ADOPTING PROJECT-BASED MANAGEMENT APPROACH IN UPGRADING THE STATUS OF COLLEGES TO UNIVERSITY COLLEGES IN MALAYSIAN PRIVATE HIGHER EDUCATION INSTITUTIONS

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MASTER OF PROJECT MANAGEMENT

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With deep gratitude and love, I dedicate this

work to my family, Seng Lai, Mooi Hua,

Phay Zhan, and Moon Wai.

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A project report submitted in partial fulfilment of the requirement for the award of Master of Project Management

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DECLARATION

I <u>Lim Boon Ping</u> hereby declare that the dissertation is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UTAR or other institutions.

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This dissertation entitled "ADOPTING PROJECT-BASED MANAGEMENT APPROACH IN UPGRADING THE STATUS OF COLLEGES TO UNIVERSITY COLLEGES IN MALAYSIAN PRIVATE HIGHER EDUCATION INSTITUTIONS" was prepared by LIM BOON PING and submitted as partial fulfilment of the requirements for the degree of Master of Project Management at Universiti Tunku Abdul Rahman.

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ABSTRACT

ADOPTING PROJECT-BASED MANAGEMENT APPROACH IN UPGRADING THE STATUS OF COLLEGES TO UNIVERSITY COLLEGES IN MALAYSIAN PRIVATE HIGHER EDUCATION INSTITUTIONS

Lim Boon Ping

The study has four major purposes: (1) to develop an understanding of the adoption of the project-based management strategies in upgrading the status as continuous improvement (2) to identify the problems faced by project stakeholders in Malaysian private higher education institutions in upgrading the status of colleges to university colleges (3) to analyse the qualities required by project stakeholders in Malaysian private higher education institutions in managing the status upgrade of colleges to university colleges and (4) to examine issues in adopting the project-based management approach in the status upgrade projects.

Ten academic and administrative staff from Malaysian private higher institutions and organisations have served as experts in a study designed to investigate the expectation and experiences in college status upgrading and adopting project-based methodology. These experts have responded to two rounds Delphi survey created on a 5-point Likert scale ranging from strongly important or agree (5) to not important at all or strongly disagree (1). There were several advantages of using the Delphi study approach for this project,

and the objective focused type of Delphi. The method emphasis on group wisdom and insight rests in the middle of the information spectrum and evidence-based knowledge on one side and speculation on the other.

The results show an overall experts consensus of adopting project-based management in college status upgrading. However, there is a space for experts agree with stakeholder contributions, public discussion on project closure, unique communication management, and part-time staffs involvement. Hence; the results suggest that the educational project including college status upgrading, rebranding, and any improvement works adhere to the project management methodology. Furthermore, it is suggested that the intuition management must elect a particular person or team to manage the college status upgrading project and grant the full authority in handling the information and the stakeholder's administration in the early stage. Moreover, the adherence to the methodology absolves nonpermanent employees in the organisation to cope with the new process, communication platform, and uncertainty in the college status upgrading. Finally, the key person or team in the project must monitor, perform adjustment if needed with the member to meet the objective, record all the actual details in college status upgrading plan, and organise a public discussion for further study.

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CHAPTER 1

INTRODUCTION

This chapter summarises the contextual study on adapting Project-based management process in status upgrading project. Furthermore, the subsequent sections discuss the problem statement, aim and objectives of this study, a brief of study gap from literature review, the questions of the study, research methodology, the implication of this study and a short discussion on all the other subsequent chapters.

1.1   Background and Motive

Today, the education sector competitive business world, the use of project management knowledge has proven to be precious. The adoption of Project-based Management is increasingly in more and more business areas where it has applied.

Oddly enough, one of the application area where project management also needed an area that often resists its use: organisation continue improvement, the other word may say upgrading the status or benchmarking of the organisation the in a certain sector. For example, institutions status upgrading project, there is a

challenging need for adoption of Project-based management in an educational environment.

The adaptation is necessary so that administrative and the academic team will (1) be willing to adapt Project-based management and (2) see the value of using project management. Some of the greatest challenges of adapting project administration in Private higher education institutions are the differences in organisation culture, leaderships, stakeholders and others. For example, a group of a team member may not be familiar or understand the Project-based management concept and without management team (leaders) fully support and provide extensive training to all member, and then conflicts or trust issue may happen during the project running period.

PMBOK (2013) showed that the organisation's governance criteria can be imposed on the project, and manage corporate or organisational governance policies and procedures about the subject matter of the product (e.g. academic programs) or service (e.g. student affairs). While dealing with project stakeholders, potential conflicts will be identified at an early stage by the project manager to develop an organisational strategy could be the goal of the project rather than a guiding principle. According to Popa (2016) study, implementation of project management into the development of educational practices is the highest priorities, also promote the standards of the institutions to modern competitiveness and performance.

The research project studies the Malaysian private higher education institutions case and discusses the status upgrading process and procedures from

the perspective of project management. The researcher will study the Private higher education institutions who successfully promoted as University College status and conduct series of interview session to understand the whole management process and the perception of stakeholders. Then, compile all the data to explain the process of adapting Project-based management knowledge, and analysis the unknown, uncertain, hidden or additional factors to firm the conceptual of the project.

The paper adopts the modified Delphi method, and expert interview as a research method, based on the understanding of the status upgrading process, procures and management system to categorise as adapting the Project-based management model.

1.2 Objectives and Research Questions

Based on the research background and motives mentioned in the previous section, the study will involve participants who are currently working or as a member before in the project. The research mainly focuses on adopting project-based management approach in upgrading the status of colleges to university colleges in Malaysian private higher education institutions.

From the perspectives of adapting project-based management, the paper research objectives stated as below:

i. To develop an understand of the adopting project-based management strategies in upgrading the status as continuous improvement

ii. To identify the problems faced by project stakeholders in Malaysian private higher education institutions in upgrading the situation of colleges to university colleges

iii. To analyse the qualities required in project stakeholders in Malaysian private higher education institutions in upgrading the status of colleges to university colleges

iv. To examine issues of adopting the project-based management approach in upgrading status

Based on research finding, compile the research conclusions and provide the signification suggestions for sectors and academic research references.

The study will comprise a set of the investigation questions. The research

questions and the research itself should arise out of, and contribute to, the discussion of adapting Project-based management method in status upgrading project. The major questions posed by the research are:

i. How was institution understand the concept of the project and adopting the project-based management?

ii. What is the objectives of the Private higher education institutions and the motives to initial the as a project and to adapt the Project-based management knowledge?

iii. How the new process, procedures representing the organisation structure formed for the status upgrading project and the arrangement of the current team member?

iv. What is the project measurement for the triple constraints: time, cost and quality?

v. How were the results of (I) to (IV) above taken account of by the stakeholders reviewing and closing the status upgrading adapting as the Project-based management?

1.3 Research Scope and Limitation

The research named "Adopting Project-based Management Approach in Upgrading the Status of Colleges to University Colleges in Malaysian Private Higher Education Institutions". Mainly focus on the research motives, objectives and problem of a statement then process the data analysis, the scope of investigation and delimitations determination stated as below.

The research will conduct with the aid of two techniques of investigation designed to elicit a detailed description of the organisations, the change and project management model: participant observation and an interview with project stakeholders in Malaysia PHIEs. According to the research, participants:

i. Previously or currently handling the intuition status upgrade and experiences in any administrative or academic position.

ii. No limit to nationality but must service in Malaysia Private higher education institutions.

iii. Plan to have at least ten administrative staffs and academic teams, total 20 from difference Malaysia Private higher education institutions.

There will be three round Delphi process by the researcher based on experience and contribute the research interest. By conducting the literature review, to determine if a theoretical gap exists. Each round of Delphi consists of design, pilot, survey and analysis until the last round. The Delphi results verified (usually continuously through the Delphi) and the extent the results can be

generalised and investigated.

The research will modify the process to best answer our research questions, different types of questions (closed/open) and analysis (qualitative/quantitative) will use in each round. The vital statistics employed in Delphi studies are measures of central tendency (means, median, and mode) and level of dispersion (standard deviation and interquartile range) to present information concerning the collective judgments of respondents (Hsu and Sandford, 2007a). The uses of median and mode always favoured. The Questions appropriateness of using the mean to measure the subjects' responses if scales employed in Delphi studies not delineated at equal intervals.

Due to the limit of timing, cost, and sampling, the research scope will be restricted such as members selected from certain area or city. Therefore, the outcome may not conclude as generic and apply to all private higher education institutions organisation structure and multicultural society model. The research methods of this paper should be Meta-analysis and Modified Delphi method. As per discussed, due to the limit of time, the interview data from an expert may not cover the entire geographical area. Hence, the research finding fit the realistic world yet to be confirmed and further study. Due to the limit of the workforce, time and geographical area, the researcher will communicate via email, then conduct interview session, data collection and testing by own. Nevertheless, the data collection and testing simulation may not have consistency, and the questionnaire also needs to be designed for all the interviewee from various background. Furthermore, the interviewee may cover or miss out some

information while making self-evaluation in scaling. In the end, the finding may consist of the margin of error per circumcentres mentioned before. The research objectives mainly focus on adoption of Project-based Management in the status upgrade of Malaysian Private higher education institutions. Therefore, the research outcome or finding will not consider or further discussion and debate on the causal relationship or correlation.

CHAPTER 2

LITERATURE REVIEW

This chapter presents the literature review in six sections. The first section discusses project characteristics, understand the difference in between project management and project-based management. The chapter presents the review of project-based management approach practice in several of sectors. Then, followed by the third section discusses briefly change management and continued improvement in organisation development perspective. The fourth and fifth section will focus on status upgrading, a framework for adopting a project-based management approach in Malaysians Private higher education institutions. Also, further, discuss the institution's status update initiative and performance improvement strategy. The last section presents the challenges faced by Malaysian private colleges in the project-based management and continuous improvement and gap analysis from the literature review.

2.1   Project and Project-based Management

2.1.1   Project

Table 2.1 below summarises the different contemporary researchers who distinguished the project into three command characteristics: endeavour, objectives, and limited resources.

- The project for an individual or an organisation is unique and not a routine operation because it is created based on the specific needs to achieve a singular or multiple goals. So, the project requires different types of talent and may station at various of the geographically area to involve the work package.

- The project initiated with clear objectives and towards to two major directions: emerging or changing to strategies the current status quo then beneficial in forthcoming.

- The project has a finite period to meet or terminate the objective. Hence, it is limited in resources such as time, a human and non-human mechanism with or within the project internal or external boundaries

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Table 2.1: The Project Characteristics and Definitions by Different Authors

		Project Characteristics							
		Objectives		Resources			Endeavour		
Author	Year	Change	Create	Time/Temporary	Human	Non-human	Unique	Multifunctional	Ad hoc
Cabanis-Brewin et al.	2014	*	*	*	*	*	*	*	
Turner	2014	*	*	*	*	*			
Kerzner	2013	*	*	*	*	*	*	*	
PMI	2013	*	*	*	*	*	*	*	
Pinto	2013	*	*	*	*	*	*	*	*
Meredith	2009	*	*	*	*	*	*	*	

2.1.2　Project Management

Nowadays, project management (PM) is a common practice for many sectors in different ways and no limit to the size of the project (Androniceanu et al., 2015). The management decides to adopt the project management and manage the internal and external factors (Popa, 2016). For general understanding, Table 2.2 shows various of researchers who define and distinguish the PM.

Table 2.2: The Definition of Project Management by Different Authors

Author	Year	Definition
Project Management Institute Inc. (PMI)	2013	Project management is an application consists knowledge, skills, tools, and techniques and applies into series of project events to achieve the project requirements. The approach needs an appropriate application and the integrations of the forty-seven logically grouped project management processes which categorised into five process groups to accomplish the goal.
Kerzner	2013	The project management is a series of planning, organising, directing, and controlling the organisation resources to achieve the specific goals and objectives. Furthermore, the management approach required the vertical and hierarchy personnel in the organisation to perform the special activities. The project management is serving the purpose of managing and controlling the organisation resources such as time, cost, and quality within the boundaries.
Turner	2014	Project management is about translating the idea into reality. Also, this is a fractal management because every project stage considers as a small project. Therefore, the project life cycle involves the management process at lower levels.
Cabanis-Brewin et al.	2014	Project management requires discipline in the application of knowledge, skills and techniques to project events to meet project requirements.
Dalcher	2014	Project management is a core skill requires carrying the change which identified and achieved the desired

Author	Year	Definition
		outcomes with allied benefits. The approach calls upon to cross functional, organisational, and societal boundaries and manage the inherent complexity and risk to bring about a new reality. Hence, the project management is a dynamic and exciting discipline.

In summary, the definition of PM includes the following six characteristics:

1. Project management is the application of activities, approaches, knowledge, skills and practise to accomplish the project aims.

2. The project management requires the five process group (initialling, planning, executing, controlling, and closing) integrating the forty-seven project management processes to manage the limited resources and achieve the specific goals and objectives.

3. The workforce in project management forms in vertical and horizontal formation within the environment.

4. The project management applies in several stages, and each stage considers a single project.

5. The project management being a dynamic process to manage the change in environment by influencing the internal and external factors for future beneficial.

6. Project management is an application to handle the uncertainty and complexity to translate the idea into reality.

2.1.3   Project-based Management

Turner (2014) mentioned the project-oriented organisation is a norm now, and project-based management is the new general management. Furthermore, the project-based management considers an organisational innovation that may influence both the procedural and public system of the organisation through new structures, methods, technical systems, and behavioural patterns (Martinsuo et al., 2006).

In Golini et al. (2015) study shows the Non-Governmental Organisations (NGOs) adopt the PM tools to carries the International Development (ID) projects. Moreover, the commercial sector adopts the project-based management into a comprehensive business solution that consists of products, products systems, and services (Artto et al., 2015).

2.1.4 Project Management Process Group and Knowledge Area Mapping

The PMBOK Guide recognise processes that fall into five basic process groups and nine knowledge areas. Each of the nine knowledge areas contains the processes that need to be accomplished within its discipline to achieve an effective project management program. Meanwhile, each of these processes also falls into one of the five basic process groups, creating a matrix structure such that every process can be related to one knowledge area and one process group. Thus propose a conceptual classification framework adapted from the PMBOK Guide

for the available literature on the research of project management (see Figure 2.1). The classification framework consists of two dimensions, the first comprising the five basic project management process groups and the second comprising the nine common project management knowledge areas.

	Project Management Process Groups				
Knowledge Areas	**Initiating**	**Planning**	**Executing**	**Monitoring & Controlling**	**Closing**
Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase
Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope	
Project Time Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Resources 6.5 Estimate Activity Durations 6.6 Develop Schedule		6.7 Control Schedule	
Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	
Project Quality Management		8.1 Plan Quality Management	8.2 Perform Quality Assurance	8.3 Control Quality	
Project Human Resource Management		9.1 Plan Human Resource Management	9.2 Acquire Project Team 9.3 Develop Project Team 9.4 Manage Project Team		
Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Control Communications	
Project Risk Management		11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses		11.6 Control Risks	
Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	12.4 Close Procurements
Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Management	13.3 Manage Stakeholder Engagement	13.4 Control Stakeholder Engagement	

Figure 2.1: The Project Management Process Groups Map with Knowledge Areas, PMBOK (2013)

2.2   Private Institutions in Malaysian

2.2.1   Malaysian Education Transformation

Aziz and Abdullah (2012) mentioned the Malaysian education transformation in three distinctive eras:

i.   The first era (the 1970s – 1990s): The implementation of the New Economic Policy, where ethnic-based quota admission into higher education institutions addressed social inequality;

ii.   The second era (the 1990s): Asian financial crisis, corporatization of higher educational establishments and the introduction of Private Higher Education Act (1996), and

iii. The third era (the 2000s): Liberalisation and massification of the upper education sector.

At the beginning of the year 2000, Malaysian Higher Educational Institutions (HEIs) practice rebranding broadly to increase their brand equity (Goi and Goi, 2009). Grapragasem et al. (2014) discussed the Malaysian higher education current trends on four factors: Globalisation, Teaching and Learning, Governance, and Knowledge-based society. Therefore, the government has established the Malaysia Qualification Agency (MQA) to monitoring and auditing the quality assurance practices and accreditation of Malaysian higher education institutions (Bajunid, 2011).

2.2.2   The Types of Malaysians Private higher education institutions

In Malaysia, Private institutions of higher learning categorised into five groups of private higher educational institutions in Malaysia and Table 2.3 shows the complete statistic information in the year 2016:

    i.   Large corporations or organisations closely linked to the government,

    ii.   Established by large public listed corporations,

    iii.   Set up by political parties,

    iv.   Independent private colleges, and

    v.   Local branches of foreign universities (Ayob and Yaakub, 1999) (Anon, n.d.)

Table 2.3: The Total Number of Malaysian Higher Institution in

2016 (Services, n.d.)

Malaysian Higher Institution		Total
Public	University	20
	Polytechnics	30
	Community College	73
Private	University	28
	University-College	29
	Foreign University	6
	College	403

2.2.3   The Criteria for Colleges Upgrade to University Colleges

Ministry of Higher Education establishes the upgrading assessment to ensure Private Higher Education Institution has a strong structure in the foundation, organisational profile, academic and, R&D profile to sustenance and ultimately achieve the ambition of Malaysia in becoming a provincial and worldwide educational hub respectively ("Welcome to the Online Upgrading Self-Assessment Prototype," n.d.). Each of the criteria comes with several indicators. There is first (F), important (I), bonus (B) priority for colleges to meet the measurement. Table 2.4 summarises the criteria and indicators for upgrading the status of colleges to university colleges.

Table 2.4: The College Status Upgrade to University College's Criteria, Indicator, Priority

Criteria	Indicator	Priority	
Financial viability	Paid up Capital and Profitability	F	The Institution must ha capital and must be pro consecutive years.
	Annual budget and gearing ratio	I	The Institution must su forecasted annual budg after being promoted to The institution must sh borrowed funds.
	Sources of fund and plough back policy	B	The Institution must de main source of fund (ad 10% contribution to the Moreover, the institutic policy for academic pu ploughed back for the l
Maturity of institution	Maturity of courses and full accredited courses	F	More than 60% of the h least one cohort has gra courses must be fully ac
	Years of operation	I	The institution must ha years at College level.

	The number of courses accredited by global agency(s)	B	The institution must sh... programme accredited ...
Excellent track record	offence free by the institution	F	No record of a serious ... under PHEI Act 1996 (... 1966(Act 150) and, M... three consecutive years...
	Students free of offence	I	No record of serious cr... and University College... three consecutive years...
	Staff turnover rate	B	Maximum annual perce... 11%.
Mission and vision	Mission, Vision, and Strategic Plan	F	The institution must ha... and clearly communica... and students. The institution must sh... three years after being u...
	Key Performance Indicator (KPI)	I	The institution must de... and non-academic staff... upgraded to University ...
Internal quality control	Internal quality controls unit and committee	F	The institution must ha... committee for the last t...
	Internal quality control mechanism and certificate	I	The institution must ha... and must obtain certific... the likes acceptable by ... EDUCATION.
Appropriate and conducive campus	Campus building plan	F	The institution must sh... adequate and supportiv... meaning on the part of ... being upgraded. (Excep... operated at appropriate ... campus).
	Green and environmentally friendly campus	B	The submitted propose... green and environment... certified by registered a...
Multiracial participation	Academic, non-academic staff, and student's enrollment	B	The institution must sh... race. The institution mu... non-academic staff per ... allocation of students' e...

Governance	Separation of power, Academic qualification and academic management the experience of the proposed Vice Chancellor/President/ CEO	F	Institution must have tw Board of Directors for t Governors for the acad limited to one board on The proposed Vice Cha University College mus years' academic manag education.
	Academic qualification and academic management the experience of the proposed Deputy Vice Chancellor/Vice President and the proposed Dean	I	The proposed Deputy V of the University Colleg at least five years' acad tertiary education. The proposed Dean of t at least Master and teac the related field.
Internationalizati on	Percentage of international students	I	At least 20% of the stu international students f countries.
	Percentage of international academic staff and Marketing strategy to recruit international students	B	At least 5% of the curre international staff. The institution must ha recruit more internation
Students support	Fees refund policy and Office of students' affair and students welfare	F	The institution must ha and clearly communica and students. The institution must ha student welfare.
	Accommodation	B	The institution must pr conducive accommodat

**2.3	Improvement Initiatives with Key Adopting Factors in Status Update**

**2.3.1	Change Management and Continued Improvement**

Cummings and Worley (2005) argued that Organisation Development (OD) focus on bringing about planned change to increase an organisation's effectiveness and competence to change itself. One of the foundation models for understanding organisational change was developed by Kurt Lewin in the 1950s and is still applying now. The figure 2.2 illustrates the model is a simple and easy-to-understand framework for managing change known as Unfreeze – Change – Refreeze:

i.	Unfreezing is a step usually involves reducing those forces maintaining the organisation's behaviour at its present level. However, sometimes accomplished through a process of "psychological disconfirmation." By introducing information that shows discrepancies between behaviours desired by organisation members and those behaviours currently showed, members can be motivated to engage in change activities.

ii.	Moving. This step shifts the conduct of the group or individual to a new level. It involves overriding in the system to develop new behaviours, values, and attitudes through changes in organisational structures and processes.

iii.	Refreezing. This step stabilises the organisation at a new state of equilibrium. It is regularly accomplishing the objective by using the support mechanisms that reinforce the new improvement in

organisation, such as organisational culture, rewards, and structures (Lewin, 1951).

Figure 2.2: The Model of Managing Change

Turner (2014) explained the change is endemic, brought on by a flare-up in the development of technology and communications. Management and change are identical; in a journey, change may happen in various respects. Hence, managing change is about handling the complexities of travel (Paton and McCalman, 2008). Also, the journey involves in assessing, planning and implementing operational, and strategic. Therefore, a successful development and implementation of a project management methodology require an application of the principles of organisational change management to ensure that the desired project management environment will be created and sustained (Kerzner, 2013).

There are many Continuous Improvement (CI) definitions. Bhuiyan and Baghel, (2005) defined CI as a continuous stream of high-involvement, incremental changes in products and processes for improved business performance. Likewise, A company-wide process of focused and ongoing incremental revolution (Bessant et al., 1994). These definitions focus on common aspect: CI aims to improve the organisation's processes to meet the customer requirements by involving the employee in the entire organisation (Lodgaard et al., 2016).

2.3.2   The Improvement Initiative

Status upgrading considers as one benchmarking, and it is an organised, continuous, collaborative process in which assessments for selected indicators are used to identify factors, which when implemented will improve transfusion practices (Bhatnagar et al., 2016). Therefore, benchmarking has the potential to become a performance improvement strategy for identifying, structure, and enhancing capabilities to deliver sustainable competitive advantage (Vorhies and Morgan, 2005). These are four categories organisation should consider achieving the objective: Peoples, Facilities, Operations, and Products (McLennan, 2004). However, the paper will discuss on the four categories as mentioned and explore in depth into the PM and general management knowledge area.

The literature review generally to identify some improvement initiatives beyond the implementation of tools and techniques, which have the significant impact on improving practice. Table 2.5 presents a summary of the key improvement initiatives and then the following section will include this for improving practice.

Table 2.5: The Summary of the Key Improvement Initiatives with Different Themes

Themes	Key	Author
Process, tools, and techniques	1. 'Implement corporate standardised/customised project management processes.' Several project management bodies of knowledge and methodologies offer guidance on such matters.	(Andersen and Vaagaasar, 2009; Loo, 2002; Milosevic and Patanakul, 2005)
	2. 'Implement corporate standardised/customised project management tools and techniques.'	(Anantatmula, 2008; Milosevic and Patanakul, 2005; Shi, 2011)
People and organisational learning	1. 'Manage project management competencies,' for example, by assessing project management competencies of people from different project management roles, and providing project management training	(Andersen and Vaagaasar, 2009; Loo, 2002; Shi, 2011)
	2. 'Established project management career path for all project management roles' to motivate people to improve their project management practice to climb the project management career path	(Cooke-Davies, 2002; Shi, 2011)
	3. 'Develop a culture of learning' to better enhance the project management knowledge created in the organisation	(Atkinson et al., 2006; Burnes, 2004; Loo, 2002; Sense, 2007; Shi, 2011)
General management system	1. 'Integration of the project management system with the general management system,' i.e., the alignment of project management activities with the whole organisation's activities. For example, the strategic planning of the organisation should align with the project identification and prioritisation	(Meskendahl, 2010; Milosevic and Patanakul, 2005; Shi, 2011)
	2. 'Develop supported infrastructure,' i.e., a project management office or a similar structure	(Dai and Wells, 2004; Pellegrinelli, 1997; Shi, 2011)
	3. 'Develop a project sympathetic organisational structure to project management,' for example, a planned structure or a strong matrix structure	(Martinsuo et al., 2006; Maylor et al., 2006; Shi, 2011)

4. 'Empowerment of project managers,' i.e., the organisation should ensure that project managers have sufficient authority when managing projects and that project managers are highly respected in the organisation	(Maylor et al., 2006; Shi, 2011)
5. 'Develop a project categorization system' to tailor the project management processes, tools, and techniques to the different types of projects in the organisation	(Crawford and Pollack, 2004)
6. 'Benchmarking to assess project management and continuous improvement' through, for example, the use of a model from the literature to assess the current capability of the organisation to undertake project management to define what may be needed to make the organisation more capable in project management terms	(Barber, 2004)
7. 'Assessment of project management performance,' i.e., the feedback to project management team members of the project management performance evaluation, during the project's lifecycle.	(Qureshi et al., 2009)

2.3.3 The key Adopting Factors

The process of adopting a PM method to organisation improvement implies the diffusion, dissemination, implementation and sustainability. Diffusion tends to imply the passive banquet of improvements, whereas dissemination implies process and efforts to convince target groups to adopt a method. Implementation includes active and plans to incorporate the improvement within an organisation. An improvement is sustained if it is institutionalised and subsequently routinely used within an organisation (Carayon, 2010; Greenhalgh et al., 2004). The adoption allows to contextualise, customise and integrate with another system while implying the PM practice in the organisation, and where there is a sense of ownership facilitated by staff involvement at all levels.

Table 2.7 shows some the main factors, which might define the greatest impact on embedding the PM improvement initiatives. The adopting PM practices in improvements consists of six main themes.

    i.   PM improvement initiative attributes

    ii.   Adopters and adoption process

    iii.   Communication and Influence

    iv.   Inter Context

    v.   Outer Context

    vi.   Implementation

In the improvement, the initiative theme focuses on the beneficial of adopting and motives to initiate the status upgrading. Moreover, the adopting

of project-based management approach is an alternative for the institution to managing the complexity of the project. Furthermore, the stakeholders can observe the beneficial change through the transparent of the adoption process. Therefore, the participants will easy to adapt the approach, redefine and modify the process for minimising the uncertainty event.

The adopter and adoption topic will discuss the individual psychological aspect as participating the adoption process. If the project leader has clear defined the status upgrading scope and set the goal clearly, motivate the team towards result-oriented performance. The transferable lessons knowledge will be carrying on from individual to team and organisation for the next level of improvement.

The communication management is a crucial factor. The quality of engaging will affect the power of influencing between the peer to peer, group, organisation, and external party expectation. Formal broadcasting is the way to unite the information towards the ultimate goals of the organisation improvement project. An effective communication approach will create an open space for discussion and identify the command interest in the team. Then, collecting the sufficient information for further action or making the decision.

The project-based management is a flexible approach to adopt in any organisation structures, regardless functional or rollout the project management office. The key person will align the management and non-management team throughout the operating period. Also, the approach manages to extend the influencing power no limit in horizontal of organisation and social network.

Finally, the performance measurement mechanism is the key to adopting the project-based management in the implementation stage. The

status upgrading will bring the massive change to college, and the decision maker needs to employ the mechanism to justify the level of sustainable development.

Table 2.6: The Summary of Literature Review in the Key Improvement Initiatives with Different Themes

Theme	Key Adopting Factors	Author
PM Improvement Initiatives Attributes	1. 'Clear relative advantages.'	(Greenhalgh et al., 2004; Rogers, 2010)
	2. 'Compatibility' with the adopter values, standards, and professed the needs.	(Greenhalgh et al., 2004; Rogers, 2010)
	3. 'Simple rather than complicated to deploy.'	(Buchanan et al., 2006; Greenhalgh et al., 2004; Rogers, 2010)
	4. 'Trialability' the intended adopters with a limit of knowledge easy to experience the PM method.	(Greenhalgh et al., 2004; Rogers, 2010)
	5. 'Observability' such as visibility of benefits	(Greenhalgh et al., 2004; Rogers, 2010)
	6. 'Reinvention' proficient of adoption, restructure, or modification	(Greenhalgh et al., 2004; Rogers, 2010)
	7. 'Low uncertainty about outcomes.'	(Greenhalgh et al., 2004; Szulanski, 1996)
Adapter and Adoption process	1. 'Perceived usefulness.' The adapter acceptance is depending by only this key factor or adopter's belief on it.	(Venkatesh and Bala, 2008)
	2. 'Perceived ease of use.'	(Venkatesh and Bala, 2008)
	3. 'Adapter motivation'. The PM management action convinces the adapter will help to meet the objectives in a cost effective based	(Atkinson et al., 2006; Greenhalgh et al., 2004)

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	4. 'Trialability' the intended adopters with a limit of knowledge easy to experience the PM method.	(Greenhalgh et al., 2004; Rogers, 2010)
	5. 'Observability' such as visibility of benefits	(Greenhalgh et al., 2004; Rogers, 2010)
	6. 'Reinvention' proficient of adoption, restructure, or modification	(Greenhalgh et al., 2004; Rogers, 2010)
	7. 'Low uncertainty about outcomes.'	(Greenhalgh et al., 2004; Szulanski, 1996)
	and enhance the performance.	
	4. 'Beliefs of similarity or difference from other adopters.'	(Bresnen and Marshall, 2001)
	5. 'Gender and age differences,'	(Morris and Venkatesh, 2000; Venkatesh et al., 2004)
	6. 'Nature of adoption decision,'	(Greenhalgh et al., 2004; Rogers, 2010)
Communication and influence	1. 'The project management Demonstrating improvement initiative value.' The value of the	(Greenhalgh et al., 2004; Venkatesh

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	4. 'Trialability' the intended adopters with a limit of knowledge easy to experience the PM method.	(Greenhalgh et al., 2004; Rogers, 2010)
	5. 'Observability' such as visibility of benefits	(Greenhalgh et al., 2004; Rogers, 2010)
	6. 'Reinvention' proficient of adoption, restructure, or modification	(Greenhalgh et al., 2004; Rogers, 2010)
	7. 'Low uncertainty about outcomes.'	(Greenhalgh et al., 2004; Szulanski, 1996)
	PM shows effective communication in improvement across structure boundaries within the organisation.	and Bala, 2008)
	2. 'Homophily.' The adoption of a project management improvement initiative for individuals is more likely homophilous. In other words, if the members involved in the process of change are similar in certain attributes.	(Buchanan et al., 2006; Greenhalgh et al., 2004; Rogers, 2010)
	3. 'Interpersonal channels.' In communication, mass media is essential for creating awareness, but 'interpersonal channels' are vastly more influential	(Greenhalgh et al., 2004; Rogers, 2010)
	4. 'Opinion leaders.' The existence of	(Englund

Table 2.6: The Summary of Literature Review in the Key Improvement Initiatives with Different Themes

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	4. 'Trialability' the intended adopters with a limit of knowledge easy to experience the PM method.	(Greenhalgh et al., 2004; Rogers, 2010)
	5. 'Observability' such as visibility of benefits	(Greenhalgh et al., 2004; Rogers, 2010)
	6. 'Reinvention' proficient of adoption, restructure, or modification	(Greenhalgh et al., 2004; Rogers, 2010)
	7. 'Low uncertainty about outcomes.'	(Greenhalgh et al., 2004; Szulanski, 1996)
	influencers who can encourage the take-up and embedment of project management improvement initiatives	and Bucero, 2006; Greenhalgh et al., 2004; Loo, 2002; Rogers, 2010)
	5. 'Use of rhetoric' to give a strong, compelling and sustained motive for embedding a project management improvement initiative.	(Green, 2004)
	6. 'Adopter involvement' earlier in the implementation process	(Burnes, 2004; Eskerod and Riis, 2009; Greenhalgh

Table 2.6: The Summary of Literature Review in the Key Improvement Initiatives with Different Themes

Theme	Key Adopting Factors	Author
PM Improvement Initiatives Attributes	1. 'Clear relative advantages.'	(Greenhalgh et al., 2004; Rogers, 2010)
	2. 'Compatibility' with the adopter values, standards, and professed the needs.	(Greenhalgh et al., 2004; Rogers, 2010)
	3. 'Simple rather than complicated to deploy.'	(Buchanan et al., 2006; Greenhalgh et al., 2004; Rogers, 2010)
	4. 'Trialability' the intended adopters with a limit of knowledge easy to experience the PM method.	(Greenhalgh et al., 2004; Rogers, 2010)
	5. 'Observability' such as visibility of benefits	(Greenhalgh et al., 2004; Rogers, 2010)
	6. 'Reinvention' proficient of adoption, restructure, or modification	(Greenhalgh et al., 2004; Rogers, 2010)
	7. 'Low uncertainty about outcomes.'	(Greenhalgh et al., 2004; Szulanski, 1996)
		et al., 2004)
	7. 'Motivation of knowledge holders.' If the source has a fear of losing ownership of the knowledge, they would not be motivated to support the efficient embedment of the project management improvement initiative	(Szulanski, 1996)
	8. Credibility of the source of the knowledge,' i.e., credible and trusted change agents	(Greenhalgh et al., 2004; Szulanski, 1996)
	9. 'Relationship between the origin of the knowledge and the adopter,' i.e., stability and confidence in the relationship between change agents and adapters.	(Greenhalgh et al., 2004; Szulanski, 1996)

Table 2.6: The Summary of Literature Review in the Key Improvement Initiatives with Different Themes

Theme	Key Adopting Factors	Author
PM Improvement Initiatives Attributes	1. 'Clear relative advantages.'	(Greenhalgh et al., 2004; Rogers, 2010)
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	4. 'Trialability' the intended adopters with a limit of knowledge easy to experience the PM method.	(Greenhalgh et al., 2004; Rogers, 2010)
	5. 'Observability' such as visibility of benefits	(Greenhalgh et al., 2004; Rogers, 2010)
	6. 'Reinvention' proficient of adoption, restructure, or modification	(Greenhalgh et al., 2004; Rogers, 2010)
	7. 'Low uncertainty about outcomes.'	(Greenhalgh et al., 2004; Szulanski, 1996)
	10. Feedback on improvement impacts' in the project and organisation performance.	(Greenhalgh et al., 2004)
Inner context	1. 'Structure and resources to support change	(Greenhalgh et al., 2004; Loo, 2002)
	2. 'Absorptive capacity for new knowledge.' Organisations with a learning organisation culture and a proactive leadership directed toward sharing knowledge are more likely to adopt and embed project management improvements	(Greenhalgh et al., 2004; Szulanski, 1996)
	3. 'Receptive context for a change.' With features such as strong leadership and support, clear strategic vision, excellent	(Englund and Bucero, 2006; Greenhalgh

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	3. 'Simple rather than complicated to deploy.'	(Buchanan et al., 2006; Greenhalgh et al., 2004; Rogers, 2010)
	4. 'Trialability' the intended adopters with a limit of knowledge easy to experience the PM method.	(Greenhalgh et al., 2004; Rogers, 2010)
	5. 'Observability' such as visibility of benefits	(Greenhalgh et al., 2004; Rogers, 2010)
	6. 'Reinvention' proficient of adoption, restructure, or modification	(Greenhalgh et al., 2004; Rogers, 2010)
	7. 'Low uncertainty about outcomes.'	(Greenhalgh et al., 2004; Szulanski, 1996)
	managerial relations, visionary staff in the major positions, a climate conducive to experimentation and risk-taking	et al., 2004; Kerzner, 2013; Loo, 2002)
	4. 'Readiness for a change.'	(Greenhalgh et al., 2004)
Outer context	1. 'Informal inter-organizational networks.' A significant influence on an organisation's decision to adopt is whether a threshold proportion of comparable (homophilous) organisations have implemented or plan to implement improvement initiatives	(Carayon, 2010; Greenhalgh et al., 2004)
	2. . 'External mandates' (political 'must-dos') increase the predisposition, which is the	(Greenhalgh et al., 2004)

Table 2.6: The Summary of Literature Review in the Key Improvement Initiatives with Different Themes

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	2. 'Compatibility' with the adopter values, standards, and professed the needs.	(Greenhalgh et al., 2004; Rogers, 2010)
	3. 'Simple rather than complicated to deploy.'	(Buchanan et al., 2006; Greenhalgh et al., 2004; Rogers, 2010)
	4. 'Trialability' the intended adopters with a limit of knowledge easy to experience the PM method.	(Greenhalgh et al., 2004; Rogers, 2010)
	5. 'Observability' such as visibility of benefits	(Greenhalgh et al., 2004; Rogers, 2010)
	6. 'Reinvention' proficient of adoption, restructure, or modification	(Greenhalgh et al., 2004; Rogers, 2010)
	7. 'Low uncertainty about outcomes.'	(Greenhalgh et al., 2004; Szulanski, 1996)
	motivation of an organisation to adopt a new project management practice	
Implementation	1. 'Effective change agents.'	(Greenhalgh et al., 2004; Rogers, 2010)
	2. 'Specific training' in associated new tasks and working methods	(Carayon, 2010; Loo, 2002)

2.4   Conceptual Framework for This Study

To provide a foundation for understanding the design of the survey and approaching outcomes, figure 2.3 shows the concept. The concept combines some keys from the previous discussion. This section will briefly outline the development of the conceptual framework.

The researcher derives the project characteristics definition and five project management process groups as adopting factors from the academic journal review. Based on a study of the normative literature a first attempt to construct a model drew largely on three main theoretical foundations:

i.   Mapping the dimensions of project success (Shrnhur et al., 1997);

ii.   The logical framework method for defining project success (Baccarini, 1999);

iii.   Evaluation of project outcomes (Liu and Walker, 1998) and

iv.   Defining 'success' for software projects: An exploratory revelation (Agarwal and Rathod, 2006)

The similarity of objectives, robustness, empirical evidence obtained, multidisciplinary teams, and a multitude of organisational contexts is the reasons of taking this four works. Table 2.7 summarised the factors with the previous section study.

Figure 2.3 Conceptual Framework for This Study

Project Characteristics. For this study, the disclosure relates specifically to process, tools, methods, people, organisation learning, and current management system of expert's perception in defining college status upgrading as a project and fulfil the definition of characteristics. The three factors form the fundamental questions of the study: (1) The college status upgrading process has a definite start and end dates? (2) The college status upgrading process creates a series new objectives and changes? (3) Is the college status upgrading process unique from another existing process?

Initiating Process Group. There are numbers of key concern in project charter development and stakeholder's identification for experts to review. The four key dimensions contract the following question for study: (4) The college leader will appoint a key person(s), assign the college status to upgrade assignment, and officially announce the plan to the floor? (5) The key person(s) will have full authority to access the status upgrading information with all parties without multilevel approval procedures? (6) The key person(s) will have full authority to disclose the status upgrading information to inner and outer organisation boundaries without multilayer approval processes? (7) The key person(s) will identify all parties, groups, and individuals who have a degree of interest in status upgrading plan?

Planning Process Group. There are numbers of key concern in project management plan in scope, time, cost, quality, communication, risk, procurement, and stakeholder areas for experts to review. The nine key dimensions contract the following question for study: (8) All members of the status update program will understand the general meaning, motives, objectives, benefits and methods in standard and align with management? (9)

The status upgrading team will conduct the preliminary study and generate the new norm procedures with respective staff members? (10) Will all members understand the status upgrade milestone to plan the work progress with the particular team? (11) All the part-time or guest staffs, tenders and contractors will have equal rights with permanent officers in status upgrading program? (12) The special team and college management group will plan, estimate, and determine the status update fund separately with operating cost? (13) All members will have an additional or unique communication platform, application, and social media for the status upgrading plan? (14) Will all members study the risk in status changing process and provide the possible solution? (15) The acquisition of distinct talents or outsourcing will be in the plan if the organisation identifies the gap between essential knowledge and skills in the status upgrading? (16) The relevant parties, groups, and people who have some degree of interest in state improvement plan will have an opportunity to participate and contribute their effort with team members?

Executing and Controlling Process Group. There are numbers of key concern in monitoring and adjusting the scope, time, and performance for experts to review. The two key dimensions contract the following question for study: (17) All members and the key person will monitor the schedule, processes, and outcomes time to time basis in the full status upgrading period? (18) The key person will make the adjustment of time, process, and costs with all members to fit the status update plan?

Closing Process Group. There are numbers of key concern in the close project, phases and procurements for experts to review. The two key dimensions contract the following question for study: (19) The management will close the status upgrading program and disclose the facts with members of open discussion platform? (20) The management will record all the actual

details in state improvement plans, works, and results for future reference?

Table 2.7: The Summary of the Conceptual Factors Mapping with Project Characteristics, Process Group, and Knowledge Areas.

Definition of Project Characteristics (1 – 3)					
Process Group					
Knowledge Area	Initialling	Planning	Executing	Controlling	Closing
Integration	4 – 6	8			19 - 20
Scope		9			
Time		10		17 – 18	
Cost		12			
Quality					
Human Resource		11			
Communications		13			
Risk		14			
Procurement		15			
Stakeholder	7	16			19 – 20

CHAPTER 3

METHODOLOGY

The researcher aims of this study were to find information and perspectives of expert academic, administration, and project management practices to determine similarities or patterns in the ways these personal experiences and manage the college status upgrading with project-based management approach. This paper also examined what is the improvement initiatives, adapter, adoption, communication, influence, organisation context, and implementation issues specifically in their participating experience.

Because these matters have not been studied or explored together in project management, education management and not at all in rebranding literature, a Delphi study was an appropriate method. This approach has laid the groundwork for educators, researchers, and practitioners in further understand the practices of expertise in adopting project-based management approach with continuous improvement, as well as how they deepen exploration of ethical issues in case decision making. It has also identified areas for more specific research in the future. This chapter will outline how the Delphi Study for this paper was designed and conducted.

3.1   **The Delphi Study**

3.1.1   History and Background

In the late of 1940s, the Rand Corporation was the first user who used the Delphi study with the expert group and based on their opinion and to forecast the outcome of future technological (Sackman, 1974; Vázquez-Ramos et al., 2007). The Delphi study co-founder, Dalkey has explained the assumptions behind the method. Therefore, the experts in the field provide the possibilities, options, planning, and the forecasts models decision in the study method (Dalkey and Rourke, 1971). The verifiable and evidence-based information is knowledge for study. Moreover, based on little-no evidence then connect with information spectrum with another based on little-to-no evidence. The opinion may not clear enough to describe the evidence. However, the another way is referring the judgement, wisdom, or insight from experts (Dalkey and Rourke, 1971) in additions, the method secures the understanding and insights topic with experts and highlight the topic under examination (Vázquez-Ramos et al., 2007).

3.1.2 Types of Delphi and Usages

There are three types of Delphi studies (Boberg and Morris-Khoo, 1992; Vázquez-Ramos et al., 2007):

i. Numeric for garner statistical predictions on an issue;

ii. Policy focuses on varying perspectives on a topic among stakeholders and divergent feedbacks; and

iii. Historical to exam the issues that impacted the past decisions.

Regardless the category researchers selects, a Delphi path should include the three top questions: 1) Is a Delphi enough to justify over the other methods?; 2) Does the researcher has a familiarity to access the potential experts in the chosen field?; What types of the outcomes does the researcher anticipate via this method? (Vázquez-Ramos et al., 2007). Also, the outcomes should beneficial from subjective group consensus, that the particular experts have not ready to explore the problem together, and assure their anonymity(Skulmoski et al., 2007). The previous study has found the expert judgments contribute more sustainable information than group discussions, brainstorming, or other types of group interaction in the systematic process of collecting and analysing (Brady, 2015). Furthermore, the Delphi method outcomes can lead to future instrument development. Moreover, the anonymity and lack of in-person group interactions make the Delphi researchers feel to more thoughtful and deliberative analysis in the process of contributions (Hsu and Sandford, 2007b).

Delphi method provides long-term forecasts, examine the present conditions of the topic, a comparison the alternative or concepts, or support in management decisions (Boberg and Morris-Khoo, 1992). The approach also as

an expert consensus method for the certain existing information is incomplete or contradictory (Hasson et al., 2000). There are four research objectives which appropriate for Delphi (Skulmoski et al., 2007):

i.   Discovering the underlying problems convening a topic led to differing interpretations;

ii. Information may result in consensus with a particular group;

iii. Compile and compare the expert perspectives from a wide range of disciplines;

iv. Educate the previous study group about diverse and related perspectives on the topic.

The use of Delphi on a study the problem is not a must for analytical techniques but benefit from group feedback and knowledge (Linstone et al., 1975).

3.1.3   Advantages and Limitation of Using Delphi

The Delphi method facilitates experts the opportunity to equally express themselves more freely compare with the focus group setting or knowing others expert's identity (Boberg and Morris-Khoo, 1992). Boberg and Morris-Khoo explained that this is extended to assist the experts in avoiding dominance, group think, or confrontation issues that may happen due to lack of anonymity. The participants allow to evaluate or refine their thoughts in several rounds of feedback (Boberg and Morris-Khoo, 1992; Hsu and Sandford, 2007b). Finally, the efficiency of soliciting insights process without the need of travel consider as an advantage (Boberg and Morris-Khoo, 1992).

Hsu and Sandford (2007) echoed Boberg and Morris-Khoo's (1992) observations in Delphi method specially accommodate the experts reconsider their responses.

The limitation of Delphi method has addressed significant concerns about its use. Delphi as an irrational and inaccurately designed method that lacks dependability, and provides concerns of other researchers reasonable tone presentation more (Sackman, 1974). The participants may manipulate the group into consensus by viewing the several rounds of feedback (Boberg and Morris-Khoo, 1992). Furthermore, the Delphi study needs of at least three rounds for each respondent will cause experts give up easily (Buck et al., 1993). There is no insurance the specialists in the research are directing the conclusions that are accurate or complete (Hasson et al., 2000). The possibility of over-implication of problems, unqualified group experts, poor study design can cause the misleading or trivial outcomes (Linstone et al., 1975). The other concern which an expert may provide a narrow outlook, depending on the expert's nomination and selection process (Vázquez-Ramos et al., 2007).

3.1.4 Balancing Considerations in Choice of Delphi

Delphi is a method that allows experts to study the complication problems in a systematic fashion (Adler and Ziglio, 1996). Limestone has addressed Sackman's (1975) objections that the Delphi method will present problems but commented that Sackman over focus on the problematic aspects of the method by applying out of the standards. The structure discussion as well as debate the issues by using the outcomes and should not be viewed as a must true current or future expectation (Hasson et al., 2000). Wicklein (1993) support the Delphi method as the firm need in education innovation process.

3.1.5 Typical Delphi Study Design

The first phase in the Delphi method as exploration because the experts have opportunities and respond the open-ended questions freely (Adler and Ziglio, 1996). Also, the researcher mindful in providing the general overview and goals of the research to comfort and manage the interest of experts. Hassan et al. (200) suggested minimum opinions or responses in the survey because most of the experts are prefer to identify similar issues by using different terms. The content analysis techniques categorise the responses at the second round, and usually a rank-ordered or Likert-based questionnaire (Stemler, 2001). The second round onwards is move from the exploration, called evaluation (Adler and Ziglio, 1996). The purpose of collecting the current round information for developing the following found a questionnaire. Along with the previous outcomes, requests for an expert to respond the modified survey (Adler and Ziglio, 1996). The best way to avoid premature conclusions and the diluting information is developing two or three rounds survey in Delphi (Hasson et al., 2000). The final outcomes are then summarised and spread to participants (Adler and Ziglio, 1996).

3.1.6 Appropriateness of the Delphi Study for the Current Project

The scholarly literature supports the conclusion that there is a need for more knowledge in educational management, and that there is a scarcity of research concerning the intersection of project management, academic, and administration practice. Therefore, there were several advantages of using the Delphi study approach for this project, and the objective focused type of Delphi. The method emphasis on group wisdom and insight rests in the middle of the information spectrum and evidence-based knowledge on one side and speculation on the other (Dalkey, 1972). There was little research-based evidence concerning the questions posed in this study; a Delphi study was one of the most consistent initial methods for gaining preliminary understanding and knowledge (Hasson et al., 2000).

3.1.7 Delphi Study Design for This Project

Research Questions. The researcher sets out to examine the perspective and expectation of the project-based management adoption in college status promotion. Also, it has on academic or administrative staff from Malaysian higher education sector. The researcher has conducted the research based on the questions from first chapter and the chapter two which is content analysis utilizing the results of searching numerous scholarly journals that have conducted research on the project management adoption initiative factors, change management in organization and how the team arrive at five project management process group in the college status upgrading. In next section followed by further elaboration on the research question (RQ) and proposition (P).

RQ1:   How was institution understanding the concept of the project and adopting the project-based management?

P1:   The organisation's project will lead to friction and failure if the team lack of understanding the concept of the project (Aubry et al., 2007). This is a significant point for an organisation which adopt the project-based management and succeed the project (Atkinson, 1999). The proposition of the RQ1 is to assess the expert's knowledge on project and project administration and level of agreement to adopt a method in college status upgrade.

RQ 2:   What is the objectives of the Private higher education institutions and the motives to initial the as a project and to adapt the Project-based management knowledge?

P2:   The project management initial motivation and support the problem-solving in implementing of educational innovation (Berman and McLaughlin, 1976). Furthermore, the adoption of project management suitable for dynamic environments such as changing situations (Collyer and Warren, 2009). Therefore, the researcher set the P2 to investigate the expectation and experience in college status upgrade project which fit to initial process group.

RQ3:   How the new process, procedures representing the organisation structure formed for the status upgrading project and the arrangement of the current team member?

P3:   The individual expertise, knowledge, and judgement need to take in as a key factor in the project planning stage (Cooke-Davies and Arzymanow, 2003). Moreover, the scope planning is the "blueprint" of the project implementation plan (Gargeya and Brady, 2005). Therefore, the P3 in this study will assess the view and perspective from experts while involving the college status upgrade project in planning process groups.

RQ4:   What is the project measurement for the triple constraints: time, cost and quality?

P4:   The project success undoubtedly needs the measurement to sustain; however the measurement criteria can be subjective (Ebbesen and Hope, 2013). Also, an appropriate measure of the project performance may various and depends on the organisation development and progression (Papke-Shields et al., 2010). The researcher based on P4 to investigate the college status upgrading project in executing and controlling process stage with experts' point of view and personal experience.

RQ5:   How were the results of (I) to (IV) above taken account of by the stakeholders reviewing and closing the status upgrading adapting as the Project-based management?

P5:   The project closure report contributes a positive impact on sustainable development and objective review (Laurence, 2006). Also, the successful of project closure can make the plan more deterministic with certain probabilistic inevitabilities (Fourie and Brent, 2006). The last proposition (P5) will investigate the closing process group with expert's opinion and practise experience while engaging in college upgrade plan.

First Round Survey. The initial round of survey consists of two sections: Expert's view and perception. Table 3.1 shows the two sections and statements in round one survey with linkage of the area to study from Chapter Two.

Table 3.1: The Round One Survey Questions: Summary of Two Section's Questions with Area of Study

No.	Round One – Expert's View	Round Two – Expert's Perceptive	Area of Study (Table 2.8)
1	An official start and end dates (duration) as a target for college management team to plan and obtain the University College status from MoHE.	The time frame for a status upgrades and expected to receive the status.	
2	The college management team should have a different fund, account, and resource planning for the college status upgrade program.	Planned and announced the specific budget or resources for the status update.	Definition of Project Characteristics
3	The current college working standard should employ with The MoHE Colleges Upgrade to University Colleges Criteria and produce a different standard, process, and program.	The criteria are a guide and employed as a set of quality measurement.	
4	The college management board should appoint a key person(s), assign the college status to upgrade assignment, and officially announce the plan to	Appointed, and a first leader, team or committee and formally introduced.	Project Integration Management in Initialling Process Group

	the floor.		
5	The key person(s) should have full authority to access the status upgrading information with all parties without multilevel approval procedures.	Full authority to access the status upgrading information.	
6	The key person(s) should have full authority to disclose the status upgrading information to inner and outer organisation boundaries without multilayer approval processes.	Full authority to communicate the status update information.	
7	The key person(s) should identify all parties, groups, and individuals who have a degree of interest in status upgrading plan.	Identified stakeholders in the beginning stage.	Project Stakeholder in Initialling Process Group
8	All members in the status update program have to understand the general meaning, motives, objectives, benefits and methods in standard and align with management.	Shared the overall plan to all.	Project Integration Management in Planning Group

9	The status upgrading team should conduct the preliminary study and generate the new standard procedures with respective staff members.	Studied and developed the new processes from us. *	Project Scope Management in Planning Group
10	All members should understand the status upgrade milestone to plan the work progress with the particular team.	Mentioned and explained the milestone.	Project Time Management in Planning Group
11	All the part-time or guest staffs, tenders and contractors should have equal rights with permanent officers in status upgrading program.	Full and part-time staffs have participated.	Project Human Resource Management in Planning Group
12	The special team and college management group should plan, estimate, and determine the status update fund separately with operating cost.	Managing the cost apart with usual operating procedures.	Project Cost Management in Planning Group
13	All members should have an additional or unique communication platform, application, and social media for the status upgrading plan.	Created independent communication platforms.	Project Communication Management in Planning Group
14	All members should study the risk in status changing process and provide the possible solution.	Aware the status update has ad-hoc, or uncertainty and respond.	Project Risk Management in Planning Group

15	The acquisition of distinct talents or outsourcing should be in the plan if the organisation identifies the gap between essential knowledge and skills in the status upgrading.	Involved the external professional parties.	Project Procurement Management in Planning Group
16	The relevant parties, groups, and people who have some degree of interest in state improvement plan should have an opportunity to participate and contribute their effort with team members.	Stakeholders have involved, participated and contributed.	Project Stakeholder Management in Planning Group
17	All members and the key person should monitor the schedule, processes, and outcomes time to time basis in the full status upgrading period.	Reviewed the milestone, processes, and performance results constantly.	Project Scope, Time, Cost, and Quality Management in Executing and Controlling Process Groups
18	The key person should make the adjustment of time, process, and costs with all members to fit the status update plan.	Made a necessary adjustment to the timeframe, budget and process.	
19	The management should close the status upgrading program and disclose the facts with members of open discussion platform.	Conducted the official post-mortem meeting, discussion, and conference.	Project Integration and Stakeholder Management in Closing Process Group

| 20 | The management should record all the actual details in state improvement plans, works, and results for future reference. | The entire plans, processes, performance reports, and feedback need a proper documentation. |

Second and Third Round Survey. The following rounds of survey remain only one section: Expert's view, and continue to obtain the group consensus process.

Setting. The setting for the study was each expert's individual space answer study Internet-based questions via computer or paper. One of the advantages of a Delphi study is the opportunity for experts to express their opinions anonymously without the group pressures of social conformity (Hsu and Sandford, 2007a).

Population and expert selection. The population for this study focuses on university colleges' staff or rebranding project personnel practising in Malaysia Private higher education institutions. In Malaysia, twenty-nine university colleges are conducting the higher education programme such as undergraduate and postgraduate level of study. (Ayob and Yaakub, 1999; Anon, n.d.).

Rather than randomly selecting members of this population, as in most quantitative studies, the researcher can choose experts based on knowledge about the population (Hasson et al., 2000). Furthermore, the criteria for experts can vary. They should be familiar and engaged with the topic area, have time to participate, possess skills in written communication, and be able to evaluate priorities posed in the study rounds (Adler and Ziglio, 1996).

Nomination method. Nominees for participation in this study were mainly put the first place for Klang Valley area higher education institutions representatives or agencies, and education technology consultation firms. All the organisation suggests for two nominees: one candidate per academic and administrative department. After which the researcher for this project contacted administrators in each candidates' agency for permission to proceed

with contacting the candidate. The study has collected the demographic information as the outset of the survey, including age, education qualification, professional certification, position title, years of experience in the education sector and years of approaching the project management.

In many fields of expertise evaluations of ten years' experience, deliberate practice is common and actively research in nurture side of nature and nurture argument (Ericsson et al., 2006). However, some aspects not fitting the nature-nurture contradiction are biological but not genetic, such as starting age, handedness, and season of birth. (Gobet, 2008; Gobet and Chassy, 2008; Gobet and Campitelli, 2007). Therefore, this study adopts the Germain (2006) concept of about a specific field, and an expert has met the following criteria:

- Specific education, training, and knowledge

- Required qualifications

- Ability to measure importance in work-related situations

- Ability to improve themselves

- Awareness

- Self-assurance and confidence in their knowledge

For this project, an expert participant selected to participate needs to meet the following criteria: (1) participated college status upgrading in Malaysia Private higher education institutions; or (2) experienced in rebranding project management, and (3) experienced for at least one year or more in project management or institution rebranding campaign.

The number of experts. Hasson et al. (2000) discussed that the

appropriate number of experts ranged from fifteen to over sixty. Since the project study group is homogeneous, ten to fifteen of experts as a smaller group of study are sufficient (Skulmoski et al., 2007). An individual or key number will assign to all experts for identifying purpose at round one responses. Also, preserving the confidentiality of specific responses. The following section discusses the outcomes of the expert selection process.

3.2   Expert Selection Process

3.2.1   Nominee Recruitment

The recruitment management for securing expert higher education institution academic and administration staffs as study experts follow as described in this chapter. A total of fifty-nine potential experts from the Malaysian private colleges or universities staffs were nominated directly by the author. The author has contacted potential experts via email for permission to accept the survey. All but ten experts have responded to the request and all who responded granted permission for the researcher to contact directly.

Thus, the researcher has distributed seventy-nine consent emails to the nominees, and eleven responded with agreement to participate in the study. Ten responded with agreement to take part in the study. The ten (experts in Table 3.2 who responded to Round One, Two, and Three questions with an 100% completion rate. An expert who discontinued her involvement did not indicate the intentions to drop out of the study, and did not disclose the reasons for ending the participation.

In the recruitment plan for this study, it was a possible twenty nominees would agree to participate, with the understanding that ten to fifteen Delphi experts in a homogeneous group were sufficient to provide representative viewpoints regarding the study topic (Adler and Ziglio, 1996). Therefore, ten respondents completed participation have met the expectations set before the survey for expert panel participation. Also, due to the limitation of time and resources, the ten experts have met the requirement and committed themselves into three rounds Delphi study.

3.2: Participant's Organisation, Position, and Department

No.	Expert ID	Organization	Position – Department	The Number of Year	
				Working Experience	Special Plan Involvement
1	C1	A communication design college	Manager, International Student	3 – 5	1 – 3
2	A1	The main campus of multidiscipline college	Assistant Registrar, Registry	1 – 3	1 – 3
3	L1	An education group	Director, Programme		5 – 7
4	S1	A multidiscipline university	Senior Lecturer	5 – 7	1 – 3
5	E1	A multidiscipline college	Lecturer, Foundation Studies	1 – 3	1 – 3
6	E2	A communication designs college	Leader, Management		
7	F1	An education group	Director, Operations	1 – 3	1 – 3
8	D1	A multidiscipline college	Director, History and Arts		
9	L2	A multidiscipline college	Officer, Admissions	3 – 5	1 – 3
10	D2	A multidiscipline university	Assessor, Admissions		1 – 3

3.2.2 Conducting the Delphi Study

Round One. This round is an initial stage of the study. The design and purpose of the survey accommodate the expert's overview, an expectation total time to contribute to the study, and thirty scale rated questions (see Appendix A). Murry and Hammons (1995) mentioned the classical Delphi method needs several rounds of the study and causes the dropout rate increase. Therefore, they have modified the method, based on relevant academic journal reviews or expert's interview, then design the constructive survey rather than open-ended questions. Thus, this is a Modified Delphi Method.

The study adopts the Likert scales in five-point to understand the level of agreement experts had with each resulting statement. The five-point Likert scale, with 1 = strongly disagree; 2 = slightly disagree; 3 = neutral; 4 = very agree; and 5 = extremely agree.   The number of options on a scale, if five points or higher indicates the psychological tests on respondents does not have a noticeable influence on the respondents' measurements (Wakita et al., 2012). The experts need to review the introduction, agree with the terms and conditions then proceed to respond the thirty Likert-scaled questions in Round One. The first round takes an hour time to complete. The researcher has invited three staff members at the Hobsons Asia office to view and answer to the Round One questions to assess the time it may spend for experts to complete the initial study more accurately.

Electronic email is a primary communication method and follows up by phone call or face-to-face meeting. The researcher has sent the Likert-scaled questions via the Survey Monkey Form. Within seven days, the experts need to respond back the thirty Likert-scaled questions. Based on the chapter one and two studies, the researcher has formed the questions for this study.

However, the survey allows the experts to add their new opinion if adequate to the study.

Rounds Two and Three. As per discussed in the previous section, this is a modified version of Delphi method. The researcher no needs to categorise the questions focused area. The Round One's outcome shows the level of agreement regarding perspective in adopting the project-based management method with college status improvement in various aspects.

The calculation of group mean and standard deviation determine after received the Round Two's responses. For Round Three, the experts will receive an individual set of survey consists of the necessary additional statement, key, and factor from the previous round. Also, attached with the group mean and their former rating for each question. The second and third rounds allow experts to revise and clarify their last responses by referring and comparing with the group outcomes. The process of means and standard deviations calculation will perform again once the Round Three questionnaires received. The following method of data analysis by using the Statistical Package for the Social Sciences (SPSS) calculates the significance in mean and standard deviations between the three rounds.

Experts will take an approximately seven days to return their ratings and answers. Furthermore, the experts need to review previous outcomes from previous rounds, facilitate a chance to amend and justify last feedback and continue to rate and discuss their ratings.

3.2.3 Data

Data collection, reliability, and validity. The study had analysis and compiled the qualitative data from several rounds into same categories (Hasson et al., 2000). In three rounds, experts have rated the statements related to the most significant factors in adopting PM method and improvement perspective using Likert-based scales.

Hassan et al. (2000) have supported that some researchers feel stable and consistent with the level of important than agreement. However, some researchers have demonstrated the study with adopting the percentages of understanding in Likert-based scales into survey method (Schreiber et al., 2006; Spooren et al., 2007; Hasson and Arnetz, 2005). Furthermore, if the individual respond rating consistent and similar across rounds then it shows stability (Vázquez-Ramos et al., 2007). In another hand, the group of responses approach towards unlikely or unaligned, then withdraw the study at next round or summaries as unconsidered. However, experts' replies are showing in median value within two extreme points (plus or minus), then they have to clarify the outcomes (Ishikawa et al., 1993). If this happens, then consider as resistance to change (Beech, 1999). Beech (1999) commented this situation has the ability of further round study or summaries as revelatory in showing areas of change.

The Delphi method is not an actual experiment and no path for finding statistical reliability (Hasson et al., 2000). Therefore, this is an issue for Delphi study in data reliability. The objective of this research paper is critical of response analytical process consistency rather than statistical reliability. The lay groundwork for continuing exploration requires the compilation of the information between academic, administrative and leader's perspective

opinion adopting the PM in the status update process. Thus, the test in research-based responses presumes reliability.

Procedures for data collection. The experts will receive the study information via electronic mail after they agreed to participate. In additions, the mail content the survey provided a link for access to the study, introduction, consent, Round One questions, and demographic questions (see Appendix A to view the instrument). The experts received individualised summaries of their previous responses; the group means each question in Rounds Two and Three. The online survey provider continues the service to manage the three rounds survey.

Data analysis. The Delphi method is a type of discretion data analysis (Hsu and Sandford, 2007a). In the initial round, experts allow responding their adequate addition statement, the material garnered was primarily qualitative (Hsu and Sandford, 2007b). The study has used the new coding method for qualitative analysis. The researchers had no idea about experts would comment on the survey, then preferably using the new coding (Stemler, 2001).

The means and standard deviations, which is central tendency measurements requires the data from three rounds survey's (Hasson et al., 2000; Hsu and Sandford, 2007b). The analysis method has constructed the expert's consensus and future research direction regarding PM method, college is a status improvement, and the level of adoption that recognise the experts managerial and academic staff members.

3.2.4 Human Participants and Ethics Precautions

By the guidelines of Universiti Tunku Abdul Rahman Research Ethics and Code of Conduct regarding the protection of human participants, the researcher has submitted a request for review to the Scientific and Ethical Review Committee (SERC) for approval to collect information from approximately twenty people for this study. The recruitment and data collection process begin after receiving SERC approval.

Protection of participants. The researcher has not shared with anyone with the expert's comments and ratings from part of the study. The researcher has created a unique individual number for each expert identity and shared only with permission.

Other ethical issues. The experts were able academic and administrative staff members in colleges, and, as such, were not consider as part of the vulnerable population. From the first nominee's contact and study outset, they were free to discontinue the study. Also, each round will begin to mention this information.

The researcher has contacted every expert's supervisor for approval before contacting the participant directly. This action to ensure the experts could contribute to the study without worry of official disapproval. After the nomination and experts agreed with participating the study, the researcher would not share with anyone the expert's personal comments and ratings.

CHAPTER 4

RESULTS

The objectives of this paper were to acquire information and perspectives from expert education academic and administrative staff concerning the ways they work with college status upgrading and project-based management approach. The study exploring and describing the adopting the project-based management approach in college to university faculty status upgrade in this chapter, including The three rounds results and statistical analysis in the first section; discussion of the expert perspective on currently practice with project management approach; and the expert consensus results of the study.

4.1   Demographics

All ten nominees who initially agreed to participate in the study met the expert criteria as outlined in this chapter: participated college status upgrading in Malaysia Private higher education institutions, or experienced in rebranding project management, and experienced for at least one year or more in project management or institution rebranding campaign.

Table 4.1 shows the ten experts who completed the study, more than half (7) were female. Table 4.2 presents participant age ranges, with almost half (6) over 35 years old. Table 4.3 presents the years of experts' working experience in the education sector and participating the special education plan,

which most of them from junior and senior range. The special plan could be referring to Institute status upgrading, rebranding, events, academic development, partnering with other higher institutions or industrial, e-learning system development, education management system, or any other related educational plan. The *Private Higher Educational Institutions Act 1996* has been incorporating all amendments up to 1 January 2006. The act has declared the university colleges are upgrading status law in the year 2006, and the first college had received the UC status since the year 1999 (Sato, 2005). The possibility that results shows less than ten years' experience in this sector or project. Table 4.4 shows a little over half (6) experts are working in the administrative department. As noted in Table 4.5, all experts have possessed undergraduate and postgraduate degrees in non-project management related fields. Also, none of them joins as a project management related association as a member.

Table 4.1: Participant Gender

Gender	Number ()
Female	7
Male	3
Total	10

Table 4.2: Participant Age Ranges

Age Range in Years	Number ()
25 – 34	3
35 – 44	6
45 – 54	1
Total	10

Table 4.4: Participant Experience

Experience Range in Years	Number ()	
	Working in Education Sector	Participating in Special Plan
1 – 3	3	7
3 – 5	2	0
5 – 7	1	1
7 – 8	0	0
More than 9	4	2
Total	10	10

Table 4.4: Participant Roles

Department	Number ()
Academic	4
Administrative	6
Both	0
Total	10

Table 4.5: Participant Fields of Study

Field	Number ()		
	Undergraduate	Postgraduate	Professional
Project Management	0	0	0
Education	1	1	0
Business Management and Human Resource	1	3	0
Computer Science and Information Technology	2	2	0
Interior Design	1	0	0
Electronics Engineering	1	1	0
Law	1	0	0
Art, History, Aesthetics, and Culture Studies	0	1	2
N/A	3	2	8
Total	10	10	10

4.2 Two Rounds Questions Development and Distribution for Section One

In the survey, there are two sections and each section consists of twenty Likert-scaled questions. Five-point Likert scale as the question rankings, in section one with 1 = not important all or not agree; 2 = somewhat important; 3 = not sure or not applicable; 4 = important, 5 = very important.

Experts received the first rounds questions via the Survey Monkey online survey provider. The provider computes the overall means and standard deviations of each question in Round One. In a Delphi study, researchers practically are interested in expert consensus to the topic study (Hsu and Sandford, 2007a; Linstone et al., 1975). The consensus indicates agreement among experts regarding the importance of study statements to the topic under reflection. For this study, the Round Three mean score rank based on each statement. The group consensus on the twenty by measuring the standard deviation results. There is no agreement among Delphi researchers regarding what statistical steps should be used to defend ending Delphi rounds (Hasson et al., 2000). Hasson et al. disused that Delphi researchers have reported agreement levels reaching up to 80% agreement as foundations for stopping after Rounds Three or Four, which are the average number of rounds in recent Delphi studies (Hsu and Sandford, 2007a). This researcher chose to stop the current study after Round Two because 95% of the twenty statements contained less than one standard deviations rated in the survey.

Definition of Project Characteristics. Table 4.6 shows Overall expert consensus regarding the themes was statistically significant. The standard deviation for Round 1 was .04, and standard deviation for Round 2 was indicating a move toward consensus among the group. No item in Round 3 had standard deviations of 1.0 or more, indicating that they remain areas of

agreement among experts in the study concerning the importance of these factors about understanding the status upgrading as a project.

Table 4.6: Group Means and Standard Deviations for Statement 1 – 3

No.	Statement	Round 1		Round 2	
		M	SD	M	SD
1	An official start and end dates (duration) as a target for college management team to plan and obtain the University College status from Ministry of Higher Education.	4.20	0.60	4.30	0.64
2	The college management team should have a different fund, account, and resource planning for the college status upgrade program.	3.80	0.87	4.00	0.89
3	The current college working standard should employ with The Ministry of Higher Education Colleges Upgrade to University Colleges Criteria and produce a different standard, process, and program.	3.90	0.83	4.10	0.94

Process Group I: Initiating. Table 4.7 shows Round Three overall expert consensus for initiating process group was statistically significant. Overall standard deviation for Round One was .017, and standard deviation for Round Two was .02. One item (6) in Round 3 had a standard deviation of . 90, indicating remaining areas of disagreement among experts concerning the

importance of the level of the key person(s) should have full authority to disclose the status upgrading information to inner and outer organisation boundaries without multilayer approval processes.

Table 4.7: Group Means and Standard Deviations for Statement 4 – 7

No.	Statement	Round 1		Round 2	
		M	SD	M	SD
4	The college management board should appoint a key person(s), assign the college status to upgrade assignment, and officially announce the plan to the floor. #	4.40	0.49	4.50	0.50
	The key person(s) should have full authority to access the status upgrading information with all parties without multilevel approval procedures. #	4.30	0.64	4.40	0.49
6	The key person(s) should have full authority to disclose the status upgrading information to inner and outer organisation boundaries without multilayer approval processes.	4.10	0.94	4.30	0.90
7	The key person(s) should identify all parties, groups, and individuals who have a degree of interest in status upgrading plan.	4.20	0.40	4.20	0.40

Process Group II: Planning. Table 4.8 shows overall expert

consensus for planning process group and indicating that experts moved closer to agreement overall regarding the importance of various statements. Overall standard deviation for Round One was .25, and standard deviation for Round Two was .33. One item (6) in Round Two had a standard deviation of .90, indicating remaining areas of disagreement among experts concerning the key person(s) should have full authority to disclose the status upgrading information to inner and outer organisation boundaries without multilayer approval processes.

Table 4.8: Group Means and Standard Deviations for Statement 8 – 16

No.	Statement	Round 1		Round 2	
		M	SD	M	SD
8	All members in the status update program have to understand the general meaning, motives, objectives, benefits and methods in standard and align with management.	4.50	0.67	4.50	0.67
9	The status upgrading team should conduct the preliminary study and generate the new standard procedures with respective staff members.	4.20	0.60	4.20	0.60
10	All members should understand the status upgrade milestone to plan the work progress with the particular team. #	4.10	0.83	4.10	0.83
11	All the part-time or guest staffs, tenders and contractors should have equal rights with permanent officers in status upgrading program.	3.00	1.18	3.00	1.18
12	The special team and college management group should plan, estimate, and determine the status update fund separately with operating cost. #	4.50	0.50	4.50	0.67
13	All members should have an additional or unique	3.50	1.02	3.60	1.02

No.	Statement	Round 1		Round 2	
		M	SD	M	SD
	communication platform, application, and social media for the status upgrading plan.				
14	All members should study the risk in status changing process and provide the possible solution. #	4.20	0.40	4.20	0.40
15	The acquisition of distinct talents or outsourcing should be in the plan if the organisation identifies the gap between essential knowledge and skills in the status upgrading. #	4.30	0.46	4.30	0.46
16	The relevant parties, groups, and people who have some degree of interest in state improvement plan should have an opportunity to participate and contribute their effort with team members.	3.70	1.00	3.80	0.87

Remark: # as standard deviation less than 0.5.

Process Group III: Executing and Monitoring. Table 4.9 show Round Two overall expert consensus for executing and monitoring process group was not statistically significant, meaning that the expert agreement regarding themes remained stable from Round One. Overall standard deviation for Round One was .045, and standard deviation for Round Two was .02.

Table 4.9: Group Means and Standard Deviations for Statement 17 – 18

		Round 1		Round 2	
No.	Statement	M	SD	M	SD

| 17 | All members and the key person should monitor the schedule, processes, and outcomes time to time basis in the full status upgrading period. # | 4.50 | 0.50 | 4.60 | 0.49 |
| 18 | The key person should make the adjustment of time, process, and costs with all members to fit the status update plan. # | 4.20 | 0.87 | 4.40 | 0.49 |

Remark: # as standard deviation less than 0.5.

Process Group IV: Closing. Round Two overall expert consensus for executing and monitoring process group was not statistically significant, meaning that the expert agreement regarding themes remained stable from Round One. Overall standard deviation for Round One was .32, and standard deviation for Round Two was .25.

Table 4.10: Group Means and Standard Deviations for Statement 19 – 20

		Round 1		Round 2	
No.	Statement	M	SD	M	SD
19	The management should close the status upgrading program and disclose the facts with members of open discussion platform.	3.40	0.92	3.50	0.81
20	The management should record all the actual details in state improvement plans, works, and results for future reference.	4.20	0.87	4.30	0.90

Table 4.11 provides mean and rank data related to the statements.

Seven statements have moved to the rank of higher position from Round One to Two; the other seven has moved to lower position. The remaining statements did not change in position of rank from Round One to Two.

Table 4.11: Group Ranking and Means Changes for Section One

No.	Statement	Mean R1	Mean R2	Rank R1	Rank R2
4	The college management board should appict a key person(s), assign the college status to upgrade assignment, and officially announce the plan to the floor.	4.40	4.60	4	1
12	The special team and college management group should plan, estimate, and determine the status update fund separately with operating cost.	4.50	4.60	1	1
17	All members and the key person should monitor the schedule, processes, and outcomes time to time basis in the full status upgrading period.	4.50	4.60	1	1
8	All members in the status update program have to understand the general meaning, motives, objectives, benefits and methods in standard and align with management.	4.50	4.50	1	4
5	The key person(s) should have full authority to access the status upgrading information with all parties without multilevel approval procedures.	4.30	4.40	5	5
15	The acquisition of distinct talents or outsourcing should be in the plan if the organisation identifies the gap between essential knowledge and skills in the status upgrading.	4.30	4.40	5	5
18	The key person should make the adjustment of time, process, and costs with	4.20	4.40	7	5

all members to fit the status update plan.

No.	Statement				
1	An official start and end dates (duration) as a target for college management team to plan and obtain the University College status from Ministry of Higher Education.	4.20	4.30	7	8
6	The key person(s) should have full authority to disclose the status upgrading information to inner and outer organisation boundaries without multilayer approval processes.	4.10	4.30	13	8
7	The key person(s) should identify all parties, groups, and individuals who have a degree of interest in status upgrading plan.	4.20	4.30	7	8
10	All members should understand the status upgrade milestone to plan the work progress with the particular team.	4.10	4.30	13	8
14	All members should study the risk in status changing process and provide the possible solution.	4.20	4.30	7	8
20	The management should record all the actual details in state improvement plans, works, and results for future reference.	4.20	4.30	7	8
9	The status upgrading team should conduct the preliminary study and generate the new standard procedures with respective staff members.	4.20	4.20	7	14
3	The current college working standard should employ with The Ministry of Higher Education Colleges Upgrade to	3.90	4.10	15	15

	University Colleges Criteria and produce a different standard, process, and program.				
2	The college management team should have a different fund, account, and resource planning for the college status upgrade program.	3.80	4.00	16	16
16	The relevant parties, groups, and people who have some degree of interest in state improvement plan should have an opportunity to participate and contribute their effort with team members.	3.70	3.90	17	17
19	The management should close the status upgrading program and disclose the facts with members of open discussion platform.	3.40	3.60	19	18
13	All members should have an additional or unique communication platform, application, and social media for the status upgrading plan.	3.50	3.30	18	19
11	All the part-time or guest staffs, tenders and contractors should have equal rights with permanent officers in status upgrading program.	3.00	2.90	20	20

The consensus upon the agreement of experts in twenty statements is provided, using a 5-Likert scale, with value one denoting a firm disagreeing and value five strongly agreeing (Hackett et al., 2006; Verhagen et al., 1998). For this reason, the experts whether they agree or not that an indicator is understandable or measured on an ongoing basis. In these statements, experts

were asked to provide their opinion choosing a value from 1 (strongly disagree) to 5 (strongly agree). The consensus is proposed to be assessed using three measures combinatory:

i. The 51% of experts is responding to the category 'strongly agreeing', which is between values 4 and five on a 5-Likert scale (Hackett et al., 2006).

ii. The interquartile range below 1 (Raskin, 1994; Rayens and Hahn, 2000) and

iii. the standard deviation below 1.5 (Christie and Barela, 2005)

To prove the need for combinatory use, the answers of the ten experts for the 1st Delphi round and second one are provided (Appendix 4).

As it is evident, in the first Delphi round, there are no statements with a standard deviation below 1.5 and a 51% or experts responding to the category 'strongly agreeing' (i.e. between values 4 and 5), while their interquartile range may be above 1 (statements 11). Respectively, there may be a case where the percentage of experts' responses lying into the 'strongly agrees' category is below 51%. The question of how can one assure that these statements are reaching consensus among the experts still exists. Thus, combining the above three measures, in our example, only seventeen statements could be the thought of as consensus and a second round of enhancing agreement and three statements (11, 13, and 19) remain unfit the conditions. In the second set of changing or stating the opinion (using the interquartile range as guidance), the level of agreement of two more statements has improved. That is because the combination of the three measures of consensus, namely the 51% of experts responding to the 'strongly agreeing' category, the interquartile range below 1.5 and the standard

deviation below 1, were denoting consensus among eighteen statements. Finally, Table 5 denotes the difference between these measures from round to round for each statement. Undoubtedly, the combinatory use of these three steps ensured, once more, the way of reaching consensus in Delphi technique and provided a reliable manner to conclude on the expert's overall agreement with the eight statements assumed.

Table 4.12: Statement's Consensus

S	%4-5		IR		SD	
	1st Round	2nd Round	1st Round	2nd Round	1st Round	2nd Round
1	90%	90%	0.75	1.00	0.63	0.67
2	70%	70%	0.75	0.75	0.92	0.92
3	80%	80%	0.00	0.75	0.88	0.94
4	100%	100%	1.00	1.00	0.52	0.53
5	90%	100%	1.00	1.00	0.67	0.52
6	80%	90%	1.00	1.00	0.99	0.95
7	100%	100%	0.00	0.00	0.42	0.42
8	90%	90%	1.00	1.00	0.71	0.71
9	90%	90%	0.75	0.75	0.63	0.63
10	90%	100%	0.75	0.75	0.88	0.48
11	*40%*	30%	*2.00*	*1.75*	1.25	1.23
12	100%	100%	1.00	1.00	0.53	0.52
13	*50%*	50%	1.00	1.00	1.08	0.97
14	100%	100%	0.00	0.00	0.42	0.42
15	100%	100%	0.75	0.75	0.48	0.48
16	70%	70%	0.75	0.75	1.06	0.92
17	100%	100%	1.00	1.00	0.53	0.52
18	90%	100%	1.00	1.00	0.92	0.52
19	*50%*	*50%*	1.00	1.00	0.97	0.85
20	90%	90%	1.00	1.00	0.92	0.95

4.3   Questions Development and Distribution for Section Two

In the survey, there are two sections and each section consists of twenty Likert-scaled questions. Five-point Likert scale as the question rankings, in section two with 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree, 5 = strongly agree. Experts received the questions with the first rounds questions via the Survey Monkey online survey provider. The provider computes the overall means and standard deviations of each question in Round One.

Definition of Project Characteristics. Table 4.13 shows experts, respond the level of agreement in understanding and managing the status upgrading as a project. Also, the level of acceptance regards to project characteristics. Experts mostly agree with defining the project has a time limit and unique goal characteristics (Item 1 and 3). More than 50% of experts firmly respond "agree", and "strong agree", but half of the experts has doubted with the managing the status promotion project with special resources allocation (Item 2). Moreover, item two had a standard deviation value more than 1.0, indicating that they kept a distance of disagreement among experts in the study concerning the special resources allocation to project.

Table 4.13: Group Frequencies, Means, and Standard Deviations for Statement 1 – 3

		Frequency						
S	Description	SD	D	N	A	SA	Mean	SD
1	The time frame for a status upgrades and expected to receive the status.	0	1	2	5	2	3.80	0.87

				Frequency				
2	Planned and announced the specific budget or resources for the status update. *	0	2	3	3	2	3.50	1.02
3	The criteria are a guide and employed as a set of quality measurement.	0	1	1	7	1	3.80	0.75

*indicates standard deviation of 1.0 or more

Process Group I: Initiating. Table 4.14 shows half of the experts agree with two items (5 and 6) has applied in their organisation and initialled the status upgrade or rebranding project. One item (6) had standard deviations of 1.0 or more, indicating that they remain space of disagreement among experts in the authority of disclose the relevant information. However, Table 4.8 shows overall experts agree with their organisation has identified the stakeholders and appointed a special person to govern the project.

Table 4.14: Group Frequencies, Means, and Standard Deviations for

Statement 4 – 7

		Frequency						
S	Description	SD	D	N	A	SA	Weight Mean	SD
4	Appointed, and a first leader, team or committee and formally introduced.	0	1	3	3	3	3.80	0.98
5	Full authority to access the status upgrading information.	0	1	4	4	1	3.50	0.81
6	Full authority to disclose the status update information. *	0	3	2	3	2	3.40	1.11
7	Identified stakeholders in the beginning stage.	0	1	2	4	3	3.90	0.94

*indicates standard deviation of 1.0 or more

Process Group II: Planning. Table 4.15 presents the expert's level of agreement with the college status upgrading in the planning process. The majority is aware that the status improvement is an ad-hoc and unusual activity to the organisation (14). However, they have not entirely complied in studying and developing the new working method with external parties (9 and 15, SD > 1.0). Also, 70% of experts have reserved an area of disagreement in concerning the particular communication platform in status upgrading project.

Table 4.15: Group Frequencies, Means, and Standard Deviations for

Statement 8 – 16

S	Description	SD	D	N	A	SA	Weight Mean	SD
8	Shared the overall plan to all.	0	1	1	7	1	3.80	0.75
9	Studied and developed the new processes from us. *	0	2	3	3	2	3.50	1.02
10	Mentioned and explained the milestone.	0	1	1	7	1	3.80	0.75
11	Full and part-time staffs have participated.	1	0	3	6	0	3.40	0.92
12	Managing the cost apart with usual operating procedures.	0	1	4	3	2	3.60	0.92
13	Created an exclusive communication platforms.	0	1	6	1	2	3.40	0.92
14	Aware the status update has ad-hoc, or uncertainty and respond.	0	1	1	5	3	4.00	0.89
15	Involved the external professional parties.	0	1	4	2	3	3.70	1
16	Stakeholders have involved, participated and contributed.	0	1	3	3	3	3.80	0.98

*indicates standard deviation of 1.0 or more

Process Group III: Executing and Monitoring. Table 4.16 presents

the positive outcome from experts regarding the executing and monitor process during the project period. More than 70% of experts agree with the team has reviewed and adjusted the milestone, processes, performance, and resources if needed.

Table 4.16: Group Frequencies, Means, and Standard Deviations for

Statement 17 – 18

		Frequency						
S	Description	SD	D	N	A	SA	Weight Mean	SD
17	Reviewed the milestone, processes, and performance results constantly.	0	1	1	5	3	4.00	0.89
18	Made a necessary adjustment to the timeframe, budget and process.	0	1	2	6	1	3.70	0.78

Process Group IV: Closing. Table 4.17 shows the expert's level of agreement in closing process. 80% of the experts firmly agree with the team conduct the official closing and documentation for status upgrading project.

Table 4.17: Group Frequencies, Means, and Standard Deviations for

Statement 19 – 20

S	Description	Frequency					Weight Mean	SD
		SD	D	N	A	SA		
19	Conducted the official post-mortem meeting, discussion, and conference.	0	1	1	6	2	3.90	0.83
20	Documented the entire plans, processes, performance reports, and feedback.	0	1	1	5	3	4.00	0.89

CHAPTER 5

DISCUSSION

This study utilised the Delphi method to develop a consensus of the panel of expert fell are essential to identify the importance and agreement level in project-based definition and management process. The researcher has selected ten experts based on specific criteria and agreed to serve on the Delphi panel.

5.1   Discussion of Study Results

The results of this study do, however, support and expand upon the limited previously conducted empirical research related to Malaysian private higher education institutions traits considered essential to adopt the project-based management in the survey process. The professional significance of the consensus-building component of the study related to this research question is invaluable. This section will examine the highest and lowest ranked mean factors that emerged from the theme for each of the issues addressed in each round of the study. The expert-ranked themes then will be compared with themes from the scholarly literature presented in Chapter Two.

Section One. *This section deals with expert's opinion of college status upgrade to university college process. Please, show the extent to which expert think college status update 'should' possess the following features?*

Statement 1 – 3. The definition of college status is upgrading as a project.

Highest-Rated Importance Statement: *(1) An official start and end dates (duration) as a target for college management team to plan and obtain the University College status from Ministry of Higher Education.* The majority has considered most important to identify the status upgrading process consists of duration. Also, the management should officially determine the specific start and end dates. The mean of this statement after Round One was increased from 4.20 to 4.30 and remained highly valued throughout the consensus developing process (In Round Two, M = 4.30 and SD = .64).

Lowest-Rated Importance Statement: *(2) The college management team should have a different fund, account, and resource planning for the college status upgrade program.* Experts have considered significant (means in Round Two of 4.0 or above), most of them changed the rating value in the consensus developing process. However, this factor increased in importance by one place between Round One and Two (M = 4.00; SD = .89) but does retain some lack of consensus among experts, as noted by the standard deviation for Round Two.

Statement 4 – 7. The project-based management adoption in the initiating stage of college status is upgrading as a project.

Highest-Rated Importance Statement: *(4) The college management board should appoint a key person(s), assign the college status to upgrade assignment, and officially announce the plan to the floor.* The majority has

considered most important to identify the management should appoint the key person(s) to manage the status upgrading process. Also, the management should officially announce or introduce to the team. The mean of this statement after Round One was increased from 4.20 to 4.60 and remained highly valued throughout the consensus developing process (In Round Two, M = 4.60 and SD = .49).

Lowest-Rated Importance Statement: *(6) The key person(s) should have full authority to disclose the status upgrading information to inner and outer organisation boundaries without multilayer approval processes. (7) The key person(s) should identify all parties, groups, and individuals who have a degree of interest in status upgrading plan*. Experts have considered significant (means in Round Two of 4.0 or below), most of them changed the rating value in the consensus developing process. However, this factor increased in importance in between Round One and Two (S6: M = 4.30; SD = .90 and S7: M = 4.3; SD = .46), but Statement 6 does retain some lack of consensus among experts, as noted by the standard deviation for Round Two.

Statement 8 – 16. The project-based management adoption in the planning stage of college status is upgrading as a project.

Highest-Rated Important Statement: *Managing the cost apart with usual operating procedures (12)*. Differentiate the cost management was the highest-rated factor (M = 4.60; SD = .49) in the Round Two that explored the issues affecting project-based management adoption in status upgrading. Interestingly, the standard deviation decreased in Round Two and may indicate a towards a consensus of clarity regarding how the experts in the study define the separation of cost management.

Second-Highest-Rated Importance Statement: *Shared the overall plan*

to all (8). The importance of everyone on the same page during the period of status upgrading process was the second most important factor (M = 4.5; SD = .67) in the Round Two that explored the issues affecting project-based management adoption in status upgrading.

Lowest-Rated Importance Statement: *Full and part-time staffs have participated (11).* While this lowest-rated factor (M = 2.90; SD = 1.14) was not regarded as unimportant to study experts (4 as important), in the context of the rankings. Also, consistently ranked of lowest importance in all two rounds.

Second-Lowest-Rated Importance Statement: *Created independent communication platforms (13).* This factor decreased in importance by one place between Rounds Two and Three (M = 3.30; SD = .90) but does retain some lack of consensus among experts, as noted by the standard deviation for Round Two.

Statement 17 – 20. Adopting the project-based management in the executing, controlling, and closing stages of college status upgrading as a project.

Highest-Rated Important Statement. *(17) All members and the key person should monitor the schedule, processes, and outcomes time to time basis in the full status upgrading period.* The key person managing the performance in project period was the highest-rated factor (M = 4.60; SD = . 49) in the Round Two that explored the issues affecting project-based management adoption in status upgrading. Interestingly, the standard deviation decreased in Round Two and may indicate a towards a consensus of clarity regarding how the experts in the study define the essential role of the key person in managing the performance completely in the project period.

Lowest-Rated Important Statement. *(19) The management should*

close the status upgrading program and disclose the facts with members of open discussion platform. Experts have considered less significant (means in Round Two of 4.0 or below), most of them changed the rating value in the consensus developing process. However, this factor increased in importance in between Round One and Two (S6: M = 3.40; SD = .92 and S7: M = 3.6; SD = .80), but Statement 19 does retain some lack of consensus among experts, as noted by the standard deviation for Round Two.

Section Two. *The following statements deal with the perceptions of college status upgrade experienced in Malaysian college. Please, show the extent to which these statements reflect expert's perception of status upgrading of their university/colleges.*

Highest-Rated Important Statement. *(14) We aware the status update has ad-hoc, or uncertainty will happen and prepare to react accordingly. (17) We have reviewed the milestone, processes, and performance results constantly in status update period. (20) We have documented the entire plans, processes, performance reports, and feedback regardless the status upgrade successfully or not.*

Second- Highest-Rated Important Statement. *(19) We have conducted the official post-mortem meeting, discussion, and conference regardless successful or not in status improvement. (7) The status improvement plan has identified student representatives, alumni associations, and any related groups in the beginning stage.*

Lowest- Rated Important Statement. *(11) Our full and part-time staffs (including academic and administrative) have participated and worked*

together in the status upgrading plan. (13) We have created an exclusive social platform or group in chat application (WhatsApp), publication (newsletter), and social media site (website or Facebook page) for the status upgrading plan. (6) The team has full authority to disclose the status update information with internal and external parties.

Second-Lowest- Rated Important Statement. *(5) The team has full authority to access the status upgrading information with internal and external parties. (2) My management team has planned and announced the specific budget or resources for this status upgrade program. (9) The status upgrading team has studied and developed the new processes from us.*

5.2   Discussion of Research Questions

In this study, a group of an expert from across the Malaysian private higher education institutions have developed consensus regarding the project-based management adoption in the status upgrading process. Furthermore, the researcher has selected the Delphi method as the tool to answer the following research questions:

    i.   How was institution understand the concept of the project and adopting the project-based management?

    ii.   What is the objectives of the Private higher education institutions and the motives to initial the as a project and to adapt the Project-based management knowledge?

iii.   How the new process, procedures representing the organisation structure formed for the status upgrading project and the arrangement of the current team member?

iv.   What is the project measurement for the triple constraints: time, cost and quality?

v.   How were the results of (I) to (IV) above taken account of by the stakeholders reviewing and closing the status upgrading adapting as the Project-based management?

Through a consensus-building process, the expert in this study has developed a core of traits considered necessary in answering the survey process. The expert also develops consensus on the questions that are best suited to target the famous characters. Also, the study has determined the most important and agreeable of expert's view in the adoption process. Next section will further elaborate the findings within each research question.

The experts have determined the institution status upgrading as a project and fulfilled the objectives, resources, and endeavour characteristics. Based on results, the three statements which imply the project characteristics as keys to define a project. Therefore, experts understand that the college status upgrading is a project and lead to accepting the project-based management concept.

The experts have decided at the initial stage that the management should form a task force for managing the status upgrading project with full authority to access and disclose the relevant information to all parties. Also, the team should able to perform the stakeholder identification in the early stage. Based on the outcomes, all statement which imply the initiating process group and focuses on developing project charter and identifying

project stakeholders as essential group factors. Hence, experts have a clear picture of the objective in adopting project-based management to college status upgrading.

In the planning process, experts have less of significant expectation on non-permanent staff equal rights and special communication method for the college status upgrading. For the statement 11, the results explain that experts may view part-time employees as disposable cost-saving devices write the rules for most part-time (Levitan and Conway, 1988). Furthermore, the status upgrading project involves in-house staff rather than mobility. Besides these two statements, experts have a high value of confidence with the rest statements.

Experts have considered high value of importance and expected the key person(s) should monitoring and adjusting the project measurement: time, cost, and quality to fit the project status. Based on the results, both statements related to monitoring and executing in project management process group as essential factors for status upgrading.

Experts have shown the high expectation to project closure documentation as a lesson learns rather than open discussion in college status upgrading. Based on the data, both statements have increased the value of importance. However, the project closure public debate has not met the one step forward requirement.

5.3   Convergence of Findings with the Delphi Study

The Delphi results show a change in expert's views towards consensus and stability as indicated by a trend towards an increase in percentage agreements and convergence of importance rankings.

An increased value has observed in percentage agreements for all statements over the two rounds with only two statements (Table 4.11) showing some disagreement by round two. Then, they demonstrate the evolution of consensus. Statement nineteen had the second highest disagreement in round one, yet towards to agreement by round 2, showing that views could alter considerably.

The repetitive variation of movements at individual and group level were consistent (Scheibe et al., 2002). A deviation in the degree of agreement, "strongly agree" or "agree," between rounds was evident in most statements, and was not dependent on changes to statement phrasing. Individually both these participants disagreed with this declaration, demonstrating disadvantage in the use of percentages. It is worth noting that non-responders can impact significantly on the sample size when interpreting percentages. Also, the Scheibe et al. (2002) has suggested this could lead to misleading oscillatory movements.

The median and mean values for importance show the aggregate group rank, whereas ranges and SD show the spread. There is two statements disagreement (13 and 11) of the panel's responses to that result. Both range and SD decreased as rounds progressed, showing centralisation of views such as increased agreement or convergence. Comparison of importance rankings shows similarity in medians and means, equal or within one interval difference (Statement 1, 7, 13, 14, 19, and 20). Differences of 2 intervals have shown for statements 18, which were 2 of the declarations (13 and 11) consistently ranked the least important. These discrepancies between means and medians have explained by participants giving less attention to statements they consider least important.

While a decrease in the range reflected a decline in SD, there was no

direct relationship between them. For example, between rounds one and two in statement 13 the SD decreased from 1.02 and .90, but the ranges stayed constant, at 18-19. This has showed the highlights the different information each provides; SDs give an indication of the aggregate judgement whereas ranges summarise the outlier's views. Also between statements, similar ranges were represented by different SDs. For example, statements 2, 18, and 10 had a range of 16 -7- 13 in round 1, but standard deviations of .87 respectively. These findings expand on the conclusion that each Delphi requires acceptable values of both mean and SD to represent consensus, by identifying that each statement must have individual values to determine convergence (Greatorex and Dexter, 2000). However, this has implications for Delphi research as:

- there may be increased the potential for bias as researchers will need to make individual judgements on acceptable convergence levels for each statement,

- Alternatively, defined levels of convergence to determine consensus, and it would be difficult to predict (Williams and Webb, 1994).

When interpreting the mean and median importance rankings, some between-test validity has demonstrated. As the SD represents most subjects' variation around the average, this shows there were fewer outliers as rounds progressed, again indicating lower disagreement, or increased convergence (Greatorex and Dexter, 2000).

CHAPTER 6

CONCLUSION

6.1   Implications

The scholarly literature surrounding project management adoption and framework suggests that college status improvement implies the diffusion, dissemination, implementation and sustainability. This Delphi study has served the purpose to solicit insights from expert higher education institution staffs regarding issues that college status upgrade and project management adoption, the disclosure of concept definition and the process groups joint with knowledge areas.

Ten experts have responded to Likert scale questions in the study. In Chapter Four has described the finding, and some of the essential factors for the project-based adoption in college status upgrading in Malaysian private higher education institutions disclosure and consideration resulted in the following implications for practice:

I.   The educational project including college status upgrading, rebranding, and any improvement works are fit with project management methodology;

II.   The management must elect a special person or team to manage the college status upgrading project and grant the full authority in handling the information;

III. The special person or team has the stakeholder's management ability and starts the engagement process in the early stage of college status upgrading process.

IV. The select individual or organisation must ensure all the staffs including the nonpermanent employees in the organisation can cope with the new process, communication platform, and uncertainty in the college status upgrading.

V. The key person or team in the college status upgrading must monitor and perform adjustment if needed with the member to meet the objective.

VI. The management must record all the actual details in college status upgrading plan and organise a public discussion for further study.

6.2 Limitations

The primary assumption behind this study was that higher education institution staffs who participated were expert academic and administration possessed the skills to communicate and assess study questions, and were honest and accurate in their responses and comments. Thus, it is that study results contribute useful and valuable knowledge to the topic under consideration.

Conversely, the limitations of the survey include the fact that although the researcher has nominated the experts, and met the study criteria. Moreover, in any Delphi study, there is never a complete certainty that the survey experts truly possess skills that allow them to richly contribute to the topic (Linstone

et al., 1975). Also, not possible to ascertain the ways the varying administration experience levels of the experts in the study affected their perspectives regarding the study questions. Additionally, the specific definitions of some of the factors contributed by study experts were not completely clear, and may varied meanings to group members (e.g., separate cost management, non-permeant staff engagement).

Social desirability issues may also have had an impact on the responses experts provided, particularly because the researcher know their identities, who reviewed their specific comments. Although the study has assured the expert confidentiality regarding their participation, they were nonetheless aware that they had not only currently involve in college upgrading project but approved for participation by their experience before they began the study.

Finally, the nature of Delphi study is to gain a better understanding of an issue based on the opinions of a select group of experts. Also, particularly in hopes of discerning possible directions for further research, and as such results cannot necessary be generalised to the education management field, or seen as the actual state of matter in the field.

6.3   Recommendations for Future Study

The proposals in this section have submitted for consideration particularly for researchers and continuing educators seeking to effect change in Malaysian private higher education institutions, as well as in other field-based project settings.

Representative Samples. In future studies need more representative samples and should perform along with a few different dimensions including size and geographic focus. To overcome the size that concern, the protocol

presented in this study can be replicated with diverse groups to increase the sample size. The geographic focus concern stems from the fact that the insights gained and reported the Klang Valley location of the experts are strongly influencing this paper outcome. Some very different responses could have had gained the study been carried out in another state in Malaysia. The results may have impacted due to the Malaysian private higher education institutions of the academic and administration expert. Again, the perspectives provided could be different had the participants been drawn from private institutions of higher learning such as project-based concept and management process. Each Malaysian PHEI brings with specific challenges with status upgrading and rebranding management and the development or evolution of the improvement. Finally, when examining the participants in this study, it is important to note that many of them came from different institution or organisation. Different insights could have had gained the participants been drawn primarily from the academic-oriented institution or from administrative firms. Replicating the study along any one of these dimensions would greatly enhance the generalisation ability of the results.

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Appendix A

STUDY INSTRUMENT

Round One

Questionnaire Survey of Colleges Status Upgrading in Malaysia

UTAR

Introduction

Dear Participant,

Questionnaire Survey of Colleges Status Upgrading in Malaysian

I am conducting a research project on "Adopting Project-based Management Approach in Upgrading the Status of Colleges to University Colleges in Malaysian Private Higher Education Institutions" in my study of Master of Project Management at the Universiti of Tunku Abdul Rahman (UTAR). This study is seeking to identify the approaches or strategies that Malaysian colleges used when upgrading their college status or embarking on rebranding projects.

As part of this study, we would like to ask those people experienced in higher education and improvement process to complete a questionnaire on their experience and opinions in the upgrading process and how they have deployed the ways in the organisation.

Before you decide whether you would like to take part in this research, it is important for you to understand the purpose of an investigation undertaken and what it will involve. The following will give you a brief overview of the project:

What is the aim of the study? The goal of this study is to explore the strategies adopted by the Malaysian colleges when upgrading their college status or embarking on rebranding projects.

Where is this research taking place? We would like you to complete an online questionnaire which means that you can answer the questions at a time and location that suits you.

Who is being asked to participate? For the questionnaire, we are seeking to involve the people who experience in the Malaysian higher education institutions or sectors such as colleges, university colleges, universities and any other partnership organisations.

Do I have to take part? No. It is up to you whether you take part. If you do decide to participate, you will be asked to sign a consent form, and you are free to withdraw at any time from the research without giving a reason.

Will my taking part be kept confidential? Yes. The survey will ask for information such as your job title, qualifications, years of experience, and other relevant information but will not ask for your name. Encryption will be used to protect data and keep under lock and key of the paper.

How will this benefit me? You will have the opportunity to have your opinions heard, and the research team will be grateful for your contribution and participation.

What are the risks? The questionnaire should not involve any risk. You are not obliged to answer any question you do not feel comfortable answering, and you are free to suspend or end the questionnaire at any stage, for any reason.

Please let me know if you have any questions. Thank you.

Sincerely,
Lim Boon Ping

+60183557224 | boonping.lim@1utar.my

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Questionnaire Survey of Colleges Status Upgrading in Malaysia

UTAR

Section 1

This section deals with your opinion of college status upgrade to university college process. Please, show the extent to which you think college status update 'should' possess the following features. We are interested in knowing your expectations from Malaysian in status upgrading.

* **Please rate the importance of the following statements.**

	Not Important at All	Somewhat Important	Not Sure/Not Applicable	Important	Very Important

The key person(s) should have full authority to access the status upgrading information with all parties without multilevel approval procedures.

The key person(s) should have full authority to access the status upgrading information with all parties without multilevel approval procedures.

| ○ | ○ | ○ | ○ | ○ |

All members and the key person should monitor the schedule, processes, and outcomes time to time basis in the full status upgrading period.

| ○ | ○ | ○ | ○ | ○ |

The relevant parties, groups, and people who have some degree of interest in state improvement plan should have an opportunity to participate and contribute their effort with team members.

| ○ | ○ | ○ | ○ | ○ |

The college management board should appoint a key person(s), assign the college status to upgrade assignment, and officially announce the plan to the floor.

| ○ | ○ | ○ | ○ | ○ |

All members should have an additional or unique communication platform, application, and social media for the status upgrading plan.

| ○ | ○ | ○ | ○ | ○ |

All members should study the risk in status changing process and provide the possible solution.

| ○ | ○ | ○ | ○ | ○ |

The management should record all the actual details in state improvement plans, works, and results for future reference.

| ○ | ○ | ○ | ○ | ○ |

The management should close the status upgrading program and disclose the facts with members of open discussion platform.

| ○ | ○ | ○ | ○ | ○ |

An official start and end dates (duration) as a target for college management team to plan and obtain the University College status from MoHE.

| ○ | ○ | ○ | ○ | ○ |

The current college working standard should employ with The MoHE Colleges Upgrade to University Colleges Criteria and produce a different standard, process, and program.

| ○ | ○ | ○ | ○ | ○ |

All members should understand the status upgrade milestone to plan the work progress with the particular team.

| ○ | ○ | ○ | ○ | ○ |

The status upgrading team should conduct the preliminary study and generate the new standard procedures with respective staff members.

| ○ | ○ | ○ | ○ | ○ |

The special team and college management group should plan, estimate, and determine the status update fund separately with operating cost.

| ○ | ○ | ○ | ○ | ○ |

The key person should make the adjustment of time, process, and costs with all members to fit the status update plan.

| ○ | ○ | ○ | ○ | ○ |

The acquisition of distinct talents or outsourcing should be in the plan if the organisation identifies the gap between essential knowledge and skills in the status upgrading.

| ○ | ○ | ○ | ○ | ○ |

The college management team should have a different fund, account, and resource planning for the college status upgrade program.

| ○ | ○ | ○ | ○ | ○ |

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[Prev] [Next]

Section 2

The following statements deal with the perceptions of college status upgrade experienced in Malaysian college. Please, show the extent to which these statements reflect your perception of status upgrading of your university/colleges.

* **To what extent do you agree or disagree with the following statement:**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
We have created an exclusive social platform or group in chat application (WhatsApp), publication (newsletter), and social media site (website or Facebook page) for the status upgrading plan.	◯	◯	◯	◯	◯
The status improvement team has mentioned and explained the milestone to us.	◯	◯	◯	◯	◯
The student representatives, alumni associations, and any related groups have involved, participated and contributed to the status update program.	◯	◯	◯	◯	◯
We have reviewed the milestone, processes, and performance results constantly in status update period.	◯	◯	◯	◯	◯
We have designed, proposed, and claimed the expenses in status improvement program apart with usual operating procedures.	◯	◯	◯	◯	◯
We aware the status update has ad-hoc, or uncertainty will happen and prepare to react accordingly.	◯	◯	◯	◯	◯
The team has full authority to disclose the status update information with internal and external parties.	◯	◯	◯	◯	◯
Our full and part-time staffs (including academic and administrative) have participated and worked together in the status upgrading plan.	◯	◯	◯	◯	◯
We have involved the external consultant (academic or administrative) and outsourcing agency (advertisement or legal advice) if we need any talents in status upgrading plan.	◯	◯	◯	◯	◯
My management team has planned and announced the specific budget or resources for this status upgrade program.	◯	◯	◯	◯	◯
The status upgrading team has studied and developed the new processes from us.	◯	◯	◯	◯	◯
The MoHE college update criteria is a guide to us, and we have employed as a set of quality measurement for us to meet or exceed the requirement.	◯	◯	◯	◯	◯
We have made a necessary adjustment to the timeframe, budget and process to materialise the plan.	◯	◯	◯	◯	◯
The status improvement plan has identified student representatives, alumni associations, and any related groups in the beginning stage.	◯	◯	◯	◯	◯
The team has full authority to access the status upgrading information with internal and external parties.	◯	◯	◯	◯	◯
We have documented the entire plans, processes, performance reports, and feedback regardless the status upgrade successfully or not.	◯	◯	◯	◯	◯
We have conducted the official post-mortem meeting, discussion, and conference regardless successful or not in status improvement.	◯	◯	◯	◯	◯

My management team has appointed, and a first leader, team or committee for college status upgrade and formally introduced to the entire organisation.

○ ○ ○ ○ ○

My management team has set the time frame for a status upgrade and expected to receive the status from MoHE within three to five years.

○ ○ ○ ○ ○

The status update group has shared the overall plan to all of us.

○ ○ ○ ○ ○

Prev   Next

Questionnaire Survey of Colleges Status Upgrading in Malaysia

UTAR
UNIVERSITI TUNKU ABDUL RAHMAN

Section 3: Demographic Information

Please select the best-described option.

* What is your gender?
○ Female
○ Male

* What is your age?
○ 18 to 24
○ 25 to 34
○ 35 to 44
○ 45 to 54
○ 55 to 64
○ 65 to 74
○ 75 or older

* Total number of years:

	1 to 3	3 to 5	5 to 7	7 to 9	More than 9
I. Working in education sector	○	○	○	○	○
II. Participating in special plan*	○	○	○	○	○

*Example of particular plan in Education: Institute status upgrading, rebranding, events, academic development, partnering with other higher institutions or industrial, e-learning system development, education management system, or any other related educational particular plan.

Prev   Next

Continue] Section 3: Demographic Information

---

* Please state the appropriate answers in your current status.

Organisation/Institution:

Position/Title:

* Department:

○ Academic

○ Administrative

○ Both

* The major/specialisation study in:

(Please say 'N/A' if not applicable to any questions below)

I. Undergraduate	
II. Postgraduate	
III. Professional#	

#The example of professional: Project Management Professional (PMP), Association of Chartered Certified Accountants (ACCA), Chartered Institute of Management Accountants (CIMA), Professional Engineers (Ir), Quantity Surveyors (Sr), Professional Architect (Ar), or any other related professional body.

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| Prev | Next |

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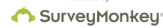
Thank You

Thank you for participating in Round One of this survey. You will receive a link to Round Two within approximately seven days. Round Two will consist of series of statements from the answers provided by you and the other expert who responded to Round One.

Do you have any other comments, questions, or concerns?

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| Prev | Done |

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Round Two

Hi <Expert's Name>,

Thanks for participating the round 1 survey.

You are now invited to complete your participation by giving your opinion in round 2 of the Delphi study, on the topic of "Adopting Project-based Management Approach in Upgrading the Status of Colleges to University Colleges in Malaysian Private Higher Education Institutions". We would like to ask you to rate the answers from the round 1 on a 1-5 scale, side by side with the average responses from round 1. Comments are optional in this round.

Please refer to the attachment, I would like to know if you wish to change your rating after you have seen the average responses of all the participants.
In the questionnaire shows your answer for comparison. There is no pressure for any participants in round 2 to keep their rating 'similar' in this round.

Please reply this email with question number and new answer if you wish to amend your rating.

| No. | Statement | Average Score | First Round | | This Round |
			Your Answer	Your Score	New Score
1	An official start and end dates (duration) as a target for college management team to plan and obtain the University College status from MoHE.	4.20	Important	4	
2	The college management team should have a different fund, account, and resource planning for the college status upgrade program.	3.80	Important	4	
3	The current college working standard should employ with The MoHE Colleges Upgrade to University Colleges Criteria and produce a different standard, process, and program.	3.90	Important	4	
4	The college management board should appoint a key person(s), assign the college status to upgrade assignment, and officially announce the plan to the floor.	4.40	Important	4	
5	The key person(s) should have full authority to access the status upgrading information with all parties without multilevel approval procedures.	4.30	Important	4	
6	The key person(s) should have full authority to disclose the status upgrading information to inner and outer organisation boundaries without multilayer approval processes.	4.10	Somewhat Important	2	
7	The key person(s) should identify all parties, groups, and individuals who have a degree of interest in status upgrading plan.	4.20	Important	4	
8	All members in the status update program have to understand the general meaning, motives, objectives, benefits and methods in standard and align with management.	4.50	Important	4	
9	The status upgrading team should conduct the preliminary study and generate the new standard procedures with respective staff members.	4.20	Not Sure/Not Applicable	3	
10	All members should understand the status upgrade milestone to plan the work progress with the particular team.	4.10	Important	4	
11	All the part-time or guest staffs, tenders and contractors should have equal rights with permanent officers in status upgrading program.	3.00	Somewhat Important	2	
12	The special team and college management group should plan, estimate, and determine the status update fund separately with operating cost.	4.50	Important	4	
13	All members should have an additional or unique communication platform, application, and social media for the status upgrading plan.	3.50	Important	4	
14	All members should study the risk in status changing process and provide the possible solution.	4.20	Important	4	
15	The acquisition of distinct talents or outsourcing should be in the plan if the organisation identifies the gap between essential knowledge and skills in the status upgrading.	4.30	Important	4	
16	The relevant parties, groups, and people who have some degree of interest in state improvement plan should have an opportunity to participate and contribute their effort with team members.	3.70	Important	4	
17	All members and the key person should monitor the schedule, processes, and outcomes time to time basis in the full status upgrading period.	4.50	Important	4	
18	The key person should make the adjustment of time, process, and costs with all members to fit the status update plan.	4.20	Important	4	
19	The management should close the status upgrading program and disclose the facts with members of open discussion platform.	3.40	Somewhat Important	2	
20	The management should record all the actual details in state improvement plans, works, and results for future reference.	4.20	Important	4	

				Very Important	5
				Important	4
				Not Sure/Not Applicable	3
				Somewhat Important	2
				Not Important at All	1

APPENDIX B

INTRODUCTORY EMAILS/LETTER

14 June 2017

Dear Participant,

Questionnaire Survey of Colleges Status Upgrading in Malaysia

I am conducting a research project on "*Adopting Project-based Management Approach in Upgrading the Status of Colleges to University Colleges in Malaysian Private Higher Education Institutions*" in my study of Master of Project Management at the Universiti of Tunku Abdul Rahman (UTAR). This study is seeking to identify the approaches or strategies that Malaysian colleges used when upgrading their college status or embarking on rebranding projects.

As part of this study, we would like to ask those people experienced in higher education and improvement process to complete a questionnaire on their experience and opinions in the upgrading process and how they have deployed the ways in the organisation.

Before you decide whether you would like to take part in this research, it is important for you to understand the purpose of an investigation undertaken and what it will involve. The following will give you a brief overview of the project:

What is the aim of the study? The goal of this study is to explore the strategies adopted by the Malaysian colleges when upgrading their college status or embarking on rebranding projects.

Where is, this research taking place? We would like you to complete an

online questionnaire which means that you can answer the questions at a time and location that suits you.

Who is being asked to participate? For the questionnaire, we are seeking to involve the people who experience in the Malaysian higher education institutions or sectors such as colleges, university colleges, universities and any other partnership organisations.

Do I have to take part? No. It is up to you whether you take part.

If you do decide to participate, you will be asked to sign a consent form, and you are free to withdraw at any time from the research without giving a reason.

Will my taking part be kept confidential? Yes. The survey will ask for information such as your job title, qualifications, years of experience, and other relevant information but will not ask for your name.

Encryption will be used to protect data and keep under lock and key of the paper.

How will this benefit me? You will have the opportunity to have your opinions heard, and the research team will be grateful for your contribution and participation.

What are the risks? The questionnaire should not involve any risk. You are not obliged to answer any question you do not feel comfortable answering, and you are free to suspend or end the questionnaire at any stage, for any reason.

Please let me know if you have any questions. Thank you.

Sincerely,

Lim Boon Ping

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APPENDIX C

**DELPHI RESULTS REGARDING THE AGREEMENT OF THE
STATEMENTS**

Statement	DC	LV	DT	CY	EL	CS	LS	C	Median	Q1	Q3	Q
1	4	4	5	4	5	3	5	4	4.00	4.00	4.75	
2	4	4	3	2	4	5	5	4	4.00	3.25	4.00	
3	4	4	4	3	5	2	5	4	4.00	4.00	4.00	
4	4	4	4	4	5	5	5	4	4.00	4.00	5.00	
5	4	5	5	4	4	4	5	3	4.00	4.00	5.00	
6	2	4	5	4	5	4	5	3	4.00	4.00	5.00	
7	4	5	4	4	4	4	5	4	4.00	4.00	4.00	
8	4	3	5	4	5	5	5	5	5.00	4.00	5.00	
9	3	4	5	4	4	5	5	4	4.00	4.00	4.75	
10	4	4	4	4	4	5	5	2	4.00	4.00	4.75	
11	2	2	3	2	4	5	4	3	3.00	2.00	4.00	
12	4	4	5	4	5	4	5	5	4.50	4.00	5.00	
13	4	3	4	2	4	2	5	3	3.50	3.00	4.00	
14	4	5	4	4	4	4	5	4	4.00	4.00	4.00	
15	4	5	4	4	4	5	5	4	4.00	4.00	4.75	
16	4	4	5	2	4	3	4	2	4.00	3.25	4.00	
17	4	4	4	4	5	5	5	5	4.50	4.00	5.00	
18	4	4	5	4	5	4	5	2	4.00	4.00	5.00	
19	2	3	3	4	4	4	5	2	3.50	3.00	4.00	
20	4	4	5	2	5	5	5	4	4.00	4.00	5.00	
Round 2												
1	4	4	5	4	5	3	5	4	4.00	4.00	5.00	
2	4	4	3	2	4	5	5	4	4.00	3.25	4.00	
3	4	4	4	3	5	2	5	4	4.00	4.00	4.75	
4	4	4	4	4	5	5	5	4	4.50	4.00	5.00	
5	4	5	5	4	4	4	5	4	4.00	4.00	5.00	
6	2	4	5	4	5	4	5	4	4.50	4.00	5.00	
7	4	5	4	4	4	4	5	4	4.00	4.00	4.00	
8	4	3	5	4	5	5	5	5	5.00	4.00	5.00	
9	3	4	5	4	4	5	5	4	4.00	4.00	4.75	
10	4	4	4	4	4	5	5	4	4.00	4.00	4.75	
11	2	2	3	2	4	5	2	3	2.50	2.00	3.75	
12	4	4	5	4	5	4	5	5	5.00	4.00	5.00	
13	4	3	4	2	4	2	5	3	3.50	3.00	4.00	
14	4	5	4	4	4	4	5	4	4.00	4.00	4.00	
15	4	5	4	4	4	5	5	4	4.00	4.00	4.75	

16	4	4	5	2	4	3	4	3	4.00	3.25	4.00
17	4	4	4	4	5	5	5	5	5.00	4.00	5.00
18	4	4	5	4	5	4	5	4	4.00	4.00	5.00
19	2	3	3	4	4	4	5	3	3.50	3.00	4.00
20	4	4	5	2	5	5	5	4	4.50	4.00	5.00