



ATTITUDE TOWARDS CASINO GAMBLING, MATERIALISM, AND  
RELIGIOSITY AMONG THAI BUDDHIST UNDERGRADUATE  
STUDENTS OF ASSUMPTION UNIVERSITY

MUTTHANA SUWANNATARN

A Thesis Submitted in Partial Fulfillment  
of the Requirements for the Degree of

MASTER OF ARTS IN FAMILY AND INDIVIDUAL STUDIES

Graduate School of Psychology  
ASSUMPTION UNIVERSITY  
Thailand

2008

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Yutthana Suwannatarn

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The primary purpose of this study was to explore the interrelationship among attitude towards casino gambling, materialism, and religiosity among Thai Buddhist undergraduate students of Assumption University of Thailand.

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ABSTRACT

This study examined interrelationship among attitude towards casino gambling, materialism, and religiosity among 530 Thai Buddhist undergraduate students of Assumption University. It utilized a descriptive research design in which information was derived from a self-administered research instrument consisting of: a researcher-constructed personal information questionnaire, the Casino Attitudes Scale (CAS), the Material Values Scale (MVS), and the Duke Religion Index (DRI).

Results of hypothesis testing revealed the following findings: a) significant difference in attitude towards casino gambling in terms of gender, and frequency of temple attendance, but no significant difference in terms of age, monthly family income, and cumulative GPA; b) no significant difference in materialism in terms of age, cumulative GPA, and frequency of temple attendance, although there is a significant difference in materialism in terms of gender and monthly family income; c) a significant difference in religiosity in terms of frequency of temple attendance, but no significant difference as a function of gender, age, monthly family income, and cumulative GPA; d) a significant low positive relationship between attitude towards casino gambling and materialism; e) a significant low positive relationship between attitude towards casino gambling and religiosity; and f) no significant relationship between materialism and religiosity.

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## CHAPTER I

### Introduction

The global gambling industry is a huge and growing market. Once thought to be a shady and corrupt business, gambling has become a legitimate industry in an increasing number of countries (or states within a country) such as USA, UK, Australia, and China. In 2003, the national lottery sales in the United States alone totaled US\$45 billion (NASPL, 2005). In Australia, the gambling industry accounts for an estimated 1.5% of its Gross Domestic Product, and employs over 100,000 people in more than 7,000 businesses (Productivity Commission, 1999). The annual expenditure on all major forms of legal gambling in New Zealand was more than US\$2 billion in 2003/04 period, with a turnover at approximately US\$18 billion (DIA, 2004). Government-approved lottery games are also available to 95% of China's cities and counties, with a forecasted annual ticket sales approaching US\$20 billion by 2006 (Access Asia Limited, 2002, all as cited in Lam, 2006).

Gambling is often considered a controversial issue with strong advocates on both sides. Proponents of legalized gambling argue that for most people it is a harmless diversion, and that individuals should be free to spend their money as they wish. Perhaps the most common arguments for legalized gambling focus on its accompanying economic benefits, especially in poorer communities that use gambling to attract investment and jobs. Cities and states can use legalized gambling to generate tax revenue that supports specific public services, such as education. Supporters also argue that gambling attracts tourism, and that restrictions simply divert the potential tax revenues to illegal gambling operations or to other regions where the practice is legal. Opponents of gambling counter that it attracts a variety of social ills that damage



society. Gambling can become a compulsive habit, ruining the lives of people who run up huge debts or gamble away their personal or family income and savings. Studies (e.g. Fisher, 2000) suggested anywhere from 1 to 5 percent of the adult population can be considered “problem gamblers,” and society must pay at least a part of the resulting costs related to lost productivity, psychological counseling, and other services. Research has also shown that gambling disproportionately affects the lower economic rungs of society and that problem gambling is higher in these communities. In particular, Native American gambling addiction has soared as gaming expands on reservations. Gamblers Anonymous, an organization that provides support for compulsive gamblers, has chapters across the United States and in more than 30 other countries. Another problem is crime, which can increase in communities where gambling is legal. Problem gamblers sometimes turn to criminal activity to support their habit, and violent crime rates can also rise in some cases when gambling is legalized. Corruption of government and law enforcement officials is another issue associated with gambling. The gambling industry often contributes heavily to political campaigns in the hopes of influencing legislation and expanding operations in those areas. In response to gambling’s economic benefits, opponents say that gambling tends to attract more money from the local community than from tourists, so the industry is simply absorbing revenue that would otherwise be spent on other forms of entertainment or on basic goods and services. They also point out that funding for local or state government services from gambling often simply replaces other sources of tax revenue. Rather than using the gambling money as an extra source of funding, state legislators cut back or eliminate other sources of tax revenue, knowing that lotteries will make up the difference. This method can backfire when gambling revenues fluctuate from year to year or experience declines (Thompson, 2008).

A source of inspiration for this study was a recent article published in an English daily newspaper of Thailand which featured the current Thai Prime Minister Samak Sundaravej declaring that he plans to open casinos in five provinces in the country. In response, opponents cited their own experiences. Some said their children were addicted to gambling even though it is still illegal. Other critics went as far as bringing out the question of morality (The Nation, March 6, 2008).

The current researcher believes that these reactions to the article are not surprising as Thailand is predominantly a Buddhist country. In support of this, Binde (2007) asserted that, according to orthodox Buddhist doctrine, gambling is an activity that leads away from the proper path of spiritual development, and all forms of gambling, except lotteries, are illegal in Thailand. Furthermore, in an editorial article in the July, 2008 edition of the Reader's Digest, it was stated that 93% surveyed participants expressed that the Buddhist temple could be a good place as the emotional attachment to it may facilitate the maintenance of a healthier life style while 53% hold the opinion that teaching principles and religious practices and beliefs are important in daily-life functioning (Reader's Digest, July 2008).

The Bangkok Post (2008) reported that, according to ABAC Poll survey (2008), nearly 400,000 teenagers and young adults are estimated to have placed wagers on the Euro 2008 football tournament so far, with half the matches still to be played. Also worrying is that 83.8% of those polled said they see football betting as a common and acceptable practice these days, while just 16.2% thought it was immoral. The ABAC Poll Research Centre's June 1-14 findings were based on responses from 2,910 people aged between 12 and 24 years residing in Bangkok and neighboring provinces. As many as 77.7% of the respondents said they also had close acquaintances accepting bets on the games, while 41.3% said they had had little sleep since the start of the

tournament. Most interestingly, 65.2% of respondents thought tough police action to discourage young people from gambling on football was unlikely to pay off. They believed habitual gamblers would continue to defy them (Bangkok Post, June 16, 2008).

It is argued that gambling and religion have certain elements in common: notions of the unknown, mystery, and fate, as well as imagery of suddenly receiving something of great value that changes life for the better. In many traditional cultures, gambling has existed in concord with polytheistic and animistic religion; gambling and religion go well together precisely because of the elements they have in common. Monotheistic religions that claim authority in religious and transcendental matters, however, tend to denounce gambling, and this disapproval has been strengthened by a conception that gambling offers a wicked alternative to certain religious notions and experiences. The elements that gambling and religion share have thus become a source of conflict (Binde, 2007).

The present researcher believes that, in his religious perception on gambling, no religion supports the legalization of gambling activities including *casino gambling*. Most of the largest religions such as Islam consider it as a sin. Besides, they believe that it is also a source of creating problem in the society. But on the other side, the researcher accepts that even some believers think that it can bring some benefit to the society. Religion can have considerable influence on individuals' values, beliefs, habits and, hence, consumer decision behavior (Lam, 2006). In many ways, religion defines the ideals for life (Fam et al., 2004) and provides a sense of meaning as well as purpose for individuals (Peterson & Roy, 1985). Religion is, hence, an interpretation of life that deals with people's values (all as cited in Lam, 2006). Raj (1993) indicated that some persons orient their lives primarily to the pursuit of material goods. In spite of the fact

that *materialism* plays an important role in the possession and consumption of objects and is found among both rich and poor, developed and less developed countries. The goal of acquisition of material goods may be to achieve happiness and satisfaction in life. However, according to Swinyard, Kau, and Phua (2001), happiness is not associated with people's material accumulation but with their perceived inner world. And happy people see their religion not so much as something they "do" as what they "are." Religious teachings tend to focus on the joy of giving, sharing and sacrificing, leading, it is said, to joy; while "having" or hanging on to possessions may result in sadness. Therefore, *religiosity* and materialism are juxtaposed here because evidence suggests they may be opposite in nature. Excessive materialism has long been criticized as being incompatible with religious fulfillment, and studies have reported negative relationship between materialism and religiosity.

It has been implied earlier that gambling and religion have certain elements in common, and that gambling has even existed in concord within certain religious spheres. But it was also implied that some religions denounce gambling because of its 'wicked' effects, as suggested by Binde (2007). These conflicting statements on the dynamics between materialism and religion have convinced the current researcher to pursue the discussion on the phenomena of gambling, specifically perceptions about casino gambling, materialistic tendencies, and religious behavior.

### *Background of the Study*

In the past, gambling was considered illegal in Thailand. The government did not support or encourage the legal opening of a casino or gambling house as it was considered to be against public morality. Opponents to casino legalization said it would go against the religious and moral standards that Thais believe in. Basically, it is

believed that casino gambling will lead to immoral actions such as overspending, creating debts, broken families, and robbery. The majority of Thais are Buddhists and they believe the issue of casino legalization may have an impact on the society, people, and culture.

This researcher is currently the Deputy Director of the Office of the University Registrar at Assumption University. Part of his responsibilities includes handling student probation problems, advising, and assisting students on matters pertaining to university affairs as well as providing advice to parents in relation to their children's performance at school which may encompass problems such as drop out, missing school, poor academic achievement, interpersonal relationships as well as forms of addiction (internet gambling and games, drugs, etc.). At the same time, the researcher is a graduate student of Individual and Family Studies under the psychology department. For personal and professional reasons, the researcher had taken upon himself the challenge of empirically investigating the dynamics between casino gambling, materialism, and religiosity among students, particularly Thai Buddhist undergraduate students. It is anticipated that the current study will be of great benefit not only to students as members of society but also to parents as stakeholders and as members of the community, to school administrators, school counselors, as well as other behavioral researchers.

### *Statement of the Problem*

According to Lam (2006), there has been no research that has simultaneously investigated the impact of religiosity across the various forms of games like casino, lotto, bingo, and track racing. While research on consumer gambling is extensive, many gaps remain. Their consumption behavior deserves greater attention than it is presently



given. Brown, Roseman, and Ham (2003, as cited in Lam, 2006) lamented that an important area of research that was often neglected by past gambling researchers is the influence of religiosity on consumers' regular gambling attitudes and behavior. This is unusual, given the popularity of gambling across multicultures around the world. A recent survey by Associated Press found that nearly all US respondents said faith is important to them and only 2% said they do not believe in God (Zoll, 2005). If so, one wonders if such religious devotion can potentially influence gambling participation (as cited in Lam, 2006).

In Thailand, there is still the ongoing debate on the opinion of people throughout the country towards the legal opening of casino houses. There are both proponents and opponents. According to Apithanakoon (2003), there is still the existence of different ideas among people concerning such issues which have not yet been settled.

Given the lack of studies on the influence of religion and consumption behavior in terms of level of materialism on people's general attitude towards casino gambling, this researcher attempted to bridge the knowledge gap by exploring the interrelationship between these aspects. In addition, because of his position and responsibilities in Assumption University, the researcher deemed it necessary to find out these interrelationships from the point of view of the university's undergraduate students. He believed that a study of this nature would have wide-ranging implications not only on students but also on parents, school administrators, and the wider society. Furthermore, is anticipated that this study will add to the literature by putting emphasis on the three main phenomena and on the differences in these variables as a function of certain demographic characteristics of the study group.

### *Demographic variables.*

The researcher selected the given demographic variables on the basis of some related studies on gambling, materialism, and religiosity which employed similar demographics, suggesting that they are valid characteristics that may influence the main variables of the study. Lam (2006) asserted that, under the sociocognitive paradigm, gambling behavior differs according to demographics and psychographics. Gamblers are pictured to have varying characteristics such as personalities, perceptions, and beliefs according to their demographics. For example, the study of Welte et al. (2002) found that *men and women* were equally likely to gamble, but men gambled more frequently and had larger wins and losses, particularly on sports betting and games of skill. It was also discovered that the rate of gambling declined with *age*, but extent of gambling involvement among gamblers did not vary with age. Rates of participation in most forms of gambling increased with *socioeconomic status*, but higher socioeconomic status gamblers had lower rates of pathological gambling and lower extent of gambling involvement.

Materialism can vary significantly across demographics, as supported by the research of Sahdev and Gautama (2007) which indicated that there is a slight difference between the males' and females' tendencies for difference in preferences on apparel purchase. The males had a higher average score. This means that there is a difference between the materialistic tendencies of males and females, and that males tend to be more materialistic.

According to Zock (1997, as cited in Myers, 2007), *religiosity* varied significantly as a function of demographics (such as age and gender), as supported by Erik Erikson's theory that proposed that gender differences have existed in religious behavior. Erikson believed individuals are bisexual; therefore, both feminine and

masculine modes have existed in men and women. More specifically, Abdel-Khalek (2006) found that women are more religious than men in the Muslim culture. Men were also less intrinsically religious than women (Ghorpade, Lackritz, & Singh, 2006), and men with feminine characteristics were more intrinsically religious than men without feminine characteristics (Thompson & Remmes, 2002) (all as cited in Myers, 2007).

In addition, this researcher decided to add the demographic of cumulative Grade Point Average, and frequency of temple attendance for a more holistic profile of the student group.

In view of the problem statements, the following questions were raised:

1. Are there differences in the students' attitude towards casino gambling, level of materialism, and level of religiosity as influenced by the selected personal characteristics?
2. What are the interrelationships among the students' attitude towards casino gambling, level of materialism, and level of religiosity?

#### *Purpose of the Study*

The primary purpose of this study was to examine the interrelationship among attitude towards casino gambling, materialism, and religiosity among Thai Buddhist undergraduate students of Assumption University. The secondary purpose of this study was to examine the variance in these three phenomena across different categories of gender, age, monthly family income, cumulative Grade Point Average (GPA), and frequency of temple attendance.

### *Research Hypotheses*

Based on the basic questions and purposes of this study, the following research hypotheses (in their null and alternative forms) were formulated for testing:

*H<sub>01</sub>*: There are no significant differences in the attitude towards casino gambling among Thai Buddhist undergraduate students of Assumption University as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.

*H<sub>a1</sub>*: There are significant differences in the attitude towards casino gambling among Thai Buddhist undergraduate students of Assumption University as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.

*H<sub>02</sub>*: There are no significant differences in the level of materialism among Thai Buddhist undergraduate students of Assumption University as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.

*H<sub>a2</sub>*: There are significant differences in the level of materialism among Thai Buddhist undergraduate students of Assumption University as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.

*H<sub>03</sub>*: There are no significant differences in the level of religiosity among Thai Buddhist undergraduate students of Assumption University as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.

*H<sub>a3</sub>*: There are significant differences in the level of religiosity among Thai Buddhist undergraduate students of Assumption University as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.

*Ho4:* There is no significant relationship between attitude towards casino gambling and level of materialism among Thai Buddhist undergraduate students of Assumption University.

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*Ha4:* There is a significant relationship between attitude towards casino gambling and level of materialism among Thai Buddhist undergraduate students of Assumption University.

*Ho5:* There is no significant relationship between attitude towards casino gambling and level of religiosity among Thai Buddhist undergraduate students of Assumption University.

*Ha5:* There is a significant relationship between attitude towards casino gambling and level of religiosity among Thai Buddhist undergraduate students of Assumption University.

*Ho6:* There is no significant relationship between level of materialism and level of religiosity among Thai Buddhist undergraduate students of Assumption University.

*Ha6:* There is a significant relationship between level of materialism and level of religiosity among Thai Buddhist undergraduate students of Assumption University.

#### *Significance of the Study*

It is anticipated that the results of this study would prove valuable to a number of individuals and groups in certain ways. Specifically, the study would benefit students, parents, teachers, school administrators, helping professionals such as school counselors and psychologists as well as other researchers. Firstly, students would benefit from this study as it would give them theoretical perspectives on attitudes toward gambling and the possible impact of materialism and religiosity on these attitudes. The researcher believed that having this information would help them in the



process of value formation and clarification towards a more holistic moral development. For similar reasons, the study would also benefit the students' parents; in addition, the parents would be in a better position to assist in the moral development of their children. The results of this study would serve as additional knowledge for teachers, school administrators, and helping professionals such as counselors and psychologists towards a better understanding of the students in terms of their attitudes and values. Finally, the study could serve as a useful resource material and database for other behavioral researchers who are interested in the same study variables and who may be in a better position to conduct more extensive studies.

### *Definition of Terms*

In this section, certain terms in the study that required clarification are defined in their general and/or operational sense.

#### *Casino*

'Casino' is a public room or building for gambling and other entertainment often referred to as a gambling establishment (Sims, 2007). Casinos are physical establishments in which a variety of games of chance are conducted. Many casinos are also resort hotels, such as those in Monte Carlo, Las Vegas, and Atlantic City. Due to gambling regulation in some states, casinos are sometimes built as riverboats on bodies of water.

#### *Casino Gambling Attitude*

'Casino gambling attitude' refers to the positive or negative attitude towards casino gambling. In this study, casino gambling attitude was measured by means of the Casino Attitudes Scale (CAS). In the CAS, casino gamblers (or potential casino

gamblers) are simply asked about the positives and negatives of the casino experience and the factors that influenced them (or may influence them) in casino gambling (Sutton & Griffiths, 2008). The higher the score in the CAS, the more positive attitude the person has towards casinos.

### *Gambling*

‘Gambling’ is defined as the transference of money or property on the basis of chance; to gamble is to take a calculated risk for monetary or personal gain (Croucher, 2008). Alternatively, gambling refers to: play any game of chance for stakes; stake or risk anything of value on the result of something involving chance; lose or squander by betting; make a wager; and any matter or thing involving risk or uncertainty (Dictionary of Pastoral Care and Counseling, as cited in Croucher, 2008).

### *Materialism*

‘Materialism’ is the importance ascribed to the ownership and acquisition of materialism goods in achieving major life goals or desired states: it is a value that influences the way that people interpret their environment and structure their lives. Material value encompasses three domains: the use of possessions to judge the *success* of others and oneself; the *centrality* of possessions; and their acquisition leading to *happiness* and life satisfaction (Richins, 2004). Materialism was operationalized in this study by using Richins and Dawson’s (1992) Material Values Scale or MVS. A high mean score in the MVS for all items indicated a high value for materialism.

Religiosity

‘Religiosity’ is the degree to which beliefs in specific religious values and ideals are held and practiced by an individual. Religiosity is centrally important as it influences both our beliefs and actions (Delener, 1994). As used in this study, religiosity was measured by means of the Duke Religion Index (DRI). The DRI assesses the organizational, non-organizational, and intrinsic dimensions of religiousness. *Organizational religiosity* is the frequency with which one attends formal religious services. *Non-organizational religiosity* is defined in terms of the amount of time spent in private religious activities, such as prayer or meditation. *Intrinsic religiosity* is the degree to which one integrates their religiousness into their life (Koenig, Parkerson, & Meador, 1997).

Undergraduate Student

‘Undergraduate student,’ generally, refers to a student taking a four-year bachelor degree program after they finish their high school education or, alternatively, Mathayom Suksa 6 (M.6), Grade 12, or equivalent. Relative to this study, there are all together 15,858 students in 12 faculty units in Assumption University (Office of the University Registrar, 2008). In this study, undergraduate students are those currently enrolled in a four-year bachelor degree program at Assumption University.

Table 1  
*Frequency and Percentage Distribution of Undergraduate students of different faculties in Assumption University*

Faculty	Frequency	Percentage
Business Administration	7,965	50.3

Faculty	Frequency	Percentage
Risk Management and Industrial Services	86	0.5
Arts	3,919	24.7
Nursing Science	233	1.6
Science and Technology	496	3.1
Engineering	417	2.6
Communication Arts	1,360	8.6
Law	659	4.1
Biotechnology	118	0.7
Architecture	359	2.3
Business Economics	107	0.7
Music	139	0.8
Total	15,858	100.0

Table 1 shows the population distribution of undergraduate students at Assumption University. There are 12 faculties of study in the level of undergraduate degree program. The Faculty of Business Administration shows the biggest group and had around 7.9 thousand students. The second group is the Faculty of Arts and has 3.9 thousand students, and etcetera.

#### *Assumption University*

‘Assumption University’ (Au or ABAC) is a non-profit institution administered by the Brothers of St. Gabriel, a worldwide Catholic religious order. Au is considered the leading private university in Thailand in the fields of Business, Management, and Information Technology (Graduate School of Studies, 2008).

Conceptual Framework

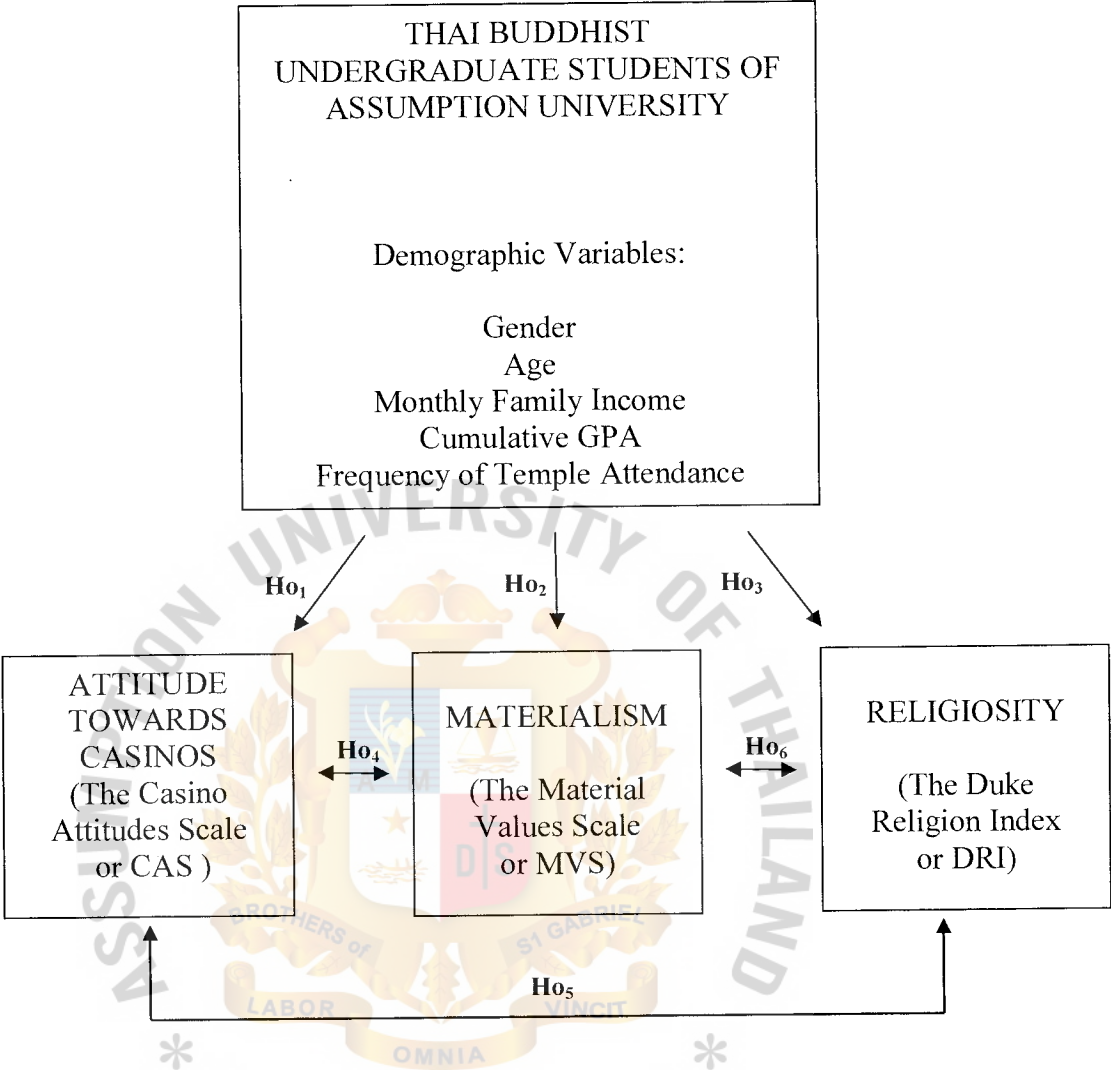


Figure 1. Conceptual framework of the study.

Figure 1 depicts the conceptual framework of the study. The study investigated the interrelationships among attitude towards casino gambling, materialism, and religiosity among Thai Buddhist undergraduate students of Assumption University. It also aimed to examine variance in these three phenomena across different categories of gender, age, monthly family income, cumulative Grade Point Average (GPA), and frequency of temple attendance.



## CHAPTER II

### Literature Review

To introduce a coherent review of related literature, the topics in this chapter are sequentially presented as follows: a) Theoretical perspectives and related studies on casino gambling; b) Theoretical perspectives and related studies on materialism; c) Theoretical perspectives and related studies on religiosity; and d) General perspectives and related studies on undergraduate students of Assumption University.

#### *Casino Gambling*

##### *Casino Gambling: Theoretical Perspectives*

Gambling can be defined as staking money on uncertain events driven by chance (Productivity Commission, 1999). It embraces the essence of risk taking (Bernstein, 1996) in exchange for something of greater value (Abbott & Volberg, 2000). According to Herman (1976), most gambling studies focused on why people gamble, how they make decisions to gamble, and to take risks. Researchers in these studies tried to explain gambling behavior through numerous perspectives, including psychoanalytic, cognitive, affective, past behavior, economic, social, and socio-cognitive perspectives.

##### *Cognition-based theoretical perspectives.*

Previous research examining the link between attitudes and behavior has led to the development of predictive models such as the theory of reasoned action (Fishbein & Ajzen, 1975) aimed at demonstrating how a person's attitude can provide a reliable indication of their actual behavior. *The theory of reasoned action* demonstrates how a

person's actions are controlled by their behavioral intentions. When this theory is applied to gambling attitudes, we should be able to better predict a person initiating gambling behavior as has been shown in some studies on attitudes towards gambling (Wood & Griffiths, 2004). It could be argued that a high degree of association between attitudes and behavior simply indicates that these attitudes are a rationalization of the preceding behavior. However, a person must have, first of all, some knowledge about the activity and must also be motivated to conduct the behavior.

Cognitively-based explanations of heavy gambling, in general, assume that the gambler holds a set of invalid beliefs which are maintained by a biased interpretation of the evidence (Walker, 1985). Specifically, heavy gamblers believe that they can “beat the system” and make money. They believe that, through logic or special insight, they have an advantage over other gamblers. They believe that there is more opportunity to use skill or special knowledge in picking the outcome than there is in fact. They discount losses as being caused by factors beyond their control but count wins as evidence that their system or special knowledge is working. Thus, despite losing large sums of money, the gambler can continue gambling with the firm expectation that, shortly, the gambling investments will begin to pay, the losses will be erased, and a small fortune will be acquired. Thus, a cognitive perspective is consistent with “winning money” as the reason for playing slot machines. Of course, slot machine players may not give “winning money” as the reason for playing because they are well aware of the objective futility of such a goal. Both Caldwell and Dickerson (1988; as cited in Walker, 1995) found that slot machine players reported playing for amusement and entertainment rather than as a way of making money. Furthermore, Walker (1988) found that 77% of heavy slot machine players report that there is no skill involved in playing slot machines. Slot machine gamblers report losing on the whole and expect to

lose on the next machine they play. The reasoning involved in believing that you will be the lucky player under such circumstances has been referred to as irrational thinking (Gaboury & Ladouceur, 1988).

According to the *cognitive theory*, heavy gamblers have a set of beliefs which maintain their gambling despite losses. In games which have a skill component, the heavy gambler exaggerates his or her skill. However, slot machine playing is generally acknowledged as involving no skill and leading to an inevitable loss of money. According to the cognitive theory, the heavy slot machine player privately accepted another belief: that his or her special knowledge of machine will provide a winning edge. In particular, slot machine players do not believe that all machines are equal from a payout perspective and they also believe that machines can be influenced to make a payout more probable (Walker, 1995).

*Behavior-based theoretical perspectives.*

In textbooks of psychology, the slot machine is frequently used as an example of operant conditioning in human beings. These machines reinforce the pull of the lever or the press of the bottom according to a probability schedule. Similar schedules have been very effective in maintaining bar pressing behavior in animals. The negative utility of the behavior (the fact that, with continued play, money will be lost) is a schedule of punishments which conflicts with the positive reinforcement schedules. However, Skinner (1974; as cited in Walker, 1995) argued that the partial reinforcement schedule is so powerful that the behavior will persist despite the negative utility. Of course, individual differences in response to the slot machine provide a problem with such an account (Walker, 1995).

### *Casino Gambling: Related Studies*

#### *Casino gambling and demographic variables.*

A couple of studies illustrated a link between casino gambling and gender. Chantal, Vallerand and Vallieres (1995) indicated that women are less involved in gambling than men. Similarly, Kassinove (1998) found the most positive attitude towards playing the lottery and the least positive towards betting on horse races, and also found that men reported more positive attitudes toward gambling in casinos than women. Welte et al. (2002) discovered that the rate of gambling declined with age, but extent of gambling involvement among gamblers did not vary with age. Kerber (2005), revealing a profile of college athletes' gambling attitudes and gambling behavior, discovered that gambling behavior started at a younger age and that they held positive attitudes toward gambling, in general. Mackay, Patton, and Broszeit (2005) posited that problem gamblers were more likely to have started gambling at a younger age. Zaranek and Charleski (2005) revealed that sociodemographic variables such as income, age, education, marriage, and transportation were significantly associated with casino participation. Welte et al. (2002) found a significant decline in the rate of pathological or problem gambling as socioeconomics increase. Abbott and Cramer (1993) indicated that the poor spent a greater proportion of their income on gambling than those with middle incomes. Azmier (2000) indicated that lower income respondent groups spend more than others on gambling, and also found that the respondents' negative attitudes toward video lottery terminals varied with frequency of church attendance. Ellison and Nybroten (1999) found that people who attended religious services more frequently were more likely to oppose state-supported lotteries. Lesieur et al. (1991) found a negative correlation between pathological gambling and grade point average among college students. This finding is also in agreement with that of Ladouceur, Boudrealy,

Jacques, and Vitaro (1999) who found that problem gamblers were more likely to be suspended, fail a class, or fail a year of school. Ladouceur (1999) found that the prevalence of pathological gambling and related problems among students in junior and senior high schools was associated with drug and alcohol use, poor grades, and delinquent behaviors. Dumida, Thongkum and Damchaom (2007) revealed that there were significant relationships between the attitude towards football gambling and population factors including sex, age, occupation, monthly income, and gambling experiences. A research of Kassinove, Tsytarev, and Davidson (1997) found that Russian women held very positive attitudes toward gambling according to individual differences, including religiosity and previous gambling experience.

#### *Studies on casino gambling among students.*

Adams et al. (2007) investigated the gambling behavior and problem gambling of college students in universities far from and close to a large casino. The result showed that males engaged in more gambling activities than females; that students close to a casino manifested more serious problem gambling than students far from a casino. Elsasser, Kavan, and Westerman (2007) found that gambling was reported as a common activity among pharmacy students. Apithanakoon (2003) reported that students strongly agreed with the legalizing of casinos and the opening of casino houses in Thailand.

### *Materialism*

#### *Materialism: Theoretical Perspectives*

Richins (1994) illustrated the relationship between possessions and materialism. She noted that materialism is a value representing an individual's perspective regarding the role possessions should play in his/her life. Persons holding strong material values



place possessions and their acquisition at the center of their lives, value possessions as a means of achieving happiness, and use possessions as indicators of their own and others' success (Richins & Dawson, 1992). As such, materialism is a value closely tied to possessions and their use in individual expression (Richins, 1994).

Richins and Dawson defined materialism as the importance ascribed to the ownership and acquisition of material goods in achieving major life goals or desired states; they conceptualized material values as encompassing three domains: the use of possessions to judge the *success* of others and oneself, the *centrality* of possessions, and that their acquisition lead to *happiness* and life satisfaction (Richins, 2004).

Possessions and their acquisition occupy a central role in the lives of many individuals who are often termed materialists. Activities focusing on possessing and acquiring are central to materialists because they indicate success and provide happiness. It is not uncommon to be involved to some extent in the pursuit of happiness; however, it is the pursuit of happiness through acquisition rather than through other means like personal relationships and achievements that distinguish materialists. More often than not, materialists tend to judge their own and others' success by the number and quality of possessions they accumulate. Success for a materialist depends to a large extent on the possession of products that depict certain desired images. Having more materialistic values is associated with using possessions to convey an impression and also retaining possessions instead of disposing of them. By the same token, materialism places a very high importance on possessions and accords them a central role in life. Materialistic individuals are believed to value items that are consumed publicly and possess public meaning, rather than private, personal, or subjective meanings (Sahdev & Gautama, 2007).

*Other definitions of materialism.*

Swinyard, Kau, and Phua (2001) proposed that materialism has various definitions that focus on achieving happiness through getting and having possessions. Firstly, they defined materialism as a dominant consumer ideology in modern consumer behaviour. In industrialized nations, to acquire, to own, and to make money seem to be viewed as unalienable rights. Moschis and Churchill (1978) defined materialism as an orientation that emphasizes possessions and money for personal happiness and social progress. Belk (1985) defined materialism as the importance a consumer attaches to worldly possessions. He indicated that at its logical extreme, possessions assume a central place in a person's life and are perceived by the individual to be the fundamental source of their overall satisfaction or dissatisfaction. Rassuli and Hollander (1986) described materialism as an interest in getting and spending. Mukerji (1983) referred to materialism as a cultural system in which material interests are not made subservient to other social goals. Materialism is a value that describes the central importance of possessions in an individual's life in achieving personal happiness and social progress (Richins, 1994; Ward & Wackman, 1971).

*Materialism and psychological needs.*

According to Kasser et al.'s (2004) model, people in situations that do not support the satisfaction of their basic psychological needs will adopt materialistic values as a means of compensation. When individuals' psychological needs are not met, they will tend to move towards materialism as a type of compensatory strategy to lessen the distressing effects of feelings of insecurity. Chaplin and John (2007) found that consumer researchers (Fournier & Richins, 1991; Mick, 1996; Richins & Dawson, 1992) were supported Kasser et al.'s model by believing that material goods are an

instrument for individuals to cope with or compensate for doubts about their safety, competence, and self-worth and also proposed that one of the most consistent findings in the adult consumer behavior literature is the link between materialism and self-esteem, with lower feelings of self-worth related to higher levels of materialism. Materialists are viewed as being caught in an endless cycle of acquiring material goods in hopes of compensating for feelings of insecurity and searching for happiness. Psychological research also identifies feelings of insecurity and low self-esteem as important causes of materialism. Particularly germane to our discussion is the recent work of Tim Kasser and his colleagues who argue that one way materialistic values develop is from “experiences that induce feelings of insecurity” (Kasser et al., 2004, p. 13). Consistent with this view, researchers have reported experimental evidence showing that induced feelings of insecurity and low self-esteem have a direct causal influence on materialistic orientations (Braun & Wicklund 1989; Chang & Arkin 2002; Kasser 2002; Solberg, Diener, & Robinson, 2004). Similarly, Brown, Collins, and Schmidt (1988) have proposed that individuals with low self-esteem engage in indirect self-enhancement by attaching themselves to people and material things that are perceived as having significant value (all as cited in Chaplin & John, 2007).

#### *Cultural perspectives on materialism.*

According to Lindridge (2005), in understanding materialism within a cultural/religious context, it is important to understand the differences between eastern and western perspectives. From an eastern-oriental religious perspective, material gain may be indicative of rewards for complying with the unknown universe; i.e. wealth is bestowed from compliance with religious rules and regulations. In contrast, the western-German orientated religious relationship between religiosity and materialism is unclear. Lindridge cited other cultural perspectives relative to materialism. For example, Britain

is identified as a low materialistic country (Ger & Belk, 1990; Lindridge & Dibb, 2003); however, Britain's apparent high consumption of prestige brands suggest otherwise. Simon and Gagnon (1976) attributed heightened levels of materialism to a decline in symbolic objects that represent group identity, for example, churches, and the reverence of status symbols such as housing and cars. When this is considered with Britain's low-church attendance (Rowland, 2000), Simon and Gagnon's comments provide a suitable explanation for Britain's conspicuous consumption. An outcome of this is an increased sense of individuality, reflected in a declining sense of community (Douglas & Isherwood, 1979) (all as cited in Lindridge, 2005).

#### *Materialism: Related Studies*

##### *Materialism and demographic variables.*

A few research studies found a statistically significant difference between the materialistic tendencies of males and females. Rajeev (2005) examined the link between materialism, gender, and nationality with consumers' perception of a high priced brand of apparel by using the Richins and Dawson (1992) scale (the same instrument used in the present study). Results showed that males had higher average scores in materialism than females. Swaim (1994) examined the relationship between involvement in student clubs/groups and gender among college undergraduates and their perceived importance of altruism and materialism. Results revealed a significant relationship between gender and overall materialism. These results do not agree, however, with the findings of Roberts and Clement (2007) who reported that there was no significant difference between male and female tendencies for differences in preferences on success, centrality, or the composite measure of materialism. Chaplin and John (2007) found that materialistic values increased from middle childhood to early adolescence and declined

from early to late adolescence. This finding is also in agreement with that of Kara (2003) and Kara (2006) which indicated that there were significant differences in children's perception of material possessions between the different of age levels, and that younger children were more materialistic than older children and more likely to relate material possessions with happiness, friendship, and feeling good about oneself. Older children were more likely to relate materialistic possessions with wastefulness. Sangkhawasi and Johri (2007) found a correlation between materialism and status perception in that the more income the respondents had, the less correlation between materialism and status perception they had. This finding appeared to be in line with the more recent finding of Roberts and Clement (2007) who revealed that the states of the lowest income were most materialistic by indicating that as income falls, respondents in the study were more likely to equate happiness with materialism possession. Chan (2004) found negative attitudes towards materialistic values among Chinese children and that owning lots of toys was wasteful and would have an adverse effect on academic achievement. This finding appeared to be in line with the study of Chan and Hu (2007) who found a strong link between material possessions and poor academic achievement, and that toys were identified as barriers to academic excellence. Results of the finding of Inglehart (1997) showed that post-materialism of the respondents was negatively related to church attendance.

#### *Other studies on materialism.*

Ryan and Dziurawiec's (2000) studies into the consequences of pursuing a materialistic lifestyle, using the Material Values Scale (the same instrument used in the present study), have found that materialism is negatively related to life satisfaction; those individuals who were high in materialism were less satisfied with their life as a



whole and with specific life domains than those who were low in materialism. This finding is in agreement with the study of Raj (1993) which revealed that there was a negative relation between materialistic tendencies and satisfaction with life within industrialized nations.

### *Religiosity*

#### *Religiosity: Theoretical Perspectives*

Religiosity, according to Delener (1994), is the degree to which beliefs in specific religious values and ideals are held and practiced by an individual. Religiosity is centrally important as it influences both our beliefs and actions. Different scholars have used different measures of religiosity. One that is particularly relevant to the present study is the Duke Religion Index (DRI) created by Koenig, Parkerson, and Meador (1997a, b) of Duke University Medical Center, Duke University, USA. The DRI assesses the organizational, non-organizational, and intrinsic dimensions of religiousness. *Organizational religiosity* is the frequency with which one attends formal religious services. *Non-organizational religiosity* is defined in terms of the amount of time spent in private religious activities such as prayer or meditation. *Intrinsic religiosity* is the degree to which one integrates their religiousness into their life.

#### *Other perspectives on religiosity.*

An alternative discussion is given by Sherman et al. (1999) who asserted that there are three aspects of religious involvement: public or organizational religious behavior (e.g., church attendance); private or non-organizational religious behavior (e.g., prayer or meditation); and intrinsic religious motivation (e.g., involvement of religion in all of one's dealings in life). Another approach to religiosity is that of Barbera and Gürhan (1998) who proposed that there are basically two forms of

religiosity: public and private. Private religiosity includes practices that are not seen by others, such as personal prayer and daily commitment to religious principles or ideals. It represents an individual's level of religious devotion and is often measured by the frequency of prayer and feeling of closeness or importance to religion or God. Public religiosity is the participatory aspects of religiosity that includes church attendance and praying in public. According to Thomas (1997), private and public religiosity tend to be (but not necessary) highly correlated (as cited in Lam, 2006). On one hand, Ellison et al. (1989) suggested that measures of religiosity include three distinct dimensions: participation, affiliation, and devotional. Religious participation focuses on the level of activity in organized religious activities; religious affiliation concerns the specific type of religious community into which an individual is integrated and the degree of identification with that community; and devotional dimension examines the individual's belief or personal religious experience. Another approach views religiosity either as a means or as an end in itself. The most popular expression of this view has been Allport's (1950) concepts of intrinsic and extrinsic religiousness. According to Allport and Ross (1967), intrinsically religious people are genuinely committed to their faith, while extrinsically religious people are more self-serving. They stated that the extrinsically-motivated person 'uses' his religion, whereas the intrinsically-motivated 'lives' his religion.

### *Religiosity: Related Studies*

#### *Religiosity and demographic variables.*

Kanieski's (2000) study and that of Walter and Davie (1998) similarly found that women are found to be more religious than men, as indicated by variables such as church attendance. A study of Bergan and McConatha (2000) examined the

relationships between religiosity, life satisfaction, age, and gender. Results indicated that religiosity increased with age, indicating that adults tend to increase levels of religious affiliation and private religious devotion across the lifespan; it was also found that women reported a higher level of religiosity than men. Levin and Taylor (1993) examined gender and age differences in over a dozen religious indicators and found that black women significantly exceeded black men in levels of religiosity at all ages. This finding is in line with the study of BraOas-Garza and Neuman (2004) who found that religious activity increased with age. A survey of Gallup International Association (2005) found that women are comparatively more religious than men; that religiosity grows with age; and religion appears to be influenced by income. It was stated that religiousness was stronger among lower income households when compared to respondents with medium and high income. However, this result does not concur with that of Srinivasan and Sharan (2005) who, in their study on relationship between socioeconomics statuses and religiosity, found that the respondents who belonged to high socioeconomics statuses categories were highly religious and that low socioeconomics statuses respondents were less religious. Muller and Ellison (2001) found the religious involvement of adolescents were consistently and positively associated with subsequent academic achievement. Furthermore, Reyes (2006) as well as McKune and Hoffmann (2006) explored the significant relationship between spirituality and religiosity and its correlation to academic achievement. BraOas-Garza and Neuman (2004) found that religiosity was positively related to exposure to religious activity during childhood. Grichting (1986) found that religiosity was an important construct in understanding both the frequency of gambling and the amount of money spent on it.

### *Related Studies on Casino Gambling, Materialism, and Religiosity*

#### *Casino gambling and materialism.*

Smith and Abt (1984) declared that materialism and gambling competition are completely different traits; materialism is for the fulfillment of human needs but casino gambling is a competition in human character. Gambling becomes a habit and a means to achieve the pleasures of life. People gamble to supplement their monthly income which is not sufficient to fulfill their needs and wants. They use their skills and luck to win more money. However, this is risky since they may not succeed and, in the process, end up losing a lot of money (Online-casinos.co.uk, 2008). Kwok, Ming, and So (2006) found that among their student respondents, around 30% are gamblers; that gamblers are materialistic, and believe that gambling can make quick money. They observed that gamblers can be classified into three categories: those who enjoy life; those who enjoy social life; and those who are materialistic and money conscious.

#### *Casino gambling and religiosity.*

Grichting (1986) aimed to sort out the conflicting assertions concerning the impact of religion on gambling in Australia. By controlling for gender and socioeconomic status and by differentiating between the three dimensions of religiosity, it was found that religiosity was an important construct in understanding both the frequency of gambling and the amount of money spent on it. Walter (2007) found that religiosity, measured by frequency of church attendance, was found to be significant in the legalization decisions. Higher rates of church attendance were less likely in the years that nations legalized casinos. Measures of fiscal stress, tourism, and income levels were not found to have significant relationships with the legalization decisions. Lam (2006) found a strong link between public religiosity and gambling. Lifetime

gamblers and non-gamblers appeared to be partitioned by religiosity, measured in terms of their reported frequency of religious participation but not so much in terms of reported importance of faith. This result was consistent with Diaz's (2000) finding on the link between frequency of religious participation and gambling. This study aimed to investigate the effect of religiosity, measured in terms of frequency of religious participation and importance of faith, on gambling participation across four different types of games: casino, track, lottery, and bingo. The study found that there was indeed a significant difference in the frequency of religious participation between gamblers and non-gamblers.

*Materialism and religiosity.*

Barbera and Gürhan (1998) found significant differences between high and low religiosity consumers regarding the role of income and materialistic attitudes in predicting subjective well-being. Some studies have reported negative relationship between materialism and religiosity (e.g. Belk, 1985). Excessive materialism has long been criticized as being incompatible with religious fulfillment; the evidence suggested that religiosity and materialism were contrasted because they may be opposite in nature. Flouri (2000)'s study showed that materialism in adolescents was negatively related to satisfaction with one's mother, religious service attendance, and economic socialization. In contrast, Venkatesh (1994) found a positive relationship between materialism and religion in Indian society; materialistic possessions and spirituality are not considered opposites.



## *Undergraduate Students in Thailand*

### *Undergraduate Education in Thailand*

The Thai education system follows a similar pattern as the American education system. In addition, most of the old and modern famous educational institutes follow the American education system. It will take a maximum four years to get university graduation degree certificates after they finish their high school education.

As an example, Assumption University is a well-established and famous international university that is known not only in Thailand but also in all of Asia. It follows the American educational system in both undergraduate and postgraduate degree programs. In Assumption University, any student can be enrolled after they finish Matthayom Suksa 6 (M-6 educational degree) or 12 years educational background. A student who enters the undergraduate degree program will be approximately 18 years old and who graduates will be 22-23 years old. Upon enrollment in Assumption University, it will take a maximum of four years to achieve a graduation degree, with the exception of the Architecture degree (5 years).

### *Undergraduate Students: Related Studies*

#### *Undergraduate Students and pathological gambling.*

A study by Peltzer and Thole (2000) investigated attitudes towards gambling in African University students, using the Gambling Attitude Scales (the same instrument used in the present study), by sex, course of study, and personality traits such as conservatism and risk-taking. Analysis showed that men held more positive attitudes than women did towards gambling. Positive attitudes toward gambling were related to individual differences in risk-taking, liberalism, and course of study. Ladouceur, Dube, and Bujold, (1994) and Kerber (2005) revealed that gambling practices and problematic gambling are widespread and common in college students. Williams et al. (2006) found

that college and university students males consistently having higher lifetime rates of gambling than females.

### *Chapter Conclusion*

The present researcher believed that including the cited theoretical perspectives and related studies strengthened the position of the research with regard to the necessity of exploring the interrelationships among attitudes toward casino gambling, materialism, and religiosity, particularly within the Thai context, in as much as most of these were western perspectives and studies. Moreover, it can also be seen that no study has collectively examined all three phenomena together as this study expects to accomplish. The researcher's extensive review of literature revealed important elements about the three main variables as well as personal characteristics of the sample group (undergraduate students) that have all acted as catalysts in deciding which aspects to include in this study (e.g., research methodology, instrumentation, demographic categories, etc.). For example, Kassinove, Tsytarev, and Davidson (1997) employed the Gambling Attitude Scales (GAS); Ryan and Dziurawiec (2000) utilized the Material Values Scale; and Lam (2006) studied the link between religiosity and gambling. A number of the studies cited used similar demographic characteristics as in the present study.

As expressed earlier, this study is anticipated to benefit a number of individuals and groups (e.g., students, parents, school teachers, administrators) by providing valuable knowledge and information about the nature, causes, and effects of the major study variables in both local and foreign contexts. In conclusion, the researcher posits that all the cited perspectives and relevant research findings would bridge a knowledge gap and serve to contribute towards an enhancement of literature about attitudes

towards casino gambling, materialism, and religiosity particularly among undergraduate students, an important sector of the youth—the future of society.



## CHAPTER III

### Method

This chapter describes the research methodology used in the conduct of the study and in the analysis of data collected, in order to achieve the research objectives of the study. The chapter discusses the research design, participants of the study, research instrumentation, data collection procedure, and data analysis.

#### *Research Design*

In view of the nature and purpose of the present study which involved the examination of the interrelationship among attitude towards casino gambling, materialism, and religiosity, this research is univariate and correlational in design. The study is also deemed to be cross-sectional as it depicted participants' responses to a survey questionnaire, obtained at one point in time. It can also be said that the present study is descriptive as it did not entail the manipulation of any variable at any point during the study.

#### *Participants of the Study*

Figure 2 below indicates that there are about 14,704 Thai Buddhist undergraduate students at Assumption University in the first semester of academic year 2008 (Office of the University Registrar, 2008). From the table of sample sizes (Yamane, 1967; Israel, 1992), the corresponding sample size for precision of  $\pm 5\%$  of participants is  $N=390$ . For greater reliability, the researcher chose to conduct the study on a bigger sample group ( $N=530$ ) of Thai Buddhist undergraduate students who were recruited through convenience sampling. As a proper random sampling was difficult,

the researcher distributed the questionnaires to the different faculties. The students were approached in different classroom and collected the questionnaire. The inclusion criteria for respondents consisted of the following: a) Thai undergraduate student; b) describes oneself as a Buddhist follower; c) able to read and write in Thai; and d) willing to participate in the study. Steps were taken to ensure that informed consent was obtained and confidentiality of data was assured prior to handing out the questionnaire.

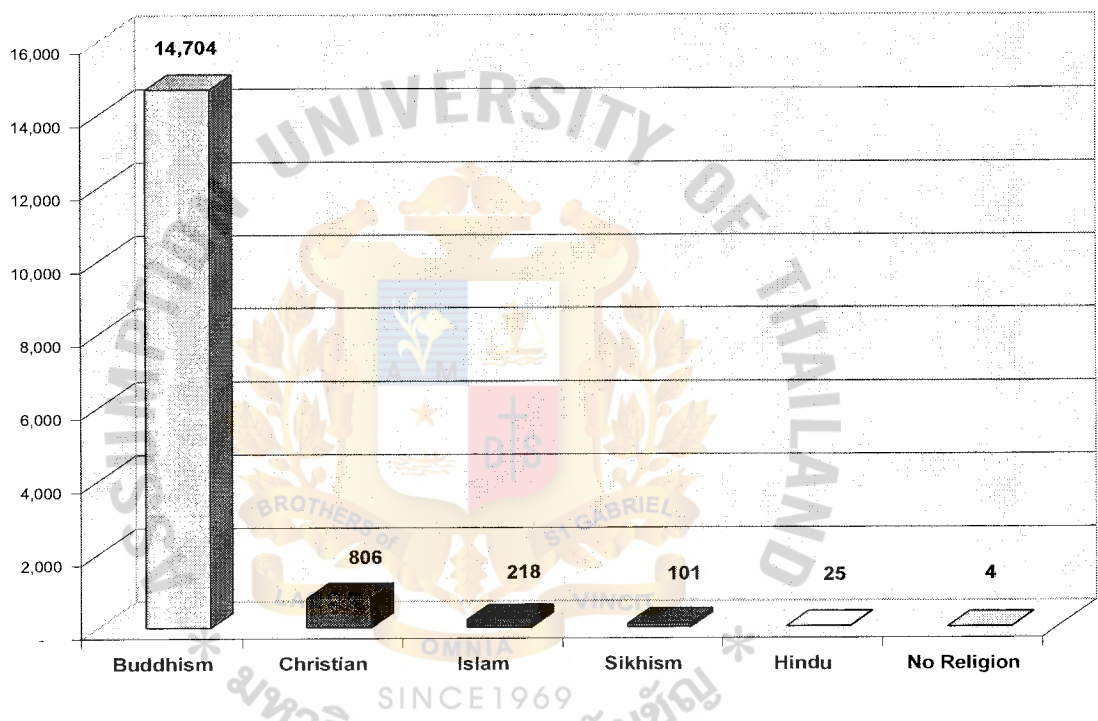


Figure 2. Number of Au undergraduate students by religion.

*Research Instrumentation*

One of the most commonly applied techniques used to obtain information from research subjects is a questionnaire (Schumacher & McMillan, 1993). In this psychological research, a survey questionnaire was used as a tool to gather information from the undergraduate students of Assumption University. The researcher used a self-administered questionnaire in which the respondents took responsibility for reading and



answering the questions. The research instrument, entirely in Thai (See Appendix B), was divided into four parts which are individually described in the following section.

#### *Part 1: Personal Information*

The first part of the instrument was a researcher-constructed set of questions that were intended to obtain categorized information about the respondent according to the selected demographic characteristics, namely, gender, age, monthly family income, cumulative Grade Point Average, and frequency of temple attendance.

#### *Part 2: The Casino Attitudes Scale (CAS)*

The Casino Attitudes Scale (CAS), developed by Rosemary Sutton and Mark D. Griffiths in 2007, was designed to assess whether participants held positive or negative attitudes towards casino gambling. The scale consisted of 11 statements relating to casino gambling and is an additive scale with total possible scores ranging from 11 to 55. In these questions, casino gamblers were simply asked about the positives and negatives of the casino experience and the factors that influenced them in their casino gambling. Following content analysis of these questions, the most salient items were chosen for inclusion on the CAS. Each participant is asked to rate on a five-point Likert scale the extent to which they agree with each statement (where '1' is 'Totally disagree', '2' is 'Disagree', '3' is 'Neither agree nor disagree', '4' is 'Agree', and '5' is 'Totally agree'). Since scores range from 11 to 55, the higher the score, the more positive attitude the person has towards casinos. Factor analysis led to the identification of two subscales, the psychological comfort subscale found to have a high internal reliability of .89 (using Cronbach's alpha) and the recreational appeal subscale with a high Cronbach's alpha of .94 (Sutton & Griffiths, 2008).

### *Part 3: The Material Values Scale (MVS)*

Materialism was operationalized using Richins and Dawson's (1992) Material Values Scale (MVS). Scale draws on three important themes represented by multiple-items: (1) possession as defining success, (2) acquisition centrality, and (3) acquisition as the pursuit of happiness. This scale has been established in the literature through numerous reliability and validity checks and is widely used in measuring materialism (Richins, 1987; Richins & Dawson, 1990; 1992). A 5-point Likert scale is used to measure the respondent's level of agreement with each statement (anchored with 1 = "Strongly disagree" to 5 = "Strongly agree"). A high mean score for all items indicated a high value for materialism. All 18 materialism items were factor analyzed to test for their validity. According to Richins (2004), the mean alpha for each of the subscales are as follows: .77 for the success subscale, .73 for the centrality subscale, and .75 for the happiness subscale.

### *Part 4: The Duke Religion Index (DRI)*

In an effort to create an index that comprehensively and briefly assesses multiple dimensions of religiosity, Koenig, Parkerson, and Meador (1997a) created the Duke Religion Index (DRI). The DRI is a 5-item scale that was used to assess the organizational (e.g., attendance at religious services), non-organizational (e.g., prayer or religious study), and intrinsic dimensions of religion. Organizational religiosity was assessed on a six-point Likert scale by asking "How often do you attend religious services or meetings" (1 = never; 2 = once a year; 3 = a few times a year; 4 = a few times a month; 5 = once a week; 6 = more than once a week). Non-organizational religiosity was measured on a six-point Likert scale through the question "How often do you spend time in private religious activities such as prayer, meditation, or Bible study"

(1 = never or rarely; 2 = a few times a year; 3 = a few times a month; 4 = once a week; 5 = more than once a week; 6 = more than once a day). Intrinsic religiosity was measured by summing three questions assessing intrinsic beliefs on a five-point Likert scale (e.g., "In my life, I experience the presence of the Divine"; where 1 = definitely not true, 2 = tends to be true; 3 = neither true nor untrue, 5 = definitely true). According to Koenig et al. (1997; as cited in Storch et al., 2004), reliability estimates have been adequate with alphas ranging from .75 to .91.

### *Data Collection Procedure*

Data collection procedure consisted of the following steps:

1. The survey questionnaire was wholly translated into Thai by a bilingual expert and back-translated by another language expert to ensure stability in language and word meaning during the translation process.
2. A pretest was conducted on 30 undergraduate students (who met the inclusion criteria) to give the researcher an idea of the degree of respondent comprehension of the questionnaire items and directions as well as to obtain the reliability value (Cronbach's alpha) of the Thai questionnaire.
3. Reliability testing of the Thai questionnaire was conducted. The result indicated that the instrument is reliable (Cronbach's alpha = .7483) (see Appendix C). There being no procedural problems with the pretest exercise, the researcher proceeded to conduct the study proper.
4. The researcher personally oversaw the process of data collection at the Suvarnabhumi and Hua Mak campuses of Assumption University. Owing to his position in the university, the researcher opted to remain inconspicuous throughout the questionnaire distribution so as not to affect the respondents. The

researcher enlisted the help of university instructors as research assistants. The designated research assistants administered the distribution and collection of the survey questionnaires. A total of 550 questionnaires were distributed; the whole process took about two weeks).

5. The completed questionnaires were individually inspected by the researcher to check for errors in completion. Out of a total of 550 returned questionnaires, 530 were deemed valid and subjected to statistical analysis.

#### *Data Analysis*

The respondents' data were encoded, processed, and analyzed by means of the Statistical Package for Social Sciences (SPSS). Data Analysis was accomplished through the following statistical treatments:

1. *Descriptive statistics:* Frequency and percentage distributions were used to analyze the respondents' demographic data. Mean and Standard Deviation were utilized as well, relative to the respondents' test scores.
2. *Inferential statistics:* Appropriate statistical methods were employed to test the research hypotheses of the study at the .05 level of significance, apart from the correlation coefficient which was determined at the .01 significance level.

## CHAPTER IV

### Results

This chapter reports the results obtained through the survey questionnaire used to examine the interrelationship among attitude towards casino gambling, materialism, and religiosity among 530 Thai Buddhist undergraduate students of Assumption University as well as to examine variance in these three phenomena across different categories of gender, age, monthly family income, cumulative Grade Point Average (GPA), and frequency of temple attendance. The findings of the study are presented in the following sequence:

1. Descriptive Statistics: Analysis of the demographic characteristics of the participants
2. Inferential Statistics: Hypothesis Testing

#### *Descriptive Statistics*

##### *Analysis of the Demographic Characteristics of the Participants*

The demographic characteristics of the participants: gender, age, monthly family income, cumulative Grade Point Average (GPA), and frequency of temple attendance are presented in the following table. The total number of respondents in this study was 530 (N=530).



Gender.

Table 2 below shows the frequency and percentage distribution of the respondents in terms of gender. Out of 530 respondents, 217 (40.9%) respondents were male, and 313 (59.1%) respondents were female. Majority of the respondents were female. The pie chart given below (Figure 3) explains the distribution of the gender groups.

Table 2

Frequency and Percentage Distribution of Gender

Gender	Frequency	Percentage
Male	217	40.9
Female	313	59.1
Total	530	100.0

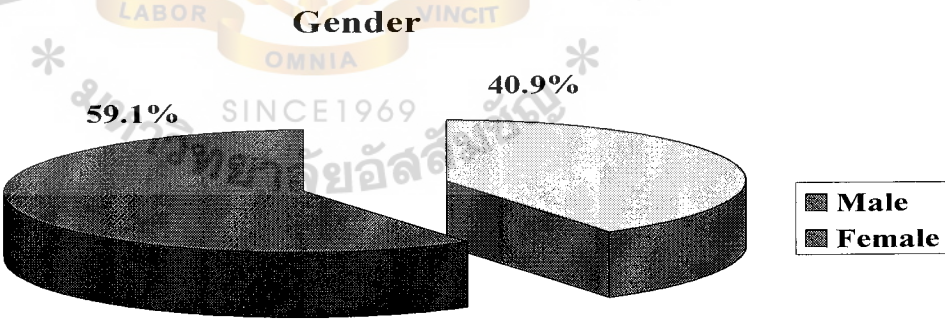


Figure 3. Percentage distribution of gender.

Age.

The following Table 3 shows the frequency and percentage distribution of the respondents in terms of age. Of the sample, 4 ( 0.8%) respondents belonged to the 17 or younger age group; 347 (65.5%) respondents belonged to 18-20 age group; 164 (30.9%) respondents belonged to 21-23 age group; and 15 (2.8%) respondents belonged to 24 and above age group. Majority of the respondents were aged between 18-20 years. Figure 4 shows the percentage of distribution based on the different age groups.

Table 3  
*Frequency and Percentage Distribution of Age*

Age	Frequency	Percentage
17 or younger	4	.8
18 - 20	347	65.5
21 - 23	164	30.9
24 and above	15	2.8
Total	530	100.0

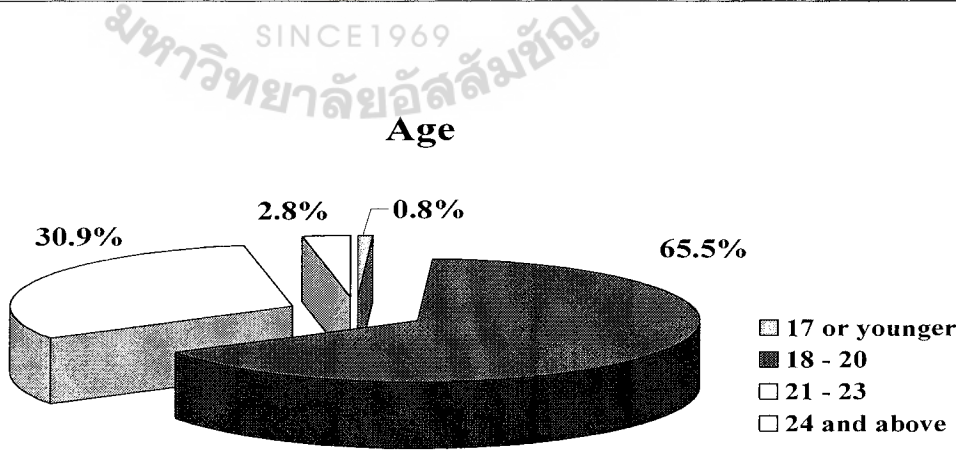


Figure 4. Percentage distribution of age groups.

Monthly family income.

Table 4 shows the frequency and percentage distribution of the respondents in terms of their monthly family income. There were 87 (16.4%) respondents who reported less than 20,000 Baht per month; 123 (23.2%) respondents reported 20,000 - 40,000 Baht per month; 107 (20.2%) respondents reported 40,001 - 60,000 Baht per month; and the largest group of 213 (40.2%) respondents reported more than 60,000 Baht per month. The distribution is given in Figure 5.

Table 4  
Frequency and Percentage Distribution of Monthly Family Income

Monthly Family Income	Frequency	Percentage
Less than 20,000 Baht	87	16.4
20,000 - 40,000 Baht	123	23.2
40,001 - 60,000 Baht	107	20.2
More than 60,000 Baht	213	40.2
Total	530	100.0

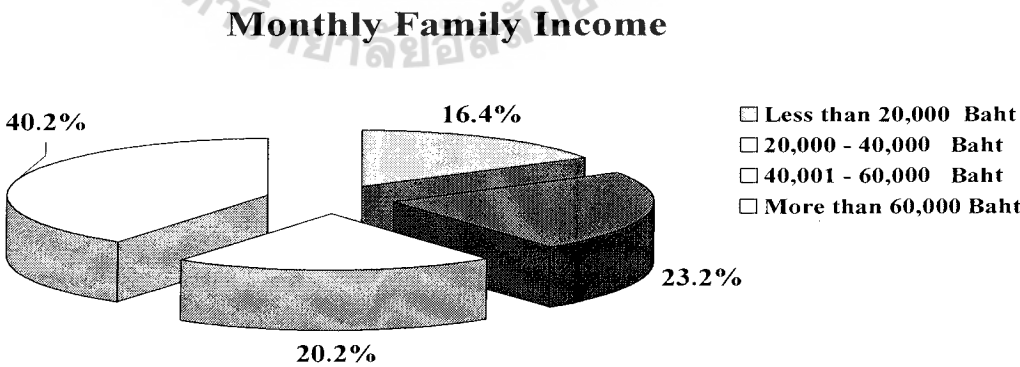


Figure 5. Percentage distribution based on monthly family income.

Cumulative GPA

Table 5 shows the frequency and percentage distribution of the respondents in terms of cumulative GPA Out of 530 respondents, 8 (1.5%) respondents were with the cumulative GPA range of 1.00 or below group; 37 (7.0%) respondents were with the range of 1.01-2.00 group; 333 (62.8%) respondents were with the cumulative GPA range of 2.01-3.00 group; and 152 (28.7%) respondents were with the range of 3.01-4.00. Majority of the respondents belonged to the GPA category 2.01-3.00. Figure 6 shows the percentage of distribution based on the different cumulative GPA ranges.

Table 5

Frequency and Percentage Distribution of Cumulative GPA

Cumulative GPA	Frequency	Percentage
1.00 or below	8	1.5
1.01 - 2.00	37	7.0
2.01 – 3.00	333	62.8
3.01 – 4.00	152	28.7
Total	530	100.0

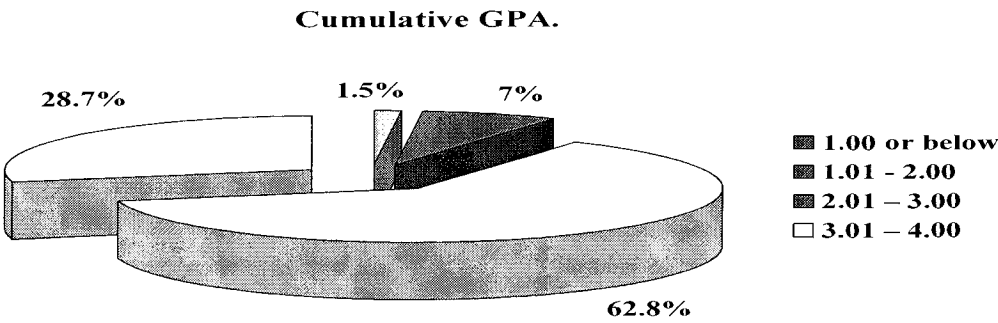


Figure 6. Percentage distribution based on cumulative GPA

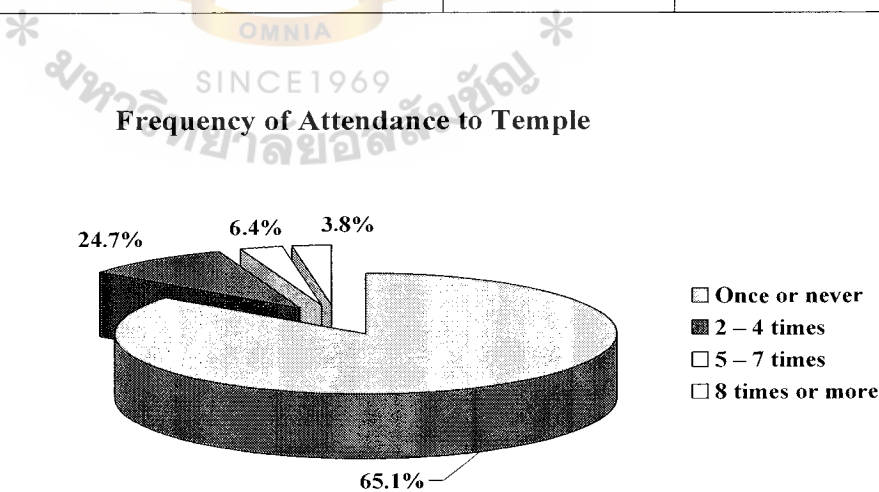
*Frequency of temple attendance (times per month).*

Table 6 and Figure 7 reveal the frequency and percentage distribution of the frequency of temple attendance (times per month). It was found that the majority (345 or 65.1%) of respondents were in the once or never group; 131 (24.7%) respondents were in the twice a month group; 34 (6.4%) respondents were in the 3 times a month group; and 20 (3.8%) respondents reported 4 times and more a month group.

Table 6

*Frequency and Percentage Distribution of Temple Attendance (Times per month)*

Frequency of Attendance to Temple (Times per month)	Frequency	Percentage
Once or never	345	65.1
Twice	131	24.7
3 times	34	6.4
4 times or more	20	3.8
Total	530	100.0



*Figure 7. Percentage distribution of frequency of temple attendance.*



*Attitude towards casino gambling.*

Table 7 shows the frequency and percentage distribution of the respondents' attitude towards casino gambling, based on their responses to the Casino Attitudes Scale (CAS).

Table 7

*Frequency and Percentage Distribution of Attitude towards Casino Gambling*

Casino Attitudes	Frequency (Percentage)					Total
	totally disagree	disagree	neither agree nor disagree	agree	totally agree	
1. I do/would find going to a casino invigorating.	283 (53.4%)	106 (20.0%)	112 (21.1%)	22 (4.2%)	7 (1.3%)	530 (100.0%)
2. I do/would feel excited about going to a casino.	138 (26.0%)	97 (18.3%)	134 (25.3%)	128 (24.2%)	33 (6.2%)	530 (100.0%)
3. Gambling in casinos is/strikes me as an enjoyable past time.	188 (35.5%)	99 (18.7%)	161 (30.4%)	68 (12.8%)	14 (2.6%)	530 (100.0%)
4. Gambling in casinos appeals to me.	266 (50.2%)	119 (22.5%)	107 (20.2%)	33 (6.2%)	5 (0.9%)	530 (100.0%)
5. I do/would gamble in casinos if the opportunity arises/arose.	199 (37.5%)	102 (19.2%)	132 (24.9%)	82 (15.5%)	15 (2.8%)	530 (100.0%)
6. I can/could be myself in a casino.	251 (47.4%)	111 (20.9%)	111 (20.9%)	45 (8.5%)	12 (2.3%)	530 (100.0%)

Casino Attitudes	Frequency (Percentage)					
	totally disagree	disagree	neither agree nor disagree	agree	totally agree	Total
8. I do/would feel comfortable in a casino environment.	271 (51.1%)	133 (25.1%)	98 (18.5%)	23 (4.3%)	5 (0.9%)	530 (100.0%)
9. I do not/would not feel intimidated by being in a casino.	222 (41.9%)	119 (22.5%)	120 (22.6%)	54 (10.2%)	15 (2.8%)	530 (100.0%)
10. Visiting a casino does not/would not make me feel anxious.	199 (37.5%)	133 (25.1%)	137 (25.8%)	48 (9.1%)	13 (2.5%)	530 (100.0%)
11. I do/would not have to think about choosing to visit a casino.	192 (36.2%)	111 (20.9%)	149 (28.1%)	67 (12.6%)	11 (2.1%)	530 (100.0%)

Table 8

*Mean Scores and Standard Deviations of Attitude towards Casino Gambling*

Casino Attitudes	N	Mean	Standard Dev.
1. I do/would find going to a casino invigorating.	530	1.80	.996
2. I do/would feel excited about going to a casino.	530	2.66	1.267
3. Gambling in casinos is/strikes me as an enjoyable past time.	530	2.28	1.154

Casino Attitudes	N	Mean	Standard Dev.
4. Gambling in casinos appeals to me.	530	1.85	1.009
5. I do/would gamble in casinos if the opportunity arises/arose.	530	2.27	1.195
6. I can/could be myself in a casino.	530	1.97	1.108
7. I do/would feel relaxed in a casino.	530	1.97	1.027
8. I do/would feel comfortable in a casino environment.	530	1.79	.955
9. I do not/would not feel intimidated by being in a casino.	530	2.10	1.141
10. Visiting a casino does not/would not make me feel anxious.	530	2.14	1.096
11. I do/would not have to think about choosing to visit a casino.	530	2.23	1.133
The Casino Attitudes	530	2.0969	.83185
Valid N (list wise)	530		

Table 8 above shows the mean scores and standard deviations of the casino attitudes, based on the eleven Casino Attitude Scale items. The “I do/would feel excited about going to a casino” had the highest mean (Mean=2.66; SD=1.267). The second highest mean was for “Gambling in casinos is/strikes me as an enjoyable past time” with a Mean=2.28; SD=1.154. The lowest mean score was for the item “I do/would gamble in casinos if the opportunity arises/arose” (Mean=2.27; SD=1.195).

Materialism.

Table 9 shows the frequency and percentage distribution of the respondents' level of materialism, based on their responses to the Materialism Values Scale (MVS).

Table 9  
*Frequency and Percentage Distribution of Materialism*

Materialism	Frequency (Percentage)					
	strongly disagree	disagree	neutral	agree	strongly agree	Total
1. I admire people who own expensive homes, cars, and clothes.	132 (24.9%)	138 (26.0%)	214 (40.4%)	43 (8.1%)	3 (0.6%)	530 (100.0%)
2. Some of the most important achievements in life including acquiring material possessions.	59 (11.1%)	98 (18.5%)	196 (37.0%)	165 (31.1%)	12 (2.3%)	530 (100.0%)
3. I don't place much emphasis on the amount of material objects people own as a sign of success.	33 (6.2%)	122 (23.0%)	250 (47.2%)	92 (17.4%)	33 (6.2%)	530 (100.0%)
4. The things I own say a lot about how well I'm doing in life.	54 (10.2%)	96 (18.1%)	198 (37.4%)	163 (30.8%)	19 (3.6%)	530 (100.0%)
5. I like to own things that impress people.	37 (7.0%)	88 (16.6%)	224 (42.3%)	166 (31.3%)	15 (2.8%)	530 (100.0%)

Materialism	Frequency (Percentage)					
	strongly disagree	disagree	neutral	agree	strongly agree	Total
6. I don't pay much attention to material objects other people own.	37 (7.0%)	96 (18.1%)	269 (50.8%)	101 (19.1%)	27 (5.1%)	530 (100.0%)
7. I usually buy only the things I need.	16 (3.0%)	83 (15.7%)	175 (33.0%)	165 (31.1%)	91 (17.2%)	530 (100.0%)
8. I try to keep my life simple, as far as possessions are concerned.	25 (4.7%)	82 (15.5%)	208 (39.2%)	174 (32.8%)	41 (7.7%)	530 (100.0%)
9. The things I own aren't all that important to me.	12 (2.3%)	61 (11.5%)	200 (37.7%)	194 (36.6%)	63 (11.9%)	530 (100.0%)
10. I enjoy spending money on things that aren't practical.	81 (15.3%)	120 (22.6%)	197 (37.2%)	109 (20.6%)	23 (4.3%)	530 (100.0%)
11. Buying things give me a lot of pleasure.	24 (4.5%)	62 (11.7%)	160 (30.2%)	207 (39.1%)	77 (14.5%)	530 (100.0%)
12. I like a lot of luxury in my life.	72 (13.6%)	148 (27.9%)	182 (34.3%)	102 (19.2%)	26 (4.9%)	530 (100.0%)
13. I put less emphasis on material things than most people I know.	49 (9.2%)	72 (13.6%)	179 (33.8%)	183 (34.5%)	47 (8.9%)	530 (100.0%)
14. I have all the things I really need to enjoy life.	58 (10.9%)	148 (27.9%)	190 (35.8%)	104 (19.6%)	30 (5.7%)	530 (100.0%)



Materialism	Frequency (Percentage)					
	strongly disagree	disagree	neutral	agree	strongly agree	Total
15. My life would be better if I owned certain things I don't have.	37 (7.0%)	92 (17.4%)	207 (39.1%)	148 (27.9%)	46 (8.7%)	530 (100.0%)
16. I wouldn't be any happier if I owned nicer things.	65 (12.3%)	138 (26.0%)	218 (41.1%)	83 (15.7%)	26 (4.9%)	530 (100.0%)
17. I'd be happier if I could afford to buy more things.	16 (3.0%)	70 (13.2%)	159 (30.0%)	233 (44.0%)	52 (9.8%)	530 (100.0%)
18. It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	16 (3.0%)	66 (12.5%)	156 (29.4%)	234 (44.2%)	58 (10.9%)	530 (100.0%)

Table 10  
*Means Scores and Standard Deviations of Materialism*

Materialism	N	Mean	Standard Dev.
1. I admire people who own expensive homes, cars, and clothes.	530	2.33	.958
2. Some of the most important achievements in life including acquiring material possessions.	530	2.95	1.016
3. I don't place much emphasis on the amount of material objects people own as a sign of success.	530	2.94	.949

Materialism	N	Mean	Standard Dev.
4. The things I own say a lot about how well I'm doing in life.	530	2.99	1.021
5. I like to own things that impress people.	530	3.06	.932
6. I don't pay much attention to material objects other people own.	530	2.97	.925
7. I usually buy only the things I need.	530	3.44	1.042
8. I try to keep my life simple, as far as possessions are concerned.	530	3.23	.963
9. The things I own aren't all that important to me.	530	3.44	.923
10. I enjoy spending money on things that aren't practical.	530	2.76	1.078
11. Buying things give me a lot of pleasure.	530	3.47	1.023
12. I like a lot of luxury in my life.	530	2.74	1.070
13. I put less emphasis on material things than most people I know.	530	3.20	1.080
14. I have all the things I really need to enjoy life.	530	2.81	1.052
15. My life would be better if I owned certain things I don't have.	530	3.14	1.030
16. I wouldn't be any happier if I owned nicer things.	530	2.75	1.021
17. I'd be happier if I could afford to buy more things.	530	3.44	.943

Materialism	N	Mean	Standard Dev.
18. It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	530	3.48	.949
The Material Values	530	3.0648	.38060
Valid N (list wise)	530		

Table 10 above shows the mean scores and standard deviations of the respondents’ level of materialism, based on the 18 items of the Materialism Values Scale items. The item “It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like” had the highest mean (Mean=3.48; SD=.949). The second highest mean was for the “Buying things give me a lot of pleasure” item with Mean=3.47; SD=1.023. The item “I admire people who own expensive homes, cars, and clothes” had the lowest mean (Mean= 2.33; SD=.958).

*Religiosity.*

Table 11 shows the frequency and percentage distribution of the respondents’ level of religiosity, based on their responses to the Duke Religion Index (DRI).

Table 11

*Frequency and Percentage Distribution of Religiosity – Part 1*

Religiosity	Frequency (Percentage)						
	more than once a week	once a week	a few times a month	a few times a year	once a year or less	never	Total
1. How often do you attend formal religious meeting.	18 (3.4%)	24 (4.5%)	162 (30.6%)	230 (43.4%)	63 (11.9%)	33 (6.2%)	530 (100.0%)
2. How often do you spend time in private religious activities (prayer...)	141 (26.6%)	68 (12.8%)	110 (20.8%)	106 (20.0%)	55 (10.4%)	50 (9.4%)	530 (100.0%)

Table 11 shows the frequency and percentage distribution of the formal attendances in religious meetings. The formal attendance in religious meetings of “a few times a year” group had the highest frequency and percentage (frequency=230; percentage=43.4). The “a few times a month” group had the second highest frequency and percentage (frequency=162; percentage=30.6). The lowest frequency and percentage was for the “more than once a week” group (frequency=18; percentage=3.4).

Table 11 also shows the frequency and percentage distribution of the number of times they spend in private religious activities. The group of “more than once a week” had the highest frequency and percentage (frequency=141; percentage=26.6). The “a few times a month” group had the second highest frequency and percentage (frequency=110; percentage=20.8). The lowest frequency and percentage was for the “never” group (frequency=50; percentage=9.4).

Table 12

*Frequency and Percentage Distribution of Religiosity – Part 2*

Religiosity	Frequency (Percentage)					
	definitely true of me	tends to be true	unsure	tends not to be true	definitely not true	Total
3. In my life, I experience the presence of the Absolute One.	73 (13.8%)	168 (31.7%)	201 (37.9%)	68 (12.8%)	20 (3.8%)	530 (100.0%)
4. My religious beliefs are what really lie behind my whole approach to life.	76 (14.3%)	258 (48.7%)	132 (24.9%)	49 (9.2%)	15 (2.8%)	530 (100.0%)
5. I try hard to carry my religion over into all other dealings in life.	140 (26.4%)	259 (48.9%)	86 (16.2%)	39 (7.4%)	6 (1.1%)	530 (100.0%)

Table 12 shows the frequency and percentage distribution of the item “...I experience the presence of the Absolute One” (No. 3). The experience of “unsure” group had the highest frequency and percentage (frequency=201; percentage=37.9). The “tends to be true” group had the second highest frequency and percentage (frequency=168; percentage=31.7). The lowest frequency and percentage was for the “definitely not true” group (frequency=20; percentage=3.8).

The same table shows the frequency and percentage distribution of the item “...beliefs are what really lie behind my whole approach to life” (No. 4). The experience of “tends to be true” group had the highest frequency and percentage (frequency=258; percentage=48.7). The “unsure” group had the second highest frequency and percentage (frequency=132; percentage=24.9). The lowest frequency and



percentage was for the “definitely not true” group (frequency=15; percentage=2.8).

Also depicted in Table 12 is the frequency and percentage distribution of the item “carry my religion over into all other dealings in life” (No. 5). The group of “tends to be true” had the highest frequency and percentage (frequency=259; percentage=48.9). The “definitely true of me” group had the second highest frequency and percentage (frequency=140; percentage=26.4). The lowest frequency and percentage was for the “definitely not true” group (frequency=6; percentage=1.1).

Table 13  
*Mean Scores and Standard Deviations of Religiosity*

The Material Values	N	Mean	Standard Dev.
1. How often do you attend formal religious meetings.	530	3.75	1.048
2. How often do you spend time in private religious activities (prayer, meditation, Bible reading, etc.)	530	3.03	1.631
3. In my life, I experience the presence of the Absolute One.	530	2.61	.999
4. My religious beliefs are what really lie behind my whole approach to life.	530	2.38	.937
5. I try hard to carry my religion over into all other dealings in life.	530	2.08	.904
The Material Values	530	2.7683	.76010
Valid N (list wise)	530		

Table 13 above shows the mean scores and standard deviations of level of religiosity.

### *Inferential Statistics (Hypothesis Testing)*

#### *Hypothesis Testing of $H_{o1}$*

$H_{o1}$ : *There are no significant differences in the attitude towards casino gambling among Thai Buddhist undergraduate students of Assumption University as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.*

In response to the stated null hypothesis, the *T*-test was used for the demographic variable of gender, and the *F*-test or one-way ANOVA was used for the demographic variables of age, monthly family income, cumulative GPA, and frequency of temple attendance to see the differences in the attitude towards casino gambling across the variables.

The attitude towards casino gambling was tested for the demographic variables gender, age, monthly family income, cumulative GPA, and frequency of temple attendance. Corollary or sub-hypotheses of  $H_{o1}$  were formulated to test differences in the attitude towards casino gambling as a function of gender ( $H_{o1a}$ ), age ( $H_{o1b}$ ), monthly family income ( $H_{o1c}$ ), cumulative GPA ( $H_{o1d}$ ), and frequency of temple attendance ( $H_{o1e}$ ).

Hypothesis  $H_{01a}$ : *There is no significant difference in the attitude towards casino gambling for males and females.*

Table 14

*The Test of Gender Differences in the Attitude towards Casino Gambling*

The Attitude towards Casino Gambling		N	$\bar{X}$	Standard Dev.	T-test	df	Sig.
Gender	Male	217	26.0000	9.31198	6.264	435.745	.000*
	Female	313	21.0319	8.47313			
	Total	530	23.0660	9.15036			

\* The mean difference is significant at the .05 level.

To test this, independent sample *T*- test was computed for the attitude towards casino gambling for males and females and the results can be seen in Table 14. Independent sample *T*- test showed that there is a significant difference between males and females for the attitude towards casino gambling,  $t=6.264$ ,  $p=.000^*$ . Males scored higher in the attitude towards casino gambling compared to females with  $\bar{X}=26.0000$  and  $SD=9.31198$  for males and  $\bar{X}=21.0319$  and  $SD=8.47313$  for females.

Hypothesis  $H_{01b}$ : *There is no significant difference in the attitude towards casino gambling across different age groups.*

Table 15

*Means and Standard Deviations of the Attitude towards Casino Gambling for Different Age Levels*

The Attitude towards Casino Gambling		N	$\bar{X}$	Standard Dev.
Age	17 and below	4	19.0000	7.78888
	18 - 20	347	22.6167	9.08534
	21 - 23	164	23.9207	9.22452
	24 or above	15	25.2000	9.84305
	Total	530	23.0660	9.15036

Table 15 above shows the different categories of age group as well as the mean values and standard deviations of the attitude towards casino gambling for different age groups. There were 4 subjects from the age of “17 or below” group; 347 subjects in the group of age “18 – 20”; 164 subjects in the group of age “21 – 23”; and 15 subjects in the group of age “24 or above”.

As seen in Table 15, it was found that the age group “24 or above” scored highest in the attitude towards casino gambling compared with the other three groups with  $\bar{X}=25.2000$  and  $SD=9.84305$ ; “21 - 23” age group with  $\bar{X}=23.9207$  and  $SD=9.22452$ ;  $\bar{X}=22.6167$  and  $SD=9.08534$  for “18 - 20”; and the group of age “17 or below” scored lowest compared with the other three groups with  $\bar{X}=19.0000$  and  $SD=7.78888$ .

For analysis, the Univariate Analysis of Variance (ANOVA) was computed to see if there is a significant difference in the attitude towards casino gambling based on age level.

Table 16

*ANOVA Table for Attitude towards Casino Gambling across Different Age Groups - Test of Between-Subjects Effects*

The Attitude towards Casino Gambling	Sum of Squares	<i>df</i>	Mean Square	F	Sig.
Between Groups	324.296	3	108.099	1.293	.276*
Within Groups	43968.393	526	83.590		
Total	44292.689	529			

\* The mean difference is significant at the .05 level.

Dependent Variable: Attitude towards Casino Gambling

To test this, the Univariate Analysis of Variance (*F*-ratio) was computed for the attitude towards casino gambling for the different age groups and the results can be seen in Table 16 above. Results showed that there is no significant difference between age levels in the attitude towards casino gambling,  $F=1.293$ ,  $p=.276^*$ . Hence the null-hypothesis is accepted.



Hypothesis Ho<sub>1c</sub>: *There is no significant difference in the attitude towards casino gambling for subjects with different monthly family income.*

Table 17

*Means and Standard Deviations of the Attitude towards Casino Gambling for Different Monthly Family Income*

Monthly Family Income	N	$\bar{X}$	Standard Dev.
<20000 baht	87	22.6322	9.23985
20000-40000 baht	123	23.0163	9.02454
40001-60000 baht	107	22.1495	8.80695
>60000 baht	213	23.7324	9.36466
Total	530	23.0660	9.15036

Table 17 shows the mean values and standard deviations of the attitude towards casino gambling for different monthly family income groups. There were 87 subjects from the monthly family income group “below 20,000 baht”; 123 subjects in the group of “20,000-40,000 baht”; 107 subjects in the group of “40,001-60,000 baht”; and 213 subjects in the group of “60,000 baht and above”.

By looking at the means and standard deviations table, it was found that even though the 60,000 baht and above group has the highest scores and the 40,001-60,000 baht group has the lowest scores in the attitude towards casino gambling, compared with the other three groups, the difference of the results are not statistically significant.

Table 18

*ANOVA Table for Attitude towards Casino Gambling across Different Monthly Family Income - Test of Between-Subjects Effects*

The Attitude towards Casino Gambling	Sum of Squares	<i>df</i>	Mean Square	F	Sig.
Between Groups	201.137	3	67.046	.800	.494*
Within Groups	44091.551	526	83.824		
Total	44292.689	529			

\* The mean difference is significant at the .05 level.

Dependent Variable: Attitude towards Casino Gambling

Table 18 shows the results of the Univariate Analysis of Variance (*F*-ratio) which indicates that there is no significant difference in the attitude towards casino gambling across the different monthly family income groups,  $F=.800$ ;  $p=.494^*$ . Hence the null-hypothesis is accepted.

Hypothesis  $H_{01d}$ : *There is no significant difference in the attitude towards casino gambling for subjects with different Cumulative GPA* \*

Table 19

*Means and Standard Deviation of the Attitude towards Casino Gambling for Subjects with Different Cumulative GPA*

Cumulative GPA	N	$\bar{X}$	Standard Dev.
1.00 or below	8	25.3750	8.92729
1.01 – 2.00	37	24.7027	9.67490
2.01-3.00	333	23.4384	9.20679

Cumulative GPA	N	$\bar{X}$	Standard Dev.
3.01-4.00	152	21.7303	8.82649
Total	530	23.0660	9.15036

Table 19 above shows the mean values and standard deviations of the attitude towards casino gambling across different categories of cumulative GPA. By looking at the details provided, it can be noted that the “1.00 or below” group has the highest scores in the attitude towards casino gambling ( $\bar{X}$ =25.3750; SD= 8.92729), compared to the other three groups and the “3.01-4.00” group has the lowest scores in the attitude towards casino gambling ( $\bar{X}$ =21.7303; SD=8.82649).

Table 20

*ANOVA Table for Attitude towards Casino Gambling for Different Cumulative GPA - Test of Between-Subjects Effects*

Cumulative GPA	Sum of Squares	<i>df</i>	Mean Square	F	Sig.
Between Groups	459.155	3	153.052	1.837	.139*
Within Groups	43833.534	526	83.334		
Total	44292.689	529			

\*The mean difference is significant at the .05 level.  
Dependent Variable: Attitude towards Casino Gambling

Table 20 shows the results of the Univariate Analysis of Variance (*F*-ratio) which indicates that there is no significant difference in the attitude towards casino gambling across the subjects with different cumulative GPA; ( $F$ =1.837;  $p$ =.139\*). Hence the null-hypothesis is accepted.

Hypothesis Ho<sub>1c</sub>: *There is no significant difference in the attitude towards casino gambling for subjects with frequency of temple attendance (times per month).*

Table 21

*Means and Standard Deviations of the Attitude towards Casino Gambling for Subjects with Different Frequency of Temple Attendance (Times per Month)*

Frequency of Attendance to Temple	N	$\bar{X}$	Standard Dev.
once or never	345	23.8493	8.97868
2 times	131	21.2214	8.94882
3 times	34	21.4412	9.83251
4 times or more	20	22.4000	10.70366
Total	530	230660	9.15036

Table 21 shows the mean values and standard deviations for the attitude towards casino gambling according to the frequency of temple attendance (times per month).

Table 22

*ANOVA Table for Attitude towards Casino Gambling for Different Frequency of Temple Attendance - Test of Between-Subjects Effects*

Frequency Attendance to Temple	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	782.764	3	260.921	3.154	.025*
Within Groups	43509.925	526	82.718		
Total	44292.689	529			

\* The mean difference is significant at the .05 level.

Dependent Variable: Attitude towards Casino Gambling

Table 22 shows the  $F$ -ratio attitude towards casino gambling across frequency of temple attendance per month. There is a significant difference in attitude towards casino gambling across the different frequency of temple attendance among the student groups ( $F=3.154$ ;  $p=.025^*$ ). Hence the null-hypothesis is rejected.

Table 23

*Post Hoc Test Scheffe for Multiple Comparisons of Different Frequency of Temple Attendance per Month and Attitude towards Casino Gambling*

(I) Frequency of Temple Attendance	(J) Frequency of Temple Attendance	Mean Difference (I-J)	Standard Error	Sig.
once or never	2 times	2.62790(*)	.93338	.049*
	3 times	2.40810	1.63483	.538
	4 times or more	-.55072	2.09181	.995
2 times	once or never	-2.62790(*)	.93338	.049*
	3 times	-.21980	1.75052	.999
	4 times or more	-3.17863	2.18343	.548
3 times	once or never	-2.40810	1.63483	.538
	2 times	.21980	1.75052	.999
	4 times or more	-2.95882	2.56297	.721
4 times or more	once or never	.55072	2.09181	.995
	2 times	3.17863	2.18343	.548
	3 times	2.95882	2.56297	.721

\* The mean difference is significant at the .05 level.

Dependent Variable: attitude towards Casino



Table 23 shows the multiple comparisons of the frequency of temple attendance on the eleven sub-factors of the attitude towards casino gambling. There is a significant difference between the numbers of temple attendance with regard to the attitude towards casino gambling. Looking at post hoc test Scheffé for the multiple comparisons table, it is quite evident that there is a significant difference only between “once or never” and “2 times”. When “once or never” and “2 times” groups were compared with the other two categories, there was no significant difference between “3 times” and “4 times or more” groups.

It is quite clear that the “once or never” group has the highest scores in the attitude towards casino gambling compared to the other three groups, which can be observed by looking at the mean difference from Table 21. From these results it can be concluded that the less frequent the temple attendance per month, the more favorable the attitude towards casino gambling.

Hypothesis Testing of  $H_{02}$ : *There are no significant differences in the level of materialism among Thai Buddhist undergraduate students of Assumption University as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.*

In response to the stated null hypothesis, the  $T$ -test was used for the demographic variable of gender, and the  $F$ -test or one-way ANOVA were used for the demographic variables of age, monthly family income, cumulative GPA, and frequency of temple attendance to see the differences of the level of materialism across the variables.

Materialism was tested for the demographic variables gender, age, monthly family income, cumulative GPA, frequency of temple attendance, and casino betting experience. Corollary or sub-hypotheses of  $H_{o2}$  was formulated to test differences in materialism as a function of gender ( $H_{o2a}$ ), age ( $H_{o2b}$ ), monthly family income ( $H_{o2c}$ ), cumulative GPA ( $H_{o2d}$ ), and frequency of temple attendance ( $H_{o2e}$ ).

Hypothesis  $H_{o2a}$ : *There is no significant difference in materialism for males and females.*

Table 24

*Test of Gender Differences in Materialism*

Materialism		N	$\bar{X}$	Standard Dev.	T-test	df	Sig.
Gender	Male	217	35.3456	4.91553	-2.085	460.579	.038*
	Female	313	36.2460	4.84836			
	Total	530	35.8774	4.89145			

\* The mean difference is significant at the .05 level.

To test gender differences in level of materialism, independent sample  $T$ - test was computed for materialism between males and females and the results can be seen in Table 24. Independent sample  $T$ - test showed that there is a significant difference in materialism between males and females,  $t=-2.085$ ,  $p=.038^*$ . Females scored higher in the level of materialism compared to males with  $\bar{X}=36.2460$  and  $SD=4.84836$  for females and  $\bar{X}=35.3456$  and  $SD=4.91553$  for males.

Hypothesis Ho<sub>2b</sub>: *There is no significant difference in materialism across different age groups.*

Table 25

*Means and Standard Deviations of Materialism for Different Age Levels*

Materialism		N	$\bar{X}$	Standard Dev.
Age	17 or below	4	32.0000	6.37704
	18 - 20	347	35.9251	4.99018
	21 - 23	164	35.8598	4.64822
	24 or above	15	36.0000	4.89898
	Total	530	35.8774	4.89145

Table 25 shows the different categories of age group and the mean values and standard deviations of materialism across these different age groups. There were 4 subjects from the age of “17 or below” group; 347 subjects in the group of age “18 - 20”; 164 subjects in the group of age “21 – 23”; and 15 subjects in the group of age “24 or above”. As seen in Table 25, it was found through the mean scores and standard deviations that the group of age “24 or above” scored highest in materialism compared to the other three groups with  $\bar{X}=36.0000$  and  $SD=4.89898$ ; “18 - 20” age group with  $\bar{X}=35.9251$  and  $SD=4.99018$ ;  $\bar{X}=35.8598$  and  $SD=4.64822$  for “21 - 23”; and the group of age “17 or below” scored lowest compared with the other three groups with  $\bar{X}=32.0000$  and  $SD= 6.37704$ .

Table 26

*ANOVA Table for Materialism across Different Age Groups - Test of Between-Subjects Effects*

Materialism	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	61.202	3	20.401	.852	.466*
Within Groups	12595.826	526	23.946		
Total	12657.028	529			

\* The mean difference is significant at the .05 level.  
Dependent Variable: Materialism

The Univariate Analysis of Variance (*F*-ratio) was computed for materialism for age group and the results can be seen in Table 26. It showed that there is no significant difference between age levels for materialism,  $F = .852$ ,  $p = .466^*$ . Hence the null-hypothesis is accepted.

Hypothesis  $H_{02c}$ : *There is no significant difference in materialism for subjects with different monthly family income.*

Table 27

*Means and Standard Deviations of Materialism for Different Monthly Family Income*

Monthly Family Income	N	$\bar{X}$	Standard Dev.
<20000 baht	87	35.8276	4.81086
20000-40000 baht	123	35.1220	4.73665
40001-60000 baht	107	35.0280	4.51926
>60000 baht	213	36.7606	5.07063
Total	530	35.8774	4.89145

As seen in Table 27, the different categories of monthly family income were used to do the analysis; the table also shows the mean values and standard deviations of materialism for different monthly family income groups. There were 87 subjects from the monthly family income group “below 20,000 baht”; 123 subjects in the group of “20,000-40,000 baht”; 107 subjects in the group of “40,001-60,000” baht; and 213 subjects in the group of “60,000 baht” and above. It was found that even though the “60,000 baht and above” group has the highest scores and the “40,001-60,000 baht” group has the lowest scores in materialism, compared to the other three groups, the difference of the results are not statistically significant.

Table 28  
*ANOVA Table for Materialism across Different Family Income Groups - Test of Between-Subjects Effects*

Materialism	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	313.739	3	104.580	4.457	.004*
Within Groups	12343.289	526	23.466		
Total	12657.028	529			

\* The mean difference is significant at the .05 level.  
Dependent Variable: Materialism

Table 28 shows the results of the Univariate Analysis of Variance (*F*-ratio), which indicates that there is a significant difference in materialism across the different monthly family income group,  $F=4.457$ ;  $p=.004^*$ . Hence the null-hypothesis is rejected.



Table 29

*Post Hoc Test Scheffe for the Multiple Comparisons of Materialism and Monthly Family Income*

(I) Monthly Family Income	(J) Monthly Family Income	Mean Difference (I-J)	Standard Error	Sig.
<20000 baht	20000-40000 baht	.70563	.67861	.782
	40001-60000 baht	.79955	.69931	.728
	>60000 baht	-.93298	.61636	.515
20000-40000 baht	<20000 baht	-.70563	.67861	.782
	40001-60000 baht	.09391	.64039	.999
	>60000 baht	-1.63861(*)	.54859	.031*
40001-60000 baht	<20000 baht	-.79955	.69931	.728
	20000-40000 baht	-.09391	.64039	.999
	>60000 baht	-1.73253(*)	.57401	.029*
>60000 baht	<20000 baht	.93298	.61636	.515
	20000-40000 baht	1.63861(*)	.54859	.031*
	40001-60000 baht	1.73253(*)	.57401	.029*

\* The mean difference is significant at the .05 level.

Dependent Variable: Materialism

The above Table 29 shows the multiple comparisons of materialism on monthly family income. The results show that there is a significant difference between the group of “20000-40000 baht” and “60000 baht or more”, and between the group of “40001-60000 baht” and “60000 baht or more”. No significant difference was found between the group of “20000 baht” and “20000-40000 baht”, “40001-60000 baht”, “60000 baht

or more”. These results indicate that, among the participants, the higher the monthly family income, the higher the level of materialism.

Hypothesis Ho<sub>2d</sub>: *There is no significant difference in materialism for subjects with different Cumulative GPA*

Table 30  
*Mean and Standard Deviation of Materialism for Subjects with Different Cumulative GPA*

Cumulative GPA	N	$\bar{X}$	Standard Dev.
1.00 or below	8	35.7500	4.94975
1.01-2.00	37	36.4054	5.34093
2.01-3.00	333	36.0541	4.76339
3.01-4.00	152	35.3684	5.05949
Total	530	35.8774	4.89145

Table 30 shows the mean values and standard deviations of materialism across the different categories of cumulative GPA By looking at the details provided above, it can be noted that the group of “1.01-2.00” has the highest scores in materialism ( $\bar{X}$ =36.4054; SD=5.34093) compared to the other three groups and the “3.01-4.00” group has the lowest scores in materialism ( $\bar{X}$  =35.3684; SD= 5.05949).

Table 31

*ANOVA Table for Materialism across different cumulative GPA - Test of Between-Subjects Effects*

Cumulative GPA	Sum of Squares	<i>df</i>	Mean Square	F	Sig.
Between Groups	60.214	3	20.071	.838	.473*
Within Groups	12596.814	526	23.948		
Total	12657.028	529			

\* The mean difference is significant at the .05 level.

Dependent Variable: Materialism

The Univariate Analysis of Variance (*F*-ratio) seen in Table 31 indicates that there is no significant difference in materialism across the subjects with different cumulative GPA,  $F=.838$ ;  $p=.473^*$ . Hence the null-hypothesis is accepted.

Hypothesis  $H_{02c}$ : *There is no significant difference in materialism for subjects with different frequency of temple attendance (times per month).*

Table 32

*Means and Standard Deviations of Materialism for Subjects with Different Frequency of Temple Attendance (Times per Month)*

Frequency of Temple Attendance	N	$\bar{X}$	Standard Dev.
once or never	345	36.0029	4.91527
2 times	131	35.9466	4.32935
3 times	34	34.0294	5.15508
4 times or more	20	36.4000	6.90080
Total	530	35.8774	4.89145

Table 32 above shows the mean values and standard deviations for materialism according to the frequency of temple attendance per month. Looking at the details provided, there were four categories shown in the table. There were 345 participants with the “once or never” in temple attendance, 131 participants with the “2 times” in temple attendance, 34 participants with the “3 times” in temple attendance, and 20 participants with the “4 times or more” in temple attendance. It can be noted that the “4 times or more” group has the highest scores in materialism ( $\bar{X}=36.4000$ ;  $SD=6.90080$ ) compared to the other three groups and the “3 times” group has lowest scores in materialism ( $\bar{X}=34.0294$ ;  $SD= 5.15508$ ).

Table 33

*ANOVA Table for Materialism According to the Frequency of Temple Attendance -Test of Between-Subjects Effects*

Materialism	Sum of Squares	<i>df</i>	Mean Square	F	Sig.
Between Groups	127.635	3	42.545	1.786	.149*
Within Groups	12529.394	526	23.820		
Total	12657.028	529			

\* The mean difference is significant at the .05 level.

Dependent Variable: Materialism

Table 33 shows the *F*-ratio of materialism across frequency of temple attendance per month. There is no significant difference in materialism across the different frequency of temple attendance ( $F=1.786$ ;  $p=.149^*$ ). Hence, the null-hypothesis is accepted.

Hypothesis Testing of  $H_{03}$ : *There are no significant differences in the level of religiosity among Thai Buddhist undergraduate students of Assumption University as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.*

The level of religiosity was tested for the demographic variables gender, age, monthly family income, cumulative GPA, and frequency of temple attendance. Corollary or sub-hypotheses of  $H_{03}$  were formulated to test differences in the level of religiosity as a function of gender ( $H_{03a}$ ), age ( $H_{03b}$ ), monthly family income ( $H_{03c}$ ), cumulative GPA ( $H_{03d}$ ), and frequency of temple attendance ( $H_{03e}$ ).

Hypothesis  $H_{03a}$ : *There is no significant difference in the level of religiosity between males and females.*

Table 34

*The Test of Gender Differences in Religiosity*

Religiosity		N	$\bar{X}$	Standard Dev.	T-test	df	Sig.
Gender	Male	217	14.0323	4.23104	.962	528	.336*
	Female	313	13.7093	3.47175			
	Total	530	13.8415	3.80048			

\* The mean difference is significant at the .05 level.

Independent sample *T*- test was computed for religiosity for males and females and the results can be seen in Table 34. Independent sample *T*- test showed that there is no significant difference between males and females for the level of religiosity,  $t=.962$ ,  $p=.336^*$ . Although males scored higher in the level of religiosity compared to females



with  $\bar{X} = 14.0323$  and  $SD = 4.23104$  for males and  $\bar{X} = 13.7093$  and  $SD = 3.47175$  for females, the difference between males and females is not statistically significant.

Hypothesis  $H_{03b}$ : *There is no significant difference in the level of religiosity across different age groups.*

Table 35

*Means and Standard Deviations of Level of Religiosity for Different Age Levels*

Religiosity		N	$\bar{X}$	Standard Dev.
Age	17 or below	4	13.7500	3.09570
	18 - 20	347	13.7666	3.73860
	21 - 23	164	14.0183	3.94513
	24 or above	15	13.6667	4.06495
	Total	530	13.8415	3.80048

Table 35 shows the different categories of age group which were used to do the analysis as well as the mean values and standard deviations of level of religiosity for different age groups. There were 4 subjects from the age group of “17 or below”; 347 subjects in the age group “18 - 20”; 164 subjects in the age group “21 - 23”; and 15 subjects in the age group “24 or above”.

It can be seen in the same table showing the mean scores and standard deviations that the age group “21 - 23” scored highest in religiosity compared to the other three groups with  $\bar{X} = 14.0183$  and  $SD = 3.94513$ ; “18 - 20” age group with  $\bar{X} = 13.7666$  and  $SD = 3.73860$ ;  $\bar{X} = 13.7500$  and  $SD = 3.09570$  for “17 or below”; and the

age group “24 or above” scored lowest, compared to the other three groups with  $\bar{X}=13.6667$  and  $SD=4.06495$ . For analysis, the Univariate Analysis of Variance was computed to see if there is a significant difference in the level of religiosity based on age level.

Table 36

*ANOVA Table for Religiosity across Different Age Levels - Test of Between-Subjects Effects*

Religiosity	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.566	3	2.522	.174	.914*
Within Groups	7633.121	526	14.512		
Total	7640.687	529			

\* The mean difference is significant at the .05 level.

Dependent Variable: Religiosity

The Univariate Analysis of Variance ( $F$ -ratio) was computed for the level of religiosity for different age group and the results can be seen in Table 36. It was revealed that there is no significant difference in religiosity between age levels,  $F= .174$ ;  $p=.914^*$ . Hence the null-hypothesis is accepted.

Hypothesis Ho<sub>3c</sub>: *There is no significant difference in the level of religiosity for subjects with different monthly family income.*

Table 37

*Means and Standard Deviations of the Level of Religiosity for Different Monthly Family Income*

Monthly Family Income	N	$\bar{X}$	Standard Dev.
<20000 baht	87	14.2759	4.03095
20000-40000 baht	123	13.7886	3.91979
40001-60000 baht	107	13.8224	3.54968
>60000 baht	213	13.7042	3.76952
Total	530	13.8415	3.80048

Table 37 shows the mean values and standard deviations of level of religiosity across different monthly family income groups. There were 87 subjects from the monthly family income group “below 20,000 baht”; 123 subjects in the group of “20,000-40,000 baht”; 107 subjects in the group of “40,001-60,000 baht”; and 213 subjects in the group of “60,000 baht and above”. It was found that even though the “20,000 baht or below” group has the highest scores and the “60,000 baht or more” group has the lowest scores in the level of religiosity compared to the other three groups, the difference of the results are not statistically significant.

Table 38

*ANOVA Table for Religiosity across Different Monthly Family Income - Test of Between - Subjects Effects*

Religiosity	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	20.811	3	6.937	.479	.697*
Within Groups	7619.876	526	14.486		
Total	7640.687	529			

\* The mean difference is significant at the .05 level.  
Dependent Variable: Religiosity

Table 38 shows the results of the Univariate Analysis of Variance (*F*-ratio) which indicate that there is no significant difference in religiosity across the different monthly family income group,  $F=.479$ ;  $p=.697^*$ . Hence the null-hypothesis is accepted. Hypothesis  $H_{03d}$ : *There is no significant difference in the level of religiosity for subjects with different Cumulative GPA*

Table 39

*Means and Standard Deviations of the Level of Religiosity for Subjects with Different Cumulative GPA*

Cumulative GPA	N	$\bar{X}$	Standard Dev.
1.00 or below	8	15.8750	3.75832
1.01 – 2.00	37	13.0811	3.26070
2.01-3.00	333	13.9339	3.86307
3.01-4.00	152	13.7171	3.76885
Total	530	13.8415	3.80048

Table 39 shows the mean values and standard deviations of level of religiosity across different categories of cumulative GPA It can be noted that the “1.00 or below” group has the highest scores in religiosity ( $\bar{X}$ =15.8750; SD=3.75832) compared to the other three groups and that the “1.01 – 2.00” group has the lowest scores in religiosity ( $\bar{X}$ =13.0811; SD=3.26070).

Table 40

*ANOVA Table for Religiosity across Different Cumulative GPA - Test of Between - Subjects Effects*

Cumulative GPA	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	59.673	3	19.891	1.380	.248*
Within Groups	7581.014	526	14.413		
Total	7640.687	529			

\* The mean difference is significant at the .05 level.  
Dependent Variable: Religiosity

Table 40 shows the results of the Univariate Analysis of Variance (*F*-ratio) which indicate that there is no significant difference in the level of religiosity across different cumulative GPA,  $F=1.380$ ;  $p=.248^*$ . Hence the null-hypothesis is accepted.

Hypothesis Ho<sub>3c</sub>: *There is no significant difference in the level of religiosity for subjects with different frequency of temple attendance (times per month).*

Table 41  
*Means and Standard Deviations of Level of Religiosity for Subjects with Different Frequency of Temple Attendance (Times per Month)*

Frequency of Temple Attendance	N	$\bar{X}$	Standard Dev.
once or never	345	14.9681	3.71697
2 times	131	12.0305	2.94811
3 times	34	11.0882	2.66706
4 times or more	20	10.9500	3.48944
Total	530	13.8415	3.80048

Table 41 shows the mean values and standard deviations for the level of religiosity according to frequency of temple attendance per month.

Table 42  
*ANOVA Table for Religiosity Based on the Frequency of Temple Attendance - Test of Between-Subjects Effects*

Frequency of Temple Attendance	Sum of Squares	<i>df</i>	Mean Square	F	Sig.
Between Groups	1292.474	3	430.825	35.697	.000*
Within Groups	6348.212	526	12.069		
Total	7640.687	529			

\* The mean difference is significant at the .05 level.  
Dependent Variable: Religiosity



Table 42 shows the  $F$ -ratio for religiosity across frequency of temple attendance per month. There is a significant difference in the level of religiosity across the different frequency of temple attendance ( $F=35.697$ ;  $p=.000^*$ ). Hence the null-hypothesis is rejected.

Table 43

*Post Hoc Test Scheffe for the Multiple Comparisons of Religiosity Based on the Frequency of Temple Attendance*

(I) Frequency of Temple Attendance	(J) Frequency of Temple Attendance	Mean Difference (I-J)	Standard Error	Sig.
once or never	2 times	2.93758(*)	.35653	.000*
	3 times	3.87988(*)	.62446	.000*
	4 times or more	4.01812(*)	.79901	.000*
2 times	once or never	-2.93758(*)	.35653	.000*
	3 times	.94230	.66865	.576
	4 times or more	1.08053	.83401	.642
3 times	once or never	-3.87988(*)	.62446	.000*
	2 times	-.94230	.66865	.576
	4 times or more	.13824	.97898	.999
4 times or more	once or never	-4.01812(*)	.79901	.000*
	2 times	-1.08053	.83401	.642
	3 times	-.13824	.97898	.999

\* The mean difference is significant at the .05 level.

Dependent Variable: Religiosity

The above Table 43 shows the multiple comparisons of level of religiosity based on the frequency of temple attendance. The results show that there is a significant difference only between the group of “once or never” and “2 times”, “3 times”, and “4 times or more” group. No significant difference was found between the three groups (“2 times”, “3 times”, “4 times or more”). These results indicate that those who had less frequent temple attendance had lower level of religiosity; those who had more frequent temple attendance had higher level of religiosity.

Hypothesis Testing of Ho<sub>4</sub>: *There is no significant relationship between attitude towards casino gambling and level of materialism among Thai Buddhist undergraduate students of Assumption University.*

The Pearson Product Moment correlation coefficient was used to determine the relationship between attitude towards casino gambling and level of materialism. The correlation results are given in the following table.

Table 44

*Correlation Results of Attitude towards Casino Gambling and Materialism*

		Attitude towards Casino Gambling	Materialism
Attitude towards Casino Gambling	Pearson Correlation	1	.154(**)
	Sig. (2-tailed)		.000
	N	530	530
Materialism	Pearson Correlation	.154(**)	1
	Sig. (2-tailed)	.000	
	N	530	530

\*\* Correlation is significant at the .01 level (2-tailed).

The correlation result shown in Table 44 indicates that there is a significant low positive relationship (.154\*\*) between attitude towards casino gambling and materialism at the 0.01 confidence level. This indicates that the more favorable the attitude towards casino gambling, the higher is the level of materialism. Alternatively, the less favorable the attitude towards casino gambling, the lower is the level of materialism.

Hypothesis Testing of Ho<sub>3</sub>: *There is no significant relationship between attitude towards casino gambling and level of religiosity among Thai Buddhist undergraduate students of Assumption University.*

This hypothesis was tested by running Pearson Correlation. The correlation results are given in the following Table 45.

Table 45  
*Correlation Results of Attitude towards Casino Gambling and Religiosity*

		Attitude towards Casino Gambling	Religiosity
Attitude towards Casino Gambling	Pearson Correlation	1	.178(**)
	Sig. (2-tailed)		.000
	N	530	530
Religiosity	Pearson Correlation	.178(**)	1
	Sig. (2-tailed)	.000	
	N	530	530

\*\* Correlation is significant at the .01 level (2-tailed).

The result of the correlation, as seen in Table 45, shows that there is a significant low positive relationship (.178\*\*) between attitude towards casino gambling and religiosity at the 0.01 confidence level. This indicates that the more favorable the attitude towards casino gambling, the higher is the level of religiosity. Alternatively, the less favorable the attitude towards casino gambling, the lower is the level of religiosity.

Hypothesis Testing of Ho<sub>6</sub>: *There is no significant relationship between level of materialism and level of religiosity among Thai Buddhist undergraduate students of Assumption University.*

This hypothesis was tested by running Pearson Correlation. The correlation results are given in the following Table 46.

Table 46  
*Correlation Results of Materialism and Religiosity*

		Materialism	Religiosity
Materialism	Pearson Correlation	1	.050
	Sig. (2-tailed)		.252
	N	530	530
Religiosity	Pearson Correlation	.050	1
	Sig. (2-tailed)	.252	
	N	530	530

\* Correlation is significant at the .01 level (2-tailed).

The correlation result indicates that there is no significant relationship between materialism and religiosity at the 0.01 confidence level. This indicates that level of materialism (high or low) has no influence on level of religiosity among the respondents.

## CHAPTER V

### Discussion

This final chapter contains six main sections, starting with a brief overview of the study, followed by the summary of findings. The findings are subsequently discussed. The researcher also draws conclusions based on the findings of the study. The limitations of the study are subsequently presented. Finally, the remaining section offers general recommendations as well as suggestions for further studies.

#### *Overview of the Study*

The present study was conducted primarily to examine the interrelationship among attitude towards casino gambling, materialism, and religiosity among Thai Buddhist undergraduate students of Assumption University. The study also aimed to examine significant differences in these three phenomena across different categories of gender, age, monthly family income, cumulative Grade Point Average, and frequency of temple attendance. This study utilized a descriptive, univariate, correlational, and cross-sectional research design. The participants of the study were comprised of 530 Thai Buddhist undergraduate students of Assumption University, recruited through convenience sampling. The research instrument (in Thai) consisted of a set of four questionnaires: personal information questionnaire, the Casino Attitudes Scale (CAS), the Material Values Scale (MVS), and the Duke Religion Index (DRI). Data analysis involved the use of appropriate descriptive and inferential statistical tools for respondent group profiling and for hypothesis testing, respectively.

### *Summary of Findings*

#### *Descriptive Statistics: Demographic Characteristics of the Respondents (N=530)*

##### *Gender.*

The majority of participants (59.1%) were female.

##### *Age.*

The majority of the participants (65.5%) were aged between 18-20 years.

##### *Monthly family income.*

The largest group of participants (40.2%) had a monthly family income of more than 60,000 Baht.

##### *Cumulative GPA.*

The majority of participants (62.8%) had obtained a cumulative GPA of 2.01 - 3.00.

##### *Frequency of temple attendance (times per month).*

The majority of participants (65.1%) had temple attendance of “once or never” (a month).

#### *Inferential Statistics: Hypotheses Testing*

##### *Attitude towards casino gambling and gender.*

There is a significant gender difference in attitude towards casino gambling; males scored higher than females which means males have a more favorable attitude towards casino gambling than females.

##### *Attitude towards casino gambling and age.*

There is no significant difference in attitude towards casino gambling across age levels; age does not influence attitude towards casino gambling.



*Attitude towards casino gambling and monthly family income.*

There is no significant difference in attitude towards casino gambling across monthly family income levels; monthly family income does not influence attitude towards casino gambling.

*Attitude towards casino gambling and cumulative GPA*

There is no significant difference in attitude towards casino gambling across cumulative GPA levels; cumulative GPA does not influence attitude towards casino gambling.

*Attitude towards casino gambling and frequency of temple attendance.*

There is a significant difference in attitude towards casino gambling, based on frequency of temple attendance; the less frequent the temple attendance per month, the more favorable the attitude towards casino gambling.

*Materialism and gender.*

There is a significant difference in materialism between genders; females have higher level of materialism than males.

*Materialism and age.*

There is no significant difference in materialism for the different age groups; age does not influence level of materialism.

*Materialism and monthly family income.*

There is a significant difference in materialism across different monthly family income; the higher the monthly family income, the higher the level of materialism.

*Materialism and cumulative GPA*

There is no significant difference in materialism across different cumulative GPA; cumulative GPA does not influence level of materialism.

*Materialism and frequency of temple attendance.*

There is no significant difference in materialism across frequency of temple attendance; frequency of temple attendance does not influence level of materialism.

*Religiosity and gender.*

There is no significant difference in religiosity between males and females; gender does not influence level of religiosity.

*Religiosity and age.*

There is no significant difference in religiosity across age groups; age does not influence level of religiosity.

*Religiosity and monthly family income.*

There is no significant difference in religiosity across monthly family income levels; monthly family income does not influence level of religiosity.

*Religiosity and cumulative GPA*

There is no significant difference in religiosity across cumulative GPA levels; cumulative GPA does not influence level of religiosity.

*Religiosity and frequency of temple attendance.*

There is a significant difference in religiosity across frequency of temple attendance; those who have more frequent temple attendance have higher level of religiosity.

*Relationship between attitude towards casino gambling and materialism.*

There is a significant low positive relationship between attitude towards casino gambling and materialism; the more favorable the attitude towards casino gambling, the higher is the level of materialism.

*Relationship between attitude towards casino gambling and religiosity.*

There is *a significant low positive relationship* between attitude towards casino gambling and religiosity; the more favorable the attitude towards casino gambling, the higher is the level of religiosity.

*Relationship between materialism and religiosity.*

There is *no significant relationship* between materialism and religiosity; level of materialism (high or low) has no influence on level of religiosity.

*Discussion of Findings*

In discussing the results, it is important to note the context from which the participants were recruited and revisit some of their background variables, relative to hypothesis testing, as an aid for interpretation. In this study, the participants of the study were comprised of 530 Thai Buddhist undergraduate students of Assumption University, recruited through convenience sampling out of a total of 14,704 Thai Buddhist undergraduate students at Assumption University in the first semester of academic year 2008 (Office of the University Registrar, 2008).

*Discussion of Findings on Hypothesis One*

In the following section, discussion focused on the results of hypothesis testing on the five corollary or sub-hypotheses of  $H_{01}$  which were formulated to test differences in the attitude towards casino gambling as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.

Results of hypothesis testing showed the following significant findings: there were significant differences in attitude towards casino gambling as a function of gender, and frequency of temple attendance. On the other hand, no significant differences in

attitude towards casino gambling were found as a function of age, monthly family income, and cumulative GPA. Discussion starts with significant findings followed by non-significant findings.

*Attitude towards casino gambling as a function of gender, and frequency of temple attendance.*

In this study, males were found to have a more favorable attitude towards casino gambling than females. This outcome echoes that of Chantal, Vallerand, and Vallieres (1995) in that women are less involved in gambling than men. The finding is also in line with that of Kassinove (1998) who found that men reported more positive attitudes toward gambling in casinos than women. Furthermore, Dumida, Thongkum and Damchaom (2007) revealed that there were significant relationships between the attitude toward football gambling and gender, among others. It is clear that the outcome of this study reflects most previous findings on the same variables.

This study found that the less frequent the temple attendance per month, the more favorable the attitude towards casino gambling. This finding is partly supported by Azmier (2000) who found that negative attitudes toward video lottery terminals varied with frequency of church attendance. Additionally, Ellison, and Nybroten (1999) found that people who attended religious services more frequently were more likely to oppose state-supported lotteries. All these studies suggest that, regardless of whether people go to temples or churches, the more infrequent the attendance, the greater is the attraction towards gambling.

*Attitude towards casino gambling as a function of age, monthly family income, cumulative GPA*

This study found that age does not influence attitude towards casino gambling. Similarly, Welte et al. (2002) found that the extent of gambling involvement among gamblers did not vary with age. In contrast, however, some studies revealed that age is significantly associated with casino participation (Zaraneck & Chapleski, 2005; Mackay, Patton, & Broszeit, 2005; Kerber, 2005). Differences in outcome suggest that more research is needed to have more conclusive findings.

It was found that monthly family income does not influence attitude towards casino gambling. This finding is contradicted by a number of previous studies (Zaraneck & Chapleski, 2005; Abbott & Cramer, 1993; Dumida, Thongkum, & Damchaom, 2007) which revealed that income is a contributory factor towards gambling. Clearly, the results of this study did not find any support from previous studies; perhaps it can be said that the current study has posed a fresh insight into these variables. under study which, fundamentally, may have to do with individual differences.

It was found that cumulative GPA does not influence attitude towards casino gambling. This is not consistent with a number of studies (Lesieur et al., 1991; Ladouceur, Boudreal, Jacques, & Vitaro, 1999; Ladouceur, 1999) which collectively revealed that there is a negative correlation between pathological gambling and academic achievement among college/university students. Perhaps the lack of support from previous studies may be attributed to the fact that these cited studies focused more on pathological gambling, which was not the intention of the current study.

### *Discussion of Findings on Hypothesis Two*

In the following section, discussion focused on the results of hypothesis testing on the five corollary or sub-hypotheses of  $H_{02}$  which were formulated to test differences in materialism as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.

Results of hypothesis testing showed the following significant findings: there were significant differences in materialism as a function of gender and monthly family income. On the other hand, no significant differences in materialism were found as a function of age, cumulative GPA, and frequency of temple attendance. Discussion starts with significant findings followed by non-significant findings.

#### *Materialism as a function of gender and monthly family income.*

This study's results revealed that females have a higher level of materialism than males. This is only partly supported by the study of Swaim (1994) who revealed that there is a significant relationship between gender and overall materialism among college undergraduates, although it was not clear who had scored higher in materialism. In contrast, Sahdev and Gautama (2007) found a difference between the materialistic tendencies of males and females; males tend to be more materialistic. Furthermore, Richins and Dawson (1992) results showed that males had higher average scores in materialism than females. Roberts and Clement (2007), however, found that there was no significant difference between the males and females tendencies for difference in preferences on success, centrality, or the composite measure of materialism. The matter of gender differences in materialism, obviously, has not been confirmed as demonstrated in these conflicting studies. In this study, it must also be pointed out that



majority of participants were female; this may have, to some extent, affected the results. Nonetheless, further research is warranted for a more definitive answer.

It was found, in this study, that the higher the monthly family income, the higher the level of materialism. This is not supported by the finding of Sangkhawasi and Johri (2007) who found a correlation between materialism and status perception in that the more income the respondents had, the less is the correlation between materialism and status perception. Neither does this present study's finding concur with that of Roberts and Clement (2007) who revealed that the states of the lowest income were most materialistic; they indicated that, as income falls, respondents in the study were more likely to equate happiness with materialism possession. This study's surprising finding on materialism and family income may be reflective of the income bracket from which most of the participants were recruited; in this study, the largest group of participants had a monthly family income of more than 60,000 Baht (the highest income category).

*Materialism as a function of age, cumulative GPA, and frequency of temple attendance.*

It was found in this study that there is no significant difference in materialism for the different age groups; age does not influence level of materialism. This result is not consistent with previous literature that documents the importance of age in the discussion of materialism. For example, Chaplin and John (2007) found that materialistic values increased from middle childhood to early adolescence and declines from early to late adolescence. Furthermore, Kara (2003) and Kara (2006) indicated that there were significant differences in children's perception of material possessions between the different of age levels, and stated that younger children were more materialistic than older children.

The study found no significant difference in materialism between the subjects with different cumulative GPA; GPA does not influence level of materialism. Again, this result has not claimed any support from previous studies. In stark contrast, Chan and Hu (2007) found a strong linkage between material possessions and poor academic achievement. Chan (2004) found there negative attitudes towards materialistic values among Chinese children who believed that owning lots of toys was wasteful and would have an adverse effect on their academic achievement. In this study, it came out that the students perceived no association between their materialistic values and their academic performance or, alternatively, that their grades had no impact on how they perceive material possessions and values.

Likewise, it was found in this study that the students' frequency of temple attendance as well as casino betting experience do not influence their level of materialism. The former finding is partly supported by Inglehart (1997) who found that among people in post-materialist countries, the proportion of weekly church-goers was lower. It is interesting to note that Thai students, in this study, see no connection between their temple attendance and materialism whereas in a Western context, according to Simon and Gagnon (1976, as cited in Lindridge, 2005), heightened levels of materialism is attributed to a decline in symbolic objects such as churches and the reverence of status symbols such as housing and cars.

### *Discussion of Findings on Hypothesis Three*

In the following section, discussion focused on the results of hypothesis testing on the five corollary or sub-hypotheses of  $H_{03}$  which were formulated to test differences in religiosity as a function of gender, age, monthly family income, cumulative GPA, and frequency of temple attendance.

Results of hypothesis testing showed one significant finding: there was a significant difference in religiosity as a function of frequency of temple attendance (only). On the other hand, no significant differences in religiosity were found as a function of gender, age, monthly family income, and cumulative GPA. Discussion starts with the significant finding followed by non-significant findings.

*Religiosity as a function of frequency of temple attendance.*

The study's results showed that there is a significant difference in religiosity across frequency of temple attendance; those who have more frequent temple attendance have higher level of religiosity. This finding is partly supported by BraOas-Garza and Neuman (2004) who found that religiosity is positively related to exposure to religious activity (during childhood). The researcher believes that there is nothing surprising with this result whether the study was conducted in a Buddhist, Christian, Muslim, or any religious context. After all, in this study, religiosity is operationalized as referring to the frequency with which one attends formal religious services, the amount of time spent in private religious activities, and the degree to which one integrates religiousness into his/her life.

*Religiosity as a function of gender, age, monthly family income, and cumulative GPA.*

On the whole, it was found in this study that the students' gender, age, monthly family income, and cumulative GPA do not influence their level of religiosity.

With regard to gender, a number of previous studies (Kanieski, 2000; Walter & Davie, 1998; Bergan & McConatha, 2000; Gallup International Association, 2005) found the opposite—that women are comparatively more religious than men. It may be that, in the present study, the non-existing relationship between religiosity and gender

may be explained in the sense that the ways in which Buddhist religious values and ideals are held and practiced by the students may have developed across time and space, regardless of whether they are males or females.

It was found that there is no significant difference in religiosity across different age groups. This result is not supported by a number of studies. Both studies by BraOas-Garza and Neuman (2004), Levin and Taylor (1993) found that religious activity increased with age. Furthermore, Bergan and McConatha (2000), and Gallup International Association (2005) found that religiosity increased with age.

Likewise, no significant difference in religiosity was found in terms of monthly family income, cumulative GPA, and casino betting experience. These findings do not fit well with a number of studies that found the opposite results. For example, Gallup International Association (2005) reported that religion appears to be influenced by income; that religiousness was stronger among lower income households when compared to respondents with medium and high income. Srinivasan and Sharan (2005) also demonstrated that income influences religiosity when they found that the respondents who belonged to high socioeconomics statuses were highly religious and those in low socioeconomics statuses were less religious. Finally, with regard to GPA, the finding does not concur with that of Muller and Ellison (2001) who found that the religious involvement of adolescents were consistently and positively associated with subsequent academic achievement. Moreover, Reyes (2006), and McKune and Hoffmann (2006) explored the significant relationship between spirituality and religiosity and its correlation to academic achievement.

The non-significant findings of the present study did not fit well with previous findings. The source of these differences may be the result of using different procedures for sample selection, instrumentation, and/or statistical analysis. In any case, the need

for further research on the factors that influence religiosity seems necessary and worthwhile.

#### *Discussion of Findings on Hypothesis Four to Six*

##### *Correlation between attitude towards casino gambling and materialism.*

The correlation results showed that there is a *significant positive relationship* between attitude towards casino gambling and materialism. This can be interpreted as the more favorable the attitude towards casino gambling, the higher is the level of materialism, and vice-versa. This finding is summed up by Kwok, Ming, and So (2006) who found that among their student respondents, around 30% are gamblers; that gamblers are materialistic, and believe that gambling can make quick money. They observed that gamblers can be classified into three categories: those who enjoy life; those who enjoy social life; and those who are materialistic and money conscious. This researcher believes that the attraction for gambling among materialistic people poses a great risk. Materialistic gamblers may use their skills and luck to win more money but if they don't succeed, they end up losing a lot of money. Either way, the vicious cycle continues.

##### *Correlation between attitude towards casino gambling and religiosity.*

The results of the correlation, indicates that there is a *significant low positive relationship* between attitude towards casino gambling and religiosity; the more favorable the attitude towards casino gambling, the higher is the level of religiosity. At first glance, this is a surprising finding. However, looking at previous studies, this result was similarly demonstrated in Lam's (2006) study which revealed a strong link between public religiosity and gambling. Furthermore, the result was partly consistent with Diaz (2000) who found a significant difference in the frequency of religious participation



between gamblers and non-gamblers. Lam (2006) found a strong link between public religiosity and gambling. This researcher posits that the relationship found can be explained in terms of frequency of religious participation but not so much in terms of reported importance of faith. In other words, it may be that students who gamble pray or visit the temple more often either because of guilt or to seek more favors rather than to demonstrate religious fervor. Religiosity, according to the DRI designers, is manifested in the frequency with which one attends formal religious services or in terms of the amount of time spent in private religious activities.

*Correlation between materialism and religiosity.*

The result of the correlation showed that there is no significant relationship between materialism and religiosity; that is, level of materialism (high or low) has no influence on level of religiosity. This finding result does not concur with that of Venkatesh (1994) who found a positive relationship between materialism and religion, as materialistic possessions and spirituality are not considered opposites. Some studies have reported negative relationship between materialism and religiosity (e.g. Belk, 1985; Flouri, 2000). And neither does the finding agree with that of Barbera and Gürhan (1998) who found significant differences between high and low religiosity consumers with regard to the role of income and materialistic attitudes. The present finding, in a way, improves on the piecemeal nature in which these variables have been studied in the past and provides further insight into the relationship between materialism and religiosity.



### *Limitations of the Study*

This research was conducted only to find out the statistical interrelationship among attitude towards casino gambling, materialism, and religiosity among Thai Buddhist undergraduate students of Assumption University. Since the scope was limited only to the undergraduate students of a particular university, the findings of this study are applicable only to this group and are not recommended to be generalized to all students elsewhere. It is recognized that the inability of the researcher to conduct personal interviews and to administer/distribute the questionnaires himself has limited the opportunity to verify responses and respond to contingencies that may have arisen during the conduct of the survey. The absence of local literature about the interrelationship among attitude towards casino gambling, materialism, and religiosity among Thai students, particularly undergraduate students, is factored in as another limitation of the current study. Another limitation in this study is that there are inherent weaknesses in drawing causal inferences regarding the consequences of the predictor variables (demographic characteristics) on the three main variables, based on correlational data. Obviously, the results of this study cannot fully address the causality question. Finally, the researcher acknowledges that the number of respondents is relatively small compared to the population in question; however, it can be said that the nature and outcome of this study will fill some knowledge gap and will contribute to the literature on the interrelationship among these variables among Thai undergraduate students.

### *Conclusion*

The positive results of the relationship between attitude towards casino gambling and materialism as well as religiosity among Thai Buddhist undergraduate students and the absence of a relationship between materialism and religiosity warrant new perspectives and continuing investigation on the issue. In the predominantly Buddhist setting of this study, it is important to note that the present study demonstrated that the less frequent the students' temple attendance, the more favorable their attitude towards casino gambling and, in effect, the higher is their level of materialism. It would appear that the more the students ascribe importance to the ownership and acquisition of material goods in achieving major life goals or desired states, the more attracted they would be towards casino gambling as well as other gambling activities which can be seen as an easy means of acquiring ready cash which would enable them to acquire more material goods; and the vicious cycle continues. Complicating things further is the tendency of students to limit their attendance or participation in both public and private religious activities as their materialistic values and gambling preferences heighten. If the university, the students' family, and society in general were to take steps to reverse the situation, then effective intervention measures need to be developed and implemented fairly quickly that would endeavor to change the students' mindset and impress on them the importance of religiousness in their lives as well as negate the seeming attractiveness of casino gambling and obsession towards material things by highlighting their harmful effects on the body, mind, and spirit.

The current study's findings support the use of religious participation to moderate gambling, an often employed method on problem gamblers. A person at risk to problem gambling may have benefited from community or social involvement while undergoing or providing religious services that leads to subsequent gambling

withdrawal. The results of this study can be supplementary information to businessmen and the government when considering the setting up of casino houses within the country. A sustainable gaming business requires one to be sensitive to the cultural, social and religious aspects of the communities within its operating environment. While selecting gambling sites, businesses need to consider the impact of religion. Finally, this study provides greater insights to the understanding of the factors that may help protect individuals against problem gambling.

### *Recommendations*

#### *Implications for Gambling Policy*

Gambling among university students is one of the major problems that Thai society is now facing. It involves cooperation and responsibility from every sector since the effect of such problem could reflex national, economic, and social stability. Moreover, the problem tends to have wider influence on group of students and young generation which may later affect their education, financial state, family and relationships and future in some cases due to illegal means adopted. Therefore, gambling problem among university students is an important issue that social and educational institutions and every other sector must pay attention to and work together in order to address such problem. Here are areas of involvement and responsibility suggested for each sector.

#### *To Thai Government Leaders and Policy Makers*

The government office should acknowledge the issue of problem gambling in the country and declare its intention to take proactive steps to reduce and combat the problem. The government offices should facilitate the establishment of a national

support group for people who have gambling problems, in conjunction with existing groups such as Gamblers Anonymous, GamAnon and GamHelp. The national support group should incorporate “rehabilitated” gamblers and existing groups should be accredited by the Board on the basis of proven records of successful intervention and support to affected individuals and families. Besides, a national toll-free help line may be established for callers in need of counseling and linked to other services such as Telefriend and LifeLine as well as to therapy programs aimed at overcoming gambling problems. Other precautionary measures such as delivering anti-gambling messages, encouraging schools to organize anti-gambling activities for students, reinforcing anti-gambling laws, supporting and sponsoring strategic alliances and the anti-gambling organizations (e.g. Counseling Centre, Gamblers Recovery Centre), monitoring the advertisement of gambling opportunities to ensure that they do not become excessively aggressive or manipulative, displaying warnings about the dangers of excessive uncontrolled gambling at all gambling venues may be taken.

*To Educational Institutions, University Administrators, and School Counselors*

School educational syllabi should include a component outlining the dangers of gambling. This could be incorporated into a module dealing with the risks of alcohol and other substances abused. Additionally, anti-gambling and correct financial management messages can be delivered. Also teachers and school social workers should pay more attention to students to prevent them from engaging in gambling activity. Educational institutions should locate and monitor any area that maybe an access to gambling, promote and support positive activities relating to personal development especially ones that promote the use of free time efficiency, conduct exhibition or event that helps promote awareness and knowledge regarding to harmful

effects of gambling and any method as well as media which are accesses to gambling addiction, support and promote student organization or network for them to watch over one another closely, provide consulting center or hotline for immediate response and consultancy, set rules and regulations to protect online gambling while using university internet service, cooperate with nearby local police station for frequent inspection for any gambling involvement that may occur inside or surrounding area of the university, set decisive punishment for student who are involved in gambling related crimes, and consider any other preventative regulations in order to prevent gambling in the university.

#### *To Parents and Students*

Parents/senior members in the family should behave well and stay away from gambling activities to act as role models and pay attention to the friends of their children. Family members should try to help each others to quit gambling, help the youth select friends and stay away from the gamblers. Retired husbands and housewives should broaden their social circles, participate in various activities which can help them to stay away from gambling temptation and everyone should try to foster the concept that money is not everything and have a positive value of life.

All individuals younger than 18 years should be prohibited from gambling and their access to venues where gambling takes place should be strictly policed by requesting customers to produce their identity documents; problem gamblers should be identified proactively by casino operators, using most-valued guest cards or similar promotional methods; individuals who are identified as problem gamblers should be excluded from all gambling venues for a period of two years and self-exclusion should also be facilitated where necessary.



### *Implications for Future Research*

1. Subject to further research, gambling should be seen as an irresponsible and progressively addictive behavior that results in physical and emotional health problems that have an adverse effect on interpersonal relations as well as financial problems such as bankruptcy, embezzlement, fraud and default on financial obligations.
2. Further research should be undertaken at an educational institutions level to monitor the incidence of gambling, in general, and casino gambling, in particular. Additionally, representative research among regular gamblers should be conducted to clarify the nature of gambling and to determine the point at which it may be perceived to deteriorate from being a bad habit into a psychological disease.
3. Future research should utilize a larger sample size in order to provide more precise measures of casino gambling, materialism, and religiosity. Accurately gauging the levels of these three phenomena will require a very large sample size. Additionally, a larger sample size will allow for more accurate analyses of various subgroups, such as age groups, as well as allow for more precise estimates of the influence of demographic as well as psychosocial predictor variables on the three dependent variables.
4. Similar studies can be conducted that focus on other religions and beliefs, various levels of study, and various ethnicities for more diversified implications.
5. The analyses in this study were based on cross-sectional data which allowed only the specification of associative relationships. Future research utilizing longitudinal designs and time-lagged correlations would be useful in substantiating causal inferences made in this study.



## REFERENCES

- Abbott, D.A. & Cramer S.L. (1993). Gambling attitudes and participation: A midwestern survey. *Journal of Gambling Studies*, 9 (3), 247-263.
- Abbott, M.W., & Volberg, R.A. (2000). *Taking the pulse on gambling and problem gambling in New Zealand: A report on phase one of the 1999 national prevalence survey*. New Zealand, The Department of Internal Affairs.
- Adams, G.R., Sullivan, A. Horton, K.D., Menna, R., & Guilmette, A.M. (2007). A study of differences in Canadian university students' gambling and proximity to a casino. *Journal of Gambling*, 19, 9-17.
- Allport, G.W. (1950). *The individual and his religion: A psychological interpretation*. New York: Macmillan.
- Allport, G.W., & Ross, J.M. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology*, 5, 423-443.
- Apithanakoon, Y. (2003). *The study on the establishment of a legal casino in Thailand*. Project Report, Master of Science in Computer and Engineering Management, Assumption University of Thailand.
- Azmier, J.J. (2000). Canadian Gambling Behaviour and Attitudes: Summary Report. *Gambling In Canada Research Report No. 8*.
- Bangkok Post. (June 16, 2008). General news: *EURO 2008; Huge numbers of young people betting*.
- Barbera, P., & Gürhan, Z. (1998). The role of materialism, religiosity, and demographics in subjective well-being. *Psychology and Marketing*, 14 (1), 71-97.

- Belk, R.W. (1985). Materialism: Trait Aspects of Living in the Material World. *Journal of Consumer Research*, 12, 265–279.
- Bergan, A. & McConatha, J. T. (2000). Religiosity and life satisfaction. *Activities, Adaptation & Aging*, 24 (3), 23 – 34.
- Bernstein, P.L. (1996). *Against the gods*. New York: John Wiley and Sons.
- Binde, P. (2007). Gambling and religion: Histories of concord and conflict. *Journal of Gambling*, 20, 145-166.
- BraOas-Garza, P. & Neuman, S. (2004). Analyzing Religiosity within an Economic Framework: The Case of Spanish Catholics. *Review of Economics of the Household*, 1(03), 5-22.
- Chan, K. (2004). Material world: attitudes towards toys in China. *Young Consumers: Insight and Ideas for Responsible Marketers*, 6 (1), 54-65.
- Chan, K., & Hu, H. (2007). *Perception of possessions and personality traits among urban children*. Paper presented at the British Psychology Society Conference, Social Psychology Section: Kent, September 5-7, 2007.
- Chantal, Y., Vallerand, R.J., & Vallieres, E.F. (1995). Motivation and Gambling Involvement. *The Journal of Social Psychology*, 135(6), 755-763.
- Chaplin, L.N.G., & John, D.R. (2007). Growing up in a Material World: Age Differences in Materialism in Children and Adolescents. *Journal of Consumer Research*, 34.
- Croucher, R. (2008). Online Article: *Wanna Bet? A Christian View on Gambling*. Retrieved on June 1, 2008. Form <http://jmm.aaa.net.au/articles/679.htm>
- Delener, N. (1994). Religious contrasts in consumer decision behaviour patterns: Their dimensions and marketing implications. *European Journal of Marketing*, 28 (5), 36–53.

- Diaz, J. (2000). Religion and gambling in sin-city: A statistical analysis of the relationship between religion and gambling patterns in Las Vegas residents. *The Social Science Journal*, 37(3), 453–458.
- Dumida, A., Thongkum, P. & Damcha-om, M. (2007). Attitude toward Football Gambling and Football Gambling Behavior of Youths, Changwat Pattani. *วารสารศึกษาศาสตร์ มหาวิทยาลัยสงขลานครินทร์ วิทยาเขตปัตตานี ปีที่ 18 ฉบับที่ 2*
- Ellison, C.G., Gay, D.A. & Glass, T.A. (1989). *Does religious commitment contribute to individual life satisfaction?* *Social Forces*, 68(1), 100–123.
- Ellison, C. G., & Nybrotten, K. A. (1999). Conservative Protestantism and opposition to state-sponsored lotteries: Evidence from the 1997 Texas Poll. *Social Science Quarterly*, 80, 356–369.
- Elsasser, G., Kavan, M. & Westerman, G. (2007). *Pharmacy student experiences with gambling: A survey of attitudes, exposure and impact*. Paper presented at the annual meeting of the American Association of Colleges of Pharmacy, Disney's Yacht & Beach Club Resort, Lake Buena Vista, Florida, July 14, 2007.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intension, and behavior: An introduction*. Reading, Massachusetts: Addison-Wesley.
- Fisher, S. (2000). Measuring the prevalence of sector specific problem gambling: a study of casino patrons. *Journal of Gambling Studies*, 16, 25–52.
- Flouri, E. (2000). An integrated model of consumer materialism: Can economic socialization and maternal values predict materialistic attitudes in adolescents? *The Journal of Socioeconomics*, 28 (6), 707-724.
- Gaboury, A., & Ladoucer, R. (1988). Irrational thinking and gambling. In Eadington, W.R. (Ed.), *Gambling Research: Proceedings of the Seventh International Conference on Gambling and Risk Taking*, Reno, University of Nevada-Reno.

- Gallup International Association, (2005). Religiosity - an analysis by socio-demographics. *Voice of the People* 2005.
- Graduate School of Studies. (2008). *Postgraduate and doctoral programs prospectus* 2008. Assumption University.
- Grichting, W.L. (1986). The impact of religion on gambling in Australia. *Australian Journal of Psychology*, 38 (1), 45 – 58.
- Herman, R.D. (1976). *Gamblers and gambling*. USA: D.C. Health and Company.
- Inglehart, R., (1997). *Modernization and post-modernization: Cultural, economic, and political change in 43 societies*, Princeton, NJ: Princeton University Press.
- Israel, G.D. (1992). *Sampling the evidence of extension program impact*. Program Evaluation and Organizational Development, IFAS, University of Florida.
- Kanieski, M.A. (2000). Gender differences in religious behavior: Applying a selective incentives model of religion. Unpublished doctoral dissertation. Purdue University. West Lafayette, Indiana, USA.
- Kara, C. (2003). Materialism among Chinese children in Hong Kong. *Young Consumers: Insight and Ideas for Responsible Marketers*, 4 (4), 47-56.
- Kara, C. (2006). Exploring children's perceptions of material possessions: a drawing study. *Qualitative Market Research: An International Journal*, 9 (4), 352-366.
- Kassinove, J.I., Tsytsarev, S.V. & Davidson, I. (1997). Russian attitudes toward gambling. *Journal of Personality and Individual Differences*, 24, (1), 41-46.
- Kassinove, J.I., (1998). Development of the Gambling attitude scales: Preliminary finding. *Journal of Clinical Psychology*, 54 (6), 763-771.
- Kerber, C.S. (2005). Problem and pathological gambling among college athletes. *Annual of Clinical Psychiatry*, 17 (4), 243-247.

- Koenig, H.G., Parkerson, G.R., & Meador, K.G. (1997a), Religion index for psychiatric research: a 5-item measure for the use in health outcome studies, *American Journal of Psychiatry*, 154 (6), 885-897.
- Koenig, H.G., Parkerson, G.R., & Meador, K.G. (1997b). Religion index for psychiatric research. *American Journal of Psychiatry*, 153, 885–886.
- Kwok, S., Ming, S. Y., & So. S. (2006). *Will you become a gambler?* A Survey on Gambling Behaviours of Hong Kong People, CUHK Department of Marketing, Chinese University of Hong Kong, Hong Kong. Retrieved on 26<sup>th</sup> October 2008 from <http://www.cuhk.edu.hk/ipro/pressrelease/060816e.htm>
- Ladouceur, R. (1999). Pathological gambling and related problems among adolescents. *Journal of Child & Adolescent Substance Abuse*, 8 (4), 55 - 68.
- Ladouceur, R., Boudreault, N., Jacques, C., & Vilaro, F. (1999). Pathological gambling and related problems among adolescence. *Journal of Child and Adolescent Substance Abuse*. 8; 55-68.
- Ladouceur, R., Dube, D. & Bujold, A. (1994). Prevalence of pathological gambling related problems among college students in theQuebec Metropolitan area. *Canadian Journal of Psychiatry*. 39; 289-293.
- Lam, D. (2006). The influence of religiosity on gambling participation (online). *Journal of Gambling Studies*, 22, 305–320.
- Lesieur, H. R., Cross, J., Frank, M., Welch, M., White, C.M., Rubenstein, G., Moseley, K. & Mark, M. (1991). Gambling and pathological gambling among university students. *Addictive Behaviors*, 16, 517-527.
- Levin, J.S. & Taylor, R.J. (1993). Gender and age differences in religiosity among black Americans. *The Gerontologist*, 33 (1), 16-23.



- Lindridge, A. (2005). Religiosity and the construction of a cultural-consumption identity. *Journal of Consumer Marketing*, 22 (3), 142-151.
- Mackay, T., Patton, D., & Broszeit, B. (2005). *Student gambling report, 2005*. AFM Research, September 2005.
- McKune, B. & Hoffmann, J. (2006). *religion and academic achievement among adolescents*. Paper presented at the annual meeting of the American Sociological Association, Montreal Convention Center, Montreal, Quebec, Canada.
- Moschis G.P. & Churchill, G.A. (1978). Consumer socialization: A theoretical and empirical analysis. *Journal of Consumer Research*, 15, 599–609.
- Mukerji, C. (1983). *From Graven Images: Patterns of Modern Materialism*. New York: Columbia University Press.
- Muller, C., & Ellison, C.G. (2001). Religious involvement, social capital, and adolescents' academic progress: Evidence from the national longitudinal study of 1988. *Sociological Focus*, 34, 155-183.
- Myers, B.C. (2007). Religiosity and gender role attitudes. *American Journal of Psychological Research*, 3 (1), 34-42.
- Office of the University Registrar. (2008). *Number of Undergraduates Students, Academic Year 1/2008*. Assumption University. Retrieved on July 24, 2008.
- Online-Casinos.co.uk. *The risks of gambling abuse and addiction*. Retrieved on June 10, 2008. <http://www.online-casinos.co.uk/Casino/Casino-Gambling-Articles/The-Risks-of-Gambling-Abuse-and-Addiction-337.html>
- Peltzer K, & Thole J.M. (2000). *Gambling attitudes among black South African university students*. Department of Psychology, University of the North, Sovenga, South Africa.



- Productivity Commission (1999). *Australia's gambling industries: Draft report*. July 1999. Canberra, Australia.
- Raj, C.N. (1993). *Materialism and satisfaction with life in three religious contexts: The case of India*. Unpublished doctoral dissertation, Saint Louis University. St. Louis, Missouri, USA.
- Rajeev, K. (2005). Influence of materialism, gender and nationality on consumer brand perceptions. *Journal of Targeting, Measurement and Analysis for Marketing*, 14 (1), 25–32.
- Rassuli, K.M., & Hollander, S.C. (1986). Desire – induced, innate, insatiable? *Journal of Marcomarketing*, 6, 4–24.
- Reader's Digest (สารสาระ: Thai Edition), (July 2008). ตัวเลขมีอะไร, *Editorial article*, 14.
- Reyes, G.M. (2006). *Spirituality and religiosity: Their relation to academic achievement of undergraduate college students*. Unpublished doctoral dissertation, Northern Arizona University, Arizona, USA.
- Richins, M.L. (1994). Special possessions and the expression of material values. *Journal of Consumer Research*, 21, 522–533.
- Richins, M.L. (2004). The material values scale: Measurement properties and development of a short form. *Journal of Consumer Research*, 31, 209–219.
- Richins, M.L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, 19, 303–316.
- Roberts, J.A. & Clement, A. (2007). Materialism and satisfaction with over-all quality of life and eight life domains. *Social Indicators Research*, 82, 79-92.
- Ryan, L. & Dziurawiec, S. (2000). Materialism and its relationship to life satisfaction. *Social Indicators Research*, 55, 185–197.

- Sahdev, A. & Gautama, P. (2007). *Are consumer perceptions of brand affected by materialism?* Research Paper presented to International Marketing Conference on Marketing & Society, 8-10 April, 2007.
- Sangkhawasi, T. & Johri, L.M. (2007). Impact of status brand strategy on materialism in Thailand. *Journal of Consumer Marketing*, 24 (5), 275-282.
- Schumacher, S., & McMillan, J.H. (1993). *Research in education: A conceptual introduction*. New York: Harper Collins.
- Sherman, A.C., Plante, T.G., Simonton, S., Adams, D.C., Harbison, C. & Burris, S.K. (1999). *A Multidimensional measure of religious involvement for cancer patients: the Duke Religious Index*. *Support Care Cancer*, 8 (2), 102-109.
- Sims, F. (2007). Casino gambling: *The lived experiences of women over the age of 40*. Retrieved on June 7, 2008. From <http://proquest.umi.com/pqdweb?did=1402174031&sid=9&Fmt=2&clientId=58702&RQT=309&VName=PQD>.
- Smith, J.F., & Abt, V. (1984) Gambling as Play. *Annals of the American Academy of Political and Social Science*, 474, 122-132.
- Srinivasan, K., & Sharan, R. (2005). *Religiosity and health*. Retrieved on September 7, 2008. From <http://mpira.ub.uni-muenchen.de/7076/>.
- Storch, E.A., Roberti, J.W., Heidgerken, A.D., Storch, J.B., Lewin, A.B., Killiany, E.M., Baumeister, A.L., Bravata, E.A. & Geffken, G.R. (2004). The Duke Religion Index: A Psychometric Investigation. *Pastoral Psychology*, 53 (2), 175-181.
- Sutton, R. & Griffiths, M. D. (2008). The casino attitudes scale: The development of a new brief psychometric instrument. *International Journal of Mental Health*, 6, 244-248.

- Swaim, K. R. (1994). *The effect of involvement in student clubs/groups among college undergraduates and the perceived importance of altruism and social activism and the perceived importance of materialism and status*. Unpublished doctoral dissertation, California State University Long Beach, California, USA.
- Swinyard, W.R., Kau, A-K., & Phua, H-Y. (2001), Happiness, materialism, and religious experience in the US and Singapore. *Journal of Happiness Studies*, 2, 13-32.
- The Nation (March 6, 2008): *Talk of the Town; Casino Royale*.
- Thomas, D.L. (1997). *Assessing the mediating role of adolescent religiosity on the relationship between parenting and adolescent social initiative, depression, and antisocial behavior*. Paper presented at the Third Brigham Young University Conference on Youth and Families, Sundance: UT, October 1997.
- Thompson, W.N. (2008), *Gambling in America: An Encyclopedia and Legalized Gambling*. Retrieved on May 31, 2008. From [http://encarta.msn.com/encyclopedia\\_761560772\\_2/gambling.htm](http://encarta.msn.com/encyclopedia_761560772_2/gambling.htm).
- Venkatesh, A. (1994). India's changing consumer economy: a cultural perspective, *Advances in Consumer Research*, 21, 323-328.
- Walker, M.B. (1985). Explanations for gambling, In Caldwell, G. T., Dickerson, M. G., Haig, B., and Synlvan, L. (eds.), *Gambling in Australia*. Sydney: Croom Helm.
- Walker, M.B., (1988). Betting shops and slot machines: comparisons among gamblers. In Eadington, W.R. (ed.), *Gambling Research: Gamblers and Gambling Behavior*. Nevada: University of Nevada-Reno, USA.
- Walker, M.B. (1995). *The psychology of gambling*. Exeter, BPC Wheatons.

- Walter, R.B. (2007). *Diffusion of an economic development policy innovation: Explaining the international spread of casino gambling*. Unpublished doctoral dissertation. The University of Southern Mississippi, Mississippi, USA.
- Walter, T. & Davie, G. (1998). The Religiosity of women in the Modern West. *The British Journal of Sociology*, 49(4), 640-660.
- Ward, S. & Wackman, D. (1971), Family and media influences on adolescent learning, *American Behavioral Scientist*, 14, 415-427.
- Welte, J.W., Barnes, G.M., Wieczorek, W.F., Tidwell, M. & Parker, J. (2002). Gambling Participation in the U.S.- Results from a National Survey. *Journal of Gambling Studies*, 18 (4), 313-337.
- Williams, R.J., Wood, R.T., & Nowatzki, N. (2006). Gambling and problem gambling in a sample of university students. *Journal of Gambling Issues*. 16.
- Wood, R.T.A., & Griffiths, M.D. (2004). Adolescent lottery and scratchcard players: Do their attitudes influence their gambling behaviour? *Journal of Adolescence*, 27 (4), 467-475.
- Yamane, T. (1967). *Statistics: An introductory analysis* (2<sup>nd</sup> Ed.). New York: Harper and Row.
- Zarnek, R.R. & Chapleski, E.E. (2005). Casino gambling among urban elders: Just another social activity? *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 60, 74-81.
- Zoll, R. (2005). *Poll: Religious devotion high in U.S.* Associated Press.

## APPENDIX A

## SURVEY QUESTIONNAIRE

This questionnaire is being distributed to gather information for a master's research. The information will be treated as group data and used for research purposes only and will be kept anonymous and confidential; there is no need to write your name or ID. Your cooperation is highly appreciated. Thank you for your time.

**Part I: Personal Information**

Directions: Please check the appropriate choice for each item that corresponds to you.

Gender: ☐ Male ☐ Female

Age: ☐ 17 or younger ☐ 18 - 20  
☐ 21 - 23 ☐ 24 or above

Monthly Family Income: ☐ Less than 20,000 Baht ☐ 20,000 – 40,000 Baht  
☐ 40,001 – 60,000 Baht ☐ More than 60,000 Baht

Cumulative GPA: ☐ 1.00 or below ☐ 1.01 – 2.00  
☐ 2.01 – 3.00 ☐ 3.01 – 4.00

Frequency of Temple Attendance: ☐ Once or never ☒ Twice  
(Times per month) ☐ 3 times ☐ 4 times and more

## Part II: CAS

Directions: The following section asks about your attitudes towards casinos. Note that there is no right or wrong answer, so please answer honestly.

Given the following rating: **1= Totally Disagree**, **2= Disagree**, **3=Neither Agree nor disagree**, **4=Agree**, and **5=Totally Agree**, indicate your response by circling one of the five numbers following each item accordingly.

1. I do/would find going to a casino invigorating.	1	2	3	4	5
2. I do/would feel excited about going to a casino.	1	2	3	4	5
3. Gambling in casinos is/strikes me as an enjoyable past time.	1	2	3	4	5
4. Gambling in casinos appeals to me.	1	2	3	4	5
5. I do/would gamble in casinos if the opportunity arises/arose.	1	2	3	4	5
6. I can/could be myself in a casino.	1	2	3	4	5
7. I do/would feel relaxed in a casino.	1	2	3	4	5
8. I do/would feel comfortable in a casino environment.	1	2	3	4	5
9. I do not/would not feel intimidated by being in a casino.	1	2	3	4	5
10. Visiting a casino does not/would not make me feel anxious.	1	2	3	4	5
11. I do/would not have to think about choosing to visit a casino.	1	2	3	4	5



**Part III: MVS**

Directions: Using the scale below and circle the number that corresponds to the best answer. Note that there is no right or wrong answer. Please answer honestly.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I admire people who own expensive homes, cars, and clothes.	1	2	3	4	5
2. Some of the most important achievements in life including acquiring material possessions.	1	2	3	4	5
3. I don't place much emphasis on the amount of material objects people own as a sign of success.	1	2	3	4	5
4. The things I own say a lot about how well I'm doing in life.	1	2	3	4	5
5. I like to own things that impress people.	1	2	3	4	5
6. I don't pay much attention to material objects other people own.	1	2	3	4	5
7. I usually buy only the things I need.	1	2	3	4	5
8. I try to keep my life simple, as far as possessions are concerned.	1	2	3	4	5
9. The things I own aren't all that important to me.	1	2	3	4	5
10. I enjoy spending money on things that aren't practical.	1	2	3	4	5
11. Buying things give me a lot of pleasure.	1	2	3	4	5
12. I like a lot of luxury in my life.	1	2	3	4	5
13. I put less emphasis on material things than most people I know.	1	2	3	4	5
14. I have all the things I really need to enjoy life.	1	2	3	4	5
15. My life would be better if I owned certain things I don't have.	1	2	3	4	5
16. I wouldn't be any happier if I owned nicer things.	1	2	3	4	5
17. I'd be happier if I could afford to buy more things.	1	2	3	4	5
18. It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	1	2	3	4	5

#### Part IV: DRI

Directions: This questionnaire seeks information about your religious attitudes and beliefs. Please try to answer each item as appropriately as possible.

1. How often do you attend formal religious meetings?

- |  |   |
|--|---|
| <input type="checkbox"/> 1 - More than once a week | <input type="checkbox"/> 2 - Once a week        |
| <input type="checkbox"/> 3 - A few times a month   | <input type="checkbox"/> 4 - A few times a year |
| <input type="checkbox"/> 5 - Once a year or less   | <input type="checkbox"/> 6 - Never              |

2. How often do you spend time in private religious activities (prayer, meditation, Bible reading, etc.)?

- |  |   |
|--|---|
| <input type="checkbox"/> 1 - More than once a week | <input type="checkbox"/> 2 - Once a week        |
| <input type="checkbox"/> 3 - A few times a month   | <input type="checkbox"/> 4 - A few times a year |
| <input type="checkbox"/> 5 - Once a year or less   | <input type="checkbox"/> 6 - Never              |

3. In my life, I experience the presence of the Absolute One.

- |  |   |
|--|---|
| <input type="checkbox"/> 1 - Definitely true of me | <input type="checkbox"/> 2 - Tends to be true     |
| <input type="checkbox"/> 3 - Unsure                | <input type="checkbox"/> 4 - Tends not to be true |
| <input type="checkbox"/> 5 - Definitely not true   |   |

4. My religious beliefs are what really lie behind my whole approach to life.

- |  |   |
|--|---|
| <input type="checkbox"/> 1 - Definitely true of me | <input type="checkbox"/> 2 - Tends to be true     |
| <input type="checkbox"/> 3 - Unsure                | <input type="checkbox"/> 4 - Tends not to be true |
| <input type="checkbox"/> 5 - Definitely not true   |   |

5. I try hard to carry my religion over into all other dealings in life.

- |  |   |
|--|---|
| <input type="checkbox"/> 1 - Definitely true of me | <input type="checkbox"/> 2 - Tends to be true     |
| <input type="checkbox"/> 3 - Unsure                | <input type="checkbox"/> 4 - Tends not to be true |
| <input type="checkbox"/> 5 - Definitely not true   |   |

## APPENDIX B

## แบบสอบถาม

แบบสอบถามนี้จัดทำขึ้นเพื่อรวบรวมข้อมูลสำหรับการทำวิทยานิพนธ์ปริญญาโท ข้อมูลจะถูกนำมา รวบรวมเป็นข้อมูลกลุ่มและใช้เพื่อวัตถุประสงค์ในงานวิจัยเท่านั้น จะไม่มีการเปิดเผยชื่อและจะเก็บ รักษาข้อมูลเป็นความลับ ท่านไม่จำเป็นต้องเขียนชื่อหรือรหัสประจำตัวนักศึกษา ขอขอบพระคุณอย่างสูงในความร่วมมือและเวลาของท่าน

## ส่วนที่ 1 : ข้อมูลส่วนตัว

กรุณาเครื่องหมาย X ลงในช่องสี่เหลี่ยมที่ตรงกับท่านที่สุด

1. เพศ ☐ ชาย ☐ หญิง
2. อายุ ☐ 17 ปีหรือน้อยกว่า ☐ 18 – 20 ปี  
☐ 21 – 23 ปี ☐ 24 ปีและมากกว่า
3. รายได้ของผู้ปกครองต่อเดือน  
☐ น้อยกว่า 20,000 บาท ☐ 20,000 – 40,000 บาท  
☐ 40,001 – 60,000 บาท ☐ มากกว่า 60,000 บาท
4. คะแนนเฉลี่ยสะสม (Cum. GPA)  
☐ 1.00 หรือน้อยกว่า ☐ 1.01 – 2.00  
☐ 2.01 – 3.00 ☐ 3.01 – 4.00
5. ความถี่ในการเข้าร่วมพิธีกรรมทางศาสนาที่วัด/โบสถ์ (จำนวนครั้งต่อเดือน)  
☐ 1 ครั้ง หรือไม่เคย ☐ 2 ครั้ง  
☐ 3 ครั้ง ☐ 4 ครั้ง หรือมากกว่า

**Remark:** This survey questionnaire was translated into Thai by Assoc. Prof. Warayuth Sriwarakul, Dean of Graduate School of Philosophy and Religion, Assumption University and back-translated by Ms. Thidarak Thamarongrat (Alumna).

## ส่วนที่ 2 : (CAS)

คำถามส่วนนี้สอบถามเกี่ยวกับทัศนคติของท่านที่มีต่อบ่อนกาสิโน (บ่อนการพนัน) กรุณาวงกลมล้อมรอบหมายเลขที่ตรงกับความรู้สึกของท่านมากที่สุด โปรดทราบว่าไม่มีคำตอบที่ถูกหรือผิด ดังนั้นกรุณาตอบอย่างตรงไปตรงมา

	ไม่เห็นด้วยโดยสิ้นเชิง	ไม่เห็นด้วย	ไม่เห็นด้วยแต่ไม่คัดค้าน	เห็นด้วย	เห็นด้วยทั้งหมด
1. ข้าพเจ้าจะพบ หรือพบว่า การไปบ่อนกาสิโนเป็นการสร้างพลังให้ชีวิต	1	2	3	4	5
2. ข้าพเจ้าจะรู้สึกตื่นเต้นเกี่ยวกับการได้ไปบ่อนกาสิโน	1	2	3	4	5
3. การเล่นพนันในบ่อนกาสิโนเป็นการใช้เวลาว่างที่สนุก	1	2	3	4	5
4. การเล่นพนันในบ่อนกาสิโนเป็นสิ่งที่ข้าพเจ้าชอบมาก	1	2	3	4	5
5. ข้าพเจ้าจะเล่น หรือเล่นการพนันในบ่อนกาสิโนถ้ามีโอกาส	1	2	3	4	5
6. ข้าพเจ้าเป็นตัวของตัวเองได้ในบ่อนกาสิโน	1	2	3	4	5
7. ข้าพเจ้าจะรู้สึก หรือรู้สึกผ่อนคลายในบ่อนกาสิโน	1	2	3	4	5
8. ข้าพเจ้าจะรู้สึกหรือรู้สึกสบายในสภาวะแวดล้อมในบ่อนกาสิโน	1	2	3	4	5
9. ข้าพเจ้าจะไม่รู้สึกท้อถอยเมื่ออยู่ในบ่อนกาสิโน	1	2	3	4	5
10. การได้เข้าไปในบ่อนกาสิโนไม่ทำให้ข้าพเจ้ารู้สึกกระวนกระวายใจ	1	2	3	4	5
11. ข้าพเจ้าไม่ต้องคิดมากเกี่ยวกับการเลือกที่จะเข้าไปในบ่อนกาสิโน	1	2	3	4	5

ส่วนที่ 3: (MVS)

กรุณาวางกลมล้อมรอบหมายเลขที่ตรงกับความคิดเห็นของท่านมากที่สุดในแต่ละลำดับข้อ

	ไม่เห็นด้วยอย่างมาก	ไม่เห็นด้วย	รู้สึกเฉย ๆ	เห็นด้วย	เห็นด้วยอย่างมาก
1. ท่านเลื่อมใสและนับถือบุคคลที่ครอบครอง บ้าน รถ และเสื้อผ้าราคาแพง	1	2	3	4	5
2. ความสำเร็จบางประการที่สำคัญรวมถึงการได้ครอบครองวัตถุ	1	2	3	4	5
3. ท่านไม่ให้ความสำคัญมากนักกับจำนวนของวัตถุที่ท่านมีไว้ในครอบครองเพื่อบ่งบอกถึงการประสบความสำเร็จ	1	2	3	4	5
4. วัตถุที่ท่านมีไว้ในครอบครองสื่อให้เห็นถึงการประสบความสำเร็จของท่าน	1	2	3	4	5
5. ท่านชอบครอบครองวัตถุสิ่งของที่สร้างความประทับใจให้กับผู้อื่น	1	2	3	4	5
6. ท่านไม่ให้ความสนใจต่อวัตถุสิ่งของที่ผู้อื่นครอบครอง	1	2	3	4	5
7. ท่านซื้อเฉพาะของที่จำเป็น	1	2	3	4	5
8. ท่านพยายามมีชีวิตเรียบง่ายในแง่ของการยึดติดกับวัตถุและสิ่งของ	1	2	3	4	5
9. สิ่งของที่ท่านครอบครองอยู่มิได้มีความสำคัญต่อท่าน	1	2	3	4	5
10. ท่านมีความสุขกับการใช้เงินซื้อของที่จำเป็น	1	2	3	4	5
11. การซื้อของทำให้ท่านมีความสุขมากมาย	1	2	3	4	5
12. ท่านชอบมีของใช้ฟุ่มเฟือยมากมายในชีวิต	1	2	3	4	5
13. ท่านให้ความสำคัญกับวัตถุสิ่งของน้อยกว่าคนอื่น ๆ ที่ท่านรู้จัก	1	2	3	4	5
14. ท่านมีครบทุกสิ่งทุกอย่างที่ท่านต้องการเพื่อจะใช้ชีวิตอย่างมีความสุข	1	2	3	4	5
15. ชีวิตของท่านคงดีกว่านี้ ถ้าท่านมีสิ่งของบางอย่างมากกว่าที่ท่านมีอยู่ในปัจจุบัน	1	2	3	4	5
16. ท่านไม่คิดว่าการมีสิ่งของมาก ๆ จะทำให้ท่านมีความสุขได้	1	2	3	4	5
17. ท่านคงมีความสุขมากกว่า ถ้าท่านสามารถซื้อหลายอย่างได้มากขึ้น	1	2	3	4	5
18. บางครั้งท่านรู้สึกลำบากใจ ที่ไม่สามารถซื้อของที่ท่านอยากได้	1	2	3	4	5

#### ส่วนที่ 4: (DRI)

คำถามนี้ต้องการหาข้อมูลเกี่ยวกับทัศนคติและความเชื่อของท่านที่มีต่อศาสนา กรณีกาเครื่องหมาย X ลงในช่องสี่เหลี่ยมตามแต่ละข้อที่ตรงกับท่านมากที่สุด

1. ท่านเข้าร่วมพิธีกรรมหรือพบปะชุมนุมทางศาสนาอย่างเป็นทางการที่วัดบ่อยแค่ไหน?

- |  |  |
|--|--|
| <input type="checkbox"/> มากกว่า 1 ครั้งต่อสัปดาห์ | <input type="checkbox"/> 1 ครั้งต่อสัปดาห์ |
| <input type="checkbox"/> 2-3 ครั้งต่อเดือน         | <input type="checkbox"/> 2-3 ครั้งต่อปี    |
| <input type="checkbox"/> 1 ครั้งต่อปีหรือน้อยกว่า  | <input type="checkbox"/> ไม่เคย            |

2. ท่านใช้เวลาในการทำกิจกรรมทางศาสนาส่วนตัวบ่อยแค่ไหน (สวดมนต์, ทำสมาธิ, อ่านพระไตรปิฎก, ฯลฯ)?

- |  |  |
|--|--|
| <input type="checkbox"/> มากกว่า 1 ครั้งต่อสัปดาห์ | <input type="checkbox"/> 1 ครั้งต่อสัปดาห์ |
| <input type="checkbox"/> 2-3 ครั้งต่อเดือน         | <input type="checkbox"/> 2-3 ครั้งต่อปี    |
| <input type="checkbox"/> 1 ครั้งต่อปีหรือน้อยกว่า  | <input type="checkbox"/> ไม่เคย            |

3. ในชีวิตส่วนตัวของข้าพเจ้า ข้าพเจ้าเคยมีประสบการณ์กับสิ่งศักดิ์สิทธิ์สูงสุด

- |  |                                       |
|--|---------------------------------------|
| <input type="checkbox"/> จริงแท้แน่นอนสำหรับข้าพเจ้า | <input type="checkbox"/> น่าจะจริง    |
| <input type="checkbox"/> ไม่แน่ใจ                    | <input type="checkbox"/> ไม่น่าจะจริง |
| <input type="checkbox"/> ไม่จริงแน่นอน               |                                       |

4. ความเชื่อทางศาสนาของข้าพเจ้าคือสิ่งที่อยู่เบื้องหลังวิถีคิดเกี่ยวกับชีวิตทั้งหมดของข้าพเจ้า

- |  |                                       |
|--|---------------------------------------|
| <input type="checkbox"/> จริงแท้แน่นอนสำหรับข้าพเจ้า | <input type="checkbox"/> น่าจะจริง    |
| <input type="checkbox"/> ไม่แน่ใจ                    | <input type="checkbox"/> ไม่น่าจะจริง |
| <input type="checkbox"/> ไม่จริงแน่นอน               |                                       |

5. ข้าพเจ้าพยายามอย่างมากที่จะนำเอาศาสนาของข้าพเจ้าไปใช้ในการดำเนินชีวิตด้านอื่น ๆ ทั้งหมด

- |  |                                       |
|--|---------------------------------------|
| <input type="checkbox"/> จริงแท้แน่นอนสำหรับข้าพเจ้า | <input type="checkbox"/> น่าจะจริง    |
| <input type="checkbox"/> ไม่แน่ใจ                    | <input type="checkbox"/> ไม่น่าจะจริง |
| <input type="checkbox"/> ไม่จริงแน่นอน               |                                       |



## APPENDIX C

## Reliability Analysis of Thai Questionnaire

*Reliability of Pre-test*

Reliability Coefficients

Number of Cases = 30

Number of Items = 39

Cronbach's Alpha = .7483

*Reliability of Actual Respondents*

Reliability Coefficients

Number of Cases = 530

Number of Items = 39

Cronbach's Alpha = .8007

