

**THE INFLUENCE OF INSTITUTIONAL  
FACTORS AND INTEGRATION TOWARDS  
STUDENTS' INTELLECTUAL DEVELOPMENTS:  
A CASE STUDY OF THREE CAMBODIAN  
PUBLIC UNIVERSITIES**

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**UNIVERSITI SAINS MALAYSIA**

**2016**

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**by**

**SAM RANY**

**Thesis submitted in fulfilment of the requirements  
for the degree of  
Doctor of Philosophy**

**March 2016**

## ACKNOWLEDGEMENT

First of all, I would like to thank GOD for giving me the strength, persistence, and determination to complete this doctoral thesis. I would like to thank the Cambodian Catholic Cambodia (CCC) and the Jesuit Service Cambodia (JSC) for awarding me Undergraduate and Postgraduate Scholarship Schemes from 1999 to 2006. My special thank goes to **Bishop Fr. Olivier Schmitthaeusler, M.E.P.**, a Bishop of Phnom-Penh Apostolic Vicariates and **Fr. Indon Francisco Oh, SJ.**, a Delegate of the Korea Provincial for the Cambodian Mission. My special thanks and deepest acknowledgement goes to **Sr. Lucia Manywong**, a Representative of Hong Kong Catholic Lay Missionary to Cambodia and **Fr. Luca, PEME**. I also would like to convey my sincere thanks to the Universiti Sains Malaysia (USM) for giving me **the USM PhD fellowship Scheme 2011-2014** to pursue this doctoral study.

Secondly, I would like to express my profound gratitude and sincere appreciation to my supervisors, **Prof. Dr. Ahmad Nurulazam Md. Zain**, Professor in the School of Educational Studies and Former Director of National Higher Education Research Institute and **Assoc. Prof. Dr. Hazri Bin Jamil** for their constructive advices, professional guidance, and kind helps in making this thesis a reality. I also would like to express my profound thanks to **Assoc. Prof. Dr. Rozinah Jamaludin** for her kind help and encouragement.

I would like to thank **Fr. Ashley John Evans, SJ** for his English proofreading and **Dr. Thien Lee Mei** for her critical comments on my thesis proposal. I would like to express my sincere thanks to **Prof. Dr. Hairul Nizam Ismail**, Dean of the School of Educational Studies, Universiti Sains Malaysia for his kind motivation and guidance. My sincere thank goes to the faculty members, academic staff, and students from three Cambodian public universities for their cooperation and assistance in carrying out this study. I also would like to express my gratitude to the *Royal Government of Cambodia* through the *Ministry of Education, Youth and Sports* that provided me a study leave permission for three years in Malaysia.

Last but not least, I would like to extend my grateful thanks to my beloved father, mother, wife, and all those who offered me encouragement, support, patience, and prayers throughout my doctoral journey in Malaysia.

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## **LIST OF ABBREVIATION**

ACC	Accreditation Committee of Cambodia
AID	Academic and Intellectual Development
ADB	Asian Development Bank
CO-SEM	Covariance Structural Equation Modelling
CUR	Curriculum Syllabus
EVA	Evaluation and Examination
FAC	Facilities
FSI	Faculty Student Interaction
FCS	Faculty Concern for Student Development and Teaching
GoF	Goodness of Fit
HEIs	Higher Education Institutions
M	Mean
MoEYS	Ministry of Education, Youth, and Sports
NUM	National University of Management
IGC	Institutional and Goal Commitment
IIS	Institutional Integration Scale
PGI	Peer-Group Interaction
PLS-SEM	Partial Least Square Structural Equation Modelling
RGC	Royal Government of Cambodia
RULE	Royal University of Law and Economics
RUPP	Royal University of Phnom Penh
SEM	Structural Equation Modelling
SD	Standard Deviation
SPSS	Statistical Packages for the Social Sciences
SSS	Student Support Services
TEA	Teachers' Teaching
UNESCO	United Nations Educational, Scientific and Cultural Organization
WB	World Bank

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**PENGARUH FAKTOR INSTITUSI DAN PENYEPADUAN TERHADAP  
PERKEMBANGAN INTELEKTUAL PELAJAR: SATU KAJIAN KES TIGA  
UNIVERSITI AWAM DI KEMBOJA**

**ABSTRAK**

Kajian ini mengkaji pengaruh faktor institusi (sukatan pelajaran kurikulum, pengajaran guru, penilaian dan peperiksaan, kemudahan dan khidmat sokongan pelajar) dan integrasi institusi iaitu akademik (keprihatinan fakulti terhadap pembangunan pelajar serta komitmen dan matlamat institusi) dan sosial (interaksi fakulti - pelajar serta interaksi kumpulan rakan sebaya) terhadap pembangunan intelektual dan prestasi akademik pelajar di universiti-universiti awam terpilih di Kemboja. Kajian kuantitatif ini menggunakan rekabentuk tinjauan secara keratan rentas. Satu soal selidik lapor-sendiri telah diedarkan melibatkan 381 orang pelajar tahun ketiga yang dipilih sama rata dari tiga universiti awam Kemboja menggunakan kaedah persampelan rawak berlapis. Kaedah pemodelan struktur persamaan kuasa dua terkecil separa (PLS- SEM) telah digunakan untuk menganalisis data tersebut. Keputusan statistik menunjukkan bahawa lima pemboleh ubah bebas daripada faktor-faktor institusi telah menerangkan anggaran 22% daripada varians adalah di dalam pemboleh ubah bersandar ( $R^2 = 0.224$ ). Faktor yang paling signifikan bagi faktor institusi adalah penilaian dan peperiksaan ( $\beta = 0.191$ ;  $p < 0.05$ ;  $t = 2.215^{**}$ ). Nilai 0.224 adalah lebih besar berbanding nilai pemisahan 0.190, dan ia dianggap sebagai purata. Empat pemboleh ubah bebas daripada faktor integrasi institusi secara signifikannya diterangkan sekitar 59% ( $R^2 = 0.59$ ) bagi varians dalam pemboleh ubah bersandar; ia dianggap sangat besar. Faktor yang paling signifikan bagi faktor integrasi institusi adalah interaksi kumpulan rakan sebaya ( $\beta = 0.351$ ;  $p < 0.01$ ;  $t =$

4.358\*\*\*). Dapatan kajian memberikan penunjuk potensi faktor-faktor institusi yang mengintegrasikan pelajar untuk terlibat secara aktif dalam program akademik dan sosial bagi kegiatan-kegiatan akademik dan intelektual mereka di universiti awam Kemboja. Dapatan juga menunjukkan bahawa universiti-universiti awam Kemboja digalakkan untuk menambah baik ahli akademik mereka dan isu berkaitan akademik bagi mentransformasikan pelajar untuk diintegrasikan ke dalam persaingan ekonomi serantau terutamanya komuniti ekonomi ASEAN pada tahun 2015. Akhir sekali, kajian ini juga mengemukakan saranan untuk kajian masa depan berkaitan dengan faktor institusi dan integrasi institusional di institut pengajian tinggi.

**THE INFLUENCE OF INSTITUTIONAL FACTORS AND INTEGRATION  
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STUDY OF THREE CAMBODIAN PUBLIC UNIVERSITIES**

**ABSTRACT**

This study examines the influence of institutional factors (curriculum syllabus, teacher teaching, evaluation and examination, facilities, and student support services) and institutional integration factors which are academic (faculty concern for student development and institutional, and goal commitment) and social (faculty student interaction and peer-group interaction) on the students' intellectual development and academic performance in selected public universities in Cambodia. This quantitative study adopted the cross sectional survey design. A self-reported questionnaire was administered involving 381 third-year students, which were chosen equally from the top three Cambodian public universities using the stratified random sampling method. The partial least squares structural equation modelling (PLS- SEM) tools were employed to analyze the data. Statistical results showed that five independent variables of institutional factors explained approximately 22 % of the variance in the dependent variable ( $R^2=0.224$ ). The most significant factor of institutional factors was evaluation and examination ( $\beta=0.191$ ;  $p<0.05$ ;  $t=2.215^{**}$ ). The value of 0.224 was greater than the cutoff value of 0.190, and it considered as an average. Four independent variables of institutional integration factors have significantly explained about 59% ( $R^2=0.59$ ) of the variance in the dependent variable; it was considered as a substantial. The most significant factor of institutional integration factors was peer-group interaction ( $\beta=0.351$ ;  $p<0.01$ ;  $t=4.358^{***}$ ). The findings provided an indication of potential institutional



factors to integrate students to be actively involved in academic and social programs for their academic and intellectual endeavors in Cambodian public universities. The results also suggested that Cambodian public universities are encouraged to improve their academics and academic related issues in order to transform students to be integrated into the regional economic competition, especially, the ASEAN economic community in 2015. Finally, this study also provided recommendations for future research in relation to the institutional factors and institutional integration in higher education institutions.

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Overview**

Higher education plays a crucial role in a national socioeconomic development for the 21st century. It produces human capital with knowledge, skills, values, and attitudes for a country's sustainable development and poverty alleviation (Hang, 2015). The economic growth of any country depends on the quality of higher education provided to its citizen. Similarly, it is undeniable that higher education is a vital investment for national development in developed and developing countries (Chien & Chapman, 2014). That is why higher education is considered as one of the most important pillars in any society. Hence, higher education institutions must restructure their institutional factors that promote an academic environment in order to produce knowledgeable and competent individuals who are able to contribute to the development and prosperity of the society.

Universally, the education system is changing rapidly due to regional and global integrations. Recent developments in higher education have heightened the need for improving the teaching and learning environment. Presently, higher education has increased the number of new students and restructured its system to adapt to new technologies and techniques. This is done in order to improve the quality of teaching and learning experiences of academic staff and students to meet the needs of society and their academic development. Consequently, institutional factors in higher education systems plays a significant role in assisting the quality of campus life and academic environment on all students' learning experiences.

In Asia, higher education enrolment has experienced growth over the last few decades from 20 million students in 1980 to 84 million in 2011 (Chien & Chapman, 2014). In Cambodia, the total annual registration rate has increased dramatically more than four times from 57,828 students to 336,069 students between 2003 and 2014 respectively (Ministry of Education, Youth, and Sport, 2014). To serve this growing enrolment, undergraduate programs and curriculum syllabus needed to expand, both to provide more lecturers and to upgrade existing lecturers' qualifications in response the increasing numbers of undergraduate students. The royal government of Cambodia has tried to reform institutions to improve education service delivery and to strengthen the education quality for students' development. In addition, according to Cambodian Policy on Higher Education Version 2030, the government aims at developing an improved governance system and higher education programs, which respond to the need of socioeconomic development and the labor market (Ministry of Education, Youth, Sport, 2014).

Generally, when educational reform has been introduced in higher education institutions, some problematic issues have resulted from this implementation. A very important in this study is whether students can benefit or suffer from this new reform. What happens if this issue cannot be resolved? Students are seen as the main actors who can suffer or benefit from institutions. Therefore, the influence of institutional factors and integrations on students' academic and intellectual development need to investigate in order to resolve these mentioned problems and to improve the quality of the students' learning environment on the university campus.

The aim of this thesis is to investigate how institutional factors and integrations have contributed and influenced students' academic and intellectual development in Cambodian public universities. Institutional factors in this study are defined as academic factors that facilitate students to attain their academic endeavors. Institutional factors that enhanced students' academic and intellectual development in Cambodian context, included (1) curriculum syllabus, (2) teacher teaching, (3) evaluation and examination, (4) facilities, and (5) student support services.

When studying college environment and students' academic experiences of higher education institution, many studies presented the effects of the academic environment, student involvement, and student integrations on students' intellectual development (Astin, 1984, 1993, 1999; Tinto, 1975, 1993; Pascarella, 1985; 2008; Kuh, 2003). These studies are based on students' various perceptions and experiences in the university setting. Astin (1987) mentioned that student involvement as "the amount of physical and psychological energy that the students devote to academic experiences". The researcher examines students' involvement through their times and hours spending on social and academic activities in their university campuses. In addition, Tinto (1975) identifies that the academic success of a student is resulted from a certain level of involvement in academic and social integration. In this study, academic integration comprised faculty concern for students' development and teaching and institutional and goal commitment. Social integration included peer-group interaction and faculty -student interaction.

Therefore, there is no doubt that the academic success of a student is dependent upon effective institutional factors as well as an improved academic environment within the university. Students must obtain better learning services and supportive environment that assist them to overcoming their obstacles such as academic challenges and endeavors. This research examines institutional factors and investigates the institutional factors and integrations effects students' academic success in three public universities in Cambodia.

## **1.2 Background of the Study**

In recent decades, educational researchers have conducted a plethora of research project about the role of institutional factors and college environment. This research included curriculum syllabus, faculty-student interaction, student support services, involvement of students that are significant and positively influence students' academic development (Bjorklund et al., 2004; Tinto & Pusser, 2005; Richard & Matthew, 2011; Pascarella et al., 2011).

Melguizo (2011) suggested that researchers in higher education should study the relationships between institutional factors and students' academic development to evaluate the initiative program and the influence of faculty characteristics and learning environment on student learning and academic achievement. He pointed out that most studies of the university environment and students' academic success are conducted in quantitative research method by employing simple regression, logistic regression, structural equation models, and hierarchical linear models. He suggested quantitative scholars should expand their methodological toolkit and statistical analysis to achieve more accurate results. Therefore, the researcher employs path

analysis with PLS-SEM to test the relationships between academic environment and institutional integration and students' academic and intellectual development.

However, it seems to be unclear whether the result of previous studies in developed countries can compare with the current study of developing countries. A paucity of studies have been conducted in developing countries. This research was designed and conducted to fill the gaps in previous studies of developed and developing countries. The research was especially concerned with Cambodia, a country that experienced with troubled higher education systems.

Previously, studies were conducted focused on Cambodian higher education. One research conducted by Chen et al. (2007) described the benchmarking of five potential factors that could contribute to students' academic development and education quality in Cambodian universities. Researchers compared institutional factors of five Cambodian universities and one Taiwanese university. Research findings highlighted five potential factors including: (1) curriculum and extra-curricular (2) qualified lecturers, (3) funding and reasonable tuition fees, (4) modern facilities, and (5) faculty-students interaction.

Several studies have revealed the implementation of curriculum development in Cambodian higher education. The result of this study showed that the curriculum and educational programs were not matched with the actual needs of employment markets (Ford, 2006, 2013; Chealy, 2009; Noch, 2009). In addition, a recent study by Heng (2013, 2014) involved the relationships between student engagement and the academic achievement; the effects of faculty behavior on the academic achievement of first- year university students in Cambodia. This study has significant implications

for policy and practice. The evidence of this study suggests that universities should make educational and social activities both on and off-campus to promote student involvement. The university should provide academic support for disadvantaged students with low academic profiles and enable them to interact with their peers and faculty in term of learning cooperatively. Additionally, the university must improve lecturer quality because their support and feedback have an important impact on students' academic achievement.

A number of studies found that academic staff has limited resources to motivate and develop lecturers' teaching and researching capacity in a Cambodian university. Chen et al. (2007) found that only six per cent of lecturers hold a PhD degree, 85 per cent of lecturers never published an academic article, 90 per cent of lecturers never have technical discussion or meeting, and 60 per cent of students noted that lecturers were not available for consultation. A research conducted by Kwok et al. (2011), showed that academic staff have challenges with research capacity because of low academic salary, lack of academic professionalization, and budget allocation constraints of university research.

The Royal government of Cambodia has been undertaking myriad reforms to balance the quality and quantity of education by establishing a wide range of institutions and implementing national and institutional policies since 2002. For example, Cambodia had established the Accreditation Committee of Cambodia (ACC) in 2003 under the supervision of a council of ministers, the National Supreme Council of Education (NSCE) in 2005, the Rectangular Strategy for Growth, Employment, Equity and Efficiency in 2003-2012, the National Strategic

Development Plan Update 2009-2013, Policy on Curriculum Development 2004, National Policy on Cambodian Youth Development in 2011, Policy on Human Resource in Education Sector in 2012, and Policy on Teacher in 2013. In addition, legal education frameworks have been established including the Sub-Degree on Criteria of the University Establishment in 2002, the Resolution on the Credit Exchange System and the Implementation of Curricula in the Credit System and Credit Transfer in 2004, the Royal Degree on Promulgating the Law on Education in 2007, and the Sub Degree on PhD Training Program in 2010.

In a speech at the Education Congress 2014, the Cambodian Prime Minister suggested that Cambodian Higher Education Institutions must strive to reform higher education institutions for educational excellence and improve their teaching methodology, modern curricula, and revise the examination process for the purpose of academic credentials. He also stated that current governmental policies aim at providing a number of priorities to improve the standard of education and to provide financial aid for a better education. This assures a balance of quality and quantity in the Cambodian education system (Sen, 2014).

### **1.3 Rationale of Study**

The academic environment is a part of the institutional factors that can help students to be actively involved in their university experiences. The Cambodian public university needs to examine the weaknesses that are present in their academic support services, and then improve them. To reach this level of excellence, the university must focus on the actual needs of the students and lecturers (Kenneth, 2013).



As highlighted by Sok (2014), Cambodian universities have to reorganise the educational system to respond to the rapid change of an informative technological era in this 21<sup>st</sup> century. Furthermore, the justification of this research is that the importance of institutional factors and integration has a significant role to promote excellent education and students' academic success at present and in the future. In addition, the quality of education largely depends on the quality of student involvement, institutional integration, learning services, and academic staff. This study, therefore, investigated the existing institutional factors and students' learning experiences in the context of three main public universities located in the heart of Cambodia, in the capital city of Phnom Penh.

#### **1.4 Statement of Problem**

Higher education plays a significant role in developing human resource in a country. However, universities in developing countries are currently challenged by issues related to students' academic and intellectual development. Furthermore, developing countries have faced problems with high dropout rates of first year students (UNESCO, 2011). Previous studies conducted in developed nations indicate that institutional integration is a powerful predictor of students' academic and intellectual development and their retention rates (Pascarella and Terenzini 1980; French and Oakes 2004). However, it is questionable that the result of studies carried out in developed countries can be used to formulate strategies for developing countries. Some studies on the effects of institutional integration have been conducted in developing countries, including Cambodia (Sam, Zain, Jamil, 2012). Students have different experiences in term of interaction with their peers and faculty

members, their academic related matters offered by faculty, and their institutional goal and commitment. However, the gaps in the research are many and wide. This study has been designed to fill some of these gaps and to provide information, which administrators and faculty members in Cambodian universities can use to address the above stated issues.

As pointed out above, most research on university students' academic and intellectual development has been carried out in developed countries. Academic and intellectual development (AID) is defined as the outcomes that result from university students' efforts to integrate their social and academic activities as they pursue their studies (Parscarella 1985). These outcomes include the development of (1) adequate general knowledge; (2) various skill sets needed for problem solving, critical thinking, goal setting for intellectual progress, participation in cultural activities, and making decisions about the highest degree they plan to reach, (Endo and Harpel (1982); (3) earning passing grades (Tinto 1993); and (4) changes in attitudes, values, beliefs, and behavior needed to successfully operate in a university environment (Astin 1999).

Without the information obtained from research, Cambodian university administrators, faculty, and other stakeholders cannot form a clear picture of what practices and services contribute to fostering students' academic and intellectual development. This lack of research in Cambodia and other developing countries raises the following question. Is the intellectual development of Cambodian university students significantly influenced by their institutional factors and integration?

The main issue here is how institutional factors that enhance the academic environment contribute to students' academic success in Cambodian public universities. Based on the human development report of 2014, of the 16% of tertiary school-age population (2,400,000), only 14% (33, 6069) were enrolled in Cambodian higher learning institutions (UNDP, 2014). According to UNESCO (2010), the dropout rate of tertiary education students was approximately 34.1 % in Cambodia.

The main objective of the Cambodian government is to make efforts to encourage higher education institutions to establish their policies in enhancing the academic environment to provide better educational services for students' academic success. To obtain this government objective, higher education institutions must strive to restore their academic environment to facilitate students to be successful in their studies for developing human resources and economic growth. Practically, several potential factors have an impact on the effectiveness of the educational policy implementation and students' academic success in Cambodia. Consequently, institutions must focus on resolving these problems. Therefore, these research problems could be examined at institutional levels, student levels or both..

In this study, student demographics are also involved. They refer to students' characteristic background, parental educational background, and social economic status. This research aims to analyze Cambodian students' characteristic background prior to enrollment in their tertiary education. According to McKenzie & Schweitzer (2001); Bruinsma & Jansen (2007), parental education and employment background are significant factors that are related to students' academic success. This finding is also echoed by Melby and Conger (1996) which presented that family income,

parental education, parental involvement and hostility have an influence on the academic experience of students in their secondary and post-secondary education.

Based on the cultural capital theory, students who come from well-educated families obtain success (McMillan & Western, 2000). It is undeniable that low social economic status will have a negative impact on academic success because students cannot access necessary resources for their academic development. In addition, socioeconomic background is also one of the major components of educational quality.

The academic success strongly depends on the social economic status of parents who will economically foster their children to obtain academic success (Graetz, 1995; Considine and Zappala, 2002; Eamon 2005; Jeynes, 2002). Therefore, it can be advocated that the demographic factors affect students' academic success within the Cambodian context. The researcher investigated the students' characteristics and background, prior schooling, English proficiency, motivation, and social economic status characterized by family income, parental education and parental occupation.

This study investigated institutional factors and their integrations influencing Cambodian public university, students' view based on students' self-reported survey regarding academic environment, levels of student involvement, and student integration will be investigated in this study. The findings in this research will help a university to improve the institutional policies for students' retention and academic success (ACT, 2008). Students' perspectives would probably help a researcher to

investigate the critical issues related to learners' needs in order to enhance the quality of the academic learning environment in Cambodian higher education institutions. From the perspective of institutional policies, the study tried to examine the characteristics of university in five main academic environments such as curriculum syllabus, teacher teaching or academic staff, evaluation and examination, facilities, and student support services. The researcher examined the characteristics of students' academic and social involvement and integration.

If the institutional factors have been ignored by universities, the students will not enjoy the benefits of a good education, and they have missed a good opportunity to be successful in their academic development and retention. Furthermore, students could also have a strong academic capacity to further their higher education and to find good jobs. It is time for Cambodian higher education institutions to explore the most important institutional policies to deal with the service problems confronted by the institution itself and the students. Hence, the researcher intends to explore the potential factors of institutional policies in the campus environment that can facilitate students towards academic success.

In order to make sure that institutional factors and integration have any impacts on students' academic development, the relationship study between academic environment and institutional integration on students' academic success had been examined. The relationship between academic environment and students' academic success has been widely investigated (Lotkowski et al., 2004; Akhtar, 2005; Thomas et al. 2005; Glenda and Margaret, 2009; Don et al. 2008). Other studies have considered the association between institutional integration on students'

academic success (Pascarella and Terenzini, 1980; Patric T. Terenzini et al., 1981; French and Oakes, 2004; Richard, 1984; Susan, 2010).

Statistically, five independent variables of institutional factors such as (1) curriculum syllabus, (2) teacher teaching (3) evaluation and examination, (4) facilities, and (5) student support services used to test the relationship with a dependent variable of students' academic and intellectual development. And four independent variables of institutional integration such as (1) peer group interaction, (2) faculty interaction, (3) faculty concern for teachers, and (4) institutional goal and commitment employed to test the relationships with a dependent variable of students' academic success. Hence, the researcher employed path analysis with PLS-SEM to test the relationships between academic environment and institutional integration and students' academic and intellectual development.

From the perspective of the students, the researcher identifies how the institutional factors can help in developing the quality of undergraduate students. Educational reforms have been implemented in the university, but the question remains: How are students perceived on the institutional factors and their integration that contribute to the development of the quality of their studies in Cambodian public universities? Their perceptions could be helpful for policy makers to restructure their institutional factors.

Due to the integration of ASEAN economic community in 2015, Cambodia has been paying more attention to reinforcing its educational system. Educational reforms on institutional factors have been established in responding to the rapid

development of Cambodian higher education institutions. The government has concerns over educational quality provided by Cambodian higher education institutions.

In the process of this educational reform, the researcher investigates institutional factors that influence students' academic and intellectual development. It is no secret that some negative aspects have influenced institutional factors within Cambodian universities. A highly questionable matter is what happens if these impeded factors cannot be resolved. This is basically the problem and the intent of the study. Therefore, recommendations could be helpful for policy makers to reform and upgrade their institutional factors and academic environment.

## **1.5 Purposes and objectives of the study**

### **1.5.1 Purposes of the study**

The main purpose of this research is to investigate institutional factors and integrations that could influence students' academic and intellectual development in Cambodian universities for the sake of finding any potential factors that can contribute to improve the students' learning experiences. It also aims to provide useful information and recommendation for excellent management of these institutions on ways of improving such factors.

### **1.5.2 Research Objectives**

In line with this principal purpose, the objectives of the study are as follows:

**RO 1:** To investigate students' view on institutional factors and institutional integrations for students' intellectual developments in Cambodian public universities.

**RO 1.1:** To identify the students' views on the institutional factors for students' intellectual developments in Cambodian public universities.

**RO 1.2:** To identify the students' views on students' institutional integration for students' intellectual developments in Cambodian public universities.

**RO 2:** To identify the level of students' involvement in academic and social activities in Cambodian public universities.

**RO 3:** To examine the relationships between institutional factors and students' intellectual developments in Cambodian public universities.

**RO 4:** To examine the relationships between the institutional integrations and students' intellectual developments in Cambodian public universities.

## **1.6 Research Questions**

In order to achieve the objectives of this study, the following research questions were developed:

**RQ 1:** What are the students' perception of the institutional factors and institutional integrations for students' academic and intellectual developments in Cambodian public universities?

**RQ 1.1:** What are the students' views on the institutional factors for students' academic and intellectual developments in Cambodian public universities?



**RQ 1.2:** What are the students' views on institutional integration for students' academic and intellectual developments in Cambodian public universities?

**RQ 2:** How many times and hours that students are involved in their academic and social activities in Cambodian public universities?

**RQ 3:** Are there institutional factors significantly influence students' intellectual developments in Cambodian public universities?

**RQ3.1:** Does curriculum syllabus significantly influence the intellectual development of Cambodian university students?

**RQ3.2:** Does teacher teaching significantly influence the intellectual development of Cambodian university students?

**RQ3.3:** Do evaluation and examination significantly influence the intellectual development of Cambodian university students?

**RQ3.4:** Does facilities significantly influences the intellectual development of Cambodian university students?

**RQ3.5:** Does Student support services significantly influence the intellectual development of Cambodian university students?

**RQ 4:** Are there institutional integrations that significantly influence students' intellectual developments in Cambodian public universities?

**RQ 4.1:** Does peer-group interaction significantly influence the intellectual development of Cambodian university students?

**RQ 4.2:** Does faculty student interaction significantly influence the intellectual development of Cambodian university students?

**RQ 4.3:** Does faculty concern for student development significantly influence the intellectual development of Cambodian university students?

**RQ 4.4:** Do Institutional and goal commitments significantly influence the intellectual development of Cambodian university students?

### 1.7 Research Hypotheses

This study is designed specifically to answer the above questions, and some are translated into the following hypotheses for statistical purposes:

Hypotheses	
H1	Curriculum syllabus would significantly influence students' intellectual development.
H2	Teacher teaching would significantly influence students' intellectual development.
H3	Evaluation & examination would significantly influence students' intellectual development.
H4	Facilities would significantly influence students' intellectual development.
H5	Student support services would significantly influence students' intellectual development.
H6	Peer-group interaction would significantly influence students' intellectual development.
H7	Faculty interaction would significantly influence students' intellectual development.
H8	Faculty concern for student development would significantly influence students' intellectual development.
H9	Institutional and goal commitments would significantly influence students' intellectual development.

## **1.8 Significance of Research**

This study is important because of the following reasons:

Firstly, it is a new study of institutional factors that contribute to students' intellectual development in Cambodia. Many researchers in developed countries have developed theories and different dimensions of educational experiences and academic success at tertiary level education, and these theories could be adopted within the Cambodian context. Therefore, it is hoped that findings from this study will provide some useful information concerning the students' demographic factors and the existing institutional factors. Thus, this study can contribute to the existing knowledge on Cambodian educational experiences and to the improvement of students' academic and intellectual developments in higher learning institutions.

Secondly, this study is most probably the first study of its kind to explore the institutional factors that contribute to students' academic achievement in the educational system. It will pave the way for the evaluation of academic performance of Cambodian universities by producing valid and reliable instruments for this purpose. It is suggested that these instruments be used for further research in the educational research disciplines.

Thirdly, the outcome of this study provides useful sources to policy makers, educational administrators and planners, and relevant ministries for establishing national and institutional strategies in the future.

Finally, the findings of this study provide an insight into ways of improving the rate of graduation, academic development, as well as educational quality of

higher education in the country. In addition, it is beneficial for the improvement of better educational experiences at the universities, teacher training institutions, and Department of Higher Education, and Scientific Research of the Ministry of Education, Youth, and Sport. This study helps future researchers to conduct further studies based on educational experiences such as at student, national, and institutional levels. Furthermore, it is helpful for prospective students in preparing themselves before they enroll at higher learning institutions in the country. This study develops an awareness of academic experiences and institutional factors for the enhancement of students' academic attainment among faculty members and administrators.

## **1.9 Operational definitions**

For the purpose of this study, the following terms have been defined:

### **1.11.1 Academic and Intellectual Development**

For the purpose of this study, the academic and intellectual developments are defined as academic excellence and intellectual endeavours after students have been involved in experiences in social and academic integrations at the university. There is little literature on academic and intellectual developments. According to Endo & Harpel (1982), student educational outcomes include adequate general knowledge, problem-solving development skills, critical-thinking development skills, intellectual progress goals, cultural activity participation, highest degree planned, and academic achievement. In addition, academic and intellectual outcomes refers to students' earning passing grades and intellectual progress (Tinto, 1993). Astin (1999) also identified academic and intellectual developments as the students' resultant characteristics such as knowledge, skills, critical thinking, attitudes, values, beliefs,

and behaviour after involving in the academic environment and the student's level of academic success. Therefore, if students have the perception that they are satisfied with their academic experiences, they will be well prepared in developing their academic and intellectual performances.

#### 1.11.2. Curriculum syllabus

For the purpose of this study, curriculum syllabus refers to all course syllabuses and subject studies designed by the university (ACC, 2009; Chen et al., 2007).

#### 1.11.3. Examination and Evaluation

For the purpose of this study, Examination and Evaluation refer to all kinds of examination and evaluation activities conducted by the university such as assignments, examinations, and tests. Cambodian public universities have adopted a new system of their evaluation and examination process, called "the credit system" (ACC, 2005; MoEYSP, 2014).

#### 1.11.4. Facilities

For the purpose of this study, facilities refer to all academic and non-academic materials and resources equipped by the university to support learning activities. Facilities included university's buildings, libraries, classrooms, lecture halls, laboratories, recreation halls, clinics, canteens, and others.

#### 1.11.5. Faculty Concern for Student Development and Teaching

For the purpose of this study, faculty concern for student development and teaching (FCS) is defined as the perception of a student that faculty has paid more

attention to students' needs in classrooms and outside classrooms. Foremost, faculty members are interested in spending time to help students to improve their academic areas. Tinto (1975, 1993) illustrates that universities have to provide academic and social support services in order to promote student retention and academic achievements so that students achieve academic success. Hence, if students have the perception that they are satisfied with faculty performance and the teaching or learning environment, then they will receive academic and intellectual benefits.

#### 1.11.6. Higher Education Institutions

For the purpose of this study, higher education institutions refer to universities, which provide educational services and award academic degrees, comprising of associate's degree, bachelor's degree, master's degree, and doctoral degree.

#### 1.11.7. Institutional Factors

For the purpose of this study, the term refers to five variables including: (1) Curriculum Syllabus, (2) Teachers' Teaching, (3) Evaluation/Examination, (4) Facilities, (5) Student Support Services that predict the students' academic and intellectual development in the Cambodian context.

#### 1.11.8. Institutional Integrations

For the purpose of this study, the term refers to four variables: (1) Peer-Group Interactions, (2) Faculty-Student Interactions, (3) Faculty Concern and Student Development and Teaching, and (4) Institutional and Goal Commitment that predicts the students' academic and intellectual development in the Cambodian

context (Pascarella & Terenzini, 1980; French & Oakes, 2004; Breidenbach & French, 2004).

#### 1.11.9. Institutional and Goal Commitment

For the purpose of this study, the Institutional and Goal commitments (IGC) are characterized as the motivation and persistence of the university and student. Institutional commitment is the degree of motivation and academic support services of university or college that are provided to students. Goal commitment is the degree of a student's commitment or motivation the student has to persist in their studies for graduation. For example, Students, who have a high goal commitment, will try their best efforts to study, spend much time on campus, participate actively in student associations or organizations, and interact regularly with their friends, administrators, and faculty members (Tinto, 1993).

#### 1.11.10. Faculty-Student Interaction

For the purpose of this study, one of the most significant factors that help students to achieve academic endeavour is the faculty- student interaction. Faculty student interaction (FSI) is defined as the perception of a student that faculty members have made close relationships and paid more attention on students' academic development (Cotten & Wilson, 2006). There are three popular theories about the interaction between the faculty and students in promoting students' development of the university. These three theories are Astin's Theory of Student Involvement (1984), Tinto's Theory of Student's Persistence or Departure (1975), and Pace's College Impress Model (1984). Lecturers develop a better understanding of student learning, knowledge, competence, and willingness in the classroom if they

have effectively communicated with their students (Konidari & Abernot, 2006; McGregor, 2007). If students have the perception that the faculty members are paying attention and supporting them, then they may highly motivated to help them in improving their academic performance and development.

#### 1.11.11. Peer Group Interaction

For the purpose of this study, Peer- Group Interactions (PGI) is defined as the perception of a student who thinks that he developed close relationships with classmates or those who are roughly equal status in the university. Tinto (1993) has suggested that peer group interactions established a social system that leads to student integration. In the same vein, the student's peer group is the most significant resource that influence on students' growth and development during their studies in the college (Astin, 1993). Studies indicate that students who have experienced and interacted with many peers might be influenced for positive academic development. Students need to be supported by their peers when they have academic and personal problems. A study conducted by Witkow & Fuligni (2011) stated that students who received encouragement from peers often have a satisfactory change in their GPA. In summary, if students view that the classmates are helping and cooperating with them, they will be highly motivated to improve their academic performance.

#### 1.11.12. Public University

For the purpose of this study, public university is considered as a university established and recognized by the Royal Government of Cambodia. They are under the supervision of the Ministry of Education, Youth, and Sports (RGC, 2010).



#### 1.11.13. Student Involvement

For the purpose of this study, student involvement refers to the level of the students' commitment in social and academic activities that can predict their academic experiences and successes at the university (Astin, 1999; OSU, 2002)

#### 1.11.14. Student Support Services

For the purpose of this study, academic support services consist of academic and non-academic services. Academic support is established to assist students in refining and strengthening their academic skills necessary for their success at the university such as foundation studies, foreign languages, library services and other facilities. Non-academic support services refer to institutional services mainly focused on extra-curricular activities, financial support, scholarships, and accommodation (ACC, 2009; Chen et al., 2007).

#### 1.11.15. Teacher Teaching

For the purpose of this study, teacher teaching refers to teaching performance of the academic staff or faculty members as well as their personal and professional qualifications (ACC, 2009).

### **1.10 Limitation and Delimitation of the Study**

This study is not free from limitations. The following limitations of the study have provided scope for further research:

Firstly, the study is confined to only three prestigious universities located in the heart of Phnom Penh and under the supervision of the Ministry of Education, Youth, and Sport. These universities included the Royal University of Phnom Penh