederick and Ryan's suggestion (1993):

Group 1: Intrinsic dimension (6 Items): I enjoy this activity, It's joy, I find this activity stimulating, I think it's interesting. I love to do this activity; it makes me happy.

Group 2: Competence dimension (6 Items): I want to get better at my activity, I like the contest, I like the challenge, I want to get new ability, like the excitement of participation, I want to maintain existing ability.

Group 3: Body-related dimension (8 Items): I will feel bad to myself if I don't, I want to be charming, I want to be good looking, I want to have better cardio fitness, I want to have better body shape, I want to handle the stress , I want to increase my energy, Weight management purpose .

Scale to measure constraints when students participate in physical and sports activities.

Reliability analysis:

Table 12 The result of testing reliability of a scale to measure constraints when students participate in physical and sports activities.

No	Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	Feel too tired after did it	.487	.805
2	I fear of pain	.536	.802
3	I am not happy in social situations	.281	.810
4	I'm too tired for recreation	.352	.819
5	I have health concern	.313	.813
6	I don't have self-confident	.383	.814
7	It is not intense enough for me	.396	.813
8	I don't know where to join	.332	.819
9	Nobody teach me	.559	.801
10	I do not know where I can study it	.280	.814
11	My skills in not enough	.355	.811
12	The facilities are not kept well.	.437	.807
13	Facilities crowded	.556	.805
14	Facilities insufficient	.312	.813
15	I do not like the offered activities	.253	.815

Table 12 (Continue)

No	Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
16	Program's schedule unavailable to me	.456	.808
17	Take too long-time during transportation	.491	.807
18	The activity far from my home	.465	.807
19	I have no car	.277	.814
20	The fees too expensive for me	.332	.818
21	I had not good memory this activity in the past	.403	.810
22	I don't want to interfere my daily routine.	.391	.814
23	I am not interested	.322	.823
24	My friends have no time	.516	.803
25	No one joins me	.349	.816
26	My friends don't like physical activity.	.336	.817
27	I don't have time because of family take care	.348	.815
28	I don't have time because I study.	.376	.820
29	I don't have enough time due to social obligations.	.206	.810

The result in table 12 shows 5 variables were removed from the scale: I don't have enough time due to social obligations., I do not like the activities offered, I have no car, I do not know where I can learn it and I am not happy in social situations with a total variable correlation is less than 0.3. The remaining 24 variables have high and good reliability, satisfactory and are used to conduct the next step of the research.

EFA analysis:

After analyzing factors by principal component and Varimax rotation method, 24 variables were divided into 3 groups with KMO = 0.647 (>0.5), Bartlett's Test = 0.000 (<0.01). The load factors of each variable are greater than 0.4, the total variance is 72.9%.

Table 13 KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.647
Bartlett's Test of Sphericity	Approx. Chi-Square	1433.764
	df	276
	Sig.	.000

Table 14 The results of factor analysis EFA to measure the constraints when students participate in physical and sports activities.

No	Items	Component		
		1	2	3
1	Taking too long time for transportation	.794		
2	The activity too far from my home	.734		
3	The facilities are not kept well.	.717		
4	Program’s schedule unavailable to me	.680		
5	I don’t have time because I study.	.670		
6	Structure Facilities insufficient	.633		
7	The fee too expensive to me	.580		
8	I don’t have time because of family take care	.528		
9	My friends have no time		.716	

Table 14 (Continue)

No	Items	Component		
		1	2	3
10	No one joins me		.594	
11	My friend doesn't like exercising.		.545	
12	Nobody teaches me			.807
13	I fear of pain			.803
14	Feel too tired after did it			.714
15	I am not interested			.670
16	My skills in not enough			.640
17	It is not intense enough for me	.516		.639
18	I had not good memory this activity in the past			.632
19	I don't have self-confident			.602
20	I have health concern			.525
21	I don't know where to join			.548
22	I don't want to interfere my daily routine.			.513
23	I'm too tired for recreation			.423

The variable "Facilities crowded" is not satisfied because the load factor is less than 0.4, and the variable "It is not intense enough for me" does not reach the unidirectional value so that they are removed from the sample. After removing these variables, the second analysis is conducted.

The results of the second analysis show that 22 variables were divided into 3 groups with KMO = 0.641 (>0.5), Bartlett's Test = 0.000 (<0.01). The load coefficients of each variable are greater than 0.4, the total variance is 73.49%.

Table 15 KMO and Bartlett's Test (2nd time)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.641
Bartlett's Test of Sphericity	Approx. Chi-Square	1202.713
	df	231
	Sig.	.000

Table 16 The results of EFA analysis to measure constraints when students participate in physical and sports activities (2nd time)

No.	Items	Component		
		1	2	3
1	The facilities are not kept well.	.805		
2	Program's schedule unavailable to me	.840		
3	Taking too long time for transportation	.788		
4	The activity too far from my home	.755		
5	The fee too expensive to me	.720		
6	Facilities insufficient	.708		
7	I don't have time because I study.	.626		
8	I don't have time because of family take care	.671		
9	I have health concern		.895	
10	I'm too tired for recreation		.859	
11	I fear of pain		.780	
12	I don't know where to join		.770	
13	My skills in not enough		.719	
14	I had not good memory this activity in the past		.713	
15	Feel too tired after did it		.620	

Table 16 (Continue)

No.	Items	Component		
		1	2	3
16	Nobody teaches me		.608	
17	I am not interested		.594	
18	I don't have self-confident		.498	
19	I don't want to interfere my daily routine.		.422	
20	My friend doesn't like exercising.			.909
21	No one joins me			.892
22	My friends have no time			.703

Thus, 22 variables are defined to measure student's motivation to participate in physical and sports activities and divided into 3 groups of factors, which are named as the descriptions:

Group 1 : Intrapersonal (1 1 items): I have health concern , I'm too tired for recreation, I fear of pain, I don't know where to join in, My skills in not enough, I didn't enjoy this activity in the past, Feel too tired after did it, Nobody teach me, I'm not interested, I don't have self-confident, I don't want to interrupt my work.

Group 2 : Structural (8 items): The facilities are not kept well., the program schedule does not suit me, the journey takes too long, the activity too far from my home, I can't afford it, expensive fees, inadequate facilities (inadequate, or some facilities are not available), I don't have time because of studying. I don't have time because of family requirement.

Group 3 : Interpersonal (3 items): My friend doesn't like exercising., No one joins me, My friends have no time.

The questionnaire is developed based on this theory for official research (Appendix 2). The official questionnaire includes:

Table 17 The contents of the official questionnaire

No.	Contents	No. of question
1	Demographic.	8
2	The students' participation level in physical activities and sports.	13
3	Motivation measurement questionnaires.	20
	Constraints measurement questionnaires.	22

4.2.2. Describe the level of participation in physical activities and sports in leisure of university students in Ho Chi Minh City

Frequency of participation in physical activities and sports

The number of students participating in physical activities and sports is not equal, the levels are described from 0-7. Specifically, "0" corresponds to not participating and "7" corresponds to participation 7 times/ week. The results showed that the number of students participating 3 times/ week accounted for the highest percentage (23.6%). 21 students said that they do not participate in physical activities and sports (1.4%).

Table 18 Frequency of participation in physical activities and sports

Frequency	Frequency	Percent	Cumulative Percent
0 time	21	1.4	1.4
1 time	271	18.2	19.6
2 times	336	22.6	42.2
3 times	351	23.6	65.7
4 times	247	16.6	82.3
5 times	208	14.0	96.3
6 times	30	2.0	98.3
7 times and more	25	1.7	100.0
Total	1489	100.0	

Days of the week to participate in physical activities and sports

The next part of the questionnaire is used to investigate what days of week students usually participate in physical activities and sports. This question is used in two roles: [1] searching for information, [2] eliminating spam questionnaires, if they already showed "0 time" of participation, the answer for this item would be "No Participation". If it is a different answer, it shows that they are not focused enough for this interview. Fortunately, the data obtained were all acceptable.

Table 19 Days of the week to participate in physical activities and sports

Frequency	Frequency	Percent	Cumulative Percent
No	21	1.4	1.4
Monday	30	2.0	3.4
Tuesday	57	3.8	7.3
Wednesday	177	11.9	19.1
Thursday	283	19.0	38.1
Friday	210	14.1	52.2
Saturday	343	23.0	75.3
Sunday	368	24.7	100.0
Total	1489	100.0	

The table above also shows that most students participate in physical activities and sports on Sunday (24.7%), a lot of students also play sports on Saturday (23%). The first day of the week (Monday, Tuesday) is the least chosen by students.

Type of physical activities and sports

Table 20 indicates the frequency of participation in physical activities and sports in leisure of university students in Ho Chi Minh City. As described, students choose three activities they do most often, besides, students can add their activities in the "Other" section and specify the activity name. However, most of the students showed

that they did not participate in any activity beyond the 23 activities suggested by this study.

The results showed that 5 activities chosen by students were Walking (10.49%), Running (9.29%), Soccer (7.20%), Yoga (6.93%), Basketball (5.81%)

Table 20 Type of physical activities and sports participated by university students in Ho Chi Minh

No	Physical Activities and Sports	Frequency	Percent
1	Walking	462	10.49
2	Running	409	9.29
3	Soccer	317	7.20
4	Yoga Power	305	6.93
5	Basketball	256	5.81
6	Volleyball	239	5.43
7	Gymnastics	220	5.00
8	Swimming	219	4.97
9	Baseball	208	4.72
10	Dancing	205	4.65
11	Billiards	202	4.59
12	Tennis	191	4.34
13	Bicycling	184	4.18
14	Table tennis	174	3.95
15	Martial Arts	153	3.47
16	Aerobics (water, step, dance)	142	3.22
17	Electronic games	89	2.02
18	Hockey	86	1.95

Table 20 (Continue)

No	Physical Activities and Sports	Frequency	Percent
19	rock climbing	86	1.95
20	Patin	85	1.93
21	Rugby	85	1.93
22	Sports tourism	54	1.23
23	Handball	33	0.75

Duration of participation per time

Students often participate in physical activities and sports from 30 to 60 minutes (34.67%). They also participate from 61 to 90 minutes (28.8%) and 19.69% of students participate over 90 minutes per time. The number of students spending on this activity less than 30 minutes is 16.76%.

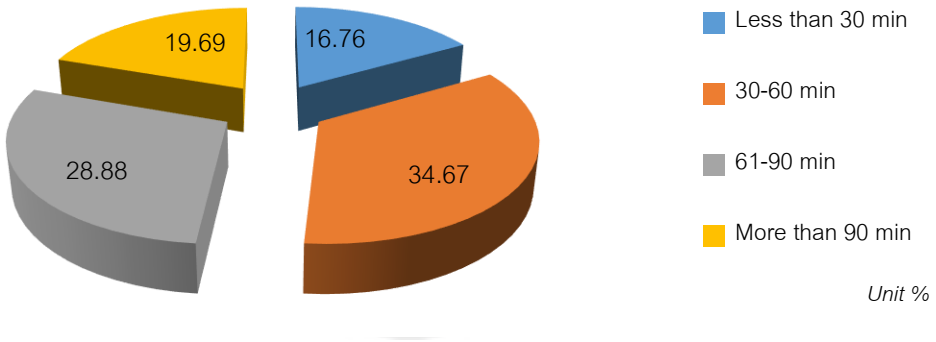

Figure 12 Duration of participation per time

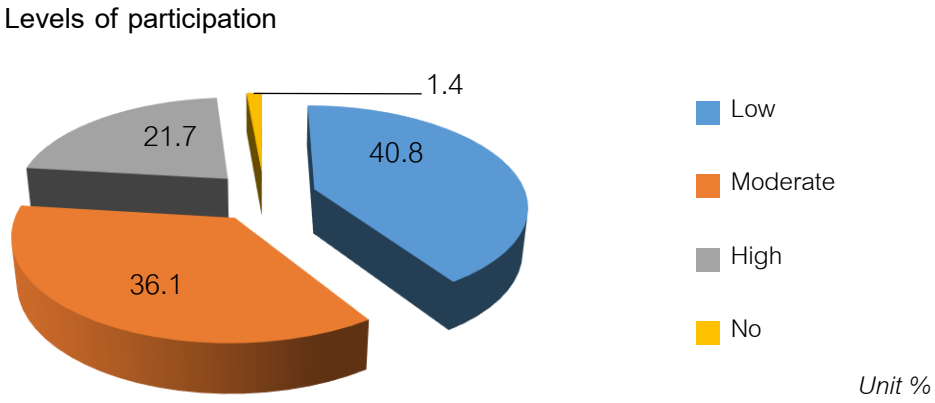

Figure 13 Levels of participation

Figure13, it is showed that the number of students participating in physical activities and sports at a low-level account for 40.8%. In contrast, only 36.1% of respondents achieve medium level. 21.7% of students meet a high level of physical activities and sports. Besides, 1.4% of students never participate in this activity. This analysis result is consistent with the data collected in the conducted questions.

Time of day to join physical activities and sports

Time of day to engage in physical activities and sports is established based on the timetable of student's activities as below:

+ In the morning: Before class time

+ Noon: After morning classes until afternoon classes

+ Afternoon: After afternoon classes and before dinner

+ Evening: After dinner

The time of day that University students in Ho Chi Minh City choose to participate in entertainment activities is mostly in the afternoon (48.6%), followed by the evening (37.8%). The third popular time is noon (accounting for 9.1%) and the least choice in the morning (4.5%).

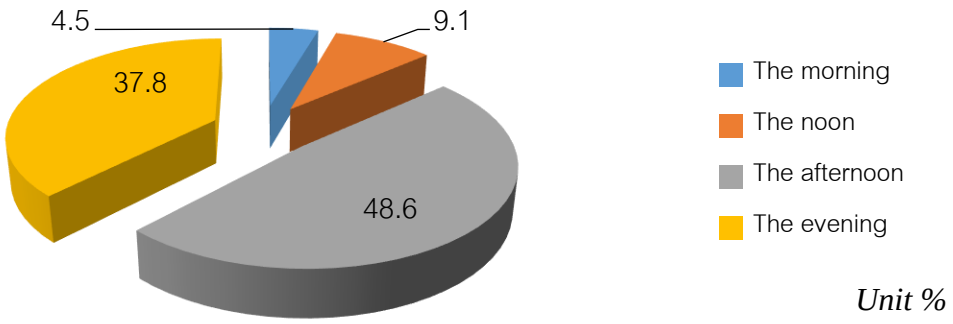

Figure 14Time of day to participate in physical activities and sports

Places to participate in physical activities and sports.

In 1468 students participating in physical activities and sports, about 673 students usually participate at universities (45.8%), 240 students participating in clubs (16.3%), and participating at home are 224 students (15.3%). The remaining 214 students reported that they often participate in physical activities and sports at other places.

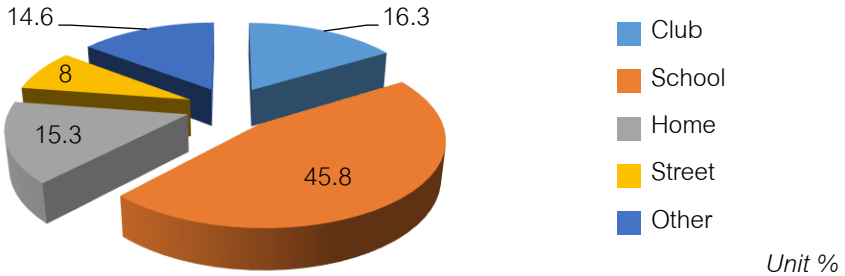

Figure 15 Places to participate in physical activities and sports

61.6% of students agreed that their university has sufficient facilities and equipment for physical activities and sports. They have also been allowed to use these facilities.

Means of transport to sports locations

Most of them travel to sports locations by motorbike (63.5%). 181 students often go by bus (12.3%). A small number of students use vehicles such as cars, bicycles or walk by themselves.

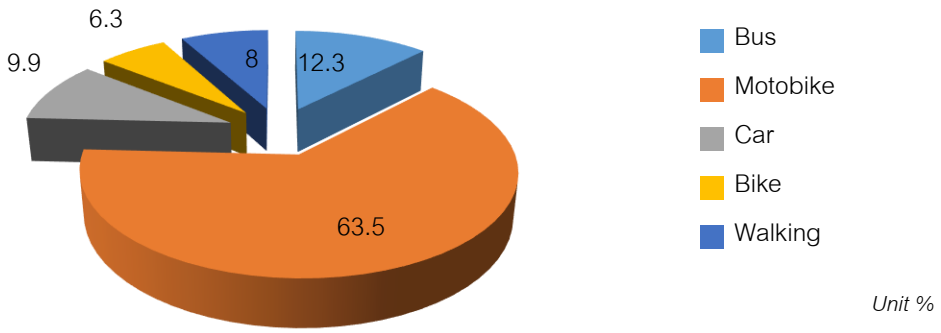

Figure 16 Means of transport to sports locations

Partners to participate in physical activities and sports

26.8% of the students said they are currently participating in a sports club while 46% of students have never joined a sports club. Students often participate in physical activities and sports with their friends (75.2%). 14.7% of students play sports alone and a few join their brothers, sisters, or relative.

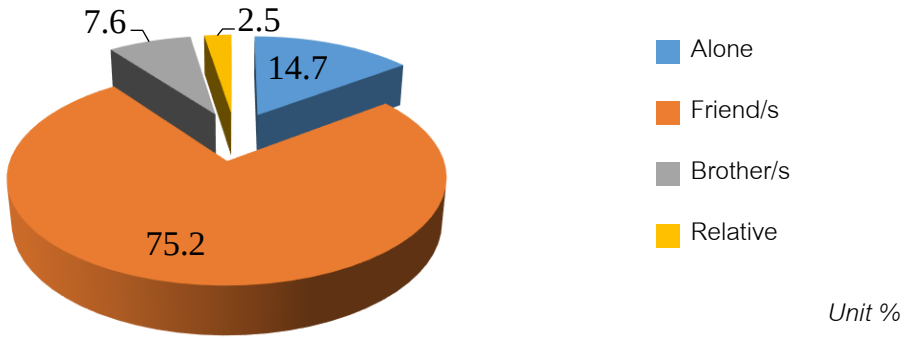

Figure 17 Partners to participate in physical activities and sports

Supporters to participate in physical activities and sports

University students in Ho Chi Minh city participate in physical activities and sports mainly because of their self-consciousness (38.4%). 319 students participate for the encouragement of their friends (21.7%). 15.3% of them are encouraged by their fitness teachers. The role of parents and relatives is not very high in encouraging their children to participate in these activities although 41.3% of parents agree and 25.6% strongly agree on the benefits of physical activities and sports

Table 21 Supporters to participate in physical activities and sports

Relationship	Frequency	Percent
Friend/s	319	21.7
Parent	36	2.5
Relative	60	4.1
Physical Edu teacher	225	15.3
Coach	264	18.0
By my self	564	38.4
Total	1468	100.0

Facilities to support physical and sports activities

60.7% of students explained that their university has enough facilities for physical activities and sports and they have enough access to these facilities.

Among 37.9% of students who think their university does not have enough facilities for physical activities and sports, 29% come from public university. This result is consistent with the reality in Vietnam when private universities are equipped with better facilities, but tuition fees are also higher than that of public university.

4.3. Motivations & Constraints result

4.3.1. Motivation on participation in physical activities and sports of students in HCM.

Reassessment the scale to measure motivation in participating in physical activities and sports of students in HCM.

EFA - exploratory factor analysis

It is continued to be used with Principal Component and Promax rotation to determine the items of motivation to participate in physical and sport activities of students in Ho Chi Minh City. In this official study, the author uses the theory of Hair et al (2014) on the criteria of variables in the EFA analysis. He said that the absolute value of Factor Loading from 0.5 is the optimal level, the observed variables have good statistical significance. According to this standard, no variables are excluded from the model.

As results, KMO = 0.926 (> 0.5), Bartlett = 0.000 (<0.01). The load factors of each variable are greater than 0.5, the total variance is 73.7%.

Table 22 Results of KMO & Bartlett's Testing

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.927
Bartlett's Test of Sphericity	Approx. Chi-Square	23422.834
	df	190
	Sig.	.000

A new component from the original scale includes I want to be good looking, I want to have better body shape, Weight management purpose. Considering the meaning of the variables, this group is named as Appearance. The remaining variables are not disturbed compared to the original composition. The results extracted from the Pattern Matrix table are as below:

Table 23 Results of EFA scale to measure motivation in participating in physical activities and sports in HCM

Variable	Component			
	1	2	3	4
I love to do this activity	.916			
I like the exciting activity	.913			
It makes me happy	.898			
It's joy	.880			
I think it's interesting	.854			
I enjoy this activity	.805			
I like the contest		.916		
I like the challenge		.892		
I want to maintain existing ability		.869		

Table 23 (Continue)

Variable	Component			
	1	2	3	4
I want to get new ability		.840		
I like the exciting activity		.825		
I want to get better at my activity		.762		
I want to be charming			.883	
I want to increase my energy			.873	
I want to handle the stress			.827	
I will feel bad to myself if I don't			.811	
I want to have better cardio fitness			.644	
I want to be good looking				.867
I want to have better body shape				.817
Weight management purpose				.776

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

Thus, 20 variables are divided into 4 groups that can explain the correlation relationships between the variables in the group, and all variables in this scale have been identified that are consistent with research requirements.

Group 1: Intrinsic dimension (6 Items): I enjoy this activity, It's joy, I like the exciting activity, I think it's interesting, I am keen on doing these activities, It makes me happy.

Group 2: Competence dimension (6 Items): I like the contest, I like the challenge, I want to get new ability, I like the exciting activity, I want to maintain existing ability.

Group 3: Body-related dimension (5 Items): I will feel bad to myself if I don't, I want to be charming, I want to have better cardio fitness, I want to handle the stress , I want to increase my energy.

Group 4 Appearance dimension (3 Items): I want to be good looking, I want to have better body shape, Weight management purpose .

Reliability analysis:

An intrinsic reliability test is performed to examine the consistency between different components and variables in a component. The results in table 28 showed that the total alpha coefficient reached 0.77. The components all have high and good reliability coefficients, that is greater than 0.6, the total correlation is greater than 0.3, indicating the internal consistency and reliability are acceptable (Pallant, 2011).

Table 24 Results of reliability test to measure motivation in participating in physical activities and sports in HCM

Groups	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Intrinsic dimension	.586	.722
Competence dimension	.533	.766
Body-related dimension	.655	.697
Appearance dimension	.596	.717

Motivations Result

Rating the components of motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City: In general, according to the 4 components of motivation to participate in physical and sport activities of students in Ho Chi Minh City, the "Appearance" has the largest impact (Mean = 4.02). Second is "Body-related dimension" (Mean = 3.99). Next, it is the "Intrinsic dimension" (Mean = 3.70). Finally, the "Competence dimension" accounted for a Mean of 3.53.

Table 25 Rating the components of motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City

	Mean	Std. Deviation
Appearance	4.02	.617
Body-related dimension	3.99	.547
Intrinsic dimension	3.70	.621
Competence dimension	3.53	.774
Valid N (listwise)	1489	

The mean value of each engine shows that participation in physical activities and sports for health factors such as “I want to have better cardio fitness” is the lowest (Mean = 3.25). The purpose of weight loss or weight gain is leading, specifically " Weight management purpose " has the highest average value (Mean = 4.11).

4.3.2. Constraint in participating in physical activities and sports of students in Ho Chi Minh City.

Reassessment the scale to measure constraint in participating in physical activities and sports of students in HCM.

EFA analysis

Exploratory factor analysis is continued to be used with Principal Component and Promax rotation to determine the items of the scale of constraint when participating in physical activities and sports of students in Ho Chi Minh City.

Test results are KMO = 0.927 (> 0.5), Bartlett = 0.000 (<0.01). The load factors of each variable were greater than 0.5, the total variance is 69.14%.

Table 26 Results of KMO & Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.727
Bartlett's Test of Sphericity	Approx. Chi-Square	49069.474
	df	231
	Sig.	.000

No new components have formed compared to the original scale. However, the variables are dislocated, specifically, the variable "The fee too expensive to me" from the "Structural" component had moved to the "Intrapersonal" component; variable "Nobody teach me" from component "Intrapersonal" moved to component "Interpersonal". After reviewing, the author found that this movement is consistent with practical conditions in Ho Chi Minh City and does not affect the model. The results extracted from the Pattern Matrix table are described:

Table 27 Results of EFA to measure constraint when participating in physical activities and sports of students in Ho Chi Minh City

Items	Component			
	1	2	3	4
The fee too expensive to me	.884			
I fear of pain	.881			
I don't have self-confident	.864			
I am not interested	.864			
I don't know where to join	.858			
I had not good memory this activity in the past	.824			
I'm too tired for recreation	.822			
I don't want to interfere my daily routine.	.808			
I have health concern	.804			
My skills in not enough	.670			
Feel too tired after did it	.640			
Taking too long time for transportation		.884		
I don't have time because I study.		.880		

Table 27 (Continue)

Items	Component			
	1	2	3	4
Facilities insufficient		.876		
Program's schedule unavailable to me		.862		
I don't have time because of family take care		.856		
The activity too far from my home		.851		
The facilities are not kept well.		.788		
The facilities are not kept well.		.788		
My friends have no time			.879	
No one joins me			.841	
Nobody teaches me			.785	
My friend doesn't like exercising.			.781	
Extraction Method: Principal Component Analysis.				
Rotation Method: Promax with Kaiser Normalization.				

Thus, 22 variables are divided into 3 groups that can explain the correlation relationships among variables in the group, all variables in this scale are identified that are suitable to research requirements and continue the next process.

Group 1: Intrapersonal (11 Items): The fee too expensive to me, I fear of pain, Intrap6 I don't have self-confident, I am not interested, I don't know where to join, I had not good memory this activity in the past, I'm too tired for recreation, I don't want to interfere my daily routine., I have health - related problems, My skills in not enough, Feel too tired after did it.

Group 2: Structural (7 Items): Struc17 Taking too long time for transportation, I don't have time because I study., Facilities insufficient, Program's schedule unavailable to me, I don't have time because of family take care, The activity too far from my home, The facilities are not kept well..

Group 3: Interpersonal (4 Items): My friends have no time, No one joins me, nobody teach me, My friend doesn't like exercising.

Reliability analysis:

An intrinsic reliability test is performed to examine the consistency between components and variables in a component. The results in table 34 showed that the total alpha coefficient reached 0.884. The components all have high and good reliability coefficients, that is greater than 0.6, the total correlation is less than 0.3, indicating the internal consistency and reliability are acceptable (Pallant, 2011).

Table 28 Results of testing intrinsic reliability to measure constraints when participating in physical activities and sports of students in HCM

	Corrected Correlation	Item-TotalCronbach's Alpha if Item Deleted
Interpersonal	.607	.843
Intrapersonal	.763	.949
Structural	.720	.939

Constraints result

Rating groups of constraints when participating in physical activities and sports of students in HCM: The groups that limit students' participation in physical and sport activities are "Interpersonal" with the greatest impact (Mean = 3.80), followed by the "Structural" group (Mean = 3.57) and "Intrapersonal" (Mean = 2.93).

Table 29 Rating groups of constraints when participating in physical activities and sports of students in HCM

	Mean	Std. Deviation
Interpersonal	3.80	.602
Structural	3.57	.762
Intrapersonal	2.93	.722
Valid N (listwise)	1489	

Calculation of the median value of each group of constraints showed that their participation in physical activities and sports was the largest showing by "My Friends don't have enough time" (Mean = 3.98). " I'm too tired for recreation" and "Feel too tired after did it" are the two constraints with the lowest impact (Mean = 2.74).

4.4. Hypotheses & CFA

4.4.1. Hypotheses testing

4.4.1.1. Correlation between motivation and participation level in physical activities and sports among university students in Ho Chi Minh City.

Correlation analysis (r) is used to find a relationship that exists between motivation and participation level variables physical activities and sports. Results indicated that there is a highly significant positive relationship between these two variables (r = 0.887, Sig. = .004). Thus, the more motivation increases, the more physical activity, and sport participation level among university students in Ho Chi Minh City increases and vice versa.

Table 30 Relationships between Motivation and Physical Activity Participation Level

		Motivation	Physical activity participation level
Motivation	Pearson Correlation	1	.887*
	Sig. (2-tailed)		.004
	N	1468	1468
Participation level of Physical activities and sports in leisure time.	Pearson Correlation	.887*	1
	Sig. (2-tailed)	.004	
	N	1468	1468

* Correlation is significant at the 0.05 level (2-tailed).

Specifically, considering the correlation between motivation components and participation level physical activities and sports in leisure of university students in Ho Chi Minh City as result shown in table 31:

Table 31 Relationships between motivation dimension and physical activities and sports participation level

		Physical activity participation level	Intrinsic	Competence	Body-related	Appearances
Physical activity participation level	Pearson Correlation	1	.670*	.894*	.341*	.872*
	Sig. (2-tailed)		.011	.003	.025	.004
	N	1468	1468	1468	1468	1468
Intrinsic	Pearson Correlation	.670*	1	.388**	.590**	.481**
	Sig. (2-tailed)	.011		.000	.000	.000
	N	1468	1489	1489	1489	1489
Competence	Pearson Correlation	.894*	.388**	1	.474**	.463**
	Sig. (2-tailed)	.003	.000		.000	.000
	N	1468	1489	1489	1489	1489
Body-related	Pearson Correlation	.341*	.590**	.474**	1	.506**
	Sig. (2-tailed)	.025	.000	.000		.000
	N	1468	1489	1489	1489	1489
Appearance	Pearson Correlation	.872*	.481**	.463**	.506**	1
	Sig. (2-tailed)	.004	.000	.000	.000	
	N	1468	1489	1489	1489	1489

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

There is a positive correlation in all 4 motivation components, specifically component Intrinsic and participation level physical activities and sports (r = 0.670, Sig.= 0.011<0.5), component Competence (r = 0.894, Sig. = 0.003<0.5), Body-related (r = 0.341, Sig. = 0.025<0.5), and component Appearance (r = 0.872, Sig. = 0.004<0.5). Besides, there is also a positive correlation between motivation components with each other at the 99% probability level.

4.4.1.2. Correlation between constraint and participation level of physical activities and sports in leisure of university students in Ho Chi Minh City.

Correlation analysis (r) is applied to measure strength and relationship direction exist between total constraint and participation level variables physical activities and sports. The results specified that there is a significant correlation between the two variables (r = - .061, Sig. = .019). Results mean that variables of constraint have a negative relationship between participation level of university students' physical activities and sports. This means the more constraints increase, the more participation level physical activities and sports decrease among students in Ho Chi Minh City.

Table 32 Correlation between the constraints and participation level of physical activities and sports

		Participation level of physical activities and sports in leisure of university students	Total Constraints
Physical activity participation level	Pearson Correlation	1	-.061*
	Sig. (2-tailed)		.019
	N	1468	1468
Total Constraints	Pearson Correlation	-.061*	1
	Sig. (2-tailed)	.019	
	N	1468	1489

*. Correlation is significant at the 0.05 level (2-tailed).

Research continues to investigate the correlation between each constraint component and participation level physical activities and sports in leisure of university students in Ho Chi Minh City.

Table 33 Relationships between the dimension's constraint and physical activities and sports participation level in leisure time of university student in Ho Chi Minh City

		Physical activity participation level	Structural	Interpersonal	Intrapersonal
Physical activity participation level	Pearson Correlation	1	-.055*	.004	-.040*
	Sig. (2-tailed)		.034	.884	.021
	N	1468	1468	1468	1468
Structural	Pearson Correlation	-.055*	1	-.041	-.047
	Sig. (2-tailed)	.034		.110	.068
	N	1468	1489	1489	1489
Interpersonal	Pearson Correlation	.004	-.041	1	.328**
	Sig. (2-tailed)	.884	.110		.000
	N	1468	1489	1489	1489
Intrapersonal	Pearson Correlation	-.040*	-.047	.328**	1
	Sig. (2-tailed)	.021	.068	.000	
	N	1468	1489	1489	1489

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

There is an inverse correlation between Structural and participation level physical activities and sports (r = -.055, Sig. = .034<0.5). Similarly, between component Intrapersonal and participation level physical activities and sports (r = -.040, Sig. = .021<0.5). There is also a positive correlation between Intrapersonal and Interpersonal

at 99% probability level (r = .328, Sig. = .000). Thus, these above results confirm H2b, H2d hypothesis, reject H2c hypothesis.

4.4.1.3. Correlation between total constraints and total motivation of university students in Ho Chi Minh City.

Analyzing Pearson correlation is performed to investigate the correlation between variables of total constraint and total motivation. The outcome show that there is a positive correlation between them, it means the more motivation to participate increase, the more and more constraints (r = .057, Sig. = 0.03). This result confirms H3 hypothesis.

Table 34 Relationship between constraint and motivation variables.

		Constraints	Motivation
Constraints	Pearson Correlation	1	.057*
	Sig. (2-tailed)		.030
	N	1489	1468
Motivation	Pearson Correlation	.057*	1
	Sig. (2-tailed)	.030	
	N	1468	1468

*. Correlation is significant at the 0.05 level (2-tailed).

Thus, results in this section answered hypotheses that research poses whether the relationship constraint between motivation and participation level of physical activities and sports in leisure of university students in Ho Chi Minh City. So, confirmed about there are the correlation between constraints and participation level of physical activities and sports in leisure of university students in Ho Chi Minh City with intrapersonal constraints and structural constraints but not confirmed for interpersonal constraints. And confirmed there is a relationship between total constraints and total motivations.

4.4.1.4. Analyzing differences in physical activities and sports participation level among university students in Ho Chi Minh City.

For convenience in calculating average values before conducting analysis, the study converts participation level physical activities and sports according to the following corresponding scores:

Table 35 corresponding scores:

Level	Corresponding scores
Low	1
Moderate	2
Hard	3

8 demographic factors listed in the Personal Information item (Gender, Age, Class year, University, Cumulative academic GPA last year, Place, Region lived, Income per month (VND) are used to analyze differences.

Gender

T-test is applied to investigate the difference in participation level physical activities and sports between male and female students. Test results show a statistically significant difference (Sig = .000). In which, male students (Mean = 2.10) participated in physical activities and sports more than female students (Mean = 1.50). This conclusion confirms H1e hypothesis.

Table 36 Analyzing differences in participation level in physical activities and sports among students according to gender.

	Gender	N	Mean	S. D	Sig.
Physical activities and sports participation level	Male	742	2.10	.717	.000
	Female	726	1.50	.708	

Ages

There is a difference in participation level in physical activities and sports among students according to different age groups. ANOVA tests are used in this section.

Table 37 Analyzing differences in participation level in physical activities and sports among students according to age.

Age	N	Mean	S. D	F	Sig.
18 Years old	387	1.78	.800	15.835	.000
19 Years old	361	2.04	.656		
20 Years old	421	1.77	.765		
21 Years old	269	1.56	.833		
22 Years old	30	1.83	.379		
Total	1468	1.80	.772		

The table shows that there is a statistically significant difference in participation level in physical activities and sports among students according to different age groups. Scheffe test indicates that 19 Years old group has the highest level of participation level physical activities and sports (Mean = 2.04), the second rank is 22 Years old group (Mean = 1.83), the third rank is 18 Years old group(Mean = 1.78), the lowest rank participation level physical activities and sports is 21 Years old group (Mean = 1.56). This result confirms H1b hypothesis.

Class year

ANOVA test is applied to investigate differences in participation level physical activities and sports among students according to Class year .

Table 38 Analyzing differences in participation level in physical activities and sports among students according to Class year .

Class year	N	Mean	S. D	F	Sig.
1st	387	1.78	.800	12.769	.000
2nd	450	1.96	.737		
3rd	332	1.80	.708		
4th	274	1.55	.828		
5th & more	25	2.00	.000		
Total	1468	1.80	.772		

There is a statistically significant difference in participation level in physical activities and sports among students according to Class year (Sig. = 0.00). In which, group 5th&more has the highest level of participation level physical activities and sports (Mean = 2.00). However, this group's number is very small compared to the overall research sample. The second rank is the 2nd group (Mean = 1.96), the third rank is the 3rd group (Mean = 1.80). Freshman group rank 4th (Mean = 1.78). The lowest rank about participation level in physical activities and sports is senior group (Mean = 1.55). This result confirms H1c hypothesis.

Types of university

T-test is applied to investigate the difference in participation level in physical activities and sports between student groups from public and private university. Results showed a statistically significant difference (Sig = .000). In which, private university students' group participate in physical activities and sports more than public university. This conclusion confirms H1a hypothesis.

Table 39 Analyzing differences in participation level in physical activities and sports among students according to types of university.

	Type of university	N	Mean	S. D	Sig.
Physical activities and sports participation level	Private	590	1.91	.770	.000
	Public	878	1.73	.765	

GPA last year

ANOVA test results showed that there is a statistically significant difference in participation level in physical activities and sports among students according to GPA (Sig. = 0.00). In which, Well done group has the highest participation level in physical activities and sports (Mean = 2.00), the second rank is the Well group (Mean = 1.97), the third rank is the group with Excellent GPA (Mean = 1.85). Accepted students are ranked 4th (Mean = 1.72). Students with a failed GPA participate in physical activities and sports at a low level.

Table 40 Analyzing differences in participation level physical activities and sports among students according to GPA

GPA	N	Mean	S. D	F	Sig.
Excellent	21	1.85	.573	8.49	.000
Well done	51	2.00	.000		
Well	398	1.97	.802		
Accepted	997	1.72	.771		
Fail	1	1.00	.		
Total	1468	1.80	.772		

Place

ANOVA test results showed that there is a statistically significant difference in participation level in physical activities and sports among students

according to place (Sig. = 0.00). Student group at Boarding house has the second-highest participation level in physical activities and sports (Mean = 1.83), the third rank is Live with family group (Mean = 1.72), next is group in Dorm (Mean = 1.61). Group is not above 3 groups has the highest participation level in physical activities and sports (Mean = 2.52).

Table 41 Analyzing differences in participation level in physical activities and sports among students according to place

Place	N	Mean	S. D	F	Sig.
Dorm	263	1.61	.710		
Boarding house	931	1.83	.770		
Live with family	211	1.72	.786	26.03	.000
Other	63	2.52	.503		
Total	1468	1.80	.772		

Location

There is a statistically significant difference in participation level in physical activities and sports among students according to location. ANOVA test is used to analyze this hypothesis.

Table 42 Analyzing differences in participation level in physical activities and sports among students according to location

Location	N	Mean	S. D	F	Sig.
North (District 12, Thu Duc, Go Vap)	560	1.65	.745		
South (District 6,7,8)	236	1.84	.756		
East (District 9, 2)	115	1.26	.445		
West (District Binh Tan, Tan Phu)	60	2.00	1.00	37.27	.000
Central (District 1,3,4,5, 10, 11, Tan Binh, Phu Nhuan, Binh Thanh)	497	2.06	.732		
Total	1468	1.80	.772		

Analysis results showed that there is a statistically significant difference in participation level in physical activities and sports according to location (Sig. = 0.00). Specifically, student groups in Central (District 1, 3, 4, 5, 10, 11, Tan Binh, Phu Nhuan, Binh Thanh) have the highest participation level in physical activities and sports (Mean = 2.06), the second rank is the West groups (District Binh Tan, Tan Phu) (Mean = 2.00), the third rank is groups in the South (District 6, 7, 8) (Mean = 1.84). North Groups (District 12, Thu Duc, Go Vap) are ranked 4th (Mean = 1.65). The lowest rank of participation level in physical activities and sports is student groups from East (District 9, 2) (Mean = 1.26). This result confirms H1d hypothesis.

Income per month (VND)

As mentioned, the income of students in the scope of the study is understood as the total income from part-time jobs, from family, donation ... ANOVA test results showed that there is a statistically significant difference in participation level in physical activities and sports among students according to their income (Sig. = 0.00). Student group earns 3,000,000 - 5,000,000 has the second-highest participation level in physical activities and sports (Mean = 1.92). Next is group >7,000,000 (Mean = 1.88). Next again is group <3,000,000 (Mean = 1.65). More than group 5,000,000 - 7,000,000 has the lowest participation level in physical activities and sports (Mean = 1.56).

Table 43 Analyzing differences in participation level in physical activities and sports among students according to income

Income	N	Mean	S.D	F	Sig.
<3.000.000	313	1.65	.770		
3.000.000 – 5.000.000	766	1.92	.726		
More than 5.000.000 – 7.000.000	215	1.56	.726	18.08	.000
> 7.000.000	174	1.88	.905		
Total	1468	1.80	.772		

Thus, results answered these hypotheses that the research poses as to whether there is a difference in participation level in physical activities and sports in leisure of university students in Ho Chi Minh City. So, confirmed there are differences between physical activity participation levels among university students in Ho Chi Minh City in physical activities and sport according to type of university, age, class year, living location and gender.

4.4.1.5. Analyzing differences in motivation about participation level in physical activities and sports among students in Ho Chi Minh City according to demographic factors

8 demographic factors listed in Personal Information (Gender, Age, Class year , University, GPA, Place, Region lived, Income per month (VND) are used to analyze differences. There are 3 types of analysis in each category: Analysis of t-test/ANOVA between total motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to demographic factors; MANOVA analysis between components of constraints when participating in physical activities and sports among students in Ho Chi Minh City according to demographic factors. The author presents in the order of the following survey. It either ensures the order of research or helps the reader to observe easier.

Gender

T-test is applied to investigate the difference in total motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to gender. Results showed that there is no difference (Sig. = 0.31). The average total motivation between the two genders is not much different, specifically male (Mean = 3.77) and female (Mean = 3.80).

Multivariate Tests are applied to investigate differences in motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to gender. There are four dependent variables: Intrinsic, Competence, Body-related, and Appearance. There are two independent variables:

male and female. Results showed that there is no statistically significant difference in gender in terms of the total motivation, Wilks' Lambda = .999; Partial Eta Squared = .001. Considering separate results for the dependent variables show that there is no difference in these components. The test results showed that there is no difference in the component of motivation to participate in physical activities and sports among students according to gender. It is affected by the highest “Appearance” motivation group.

Table 44 Analyzing differences in motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to gender

Groups of motivation	Gender	N	Mean	S. D	Sig.	Part.Eta Squared
Intrinsic	Male	755	3.68	.643	.278	.001
	Female	734	3.72	.597		
	Total	1489	3.70	.621		
Competence	Male	755	3.52	.781	.607	.000
	Female	734	3.54	.768		
	Total	1489	3.53	.774		
Body-related	Male	755	3.97	.529	.241	.001
	Female	734	4.00	.564		
	Total	1489	3.98	.547		
Appearance	Male	755	4.00	.645	.570	.000
	Female	734	4.02	.586		
	Total	1489	4.01	.617		

Age

ANOVA test is applied to investigate differences in total motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to age. Results showed that there is no difference between age groups and total motivation to participate in physical activities and sports (Sig. = 0.09). Tukey post-hoc comparison shows that age group 21 has the highest motivation (Mean = 3.85), the second rank is 22 years old group (Mean = 3.82), the third rank is age group 20 (Mean = 3.80), the age group 19 is at 4th (Mean = 3.76). The lowest motivation to participate in physical activities and sports is 18 years old (Mean = 3.74).

Multivariate Tests are applied to investigate differences in motivation to participate in physical activities and sports among students Ho Chi Minh City according to gender. There are four dependent variables: Intrinsic, Competence, Body-related, and Appearance. The independent variable is the 5-year-old group (18-year-old group, 19-year-old group, 20-year-old group, 21-year-old group, and 22-year-old group). Results showed that there is no statistically significant difference in gender in terms of motivation components, Wilks' Lambda = .985; Partial Eta Squared = .004, Sig.129.

Table 45 Difference in motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to age group

Group of motivation	Age	N	Mean	S.D	Sig.	Part.Eta Squared
Intrinsic	18 Years old	396	3.64	.645	.052	.007
	19 Years old	367	3.67	.604		
	20 Years old	423	3.73	.611		
	21 Years old	273	3.78	.630		
	22 Years old	30	3.63	.475		
	Total	1489	3.70	.621		
Competence	18 Years old	396	3.53	.712	.593	.002
	19 Years old	367	3.52	.774		
	20 Years old	423	3.50	.828		
	21 Years old	273	3.58	.765		
	22 Years old	30	3.65	.889		
	Total	1489	3.53	.774		

Table 45 (Continue)

Group of motivation	Age	N	Mean	S.D	Sig.	Part.Eta Squared
Body-related	18 Years old	396	3.96	.564	.568	.002
	19 Years old	367	3.97	.521		
	20 Years old	423	4.00	.582		
	21 Years old	273	4.01	.517		
	22 Years old	30	4.07	.335		
	Total	1489	3.98	.547		
Appearance	18 Years old	396	3.97	.653	.056	.006
	19 Years old	367	3.97	.596		
	20 Years old	423	4.06	.608		
	21 Years old	273	4.08	.606		
	22 Years old	30	4.02	.513		
	Total	1489	4.01	.617		

Class year

ANOVA results showed that there is no difference between class year and total motivation to participate in physical activities and sports (Sig. = 0.16). Calculating average total motivation according to class year showed that the 5th-year group has the highest average total motivation (Mean = 3.86), the 4th-year group (Mean = 3.84). The 2nd-year student group at 3rd (Mean = 3.79), the 1st-year student group is at 3rd (Mean = 3.77). The lowest total motivation is the first-year student group (Mean = 3.74).

MANOVA is applied to investigate differences in motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to class year. There are four dependent variables: Intrinsic, Competence, Body-related, and Appearance. There are five independent variables: the first year, the second year, the third year, the fourth year, and the fifth year.

Results showed that there is no statistically significant difference between the motivation group and 5 groups when participating in physical activities and sports, Wilks' Lambda = .987; Partial Eta Squared = 0.003, Sig. = 0.261.

Table 46 Analyzing differences between motivation and participation in physical activities and sports among students in Ho Chi Minh City according to class year

Group of motivation	Class year	N	Mean	S.D	Sig.	Part.Eta Squared
Intrinsic	1 st	396	3.65	.645	.085	.006
	2 nd	458	3.70	.604		
	3 rd	332	3.73	.613		
	4 th	278	3.78	.627		
	5 th and more	25	3.63	.485		
	Total	1489	3.70	.621		
Competence	1 st	396	3.53	.712	.279	.003
	2 nd	458	3.54	.766		
	3 rd	332	3.47	.851		
	4 th	278	3.58	.763		
	5 th and more	25	3.74	.918		
	Total	1489	3.54	.774		
Body-related	1 st	396	3.96	.564	.618	.002
	2 nd	458	3.99	.523		
	3 rd	332	3.99	.596		
	4 th	278	4.02	.513		
	5 th and more	25	4.09	.366		
	Total	1489	3.99	.547		

Table 46 (Continue)

Group of motivation	Class year	N	Mean	S.D	Sig.	Part.Eta Squared
Appearance	1 st	396	3.97	.653	.297	.003
	2 nd	458	4.01	.595		
	3 rd	332	4.03	.617		
	4 th	278	4.08	.603		
	5 th and more	25	4.05	.532		
	Total	1489	4.02	.617		

Types of university

T-test is used to test this item. Results showed that there is no difference between the total motivation and participation in physical activities and sports according to types of university (Sig. = 0.784). In which, Private university type has average total motivation (Mean = 3.78). It is lower than Public university (Mean = 3.79).

MANOVA is applied to investigate the differences in motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to university. There are four dependent variables: Intrinsic, Competence, Body-related, and Appearance. There are two independent variables: Private university and Public university. Results showed that there is no statistically significant difference in total motivation and participation in physical activities and sports according to types of university, Wilks' Lambda = .997; Partial Eta Squared = 0.03, Sig. = .394.

Table 47 Analyzing differences in motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to types of university

Groups of motivation	Type of university	N	Mean	S.D	Sig.	Part.Eta Squared
Intrinsic	Private	596	3.69	.646	.489	.000
	Public	893	3.71	.603		
	Total	1489	3.70	.621		
Competence	Private	596	3.56	.798	.361	.001
	Public	893	3.52	.759		
	Total	1489	3.54	.774		
Body-related	Private	596	3.98	.540	.652	.000
	Public	893	3.99	.552		
	Total	1489	3.99	.547		
Appearance	Private	596	4.00	.626	.275	.001
	Public	893	4.03	.610		
	Total	1489	4.02	.617		

GPA last year

ANOVA is applied to investigate differences in total motivation to participate in physical activities and sports and students' GPA of the previous year. Results showed that there is no difference between class year and total motivation to participate in physical activities and sports (Sig. = 0.282).

MANOVA continues to be used with 5 independent variables: Excellent, Well done, Well, Accepted, and Fail. Results showed that there is no statistically significant difference in motivation to participate in physical activities and sports according to students' GPA of the previous year, Wilks' Lambda = .990; Partial Eta Squared = 0.02, Sig. = 0.567. Considering separate results of dependent variables show that there is no statistically significant difference in all four motivation components of measure motivation. Table below shows detailed average values:

Table 48 Analyzing differences in motivation to participate in physical activities and sports in leisure of university student in Ho Chi Minh City according to GPA

Groups of motivation	GPA	N	Mean	S. D	Sig.	Part.Eta Squared
Intrinsic	Excellent	21	3.45	.750	.125	.005
	Well done	51	3.62	.693		
	Well	411	3.74	.606		
	Accepted	1005	3.70	.619		
	Fail	1	3.00	.		
	Total	1489	3.70	.621		
Competence	Excellent	21	3.47	.784	.757	.001
	Well done	51	3.41	.834		
	Well	411	3.56	.779		
	Accepted	1005	3.53	.770		
	Fail	1	3.50	.		
	Total	1489	3.54	.774		
Body-related	Excellent	21	4.00	.505	.803	.001
	Well done	51	3.93	.553		
	Well	411	4.01	.506		
	Accepted	1005	3.98	.564		
	Fail	1	3.67	.		
	Total	1489	3.99	.547		
Appearance	Excellent	21	3.94	.533	.216	.004
	Well done	51	3.94	.660		
	Well	411	4.08	.580		
	Accepted	1005	4.00	.630		
	Fail	1	4.00	.		
	Total	1489	4.02	.617		

Place

ANOVA is applied to investigate differences in total motivation to participate in physical activities and sports and student accommodation. Results showed that there is no difference in total motivation to participating in physical activities and sports (Sig. = 0.396). Tukey post -hoc showed that the student group in Dorm has the second-highest average total motivation (Mean = 3.83). Student group at Boarding house (Mean = 3.82), student group Live with family has the lowest total motivation (Mean = 3.75). Group has the highest motivation is the student group in other places (Mean = 3.83).

Dorm, Boarding house, Live with family, Other are 4 independent variables of this item. MANOVA analysis results showed that there is no statistically significant difference in total motivation to participate in physical activities and sports according to types of university, Wilks' Lambda = .987; Partial Eta Squared = 0.04, Sig. = 0.083.

Table 49 Analyzing differences between groups of students' motivations to participate in physical activities and sports at universities in Ho Chi Minh City according to location

Groups of motivation	Place	N	Mean	S.D	Sig.	Part.Eta Squared
Intrinsic	Dorm	271	3.76	.565	.335	.002
	Boarding house	938	3.70	.639		
	Live with family	217	3.67	.611		
	Other	63	3.66	.608		
	Total	1489	3.70	.621		
Competence	Dorm	271	3.53	.733	.339	.002
	Boarding house	938	3.55	.793		
	Live with family	217	3.45	.743		
	Other	63	3.61	.773		
	Total	1489	3.54	.774.		

Table 49 (Continue)

Groups of motivation	Place	N	Mean	S.D	Sig.	Part.Eta Squared
Body-related	Dorm	271	4.04	.486	.042	.005
	Boarding house	938	3.98	.555		
	Live with family	217	3.94	.574		
	Other	63	4.11	.555		
	Total	1489	3.99	.547		
Appearance	Dorm	271	4.06	.580	.528	.001
	Boarding house	938	4.00	.630		
	Live with family	217	4.03	.585		
	Other	63	4.05	.677		
	Total	1489	4.02	.617		

Considering separate results for the dependent variables show a statistically significant difference in the Body-related component with Sig. = 0.00. The remaining three components did not differ in the students' motivation to participate in physical activities and sports at universities in Ho Chi Minh City according to place.

Region lived

ANOVA analysis results showed that there is no difference in the total motivation to participate in physical activities and sports according to region lived (Sig. = 0.361). The Tukey comparison shows that students in the East area (District 9, 2) have the highest total motivation (Mean = 3.84). Next is students in the West area (District Binh Tan, Tan Phu) (Mean = 3,817), students in the North area (District 12, Thu Duc, Go Vap) have total constraints (Mean = 3,813), students in the South area (District 6,7,8) have total average of constraints in 4th rank (3.77). Student groups in central (District 1,3,4,5, 10, 11, Tan Binh, Phu Nhuan, Binh Thanh) have the lowest motivation (Mean = 2.96).

MANOVA is applied to investigate differences in motivation to participate in physical activities and sports in leisure of university students in Ho Chi

Minh City according to region lived. There are four dependent variables: Intrinsic, Competence, Body-related, and Appearance. An independent variable is region lived: North, South, East, West, and Central. Results showed that there is no difference in having statistical significance between the total motivation and participation in physical activities and sports according to region lived, Wilks' Lambda = .989; Partial Eta Squared = 0.03, Sig. = 0.397.

Table 50 Analyzing differences in motivation group to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to region lived

Groups of motivation	Region	N	Mean	S.D	Sig.	Part.Eta Squared
Intrinsic	North	566	3.69	.605	.231	.004
	South	242	3.70	.613		
	East	119	3.83	.578		
	West	60	3.73	.579		
	Central	502	3.69	.655		
	Total	1489	3.70	.621		
Competence	North	566	3.58	.772	.335	.003
	South	242	3.48	.801		
	East	119	3.56	.704		
	West	60	3.54	.833		
	Central	502	3.50	.773		
	Total	1489	3.54	.774		
Body-related	North	566	3.99	.541	.578	.002
	South	242	3.99	.579		
	East	119	4.04	.518		
	West	60	4.04	.518		
	Central	502	3.96	.547		
	Total	1489	3.99	.547		
Appearance	North	566	4.05	.622	.149	.005
	South	242	4.01	.628		
	East	119	4.10	.534		
	West	60	4.05	.558		
	Central	502	3.97	.627		
	Total	1489	4.02	.617		

Income per month (VND)

ANOVA analysis results on the difference in total motivation to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to income per month. As the result appeared there is a statistically significant difference (Sig. = 0.051). In which, More than's income 5,000,000 - 7,000,000 has the highest total motivation (Mean = 3.82). Income level of 3,000,000 - 5,000,000 VND has the lowest motivation (Mean = 3.78).

MANOVA is applied to investigate differences in motivation to participate in physical activities and sports students in Ho Chi Minh City according to their income. Four dependent variables are motivation components. Five independent variables are students' income level.

Results showed that there is no statistically significant difference in motivation to participate in physical activities and sports according to income level, Wilks' Lambda = .990; Partial Eta Squared = 0.03, Sig. = 0.214.

Table 51 Analyzing differences in motivation group to participate in physical activities and sports in leisure of university students in Ho Chi Minh City according to income per month

Groups of motivation	Income	N	Mean	S.D	Sig.	Part.Eta Squared
Intrinsic	<3.000.000	319	3.69	.614	.452	.002
	3.000.000–5.000.000	772	3.70	.635		
	>5.000.000–7.000.000	221	3.76	.568		
	> 7.000.000	177	3.67	.633		
	Total	1489	3.70	.621		
Competence	<3.000.000	319	3.51	.754	.785	.001
	3.000.000–5.000.000	772	3.55	.794		
	>5.000.000–7.000.000	221	3.51	.745		
	> 7.000.000	177	3.57	.765		
	Total	1489	3.54	.774		

Table 51 (Continue)

Groups of motivation	Income	N	Mean	S.D	Sig.	Part.Eta Squared
Body-related	<3.000.000	319	3.98	.516	.879	.000
	3.000.000–5.000.000	772	3.98	.557		
	>5.000.000–7.000.000	221	4.01	.541		
	> 7.000.000	177	4.00	.566		
	Total	1489	3.99	.547		
Appearance	<3.000.000	319	4.06	.533	.112	.004
	3.000.000–5.000.000	772	3.98	.646		
	>5.000.000–7.000.000	221	4.08	.578		
	> 7.000.000	177	4.01	.664		
	Total	1489	4.02	.617		

4.4.1.6. Analyzing the difference between constraints to participating in physical activities and sports of students in HCM by demographic factors.

As section 4.6.1, 8 demographic factors listed in Personal Information (Gender, Age, Class year , University, GPA, Place, Region lived, Income per month (VND) are used to analyze differences. There are three types of analysis in each category: T-test / ANOVA analysis between the constraint to participate in physical activities and sports of students in Ho Chi Minh City by demographic factors; MANOVA analysis between the components of constraint to participate in physical and sport activities of students in Ho Chi Minh City according to demographic factors. The results are presented in detail below:

Gender

The t-test is applied to investigate the gender differences in the total constraint in Ho Chi Minh City students participating in physical activities and sports. Results showed no difference between men and women in terms of total constraint when participating in physical activities and sports (Sig. = 0.432). Specifically, the average total constraint of men (Mean = 3.30) and women (Mean = 3.28) is not much different.

Multivariate Tests are used in the next step to find out the differences in the composition of constraint to participate in physical and sports activities for

students in Ho Chi Minh City regarding gender. Three dependent variables are Structural, Interpersonal, and Intrapersonal. The two independent variables are male and female. The results show that there is no statistically significant difference between the gender in the components of constraint, Wilks' Lambda = .999; Partial Eta Squared = 0.001. In which, male (Mean = 3.80) and female (Mean = 3.81) are the most problematic in Interpersonal component.

Table 52 Analyzing differences in groups of constraints to participation in physical and sports activities of university students in HCM

Groups of constraint	Gender	N	Mean	S.D	Sig.	Part.Eta Squared
Structural	Male	755	3.58	.741	.660	.000
	Female	734	3.56	.783		
	Total	1489	3.57	.762		
Interpersonal	Male	755	3.80	.609	.797	.000
	Female	734	3.81	.595		
	Total	1489	3.80	.602		
Intrapersonal	Male	755	2.94	.708	.426	.000
	Female	734	2.91	.737		
	Total	1489	2.93	.722		

Age

The ANOVA test is applied to investigate the differences in the total constraint in Ho Chi Minh City students' participation in physical activities and sports by age group. As the result appeared that there is a difference between age in terms of total constraint when participating in physical activities and sports (Sig. = 0.00). The Tukey post-hoc comparison shows that the age group of 20 has the highest average total problem (Mean = 3.38), the 21-year-old group is in second place (Mean = 3.30), and the age group 22 is in third place (Mean = 3.29), 18 years old group is in fourth

place (Mean = 3.25). The lowest total constraint is the 19-year-old group (Mean = 3.22). This result confirms H4b hypothesis.

MANOVA testing continues to be used in this section. The results gave that there was a statistically significant difference between 5 age groups in the composition of the constraint in physical activities and sports participation, Wilks' Lambda = .977; Partial Eta Squared = 0.001, Sig. = 0.00. This result confirms H4f hypothesis.

Table 53 Analyzing differences in groups of constraints to participating in physical and sports activities of university students in Ho Chi Minh City by age group

Groups of constraint	Age	N	Mean	S.D	Sig.	Part.Eta Squared
Structural	18 Years old	396	3.54	.761	.876	.001
	19 Years old	367	3.59	.626		
	20 Years old	423	3.59	.864		
	21 Years old	273	3.56	.764		
	22 Years old	30	3.58	.759		
	Total	1489	3.57	.762		
Interpersonal	18 Years old	396	3.79	.607	.541	.002
	19 Years old	367	3.77	.600		
	20 Years old	423	3.85	.601		
	21 Years old	273	3.82	.590		
	22 Years old	30	3.83	.680		
	Total	1489	3.81	.602		
Intrapersonal	18 Years old	396	2.88	.736	.000	.022
	19 Years old	367	2.80	.693		
	20 Years old	423	3.08	.692		
	21 Years old	273	2.94	.732		
	22 Years old	30	2.92	.866		
	Total	1489	2.93	.722		

Specifically, the difference was statistically significant in Intrapersonal component with Sig. = 0.00. The remaining two components Structural and Interpersonal do not make any difference when participating in physical activities and sports of Ho Chi Minh City university students by age.

Class year

Hypothesis H4c suggests that there are differences between total constraints among university students in Ho Chi Minh City about participation in physical activities and sport according to class year . ANOVA was used to test this issue. The results show that there is a difference between the university year in terms of total constraints when participating in physical activities and sports (Sig. = 0.00). The Tukey post-hoc comparison shows that third-year students have the highest average total problem (Mean = 3.42). The fifth-year students (Mean = 3.32) and fourth-year students (Mean = 3.29) stand at second and third respectively, and first-year students are at number four with Mean = 3.25. The lowest total constraint and separation is the group of second-year students (Mean = 3.23). This result confirms H4c hypothesis.

MANOVA has been applied to investigate the differences between the constraints to student participation in physical activities and sports in Ho Chi Minh City Class year . Three dependent variables are Structural, Interpersonal, and Intrapersonal. The five independent variables are first year, second year, third year, fourth year, and fifth year. The results show that there are statistically significant differences in the composition of constraint between the five groups of university years, Wilks' Lambda = .977; Partial Eta Squared = 0.011, Sig. = 0.00. Considering separate results for the dependent variables, it showed a statistically significant difference in the Intrapersonal component with Sig. = 0.00. The remaining two components Structural and Interpersonal do not differ in constraint to participate in the physical and sport activities of university students in Ho Chi Minh City according to the Class year . This result confirms the H4g hypothesis.

Table 54 Differences between constraint groups among university students in Ho Chi Minh City about participation in physical activities and sport according to class year .

Groups of constraint	Class year	N	Mean	S.D	Sig.	Part.Eta Squared
Structural	1 st	396	3.54	.761	.858	.001
	2 nd	458	3.59	.716		
	3 rd	332	3.60	.824		
	4 th	278	3.56	.765		
	5 th and more	25	3.61	.739		
	Total	1489	3.57	.762		
Interpersonal	1 st	396	3.79	.607	.329	.003
	2 nd	458	3.77	.611		
	3 rd	332	3.86	.584		
	4 th	278	3.82	.587		
	5 th and more	25	3.85	.728		
	Total	1489	3.81	.602		
Intrapersonal	1 st	396	2.88	.736	.000	.032
	2 nd	458	2.80	.724		
	3 rd	332	3.15	.630		
	4 th	278	2.94	.732		
	5 th and more	25	2.95	.895		
	Total	1489	2.93	.722		

Types of university

H4a hypothesis shows that “There are differences between total constraints among university students in Ho Chi Minh City about participation in physical activities and sport according to type of university”. The t-test is used to test this hypothesis. The results show that have a difference between the total constraints when

participating in physical activities and sports at university students (Sig. = 0.00). In which, the type of Private university has a higher total constraint (Mean = 3.33) than Public university (Mean = 3.27). This result confirms H4a hypothesis.

MANOVA has been applied to investigate the differences between the constituents of constraint to students' physical and sports activity participation in Ho Chi Minh City by type of university. Three dependent variables are Structural, Interpersonal, and Intrapersonal. The two independent variables are the Private university and the Public university. The results appeared that there was a statistically significant difference in the constraint components when participating in physical activities and sports by type of university, Wilks' Lambda = .994; Partial Eta Squared = 0.06, Sig. = 0.03. This result confirms the H4e hypothesis.

Table 55 Analyzing the differences between groups of constraint when participating in physical activities and sports in leisure of university students in Ho Chi Minh City by type of university

Groups of constraint	Type of university	N	Mean	S.D	Sig.	Part.Eta Squared
Structural	Private	596	3.63	.708	.272	.004
	Public	893	3.54	.794		
	Total	1489	3.57	.762		
Interpersonal	Private	596	3.83	.605	.015	.001
	Public	893	3.79	.599		
	Total	1489	3.81	.602		
Intrapersonal	Private	596	2.96	.731	.199	.001
	Public	893	2.91	.717		
	Total	1489	2.93	.722		

Considering separate results for the dependent variables, has a statistically significant difference in the Interpersonal component with Sig. = 0.00. The

other two components do not differ in constraints to participate in the physical and sports activities of university students in Ho Chi Minh City by type of university.

Last year GPA

The ANOVA was applied to test the difference between the total constraint of sports and physical activity participation and the student's GPA in the previous year. As result appeared that there was no difference between the class year in terms of total constraint when participating in physical activities and sports (Sig. = 0.45).

MANOVA has been used to test the differences between constraints components by university type. 5 independent variables are Excellent, Well done, Well, Accepted, Fail. Separate results for the dependent variables show that there is no statistically significant difference in all three components of the constraint scale, Wilks' Lambda = .993; Partial Eta Squared = 0.02, Sig. = 0.633.

Table 56 Analyzing the differences between groups of constraints when participating in physical activities and sports in leisure of university students in Ho Chi Minh City based on GPA

Groups of constraint	GPA	N	Mean	S.D	Sig.	Part.Eta Squared
Structural	Excellent	21	3.73	.758	.369	.001
	Well done	51	3.50	.744		
	Well	411	3.56	.723		
	Accepted	1005	3.58	.779		
	Fail	1	4.00	.		
	Total	1489	3.57	.762		
Interpersonal	Excellent	21	3.77	.394	.778	.002
	Well done	51	3.73	.634		
	Well	411	3.81	.616		
	Accepted	1005	3.81	.597		
	Fail	1	4.75	.		
	Total	1489	3.81	.602		

Table 56 (Continue)

Groups of constraint	GPA	N	Mean	S.D	Sig.	Part.Eta Squared
Intrapersonal	Excellent	21	2.74	.699	.465	.003
	Well done	51	2.95	.625		
	Well	411	2.88	.670		
	Accepted	1005	2.95	.747		
	Fail	1	3.18	.		
	Total	1489	2.93	.722		

Place

ANOVA is used to test the difference between the total constraint of physical activities and sports participation and student accommodation. The results showed that there is a difference between accommodation in terms of total constraint when participating in physical activities and sports (Sig. = 0.03). The Tukey post-hoc comparison shows that the group of students Live with family has the second-highest average total problem (Mean = 3.32). The group of students in Dorm (Mean = 3.3) followed by the group of students in Boarding house has the total constraint in fourth level (Mean = 3.27). The group of students in other places has the highest total constraint level (Mean = 3.44).

Dorm, Boarding house, Live with family, Other are 4 independent variables of this item. MANOVA analysis results showed that there is a statistically significant difference between the components of constraints to participate in physical activities and sports by type of university, Wilks' Lambda = .981; Partial Eta Squared = 0.06, Sig. = 0.01.

Table 57 Analyzing the differences between groups of constraint to participating in physical activities and sports in leisure of university students in Ho Chi Minh City by accommodation

Groups of constraint	Place	N	Mean	S.D	Sig.	Part.Eta Squared
Structural	Dorm	271	3.51	.714	.000	.014
	Boarding house	938	3.57	.774		
	Live with family	217	3.54	.698		
	Other	63	3.99	.868		
	Total	1489	3.57	.762		
Interpersonal	Dorm	271	3.81	.586	.845	.001
	Boarding house	938	3.81	.608		
	Live with family	217	3.84	.608		
	Other	63	3.76	.561		
	Total	1489	3.81	.602		
Intrapersonal	Dorm	271	2.98	.678	.131	.004
	Boarding house	938	2.90	.731		
	Live with family	217	2.99	.751		
	Other	63	2.99	.649		
	Total	1489	2.93	.722		

Separate results for the dependent variables show a statistically significant difference in the Structural component with Sig. = 0.00. The other two components do not differ in constraints to participate in the physical and sports activities of university students in Ho Chi Minh City by accommodation.

Region Lived

ANOVA is used to test H4d Hypothesis. “There are differences between total constraints among university students in Ho Chi Minh City about participation in physical activities and sport according to location in Ho Chi Minh City”.

The results showed that there was a difference between the total constraint of participating in physical activities and sports by living area (Sig. = 0.00). Tukey comparison shows that students in the South (District 6,7,8) have the highest total constraint (Mean = 3.38). Next are students in the East (District 9, 2) (Mean = 3.37) and students in the Central area (District 1,3,4,5, 10, 11, Tan Binh, Phu Nhuan, Binh Thanh) with total constraint (Mean = 3.32), Students in North (District 12, Thu Duc, Go Vap) have a total of mean = 3.24. The least affected is the group of students in the West (District Binh Tan, Tan Phu) (Mean = 2.96). This result confirms H4d hypothesis.

MANOVA is applied to investigate the differences between the composition of constraints in students' physical activities and sports participation in Ho Chi Minh City by Region Lived. Three dependent variables are Structural, Interpersonal, and Intrapersonal. The independent variable is the region lived. The results gave that there was a statistically significant difference in the total constraint in physical activities and sports participation by Region Lived, Wilks' Lambda = .961; Partial Eta Squared = 0.01, Sig. = 0.00.

Table 58 Analyzing the differences between groups of constraint to participating in physical activities and sports in leisure of university students in Ho Chi Minh City by region lived

Groups of constraint	Region	N	Mean	S.D	Sig.	Part.Eta Squared
Structural	North	566	3.57	.763	.000	.013
	South	242	3.66	.721		
	East	119	3.60	.604		
	West	60	3.18	1.026		
	Central	502	3.58	.763		
	Total	1489	3.57	.762		
Interpersonal	North	566	3.79	.602	.001	.003
	South	242	3.83	.559		
	East	119	3.88	.607		
	West	60	3.72	.636		
	Central	502	3.82	.615		
	Total	1489	3.81	.602		

Table 58 (Continue)

Groups of constraint	Region	N	Mean	S.D	Sig.	Part.Eta Squared
Intrapersonal	North	566	2.85	.720	.371	.023
	South	242	3.04	.735		
	East	119	3.06	.621		
	West	60	2.55	.923		
	Central	502	2.98	.691		
	Total	1489	2.93	.722		

Separate results for the dependent variables showed a statistically significant difference between Intrapersonal (Sig. = 0.00) and Structural (sig. = 001). Interpersonal composition did not differ in constraints to participating in the physical and sports activities of university students in Ho Chi Minh City region lived.

Income per month (VND)

ANOVA analysis results on the difference between the total constraint to participating in physical activities and sports of students in Ho Chi Minh City by monthly income. The results showed that there is a statistically significant difference (Sig. = 0.007). In which, the income level greater than 7,000,000 has the highest total constraint (Mean = 3.39). The income level of 3,000,000 - 5,000,000 VND is affected by the lowest constraint (Mean = 3.26).

MANOVA has been applied to investigate the differences between the constituents of constraint to participating in a student's physical activities and sports in Ho Chi Minh City regarding their monthly income. The three dependent variables are Structural, Interpersonal, and Intrapersonal. The 5 independent variables are the student income levels.

The results showed that there was a statistically significant difference between the constraint to participating in physical activities and sports by monthly income, Wilks' Lambda = .974; Partial Eta Squared = 0.09, Sig. = 0.00.

Table 59 Analyzing the differences between groups of constraint to participating in physical activities and sports in leisure of university students in Ho Chi Minh City by monthly income

Groups of constraint	Income	N	Mean	S.D	Sig.	Part.Eta Squared
Structural	<3.000.000	319	3.55	.642	.000	.020
	3.000.000–5.000.000	772	3.57	.757		
	>5.000.000–7.000.000	221	3.42	.810		
	> 7.000.000	177	3.83	.859		
	Total	1489	3.57	.762		
Interpersonal	<3.000.000	319	3.84	.576	.816	.001
	3.000.000–5.000.000	772	3.80	.605		
	>5.000.000–7.000.000	221	3.81	.655		
	> 7.000.000	177	3.79	.562		
	Total	1489	3.81	.602		
Intrapersonal	<3.000.000	319	2.99	.704	.032	.006
	3.000.000–5.000.000	772	2.88	.763		
	>5.000.000–7.000.000	221	3.00	.638		
	> 7.000.000	177	2.97	.657		
	Total	1489	2.93	.722		

Separate results for the dependent variables show a statistically significant difference in the Structural component with Sig. = 0.00. The other two components do not differ in terms of constraint to participating in the physical and sports activities of university students in Ho Chi Minh City according to monthly income.

So, summary of differences between constraints to participating in physical activities and sports in leisure of university students in Ho Chi Minh City by demographic factors, confirmed There are differences between total constraints among university students in Ho Chi Minh City about participation in physical activities and

sport according to type of university, age, class year and location except gender that not confirmed.

4.4.2. Confirmatory Factor analysis (CFA)

4.4.2.1. Motivation Scale

CFA is a tool that is used to confirm or reject the measurement theory.

According to Hair et al. (2010), Multivariate Data Analysis, 7th edition, indicators are considered to evaluate Model Fit include:

CMIN/df $\leq$ 2 is good, CMIN / df $\leq$ 5 is acceptable

CFI $\geq$ 0.9 is good, CFI $\geq$ 0.95 is great, CFI $\geq$ 0.8 is acceptable

GFI $\geq$ 0.9 is good, GFI $\geq$ 0.95 is great.

RMSEA $\leq$ 0.08 is good, RMSEA $\leq$ 0.03 is great

CFA analysis results on AMOSS v20.0 software showed that the model has 624 free levels, Chi-square = 1681,907 with Pvalue = 0.000; Chi-square / df = 2,695, this index is quite high due to the large sample size of the study (500 samples), however this index is still satisfactory because it is less than 3. The indexes CFI = 0.936, and RMSEA = 0.78 are both acceptable.

Although GFI = 0.897 <0.9 is not as expected, according to the authors Baumgartner and Homburg (1995) and Doll, Xia, and Torkzadeh (1994), the sample size is the factor leading to the GFI, which is difficult to reach 0.9. Therefore, a minimum value of 0.8 is still acceptable.

Thus, as those arguments, the study has shown that the scale is suitable for the 4-component data (Body-related dimension, Competence dimension, Appearance, Intrinsic dimension) to achieve uni-direction.

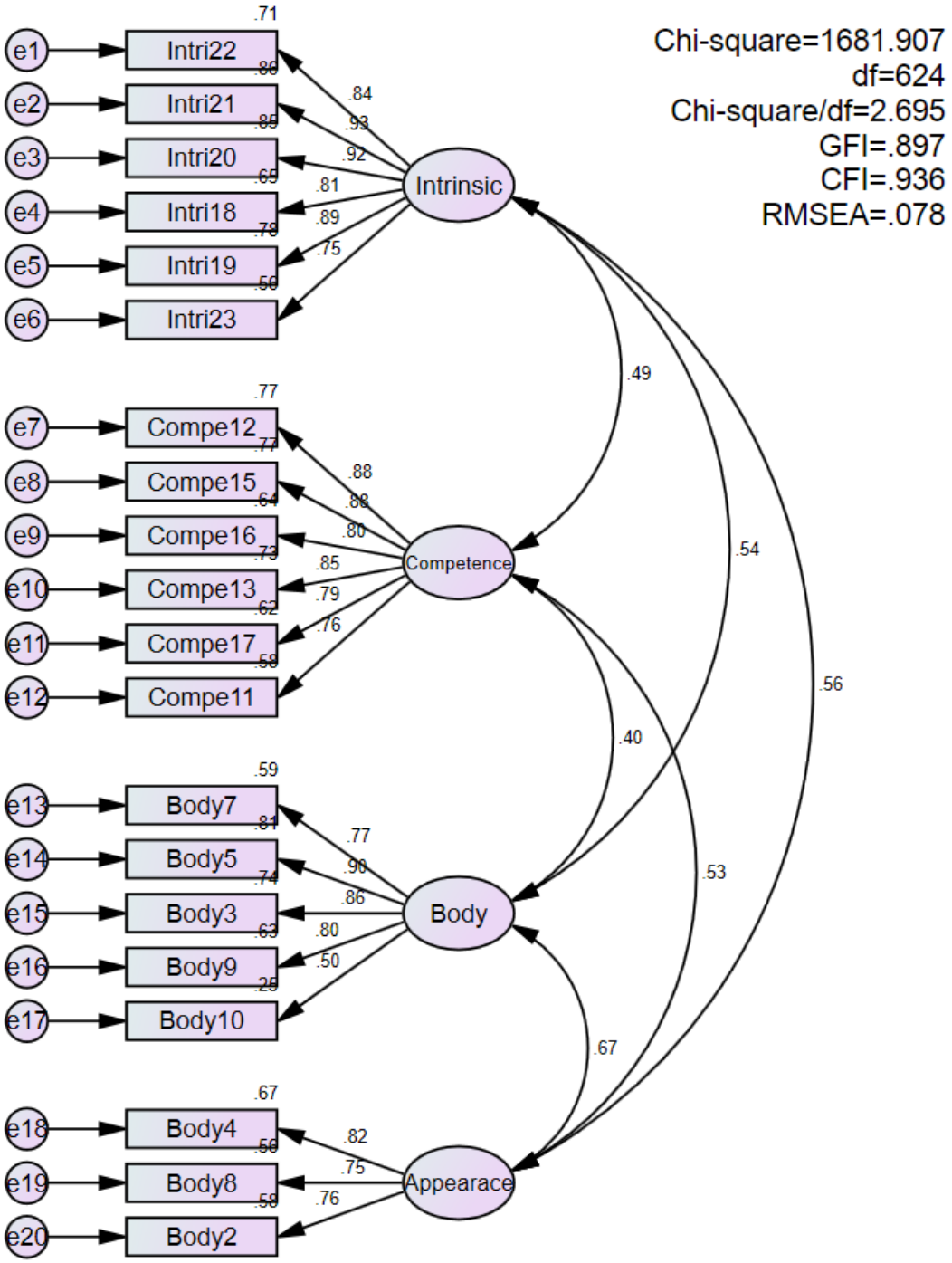

Figure 18 Model of scale to measure motivation to participate in physical and sports activities of students in Ho Chi Minh City (Standardized estimates)

The observed variables all met the allowable standard (> 0.5) and statistically significant (p = 0.000). Thus, it can be concluded that the observed

variables used to measure the four components of the measurement toolkit achieve convergent values

Table 60 The weights have been standardized on the scales of students' motivation to participate in physical and sport activities in HCM

Code	Items			Estimate
Intri21	I love to do this activity	<---	1	.930
Intri22	I find this activity stimulating	<---	1	.836
Intri20	It makes me happy	<---	1	.919
Intri18	It's joy	<---	1	.809
Intri19	I think it's interesting	<---	1	.885
Intri23	I enjoy this activity	<---	1	.746
Compe12	I like the contest	<---	2	.877
Compe15	I like the challenge	<---	2	.879
Compe16	I want to maintain existing ability	<---	2	.804
Compe13	I want to get new ability	<---	2	.854
Compe17	I like the exciting activity	<---	2	.790
Compe11	I want to get better at my activity	<---	2	.760
Body7	I want to be charming	<---	3	.772
Body5	I want to increase my energy	<---	3	.894
Body3	I want to handle the stress	<---	3	.853
Body9	I want to have better cardio fitness	<---	3	.799
Body10	I want to get better at my activity	<---	3	.498
Body4	I want to be good looking	<---	4	.821
Body8	I want to have better body shape	<---	4	.749
Body2	Weight management purpose	<---	4	.760

The correlation coefficient between the components with the accompanying standard deviation are all less than 1, so the Body-related dimension, Competence dimension, Appearance, and Intrinsic dimensions all achieve distinct values (Table 69)

Table 61 Results of testing the differential value between components of the scale of students' motivation to participate in physical and sports activities in Ho Chi Minh City

			Estimate	S.E.	C.R.	P
Intrinsic	<-->	Competence	.256	.016	15.708	***
Intrinsic	<-->	Body-related	.204	.013	16.111	***
Intrinsic	<-->	Appearance	.188	.011	16.409	***
Competence	<-->	Body-related	.191	.015	12.534	***
Competence	<-->	Appearance	.227	.015	15.528	***
Body-related	<-->	Appearance	.208	.012	17.198	***

Note: S.E: Standard error, C.R: Critical value

* P ≤ 0.05. **, P ≤ 0.01

Therefore, the results of CFA analysis show that the motivation scale for participating in physical and sport activities of students in Ho Chi Minh City includes 4 components (Body-related dimension, Competence dimension, Appearance, Intrinsic dimension) with a total of 20 variables. All of them achieve convergent value, unidirectional value, distinguished value, and meet the requirements of value as well as reliability.

4.4.2.2. Constraint Scale

CFA results show that the model has 834 free levels, P-value = 0.000; Chi-square/df = 2.959, this index is quite high due to the large sample size of the study, but this index is still satisfactory because it is less than 3. The indexes GFI = 0.961, CFI = 0.951, and RMSEA = 0.082 indicate a scale consistent with three-component data (Intrapersonal, Structural, Interpersonal) to achieve uni-direction.

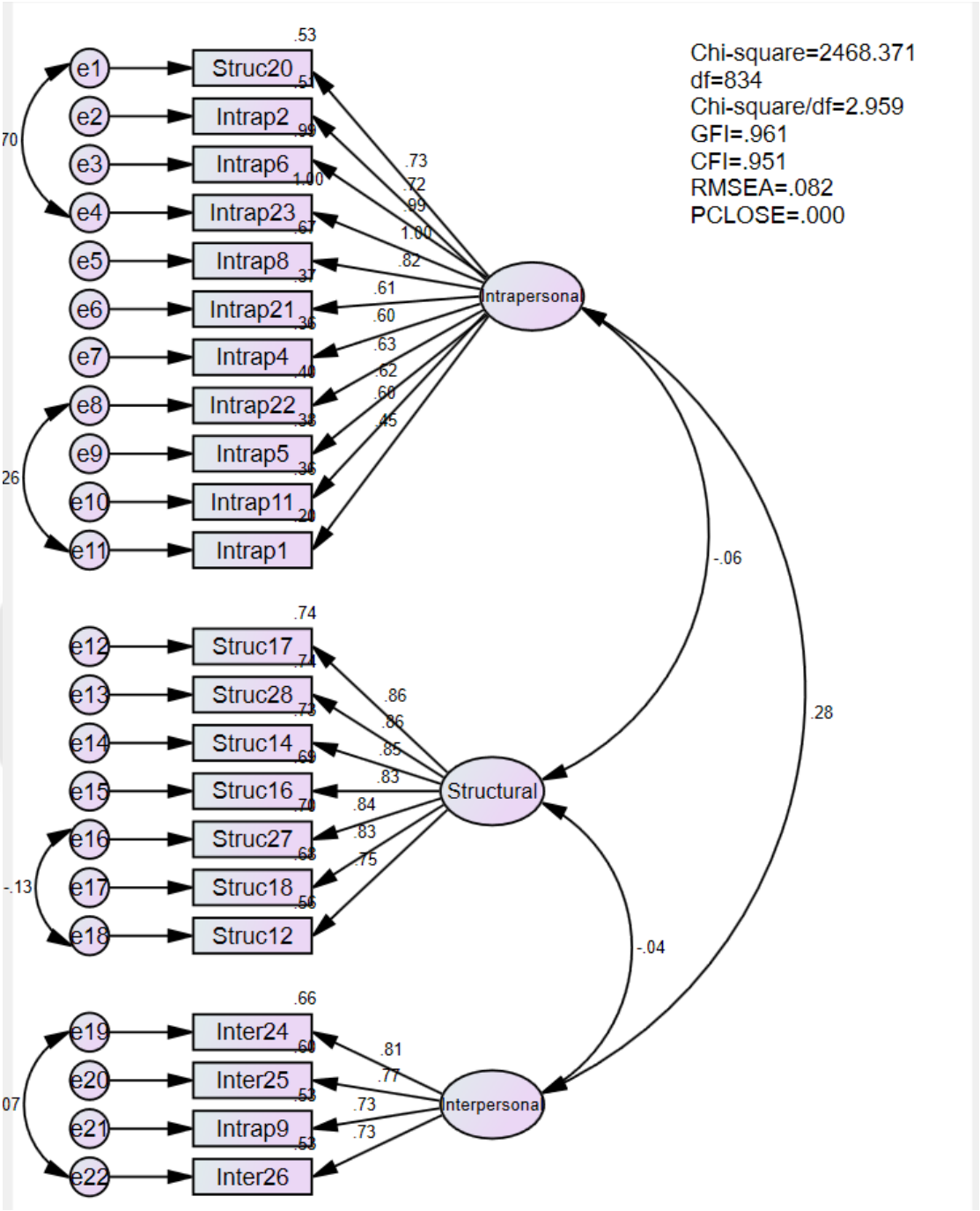

Figure 19 Scale model of constraint when participating in physical activities and sports of students in Ho Chi Minh City (Standardized estimates)

The observed variables met the allowable standard (> 0.5) and statistically significant (p = 0.000). Thus, it can be concluded that the observed variables used to measure the four components of the measurement toolkit achieve convergent values.

Table 62 Weights are standardized on the scale to measure constraints in participating in physical activities and sports of students in HCM

Code	Items			Estimate
Intrap23	I am not interested	<---	1	.998
Intrap8	I don't know where to join	<---	1	.817
Intrap21	I had not good memory this activity in the past	<---	1	.608
Intrap4	I'm too tired for recreation	<---	1	.596
Intrap22	I don't want to interfere my daily routine.	<---	1	.631
Intrap5	I have health concern	<---	1	.616
Struc17	Taking too long time for transportation	<---	2	.862
Struc28	I don't have time because I study.	<---	2	.862
Struc14	Facilities insufficient	<---	2	.853
Struc16	Program's schedule unavailable to me	<---	2	.831
Struc27	I don't have time because of family take care	<---	2	.837
Struc18	The activity too far from my home	<---	2	.827
Struc12	The facilities are not kept well.	<---	2	.751
Inter24	My friends have no time	<---	3	.814
Inter25	No one joins me	<---	3	.774
Intrap9	Nobody teach me	<---	3	.730
Inter26	My friend doesn't like exercising.	<---	3	.729
Struc20	The fee too expensive to me	<---	1	.729
Intrap6	I don't have self-confident	<---	1	.994
Intrap2	I fear of pain	<---	1	.717
Intrap1	Feel too tired after did it	<---	1	.451
Intrap11	My skills in not enough	<---	1	.600

The correlation coefficient between the components with the accompanying standard deviation are all less than 1, so the Intrapersonal, Structural, and Interpersonal components achieve distinct values.

Table 63 Results of testing the differential value between components of the scale of constraint when participating in physical activities and sports of students in HCM

			Estimate	S.E.	C.R.	P
Inter	<-->	Intrap	-.028	.012	-2.289	.022
Inter	<-->	Struc	.103	.011	9.219	***
Intrap	<-->	Struc	-.017	.012	-1.453	.146

S.E: Standard error C.R: Critical value

* P ≤ 0.05. **, P ≤ 0.01

Thus, the results after CFA analysis show that the 3-component scale of students' constraint participating in physical and sports activities in Ho Chi Minh City includes 3 components (Intrapersonal, Structural, Interpersonal) with a total of 22 observed variables. All of them achieve convergent value, unidirectional value, distinct value and meet the requirements of value and reliability.

4.5 Chapter Summary

The conclusion of the study and hypotheses tests in chapter 1 are presented in chapter 4. This section summarizes the results obtained in order: Results of experimental research; Descriptive statistics of the research sample; Level of participation in physical activities and sports in leisure of university students in Ho Chi Minh City; Test models of motivation and difficulty when participating in physical activities and sports of students in Ho Chi Minh City; Analyze relationships, differences in participation in physical activities and sports.

The results of the study on 100 volunteers were conducted by the algorithms such as intrinsic reliability analysis and EFA. Cronbach's Alpha coefficient used in this section is 0.6 (Hair et al. (2014) & Corrected Item - Total Correlation 0.3 and above (Cristobal et al (2007)). For EFA, Factor Loading is 0.3-0.4 followed by Hair et al (2014)). The questionnaire was adjusted to suit the characteristics of the study participants including 4 main components Demographics (11 items), The students' participation level in physical activities and sports (13 items), Motivation measurement (20 items), and Constraint measurement (22 items).

The total number of students participating in the official study is 1489 students, reaching 99.2% of the expectation. There approximates the number of students selected from universities, gender, and courses for convenience in comparison.

The statistical results show that the number of students participating 3 times per week accounts for the highest proportion (23.6%). 21 students said that they do not participate in physical activities and sports (1.4%). These students just continue to answer in the section "constraints when participating in physical activities and sports". The "trial" question was used to eliminate inattentive responses. However, no more responses were removed. Out of the 23 listed activities, the 5 most popular activities rated by students are Walking (10.49%), Running (9.29%), Soccer (7.20%), Yoga (6.93%), Basketball (5.81%). Most students participating in physical activities and sports at a low-level account for 40.8% while 36.1% of respondents achieve moderate physical activity participation. 21.7% of students meet the high requirements of physical activities and sports. The ideal time for students in Ho Chi Minh City to choose sports practice is in the afternoon and prioritize at the university campus (45.8%). Most students travel to sports area by motorbike (63.5%). A small number of students use vehicles such as cars, bicycles, or walking. They often participate in physical activities and sports with friends (75.2%). This participation is mainly due to hobbies and self-consciousness (38.4%). 60.7% of students said that their university has enough facilities for physical activities and sports. Of the 37.9% of students who think that their university does not have enough facilities for physical activities and sports, 29% come from Public

university. This result is consistent with the reality in Vietnam, when private universities are equipped with better facilities, but tuition fees are also higher than that of public universities.

The scales to measure motivation and constraint when participating in physical activities and sports of students in Ho Chi Minh City are tested regarding official research samples. In this step, the standard Factor Loading coefficient is optimal from 0.5 according to Hair et al (2014). Model Fit evaluation criteria in CFA include: CMIN / df ≤ 2 is good, CMIN / df ≤ 5 is acceptable; CFI ≥ 0.9 is good, CFI ≥ 0.95 is very good, CFI ≥ 0.8 is acceptable; GFI ≥ 0.9 is good, GFI ≥ 0.95 is great; RMSEA ≤ 0.08 is good, RMSEA ≤ 0.03 is very good (Hair et al. (2010)). After the test, the measuring scale has a change to 4 components (Body-related dimension, Competence dimension, Appearance, Intrinsic dimension) with a total of 20 observed variables. The scale of constraints when participating in physical activities and sports of students in Ho Chi Minh City includes 3 components (Intrapersonal, Structural, Interpersonal) with the remaining 22 variables.

Overall, the "Appearance" group has the largest impact (Mean = 4.02). The lowest is the group of "Competence dimension" (Mean = 3.53). The highest group that prevents students' participation in physical and sport activities is "Interpersonal (Mean = 3.80) while the lowest is" Intrapersonal "(Mean = 2.93).

The results of relationship analysis by Pearson correlation showed that there is a positive relationship between motivation and level of participation of students in Ho Chi Minh City (r = 0.887, Sig. = .004). In terms of constraint, physical activities and sport participation has a negative relationship (r = -.061, Sig. = .019). That means when the constraints increase, the physical and sport participation of students in Ho Chi Minh City decrease. Similarly, there is an inverse correlation between Structural and participation in physical and sport activities (r = -.055, Sig. = .034 <0.5); the Intrapersonal and the level of participation in physical activities and sports (r = -.040, Sig. = .021 <0.5).

Regarding the difference, there is a difference in the level of participation in physical activities and sports between the male and female students concluded after the

t-test. The ANOVA test results showed a difference of 95% in the level of participation in physical and sport activities among students by age group, Class year, type of university, Region Lived, monthly income (Sig. <0.05). No statistically significant difference was found between the motivation and the categories Gender, Age, Class year, University, GPA, Place, Region lived, Income per month (VND).

Analysis results from t-test, ANOVA, and MANOVA show that there is a difference between students' constraint to participating in physical activities and sports in Ho Chi Minh City in Age, Class year, University, GPA, Place, Region lived, Income per month (VND). There is no difference in gender.

CHAPTER 5
DISCUSSION, CONCLUSION AND RECOMMENDATIONS

As discussed in Chapter I, the purpose of the study is to determine the level of participation in physical and sports activities of university students in Ho Chi Minh City and to understand the limitations and motivations which impact their level of participation in physical activities and sports. After that, examining the relationship between the constraints, motivation and participation in physical activities and sports and analyzing the differences in some demographic factors. Based on the results in Chapter 4, this chapter will be a specific discussion for 3 research questions, then summarize the results and give recommendations in the future.

5.1. Discussion

5.1.1. Discuss the level of university students' participation in physical and sporting activities in Ho Chi Minh city.

This section will discuss the level of participation in physical activities and sports of students in Ho Chi Minh City, examining the types of exercise and sports chosen by the students; level of physical activity in general.

The statistical results show that the 5 most popular types of physical activities and sports students are Walking, Running, Soccer, Yoga, Basketball. Other activities such as Handball, Patin, Rock climbing, Hockey are rarely used by students. It is easy to see that 5 popular types in Vietnam are easy to play and do not require a lot of equipment. The others have just been introduced to Vietnam in recent years and have high requirements on facilities and safety.

It can be seen that most students tend to participate in sports at the university and around the living area where facilities and space are available while the other types are not popular and have not appeared. Thank to that advantage, if several clubs are established according to student interests and trends (Paint gun Shooting, rock climbing/ wall climbing, etc.), it will be a good condition to introduce and develop clubs, bringing benefits to investors as well as fulfilling student needs.

The most popular time for students to play sports is about 30-60 minutes a day, about 3 times a week. The results show that the number of students participating in physical activities and sports at a low level accounts for 40.8%. Besides, 1.4% of students never participate in physical activities. The total of these two items amounted to nearly 50%. Only 36.1% of respondents achieve a moderate level of physical activity participation. 21.7% of students meet the high requirements of physical activities and sports. Circular 01/2019/TT-BVHTTDL of the Ministry of Culture and Tourism of Vietnam on "Regulations on assessment of public physical activities and sports", in Clause 1, Part 4 clearly states: "Part 4. People who practice physical exercises and sports regularly: People who practice physical exercises and sports regularly are those who practice at least 3 times a week; each exercise for at least 30 minutes". (Ministry of Culture, 2019) This also means that what type of student participation in, either Soccer or Walking, is considered the same. There is no difference in intensity. Thus, according to the above circular, students in Ho Chi Minh City have had regular physical activity, meeting the recommended requirements. Meanwhile, WHO recommends adults spend at least 2.5 to 5 hours per week for moderate or higher intensity exercise. The report, published in Lancet Child & Adolescent Health, is based on survey data conducted in the years 2001-2016 of 1.6 million students aged 11-17 in 146 countries. Five young people aged 11-17 in the world have 4 friends (more than 80%) who still lack physical activity and it can be harmful for their health. This result is also officially announced by the World Health Organization (World Health Organization, 2010). There is a huge difference in the perception of Vietnam and WHO on physical activities.

In fact, lack of exercise occurs both actively and passively. If the above evidence shows that students are influenced by factors such as focusing on their major study, the analysis data of transportation shows that they are not open up motivational opportunities for themselves. Specifically, the number of students choosing to walk or cycle to university is not popular. 63.5% of students choose motorbike, 9.9% choose car. The number of students traveling by bus is 12.3%. The number of students choosing to walk to university is 8%. This result is much lower than the data for young

people in the US and Australia, where an average of 17% of respondents actively move to university on foot (Jim Dollman, Norton, และ Norton (2005); James Dollman และ Lewis (2007)). However, the study found that the number of students walking to university is consistent with the exponential growth in the use of motor vehicles and the practical characteristics in HCM City (hot climate, limited walkable areas, accommodation is usually not close to university, etc.)

According to statistics of the Ministry of Transport, there are 136 bus routes in Ho Chi Minh City with an estimated 2786 bus with a total number of 4,154 stops. Also according to the ministry's statistics, in recent years, the number of passengers using buses has decreased significantly, and private cars are prioritized. The data analysis results also showed that, among 607 students with low mobility, 403 students moved by motorcycle (66.4%). This finding is also consistent with previous studies, which confirm that less use of public transport and increased use of motorized vehicles to work is associated with reduced physical activity levels (World Health Organization, 2020)

Table 64 Means of transportation and level of participating in physical activities

	Level of joining physical activities							
	Low		Moderate		High		Total	
	N	%	N	%	N	%	N	%
Bus	89	14.7	28	5.2	64	19.8	181	12.3
Motorbike	403	66.4	329	61.2	200	61.9	932	63.5
Car	115	18.9	30	5.6	0	0.0	145	9.9
Bike	0	0.0	63	11.7	30	9.3	93	6.3
Walking	0	0.0	88	16.4	29	9.0	117	8.0
Total	607	100.0	538	100.0	323	100.0	1468	100.0

Thus, the results of this study show that simple and popular activities are still the top priority. The amount of low-level physical activity is most common, but 1.4% of students are still not active. There are differences in participation in physical activities

and sports by demographic groups. The following sections will discuss the motivations and limitations that lead to this difference.

5.1.2. Discuss the motivations and constraint affecting the level of participation in physical and sport activities of university students in Ho Chi Minh City.

Discuss the motivations affecting the level of participation in physical and sport activities

There are many different theoretical views about young people's motivation to participate in sports. In a competency-motivation theory, Susan Harter (1992) states that children are motivated to feel achievement and participate in proficiency efforts so that they can demonstrate competence. force. That means if children succeed in their efforts to master themselves, they feel more empowered and continue to look for opportunities to demonstrate proficiency and competence. Regarding sports, this theory predicts that young adults who experience a higher level of physical ability will be more motivated to continue playing sports. Harter's theory also highlights several premises that underlie the perception of competence and motivation to participate in sports. Specifically, feedback from social actors (e.g. parents, coaches), previous experience (e.g., success or failure in sports), and cognitive control over outcomes are also important factors affecting physical activities.

Many specific motivation variables have been reported in other studies, including fun, skills improvement, opportunities to challenge a friend and socialization (Chang (2003); Havitz และคนอื่น ๆ (2013); Li, Iannotti, Haynie, Perlus, และ Simons-Morton (2014)). In the initial experimental research, the study used the theory of C. M. Frederick และ Ryan (1993), the scale of motivation for sports and physical activity that concern body-related dimension, competence and satisfaction dimension, and intrinsic dimension. After the data analysis and refinement, the complete model to measure the motivation consists of 4 components, arranged in descending order of impact including "Appearance" (Mean = 4.02), "Body -related dimension "(Mean = 3.99). "Intrinsic dimension" (Mean = 3.70), "Competence dimension" (Mean = 3.53).

Appearance is a new component extracted from two Body-related components consisting of 3 variables I want to be good looking, I want to improve my physique, I want to lose or maintain my weight.

Research has also shown that a positive relationship exists between motivations and the level of participation in physical activity variables. That means when the motivation increases, the physical and sports participation of students in Ho Chi Minh City also increases and vice versa.

According to the data analysis, female students are less active and choose subjects with lighter intensity than males. One of the reasons for this is the different social expectations of males and females. Traditionally, sport is considered a field for men, allowing boys to show their strength, skills, and muscular body. Although in recent years, the above view has somewhat changed. Women participate in sports more than before, but still different from men. If men tend to be more interested in the competition of sports; the women are influenced more by the motivation of appearance. However, in this study, the results of analyzing differences in the motivation of students to participate in physical activities and sports in Ho Chi Minh City show that there is no statistically significant difference between groups although there is a difference in average value.

Overall, the results of this study showed that female students' motivation to participate in sports was higher than that of men in all four motivation groups. However, this difference has not achieved a statistically significant difference. Analysis of differences by other demographic factors such as type of university, Region Lived, university year, age group also had similar results. Besides, although the motivation for participation is high, it does not mean that the level of participation in sports is as high as expected.

Discuss constraints to participate in the physical and sports activities

As mentioned in previous sections, previous studies have shown that lack of participation in physical exercise and sports is a serious public health problem

among young people. Most students do not achieve the level of participation in physical activity suggestions by World Health Organization. For students in Ho Chi Minh City, this is also determined by a low level of participation.

The study identified 22 constraint factors in 3 main groups affecting students' participation in physical and sport activities, including “Interpersonal” (Mean = 3.80), “Structural” (Mean = 3.57) and "Intrapersonal" (Mean = 2.93). The impact variables are listed in order: My friends have no time (Mean = 3.98). My friend doesn’t like exercising. (Mean = 3.83), Nobody teach me (Mean = 3.76), besides, they are also affected by variables of facilities, time, energy, interests. The above results are similar to those of the authors D. Crawford และ Godbey (1987), D. W. Crawford และคนอื่น ๆ (1991))

Factors in the Interpersonal composition include personal time, partners, mentors, and encouragement from others. More considerably, the encouragement from the PE teachers had the lower average scores, only 15% of the students received their encouragement. It is showed that, in a fitness class, to overcome the feeling of fatigue, teachers are the main factor to facilitate and promote students' physical activities. This statement is also confirmed by Cardon และคนอื่น ๆ (2012). Overall, this study found that, in some cases, a lack of social support resulted in a limited level of student participation in physical and sports activities.

Intrapersonal components are formed from 11 elements of finance, knowledge, interests, skills ... these important factors are related to awareness and assessment. In this group, health problems (I have health problems, Mean = 3.12) and knowledge (I don't know where to join, Mean = 3.05)) are two variables that have the biggest impacts. In fact, research has found that these two constraints carry a "justification" factor for not participating or participating at a low level. If they can still take physical classes, it means they can exercise, in the end, the main reason is whether they want to do it. In 2011, Casper et al. also shows that lack of knowledge is the least factor to effective participation in physical activities and sports.

The Structural component consists of seven factors including external constraints affecting student participation in physical activity. The factors "I don't have time because I study." and "Taking too long time for transportation" have the highest impact in this group (Mean = 3.73). Timing is a particularly important issue as lack of time is often seen as a common constraints to participation (Dovey, Reeder, และ Chalmers, 1998).

5.1.3. Discuss the model of physical activities and sports in leisure among university students in Ho Chi Minh City.

The model of physical activities and sports in leisure among university students in Ho Chi Minh City was found with specific results. The main findings for this study are restrictions seem to hinder participation. Although there is a high level of motivation. Although there were slight differences based on demographic variables. But these differences were relatively minor and had little effect on overall fitness level.

Motivation and levels of physical activity.

In this study, found a positive relationship between university students' motivation with participation level in Ho Chi Minh City in leisure. Results are formed with previous studies on physical activities and sports.

Constraints and motivation.

The results from the study indicate a positive relationship between motivation and constraints. Thus, when motivation increases, the level of participation in physical and sports of students in Ho Chi Minh City also increases and vice versa. This result confirms hypothesis H3 "There is a relationship between total constraints and total motivations among university students in Ho Chi Minh City.

Constraints and levels of physical activity

Question 2 was confirmed when the correlation analysis (r) indicated that has a significant correlation between constraints and levels of physical activities and sport participant in leisure of university students in Ho Chi Minh City. This outcome informed that the constraint variables had a negative relationship with level of participation in physical activities and sports in leisure of university students in Ho Chi Minh City. That means when the constraints increase, the physical and sports

participation of students in Ho Chi Minh City decreases. In fact, it is evident that when an individual has too many constraints, he or she will have limited activities, not just physical activity.

5.2 Degree of participation

The level of participation in physical activities and sports in leisure of university students in Ho Chi Minh City is measured from three main variables: Frequency of participation, duration of participation, and type of participation (with MET values).

The results confirm the hypothesis when it proves that male students (Mean = 2.10) participate in physical activities and sports more than female students (Mean = 1.50) and this difference is statistically significant. The level of participation in physical activities and sports also varied between different age groups, students aged 19 were the most active. Public university students have lower participation rates in physical activities and sports than private university students. Randomly collected data sheets also showed that private university students reported that their university was equipped with more complete sports facilities; Private university students have a higher income and a higher percentage of personal vehicle ownership.

The difference is also shown through the student's GPA, students with academic performance at Well and Well done participate in physical activity more than the others. Students with a failed GPA participate in physical and sport activities at a low level. In Vietnam, although the media always praises the benefits of physical activities and sports, Physical Education in schools is largely not considered. For age groups, it is not included in any outcome standards of universities, nor any proportion of student graduation transcripts. The number of students who always show their tired faces in physical lessons is also increased because physical or sports activity is always boring to them. The thesis found that the factors of financial conditions, accommodation, academic capacity also contribute to the student's participation in physical activities and sports, but they are not completely decisive factors.

Motivations according to demographic factors

The motivation in participating in physical and sports activities of university students or any other participants has its characteristic. Many studies show that in a fitness class, learners need to use both aspects: cognition and physical activity. One of the special advantages of this form of education is that it activates both sides of the student's cortex. We're familiar with the fact that universities are primarily focused on the left-brain hemisphere - as traditional teaching methods. The new teaching methods cleverly combining stimulating both left and right brain areas have had good responses from the learners. This is also one of the reasons that Western countries prefer and develop to the maximum form of integrated learning. Students are not only learners but also active in control of their motivation to study. In some countries, students do not have the concept of compulsory physical education because break time is always for them to start with sports activities. Sports teams even get trained at university sports clubs. In the study by Nenad Suzi**ć** (2011), when conducting the study in 312 primary school students aged 8 to 14 years old, he found that three major types of motivations influence the physical and sport participation of students are intrinsic motivation, general motivation, and extrinsic motivation. What special about Nenad Suzi**ć**'s research is the participant's enjoyment and self-improvement of physical activity.

In 2019, Hüseyin's study of student physical activity engagement also used the “Sport Motivation Scale” by Pelletier et al. (1995) as a data collection tool. This study determined that the reasons of students' motivations for individual and team sports were more dependent on intrinsic motivational factors, and the order of their importance varied depending on individual sports and team sports. The motivation of men and women mainly depends on internal factors and the order of importance of these factors varies according to the gender variables. It can be said that both male and female students want to have fun and good achievements from the sports they played. This is also their main motivation.

For male students, they participate in physical and sports activities mainly from their own interests, the motivations that affect them a lot such as “I like this activity”,

“I find this activity stimulating”, “It's fun ”. For females, the motivation for physical activity is more outstanding as “Weight management purpose”, “I want to be good looking”.

The Tukey comparison shows that the groups of 21-year-olds in the fifth year, who are public university students, in Boarding house, living in the East (District 9, 2), are those with the highest average total motivation for participation in physical and sports. However, the value of the total motivation and components are different when compared in the categories (Gender, Age, Class year , University, GPA, Place, Region lived, Income per month) but the difference has not led to a statistically significant difference at the 95% probability.

Constraints according to demographic factors

There are statistically significant differences between students' constraints to participating in physical and sports activities in Ho Chi Minh City: type of university, age, class year, location, income, Region Lived, GPA. In particular, the variables that have a popular and strong impact on students' participation in physical and sports activities are factors related to time, facilities, interest, finance …

Accommodation is also one of the factors influencing participation in physical activities and sports. Evidence shows that people in areas with green spaces and marine areas have a better quality of life. One of the reasons is their sport activities.

Females are often influenced by variables such as “My friends don't have time”, “My friends don't like physical activity”, “Nobody teach me". Meanwhile, the male gender is mainly affected by variables such as "Taking too long time for transportation”, “Facilities inadequate (not enough, or some facilities are not available”, female students need more external assistance, while male students pay more attention to the assurance factors.

The results of this study also indicate that the facilities are also the constraints that have the highest level of impact. Most students often participate in physical activities and sports at the university, but they often choose simple subjects with little requirements for facilities. This is also the reason why the new attractive

subjects such as climbing, hockey, still do not attract many students to participate, or only the majority of participants are male students.

Casper, Harris, Taylor-Bianco, และ Wayne (2011) showed that lack of knowledge (not knowing where to join, no one to teach….) was the lowest-ranking constraint in his research. In general, the lack of knowledge about opportunities for physical activity and their availability is likely to limit the participation of young people, as in this study, they are still affected by factors related to knowledge limitation.

Thus, there is a statistically significant difference in the total constraint, the components of the constraints by university type, age, university year, location, income, Region Lived, and GPA. The difference is evident in the mean values by specific groups. This result helps to confirm question 2 in chapter.

5.2. Conclusion

In general, the model of participating in physical activities and sports during leisure time of university students in Ho Chi Minh City includes 3 main components: [1] participation level; [2] motivation and constraint and [3] model of physical activities and sports in leisure among university students in Ho Chi Minh City. The summary answer to the three research questions is also the conclusion of this study.

- Question 1: What are the levels of physical activities and sports participation among university students in Ho Chi Minh City?

The results of the study showed that only 21.7% of students met the high requirements of physical activities and sports, 36.1% of the respondents achieved an average level of participation in physical activity, low participation accounted for 40.8%. Besides, 1.4% of students never participate in this activity. The simple and available form of physical activities and sport takes priority (soccer, running, walking….). University is the place that students choose the most to practice (55.8%). Friends are ideal subjects to play sports together (75.2%). The results also showed that the role of parents, relatives, or PE teacher is not high in encouraging them to participate in physical activities and sports.

The level of participation in physical and sports activities of university students in Ho Chi Minh City varies by demographic factors such as gender, age, class year , university, GPA, location, Region Lived, and monthly income, this difference is statistically significant at the 95% probability.

- Question 2: What is the constraints and motivation that influence university student's participation in physical activities and sport in Ho Chi Minh City?

The Appearance, Body-related, Intrinsic, and Competence components are the 4 motivational groups that impact students' physical and sport participation. In which Appearance is a new element selected based on the results of the official model analysis. Overall, the results of this study show that female students' motivation to participate in sports is on average higher than that of men. However, this difference has not achieved a statistically significant difference. Analysis of differences by other demographic factors such as type of university, Region Lived, university year, age group ... also has similar results. Besides, although the motivation for participation is high, it does not mean that the level of participation in sports is as high as expected.

Interpersonal, Structural, and Intrapersonal are three groups of constraints that affect the physical and sport participation of university students in Ho Chi Minh City. The three specific constraints analyzed are lack of social support, lack of knowledge, and lack of facilities. Findings from this study also showed a significant negative relationship between total constraint and level of physical activity participation. Analyzing differences in constraints when participating in physical and sports activities of university students in Ho Chi Minh City differ by demographic factors such as age, university year, university, GPA, Region Lived, and monthly income, this difference is statistically significant at the 95% probability.

Surprisingly, the results from this study show a positive relationship between motivation and constraint. Thus, when motivation increases, the level of participation in physical and sports of students in Ho Chi Minh City also increases and vice versa. It contradicts some previous studies where they confirm a negative relationship between constraint and motivation. Another interesting highlight is that despite the high

motivation, the number of students participating in physical activities and sports is much lower, besides, the factors affecting the subjects of this study are also coinciding with the results that previous studies in Vietnam have not been addressed. Overall, the results of this study are consistent with other studies done in Vietnam on sports participation in the past.

- Question 3: What is the model of physical activities and sports in leisure among university students in Ho Chi Minh City?

The figure below summary the research results and confirm model of physical activities and sports in leisure time of university students in Ho Chi Minh City.

Figure 20 Model of physical activities and sports in leisure time of university students in Ho Chi Minh City

5.3. Recommendations

From the research results, the author gives some recommendations as follows:

- For the next research projects: Based on the research, researchers should examine and clarify the trends and interests of students' physical and sport activities.

- For the university: With the positive benefits that physical activities and sports bring, the author recommends that the university seriously pay attention to the organization and development of physical and sports activities for students, especially pay attention to factors such as instructors, facilities ... - factors that repeat influence from the findings of previous studies. At the same time, it is necessary to develop a specific plan for maintenance to ensure the quality and safety of the sports facilities system at the university.

- For the Youth Union and Student Union organizations of the university: it is necessary to coordinate and support the advertisement of the benefits of physical activities and sports to the audience. regularly organizes sports tournaments in the College, stimulating student participation. Besides, the Youth Union and Student Union need to coordinate with the media department to convey the latest research results related to health and sports. This information can be used to educate young people about ways physical activity can help them overcome inactivity-related problems.

- For the Ministry of Education and Training: The Ministry of Education needs to improve sports facilities and programs in universities, physical education curriculum strictly controlled to achieve a balance, consistency, flexibility, and development to all educational levels; at the same time providing adequate knowledge and practice to improve skill for students; forming and maintaining the regular exercise habits and participant in physical activities and sports, associated with ethical education, building a healthy lifestyle, rising awareness and qualities under physical, psychological and physiological characteristics, student's specific age and condition; At the same time, building awareness of the community about the importance of participating in sports activities in universities with other agencies such as the Ministry of

Health, Ministry of Culture, Sports and Tourism ... to create sports programs both inside and outside university's campuses.

- For relevant authorities (Ho Chi Minh City Department of Culture, Sports and Tourism, Sports Center, etc.): There should be some policies to increase participation in physical training and sports activities of members of the community in general and for students. Sport events should be facilitated to organize (such as Running Events). Additional facilities for sports activities in public places should be reviewed and equipped (parks, squares) to facilitate the sports practice of people.

- For the Board of Directors of Sports Clubs: it is necessary to develop a specific activity plan of the club for each year and clarify the aspects of the human resource plan, the organization of guidance, recruiting new members…. Actively interacting with other sports clubs and units. Prepare facilities to meet the requirements of efficient operation; The Board of Directors should regularly train and foster to improve its professional qualifications and skills.

- For students: students are the central object who will decide the level of their participation in physical activities and sports. In addition to actively participating in these activities (participating in clubs, actively choosing the right type ...), students need to promote their physical strengths to stimulate their excitement, maintaining and developing the best sport skill. Understanding the importance and benefits of physical activities and sports with health is the reason to stay active in people's lives.

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APPENDICES

APPENDICES

APPENDIX A: INFORMED CONSENT FORM

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM

Độc lập – Tự do – Hạnh phúc

BẢN THỎA THUẬN

V/v Tham gia công trình nghiên cứu

Họ và tên: ..... Ngày/tháng/năm sinh: .....

Trường: .....

Sau khi nghe hướng dẫn và giải thích kỹ về công trình nghiên cứu với tên đề tài: *Mô hình tham gia hoạt động thể chất và thể thao trong thời gian rảnh rỗi của sinh viên ở Thành phố Hồ Chí Minh(Model of physical activity and sport in leisure time of University student in Ho Chi Minh City),* của tác giả:

Nghiên cứu sinh: Lê Công Bằng

Đơn vị: Trường Đại học Srinakharinwirot, Thái Lan

Tôi tình nguyện tham gia chương trình nghiên cứu với tư cách là khách thể nghiên cứu và đồng ý với các điều sau:

1. Tôi tình nguyện làm khách thể nghiên cứu và hiểu rõ quyền lợi cùng nghĩa vụ.
2. Tôi sẽ cung cấp đầy đủ thông tin về sức khỏe của bản thân (nếu có của bản thân).
3. Tôi sẽ cung cấp đầy đủ và trung thực các thông tin phục vụ cho nghiên cứu.
4. Tôi nhất trí cho phép Ban chủ nhiệm đề tài toàn quyền sử dụng các dữ liệu thu được của bản thân tôi cho việc tính toán, thống kê và báo cáo khoa học.

Tôi hiểu được tầm quan trọng của công trình nghiên cứu, tôi xin đã cân nhắc kỹ trước khi quyết định và xin tình nguyện tham gia.

Tp.Hồ Chí Minh, ngày tháng năm

Người tham gia phỏng vấn

APPENDIX B-1: PRELIMINARY QUESTIONNAIRE (Vietnamese version)

SRINAKHARINWIROT UNIVERSITY

PHIẾU KHẢO SÁT
(Thử nghiệm)

Xin chào và chúc sức khoẻ các Bạn!!

Giáo dục thể chất và thể thao là một phương tiện hiệu quả để nâng cao sức khỏe, phát triển thể chất và trí tuệ cho sinh viên, giúp phát huy năng lực học tập. Tuy nhiên việc tham gia các hoạt động này của sinh viên tại một số Trường Đại học tại Việt Nam thực sự vẫn rất hạn chế. Việc tìm hiểu thực trạng, động cơ và hạn chế khi tham gia hoạt động thể chất và thể thao của sinh viên là bước nghiên cứu cần thiết nhằm cung cấp cơ sở khoa học để đề xuất các giải pháp phát triển hoạt động này, tạo sân chơi lành mạnh, phong phú cho sinh viên.

Để có những thông tin cho nghiên cứu, Bạn vui lòng trả lời những thông tin theo mẫu dưới đây. Những thông tin thu được từ Bạn là những dữ liệu quan trọng góp phần cho thành công của nghiên cứu này.

Tác giả cam kết thông tin mà Bạn cung cấp chỉ dùng cho nghiên cứu, không có bất cứ mục đích nào khác.

Xin chân thành cảm ơn Bạn.

I. THÔNG TIN CÁ NHÂN:

1. Giới tính:

□ Nam □ Nữ

2. Tuổi:

□ 18 Tuổi □ 19 Tuổi
□ 20 Tuổi □ 21 Tuổi □ 22 Tuổi

3. Năm học:

□ Năm nhất □ Năm hai
□ Năm 3 □ Năm tư □ Năm 5 và hơn

4. Trường học:

□ Đại học Hoa Sen □ Đại học Hồng Bàng
□ Đại học Công nghiệp TP.HCM
□ Đại học Sài Gòn □ Đại học Tôn Đức Thắng

5. Học lực năm vừa qua:

□ Xuất sắc □ Giỏi □ Khá □ Trung bình □ Yếu

6. Nơi ở:

□ Nhà trọ □ Kí túc xá □ Sống với gia đình □ Khác

7. Khu vực sinh sống:

□ Phía Bắc (Quận 12, Thủ Đức, Gò Vấp)
□ Phía Nam (Quận 6,7,8)
□ Phía Đông (Quận 9, 2)
□ Phía Tây (Quận Bình Tân, Tân Phú)
□ Trung tâm (Quận 1,3,4,5, 10, 11, Tân Bình, Phú Nhuận, Bình Thạnh)

8. Thu nhập mỗi tháng? (Gồm tổng nguồn thu của bạn: vd: từ việc làm thêm, từ gia đình,....)

□ <3.000.000 □ 4.000.000 – 5.000.000
□ 5.000.000 – 6.000.000 □ > 6.000.000

9. Cấp học của Cha/Mẹ bạn?

□ Trung học cơ sở và thấp hơn □ Trung học phổ thông
□ Cử nhân □ Thạc sĩ và cao hơn

10. Bạn có oto hay xe máy không?

□ Có □ Không

11. Gia đình bạn có ai là VĐV không?

□ Có □ Không

II. THỰC TRẠNG THAM GIA CÁC HOẠT ĐỘNG THỂ CHẤT VÀ THỂ THAO CỦA SINH VIEN

2.1. Nhìn chung, bạn tham gia các hoạt động thể chất và thể thao mấy lần một tuần?

Không tham gia	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Nhiều hơn 7 lần*

2.2. Bạn thường tham gia các hoạt động thể chất và thể thao vào thứ mấy trong tuần?

Thứ hai	*Thứ 3*	*Thứ 4*	*Thứ 5*	*Thứ 6*	*Thứ 7*	*Chủ nhật*	*Không tham gia**

Nếu "không tham gia", bạn vui lòng tiếp tục phần khảo sát từ mục số III.2 Xin cảm ơn.

2.3. Bạn thường tham gia các hoạt động thể chất và thể thao vào thời điểm nào trong ngày?

□ Buổi sáng □ Buổi trưa □ Buổi chiều □ Buổi tối

2.4. Thời gian tham gia một lần (buổi) hoạt động thể chất và thể thao của Bạn?

□ Dưới 30 phút □ Từ 30 – dưới 60 phút
□ Từ 60 phút – dưới 90 phút □ Trên 90 phút

2.5. Địa điểm tham gia hoạt động thể chất và thể thao của Bạn?

□ Tại các câu lạc bộ □ Tại Trường □ Tại chỗ ở (nhà)
□ Đường phố □ Khác .....

2.6. Bạn di chuyển từ nơi ở đến địa điểm tập luyện bằng phương tiện gì?

□ Xe bus □ Xe máy □ Oto □ Đi bộ □ Xe đạp

2.7. Hiện tại bạn có đang tham gia vào tổ chức về hoạt động thể chất, thể thao nào không?

□ Đang tham gia □ Từng tham gia □ Chưa bao giờ tham gia

2.8. Bạn thường tham gia các hoạt động thể chất/thể thao với ai?

□ Một mình □ Friends □ Parent
□ Anh, chị em □ Người yêu

2.9. Ai khuyến khích bạn tham gia vào hoạt động thể chất, thể thao?

□ Bạn bè □ Cha, mẹ □ Anh em
□ Người yêu □ GV thể dục 6□ Huấn luyện viên
□ Tự bản thân

2.10. Trường bạn có đủ cơ sở vật chất cho hoạt động thể chất, thể thao yêu thích của bạn không?

□ Có đủ □ Không

2.11. Bạn có được sử dụng cơ sở vật chất của Trường cho hoạt động thể chất, thể thao yêu thích của mình không?

□ Có □ Không

2.12. Gia đình bạn tin vào những lợi ích mà hoạt động thể chất, thể thao mang lại?

□ Rất không tin □ Không tin □ Trung lập □ Tin □ Hoàn toàn tin

2.13. Các loại hình hoạt động thể chất và thể thao.

Bạn vui lòng cho biết 3 loại hình hoạt động thể chất và thể thao mà bản thân tham gia nhiều

nhất bằng cách đánh dấu vào ô lựa chọn:

***Lưu ý: Chỉ chọn 3 loại hình.**

TT	Loại hình thể chất và thể thao	Lựa chọn	TT	Loại hình thể chất và thể thao	Lựa chọn
1	Bóng đá		13	Nhảy	
2	Yoga		14	Du lịch thể thao	
3	Bóng chuyền		15	Bóng ném	
4	Bóng rổ		16	Bóng bầu dục	
5	Quần vợt		17	Hockey	
6	Bóng bàn		18	Chạy bộ	
7	Bơi lội		19	Võ thuật	
8	Đi bộ		20	Xe đạp	
9	Gym		21	Bi-da	
10	Aerobics		22	Thể thao điện tử	
11	Patin		23	Leo núi	
12	Bóng chày		24	Khác:.....	

III. Động cơ và trở ngại khi tham gia hoạt động thể chất và thể thao

3.1. Hãy cho biết động cơ nào khiến bạn tham gia các hoạt động thể chất và thể thao, bằng cách trả lời theo các mức độ liệt kê dưới đây:

1. Rất không đồng ý *3. Không chắc chắn* *4. Đồng ý*

2. Không đồng ý *5. Rất đồng ý*

TT	Động cơ	Mức độ đồng ý				
1	Nó làm cho tôi cảm thấy mệt mỏi	5	4	3	2	1
2	Tôi muốn giảm hoặc duy trì cân nặng	5	4	3	2	1
3	Tôi muốn đối phó tốt hơn với căng thẳng	5	4	3	2	1
4	Tôi muốn cải thiện ngoại hình của mình	5	4	3	2	1
5	Tôi muốn có nhiều năng lượng hơn	5	4	3	2	1
6	Tôi muốn xác định cơ bắp của mình	5	4	3	2	1
7	Tôi muốn hấp dẫn người khác	5	4	3	2	1
8	Tôi muốn cải thiện vóc dáng của mình	5	4	3	2	1
9	Tôi sẽ cảm thấy xấu xí nếu tôi không	5	4	3	2	1
10	Tôi muốn cải thiện sức khỏe tim mạch	5	4	3	2	1
11	Tôi muốn trở nên tốt hơn trong hoạt động của mình	5	4	3	2	1
12	Tôi thích cuộc thi	5	4	3	2	1
13	Tôi muốn đạt được những kỹ năng mới	5	4	3	2	1
14	Tôi muốn cải thiện các kỹ năng hiện có	5	4	3	2	1
15	Tôi thích thử thách	5	4	3	2	1
16	Tôi muốn duy trì trình độ kỹ năng hiện tại của mình	5	4	3	2	1
17	Tôi thích sự hào hứng khi tham gia	5	4	3	2	1
18	Nó vui	5	4	3	2	1
19	Tôi nghĩ nó thú vị	5	4	3	2	1
20	Nó làm tôi vui	5	4	3	2	1
21	Tôi thích làm hoạt động này	5	4	3	2	1
22	Tôi thấy hoạt động này kích thích	5	4	3	2	1
23	Tôi thích hoạt động này	5	4	3	2	1

3.2. Hãy cho biết ý kiến của bạn với yếu tố gây trở ngại đến việc tham gia các hoạt động thể chất và thể thao, bằng cách trả lời theo các mức độ liệt kê dưới đây:

1. Rất không đồng ý *3. Không chắc chắn* *4. Đồng ý*

2. Không đồng ý *5. Rất đồng ý*

TT	Trở ngại	Mức độ đồng ý				
1	Nó làm cho tôi cảm thấy mệt mỏi	5	4	3	2	1
2	Tôi sợ bị thương	5	4	3	2	1
3	Tôi không hài lòng trong các tình huống xã hội	5	4	3	2	1
4	Tôi cảm thấy quá mệt mỏi để giải trí	5	4	3	2	1
5	Tôi có vấn đề liên quan đến sức khỏe	5	4	3	2	1
6	Tôi không tự tin	5	4	3	2	1
7	Nó không đủ mạnh đối với tôi	5	4	3	2	1
8	Tôi không biết tham gia ở đâu	5	4	3	2	1
9	Tôi không có ai dạy tôi	5	4	3	2	1
10	Tôi không biết tôi có thể học nó ở đâu	5	4	3	2	1
11	Kỹ năng của tôi còn thiếu	5	4	3	2	1
12	Cơ sở vật chất được bảo quản kém	5	4	3	2	1
13	Cơ sở vật chất đông đúc	5	4	3	2	1
14	Cơ sở vật chất thiếu thốn (không đủ hoặc một số cơ sở không có sẵn)	5	4	3	2	1
15	Tôi không thích các hoạt động được cung cấp	5	4	3	2	1
16	Thời gian biểu của chương trình không phù hợp với tôi	5	4	3	2	1
17	Việc vận chuyển mất quá nhiều thời gian	5	4	3	2	1
18	Không có cơ hội nào gần nhà tôi	5	4	3	2	1
19	tôi không có ô tô	5	4	3	2	1
20	Tôi không đủ khả năng chi trả, lệ phí đắt đỏ	5	4	3	2	1
21	Tôi đã không thích hoạt động này trong quá khứ	5	4	3	2	1
22	Tôi không muốn làm gián đoạn công việc của mình	5	4	3	2	1
23	Tôi không hứng thú	5	4	3	2	1
24	Bạn bè của tôi không có thời gian	5	4	3	2	1
25	Không có ai để tham gia với tôi	5	4	3	2	1
26	Bạn bè của tôi không thích hoạt động thể chất	5	4	3	2	1
27	Tôi không có thời gian vì nhu cầu của gia đình	5	4	3	2	1
28	Tôi không có thời gian vì học tập	5	4	3	2	1
29	Tôi không có thời gian do các cam kết xã hội	5	4	3	2	1

Xin chân thành cảm ơn!!

APPENDIX B-2: QUESTIONNAIRE (Vietnamese version)

SRINAKHARINWIROT UNIVERSITY

PHIẾU KHẢO SÁT
(Chính thức)

Xin chào và chúc sức khoẻ các Bạn!!

Giáo dục thể chất và thể thao là một phương tiện hiệu quả để nâng cao sức khỏe, phát triển thể chất và trí tuệ cho sinh viên, giúp phát huy năng lực học tập. Tuy nhiên việc tham gia các hoạt động này của sinh viên tại một số Trường Đại học tại Việt Nam thực sự vẫn rất hạn chế. Việc tìm hiểu thực trạng, động cơ và hạn chế khi tham gia hoạt động thể chất và thể thao của sinh viên là bước nghiên cứu cần thiết nhằm cung cấp cơ sở khḥa học để đề xuất các giải pháp phát triển hoạt động này, tạo sân chơi lành mạnh, phong phú cho sinh viên.

Để có những thông tin cho nghiên cứu, Bạn vui lòng trả lời những thông tin theo mẫu dưới đây. Những thông tin thu được từ Bạn là những dữ liệu quan trọng góp phần cho thành công của nghiên cứu này.

Tác giả cam kết thông tin mà Bạn cung cấp chỉ dùng cho nghiên cứu, không có bất cứ mục đích nào khác.

Xin chân thành cảm ơn Bạn.

I. THÔNG TIN CÁ NHÂN:

1. Giới tính:

□ Nam □ Nữ

2. Tuổi:

□ 18 Tuổi □ 19 Tuổi
□ 20 Tuổi □ 21 Tuổi □ 22 Tuổi

3. Năm học:

□ Năm nhất □ Năm hai
□ Năm 3 □ Năm tư □ Năm 5 và hơn

4. Trường học:

□ Đại học Hoa Sen □ Đại học Hồng Bàng
□ Đại học Công nghiệp TP.HCM
□ Đại học Sài Gòn □ Đại học Tôn Đức Thắng

5. Học lực năm vừa qua:

□ Xuất sắc □ Giỏi □ Khá □ Trung bình □ Yếu

6. Nơi ở:

□ Nhà trọ □ Kí túc xá □ Sống với gia đình □ Khác

7. Khu vực sinh sống:

□ Phía Bắc (Quận 12, Thủ Đức, Gò Vấp)
□ Phía Nam (Quận 6,7,8)
□ Phía Đông (Quận 9, 2)
□ Phía Tây (Quận Bình Tân, Tân Phú)
□ Trung tâm (Quận 1,3,4,5, 10, 11, Tân Bình, Phú Nhuận, Bình Thạnh)

8. Thu nhập mỗi tháng? (Gồm tổng nguồn thu của bạn: vd: từ việc làm thêm, từ gia đình,....)

□ <3.000.000 □ 4.000.000 – 5.000.000
□ 5.000.000 – 6.000.000 □ > 6.000.000

9. Cấp học của Cha/Mẹ bạn?

□ Trung học cơ sở và thấp hơn □ Trung học phổ thông
□ Cử nhân □ Thạc sĩ và cao hơn

10. Bạn có oto hay xe máy không?

□ Có □ Không

11. Gia đình bạn có ai là VĐV không?

□ Có □ Không

II. THỰC TRẠNG THAM GIA CÁC HOẠT ĐỘNG THỂ CHẤT VÀ THỂ THAO CỦA SINH VIEN

2.1. Nhìn chung, bạn tham gia các hoạt động thể chất và thể thao mấy lần một tuần?

Không tham gia	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Nhiều hơn 7 lần*

2.2. Bạn thường tham gia các hoạt động thể chất và thể thao vào thứ mấy trong tuần?

Thứ hai	*Thứ 3*	*Thứ 4*	*Thứ 5*	*Thứ 6*	*Thứ 7*	*Chủ nhật*	*Không tham gia**

Nếu "không tham gia", bạn vui lòng tiếp tục phần khảo sát từ mục số III.2 Xin cảm ơn.

2.3. Bạn thường tham gia các hoạt động thể chất và thể thao vào thời điểm nào trong ngày?

□ Buổi sáng □ Buổi trưa □ Buổi chiều □ Buổi tối

2.4. Thời gian tham gia một lần (buổi) hoạt động thể chất và thể thao của Bạn?

□ Dưới 30 phút □ Từ 30 – dưới 60 phút
□ Từ 60 phút – dưới 90 phút □ Trên 90 phút

2.5. Địa điểm tham gia hoạt động thể chất và thể thao của Bạn?

□ Tại các câu lạc bộ □ Tại Trường □ Tại chỗ ở (nhà)
□ Đường phố □ Khác .....

2.6. Bạn di chuyển từ nơi ở đến địa điểm tập luyện bằng phương tiện gì?

□ Xe bus □ Xe máy □ Oto □ Đi bộ □ Xe đạp

2.7. Hiện tại bạn có đang tham gia vào tổ chức về hoạt động thể chất, thể thao nào không?

□ Đang tham gia □ Từng tham gia □ Chưa bao giờ tham gia

2.8. Bạn thường tham gia các hoạt động thể chất/thể thao với ai?

□ Một mình □ Friends □ Parent
□ Anh, chị em □ Người yêu

2.9. Ai khuyến khích bạn tham gia vào hoạt động thể chất, thể thao?

□ Bạn bè □ Cha, mẹ □ Anh em
□ Người yêu □ GV thể dục 6□ Huấn luyện viên
□ Tự bản thân

2.10. Trường bạn có đủ cơ sở vật chất cho hoạt động thể chất, thể thao yêu thích của bạn không?

□ Có đủ □ Không

2.11. Bạn có được sử dụng cơ sở vật chất của Trường cho hoạt động thể chất, thể thao yêu thích của mình không?

□ Có □ Không

2.12. Gia đình bạn tin vào những lợi ích mà hoạt động thể chất, thể thao mang lại?

□ Rất không tin □ Không tin □ Trung lập □ Tin □ Hoàn toàn tin

2.13. Các loại hình hoạt động thể chất và thể thao.

Bạn vui lòng cho biết 3 loại hình hoạt động thể chất và thể thao mà bản thân tham gia nhiều nhất bằng cách đánh dấu vào ô lựa chọn:

***Lưu ý: Chỉ chọn 3 loại hình.**

TT	Loại hình thể chất và thể thao	Lựa chọn	TT	Loại hình thể chất và thể thao	Lựa chọn
1	Bóng đá		13	Nhảy	
2	Yoga		14	Du lịch thể thao	
3	Bóng chuyền		15	Bóng ném	
4	Bóng rổ		16	Bóng bầu dục	
5	Quần vợt		17	Hockey	
6	Bóng bàn		18	Chạy bộ	
7	Bơi lội		19	Võ thuật	
8	Đi bộ		20	Xe đạp	
9	Gym		21	Bi-da	
10	Aerobics		22	Thể thao điện tử	
11	Patin		23	Leo núi	
12	Bóng chày		24	Khác:.....	

III. Động cơ và trở ngại khi tham gia hoạt động thể chất và thể thao

3.1. Hãy cho biết động cơ nào khiến bạn tham gia các hoạt động thể chất và thể thao, bằng cách trả lời theo các mức độ liệt kê dưới đây:

1. Rất không đồng ý *3. Không chắc chắn* *4. Đồng ý*

2. Không đồng ý *5. Rất đồng ý*

TT	Động cơ	Mức độ đồng ý				
1	Tôi muốn giảm hoặc duy trì cân nặng	5	4	3	2	1
2	Tôi muốn đối phó tốt hơn với căng thẳng	5	4	3	2	1
3	Tôi muốn cải thiện ngoại hình của mình	5	4	3	2	1
4	Tôi muốn có nhiều năng lượng hơn	5	4	3	2	1
5	Tôi muốn hấp dẫn người khác	5	4	3	2	1
6	Tôi muốn cải thiện vóc dáng của mình	5	4	3	2	1
7	Tôi sẽ cảm thấy xấu xí nếu tôi không	5	4	3	2	1
8	Tôi muốn cải thiện sức khỏe tim mạch	5	4	3	2	1
9	Tôi muốn trở nên tốt hơn trong hoạt động của mình	5	4	3	2	1
10	Tôi thích cuộc thi	5	4	3	2	1
11	Tôi muốn đạt được những kỹ năng mới	5	4	3	2	1
12	Tôi thích thử thách	5	4	3	2	1
13	Tôi muốn duy trì trình độ kỹ năng hiện tại của mình	5	4	3	2	1
14	Tôi thích sự hào hứng khi tham gia	5	4	3	2	1
15	Nó vui	5	4	3	2	1
16	Tôi nghĩ nó thú vị	5	4	3	2	1
17	Nó làm tôi vui	5	4	3	2	1
18	Tôi thích làm hoạt động này	5	4	3	2	1
19	Tôi thấy hoạt động này kích thích	5	4	3	2	1
20	Tôi thích hoạt động này	5	4	3	2	1

3.2. Hãy cho biết ý kiến của bạn với yếu tố gây trở ngại đến việc tham gia các hoạt động thể chất và thể thao, bằng cách trả lời theo các mức độ liệt kê dưới đây:

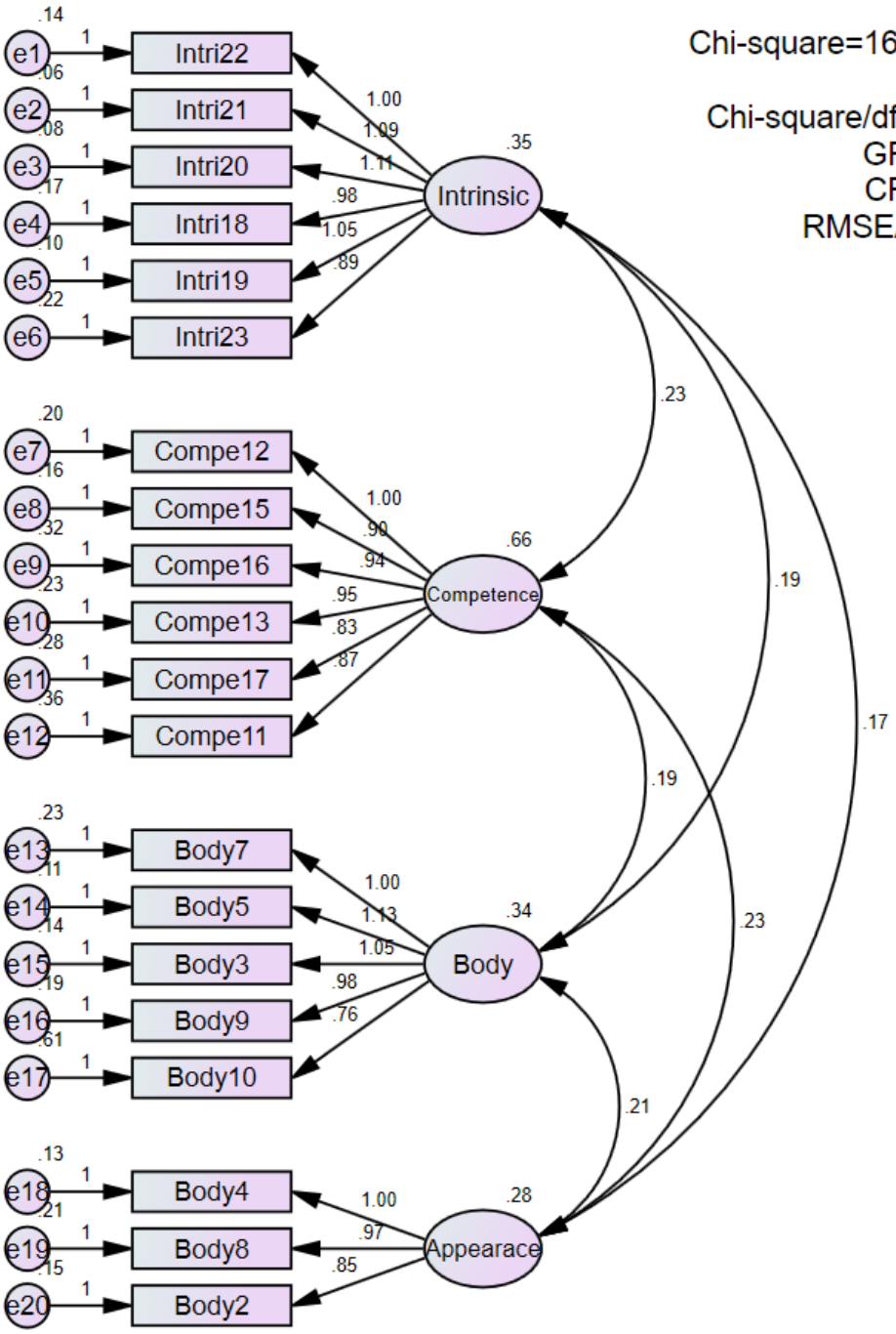
1. Rất không đồng ý *3. Không chắc chắn* *4. Đồng ý*

2. Không đồng ý *5. Rất đồng ý*

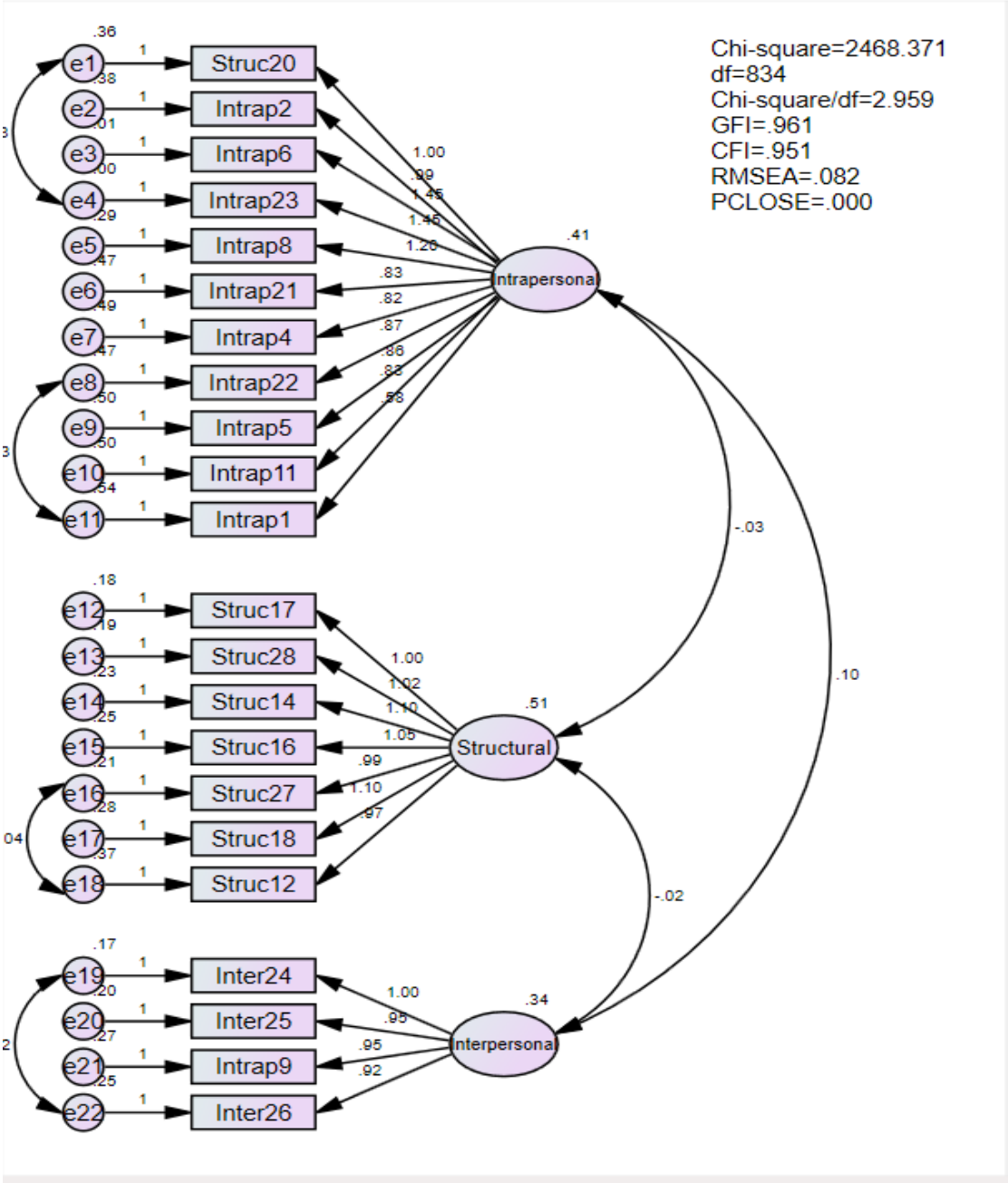
TT	Trở ngại	Mức độ đồng ý				
1	Nó làm cho tôi cảm thấy mệt mỏi	5	4	3	2	1
2	Tôi sợ bị thương	5	4	3	2	1
3	Tôi cảm thấy quá mệt mỏi để giải trí	5	4	3	2	1
4	Tôi có vấn đề liên quan đến sức khỏe	5	4	3	2	1
5	Tôi không tự tin	5	4	3	2	1
6	Tôi không biết tham gia ở đâu	5	4	3	2	1
7	Tôi không có ai dạy tôi	5	4	3	2	1
8	Kỹ năng của tôi còn thiếu	5	4	3	2	1
9	Cơ sở vật chất được bảo quản kém	5	4	3	2	1
10	Cơ sở vật chất thiếu thốn (không đủ hoặc một số cơ sở không có sẵn)	5	4	3	2	1
11	Thời gian biểu của chương trình không phù hợp với tôi	5	4	3	2	1
12	Việc vận chuyển mất quá nhiều thời gian	5	4	3	2	1
13	Không có cơ hội nào gần nhà tôi	5	4	3	2	1
14	Tôi không đủ khả năng chi trả, lệ phí đắt đỏ	5	4	3	2	1
15	Tôi đã không thích hoạt động này trong quá khứ	5	4	3	2	1
16	Tôi không muốn làm gián đoạn công việc của mình	5	4	3	2	1
17	Tôi không hứng thú	5	4	3	2	1
18	Bạn bè của tôi không có thời gian	5	4	3	2	1
19	Không có ai để tham gia với tôi	5	4	3	2	1
20	Bạn bè của tôi không thích hoạt động thể chất	5	4	3	2	1
21	Tôi không có thời gian vì nhu cầu của gia đình	5	4	3	2	1
22	Tôi không có thời gian vì học tập	5	4	3	2	1

Xin chân thành cảm ơn!!

APPENDIX C-1: MODEL OF SCALE TO MEASURE MOTIVATION TO PARTICIPATE IN PHYSICAL AND SPORTS ACTIVITIES OF STUDENTS IN HO CHI MINH CITY (UNSTANDARDIZED ESTIMATES)



APPENDIX C-2: MODEL OF SCALE TO MEASURE CONSTRAINT TO PARTICIPATE IN PHYSICAL AND SPORTS ACTIVITIES OF STUDENTS IN HO CHI MINH CITY (UNSTANDARDIZED ESTIMATES)



VITA

NAME	MR. LE CONG BANG
DATE OF BIRTH	29 April 1988
PLACE OF BIRTH	The Socialist Republic of Vietnam