CHAPTER 1

INTRODUCTION

1.0 Overview

Performance appraisal or performance assessment – these are two words that seem an inescapable procedure within the context of organizational life. Despite arousing a wave of strong reactions and sentiments amongst the participating management and employees, it is imperative to conduct the performance appraisals right since it creates an effective approach and platform for organizations to boost employees' motivation, hone their competitive edge and to start the continuous improvement process as asserted by Fink & Longenecker (1999) in their publication entitled ‘Creating Effective Performance Appraisals’. In an earlier article, the same authors declared that throughout the world, many organizations of various sectors implement the practice of performance appraisals with differing degree of success, as a tool to attain a number of human resource management objectives (Fink & Longenecker, 1998).

The meaning of the word “appraisal” is “to affix a price or the value for a certain item”. This is often used in financial terms such as project appraisal or financial appraisal where a value is attached to a project. Similarly, in human resources, performance appraisal is a process in which one values the employee contribution and worth to the organization. According to Winston & Creamer (1997), performance appraisal is employed as an organizational system which encompasses processes to determine staff accomplishments to help develop, achieve and improve staff effectiveness. Employees across the entire organization are appraised for their performance and this practice could be done annually, twice a year, or periodically depending on the needs of the organization.
Measuring and evaluating the performance of employees or staff in their workplace is an important practice as its conduct would definitely provide a method to assess their work and reward them accordingly.

There are various measurement tools and frameworks that are currently employed to measure employees’ performance. These tools are designed to focus on empowering the employees to improve and progress towards their betterment through the performance tracking gauge that is supported by such systems.

1.1 Background of the Problem

This research will focus on an institution of higher learning within the Malaysian private education sector (IPTS); namely at INTI University College (INTI-UC). The university college is a member of the Laureate Education Group, situated at Bandar Baru Nilai, Negeri Sembilan, Malaysia. At present, INTI-UC uses the traditional method of performance appraisal, i.e. the academicians will need to state down their yearly responsibilities, achievements, contributions and future goals in an annual performance review form which will then be submitted to the office. The academicians then wait for their turns to be assessed twice, first by their respective Dean and then by the Senior Management; usually the Senior Vice-President for the Academic Affairs in this case. After these two levels of performance assessment and evaluation, the Senior Management will then decide on the rewards and amount of salary increment that will be given to the academician. The annual review form will then be forwarded to the Human Resources Office to be filed in the academician’s personal file, which is only accessible by Human Resources personnel and the Senior Management of the university college.

This present method of evaluating the academicians’ performance is deemed not very efficient, as there is neither a pointer nor gauge to track the progress of the academicians through the years of work and service. The majority of these
academicians also do not bother with keeping a copy of their annual review forms as it tends to get tedious and troublesome. As such, they are not able to keep track of their work performance and to see if there was a progress or decline in their performance.

The present system also does not place any emphasis on setting important indicators or targets for the academia to achieve so as to serve as a yardstick for evaluating the performance of the academicians. The present indicators are very general and they mostly focused on students’ and campus activities. Based from the feedback that was gathered through the faculty meetings and discussions that were conducted across the campus, it became known that a huge majority of academicians have collectively voiced out their displeasure and dissatisfaction with the way the present system is used to evaluate their working performance.

As such, on January 2007 the Senior Management of INTI-UC took the initiative to analyze and evaluate the present system of academician review and assessment. By June 2007, after much brainstorming and deliberation, the Senior Management had decided to make away with the present system and come up with a new concept of formally implementing Key Performance Indicators (KPI) by early 2008, which will be used to measure the achievement of the academicians’ work performance through a set of targets that will established as the assessment criteria.

The Key Performance Indicator (KPI) is an approach or method used to evaluate and appraise employees’ performances in many organizations and industries throughout the world. The KPI connotes that standards and targets that are measurable, achievable and agreed upon by all and sundry are set to ensure that the goals are realized. The KPI is deemed as an important factor in determining an employee’s or an organization’s mission, vision and the quality control mechanism through this exercise (context derived from General Staff Meeting, INTI-UC, January 2007).
Nevertheless, this new method of assessment will still be implemented by using the traditional methods i.e. manual processing which tends to be tedious, backward and cumbersome. Therefore, with such an implementation of a brand new method in setting achievable targets at INTI-UC, it is only justified if a suitable framework for performance management with computerization features is adopted in lieu of supporting the execution of the KPI system. Hence, the aim of this research is to examine the prospect of integrating the KPI into a computerized performance management application to track and measure the performance of the academicians competently.

1.2 Statement of the Problem

In the academic arena, Gephart and Marsick (2002) argued that little progress has been made in demonstrating how learning is linked to performance and how measures of learning can be used to improve performance.

Currently, only several educational institutions within the private higher education sector in Malaysia employ such effective performance measurement tools that wholly encompass learning and growth as factors that contribute to performance excellence. Many of these institutions also still utilize the traditional technique or method of assessing the academicians; that is to apply the paper-and-pencil method which is basically filling up the annual appraisal forms and submitting them to the respective offices. Thus, it is important to analyze this particular situation and to overcome this problem by developing an appropriate system to support the underlying cause.

One of the major and popular frameworks that can be effectively used to manage and measure the performance of employees in a workplace or an organization is the Balanced Scorecard. In their famed book entitled “The Balanced Scorecard: Translating Strategy into Action”, authors and founders Kaplan and Norton (1996) declared that the Balanced Scorecard is a management and measurement system that is able to explicate the vision and strategy of both individuals and organizations and translate them into
action. Thus in order to continuously improve strategic performance and results, feedback is generated from both the internal business processes and external outcomes.

In this research, INTI-UC is taken as a case study whereby the existing system is examined to find the drawbacks that surround it. The drawbacks of the existing performance appraisal system at INTI-UC include the following:

- **The existing system employs the traditional paper-and-paper method.**

  With the advent of the computer and the Internet, many organizations throughout the world made the transition from the paper-and-pencil technique to computerized or web-based technology to support or execute their applications and processes. What once was thought as impossible has indeed become a reality and as such, the advocates of these technologies wholeheartedly embraced the all new concept and hype of having a ‘paperless environment’. This trend soon caught up in many organizations including many businesses, entertainment, media, education and government sectors. At the turn of the century, these organizations further embarked on the implementation of the electronic environment within their workplaces by providing applications and facilities such as e-commerce, e-banking, e-purse, e-health, e-media, e-income tax, e-summons, e-learning etc. to the society.

  Hence, a private institution of higher learning such as INTI-UC which has embraced the concept of e-campus also needs to revamp the traditional method of assessing the academicians and make the transition to having an electronic system to support the performance assessment procedure.

- **The existing system does not provide the facility to ensure that the performance of the academia is aligned to the corporate strategies and organizational goals.**

  The existing system does not have the means to align the employees’ performance to the strategic mission of the organization. Without such awareness, it is rather impossible to translate strategy into action and maintain a high sense of achievement within the
Campus and among competitors. Corporate strategies and organizational goals are established as part of an organization’s vision, mission and long term success plans and they cascade downwards aligning and linking all departments and employees within the organization. Thus, for the strategies and goals to become a reality, actions plans must be devised to ensure that these organizational objectives are reached without many hindrances. Corporate strategy involves all levels of employees and a highly successful organization looks into the performance management of its employees as they form the very core of foundation for an organization.

- **The existing system does not offer a means for the management to create and publish the faculty annual action plans to guide the academia to achieve their personal KPI targets for their individual scorecards.**

Since the existing system does not provide the aforementioned facility, it will be difficult for the faculty to advise the academicians on ways to maintain or improve their work performance as it does not reflect the strengths or weaknesses of the respective academian.

As such, a good performance appraisal system should support the facility of creating action plans, to serve as a guide or benchmark for each academian to achieve the indicated targets for the betterment of their career. Moreover, this facility will also allow the academicians to plan for their future career development in advance. Therefore, in lieu of establishing a corporate scorecard, necessary steps must be taken to ensure that the employees have a well established individual scorecard that will align itself with the corporate strategy which will fulfill the targets set for the overall performance of an organization.

- **The existing system does not include a tracking mechanism that allows academicians to view the achievement for the targets set, as well as to track their performance and progress.**
At INTI-UC, the existing performance appraisal system does not have the function to allow the academician to view their academic achievements for the academic year nor track their performance progress.

A good performance measurement system in educational institutions must have the mechanism to allow the academicians to achieve the targets set as it is one of the surest methods to measure or appraise the academicians. Besides this, it should allow the academicians to track their performance progress and development throughout the academic calendars. By allowing the academicians to track their achieved targets, it will show the progress of each academician. This will inevitably help the academician to overcome any weakness and create a ‘balanced’ academic lifestyle.

- **The existing system does not provide feedback nor send warning signals when the academicians do not reach the expected targets.**

The existing system does not provide any positive nor negative feedback to the academicians if they do not achieve the expected targets as indicated in the performance indicators.

As such, many of the academicians in INTI-UC are not aware of their own pitfalls and may simply go on maintaining their academic lifestyle which is ‘imbalanced’.

Therefore, a good system will provide the necessary warning signals to ensure that the academicians are on the right track throughout their academic career.

1.3 **Objectives of Research**

This research covers the following objectives:

1) To gather information through preliminary investigations and fact-finding for developing a performance measurement prototype to appraise, provide tracking and feedback facilities for the academicians in INTI-UC to ensure a continuity of success and excellence in their career development.
2) To adapt Kaplan and Norton’s Balanced Scorecard framework, with a focus on the Learning and Growth Perspective, which will be used as a blueprint to model and develop the e-Balanced Scorecard system for the academia at INTI-UC.

3) To elicit the organization’s performance measurement requirements (crucial Key Performance Indicators) for evaluating and appraising the academicians’ performances in the e-Balanced Scorecard system from the University College’s top-level management.

4) To examine the levels of acceptance and the implications of using the e- Balanced Scorecard system in evaluating and appraising the performance of the academia.

1.4 Research Questions

The Balanced Scorecard provides three essential elements for strategic learning such as articulating the shared version of companies, building up strategic feedback system, and facilitating the strategy review. To achieve the objectives of this research, the following four research questions are identified:

1. How would the presence of a successful educational institution be associated with the presence of a performance measurement tracking system that provides continuous feedback for the academicians?

The appraisal review for academicians has long been in establishment but in many cases, there is no provision of both the tracking and feedback mechanisms. To answer the above research question, the following factors will be investigated: How then, could the academicians have a balance and check on their performance? How can the academicians ensure that they are on the right path and not on the brink of a pitfall?

2. How would the core focus on the Learning and Growth Perspective of the e-Balanced Scorecard help to achieve excellence and success for both the academia and academic institution?
To answer the above research question, the following aspects will be investigated: How far can the implementation of a Balanced Scorecard prove to be an appropriate tool to measure the excellence and success of an academician? Can it be justified if the e-Balanced Scorecard solely focuses on the Learning and Growth Perspective to bring about recognition and success for a particular educational institution over time? Does it have in place the mechanisms to ensure achievement of its vision? How does it link to the other three quadrants of the Balanced Scorecard?

3. **How would the implementation of the e-Balanced Scorecard with its target KPI areas increase organizational learning which leads to the empowerment of knowledge management in an educational institution?**

The e-Balanced Scorecard is designed for creating a ‘balanced’ environment in facilitating the organization to achieve its vision, mission and goals. Is the e-Balanced Scorecard essential for academic departments? Will it also help to increase organizational learning in an educational institution along the way? How does it happen?

4. **How would the e-Balanced Scorecard help to ensure that each individual scorecard and performance of the academia be aligned at all times to the corporate strategy and organizational goals as well as to ensure its level of effectiveness in appraising the academicians’ performance is deemed successful?**

All organizations strive to fulfill their strategies and goals to ensure long term success plans are achieved. To warrant this success, all levels of employees must be involved in translating such strategies into action and this can only occur if the employees’ performances are aligned to the corporate strategy. The following issues will be considered to help gain an answer for the above research question: How would the e-Balanced Scorecard ensure that the academia’s Key Performance Indicators (KPI) is
aligned to the corporate strategy, vision and mission? Will the e-Balanced Scorecard help the faculties to identify KPI measures for the academicians to achieve in order to excel as an individual and to fulfill the corporate vision? Would the Balanced Scorecard secure sufficient information on the academicians’ performance assessment to establish a strategic learning link to the action plans and performance progress report at the faculty level? What would be the level of significance and effectiveness in measuring the performance of the academicians in INTI-UC through the implementation of the e-Balanced Scorecard?

1.5 Research Methodology

Literature review will be the primary source of information for this research. Books, journals, and other type of written articles and papers will be studied and referred to, in addition to the online materials. Moreover, studies and surveys will be conducted in order to ensure that data obtained from preliminary research is accurate. The framework of the Balance Scorecard approach will be studied, analyzed and reviewed thoroughly in designing and developing the e-BSC system for measuring the performance of academicians within a private higher education sector in Malaysia. The design and development of the e-BSC will explicitly follow the phases or stages of the original framework and methodology of the Balance Scorecard.

Additionally, questionnaires will be designed and given out to various respondents. In total, fifty eight questionnaires will be given to the academicians; comprising of the senior management in INTI University College. Observation and official documentation reviews will also be carried out to avoid any uncertainty in the data collected. It is also to review existing data and literature and to determine whether the research is supported by the facts. Previously written researches will also be used to further support the research. This involves studying and analyzing printed research materials available in the journals and libraries.
1.6 Expected Research Outcomes

The expected outcome of this research is the development of a prototype of the e-BSC system for measuring and assessing the performance of academicians in INTI-UC based on the Key Performance Indicators (KPI) set by the university college’s senior management as part of the college long-term strategic goals. A web-based balanced scorecard application system will be designed based on the criteria identified during literature review, questionnaire analysis and research. Important features and functions of a balanced scorecard system will be identified and included in the prototype model. The system designed will only be a prototype with basic functions, and not an entirely functional system.

1.7 Scope of Research

It will mainly focus on one of the four main perspectives of a Balance Scorecard; namely the Learning and Growth perspective, whereby it has a very significant impact on the academicians. This research will also cover several aspects of the Internal Business Process and Customer perspectives of the Balanced Scorecard, as the outcome from the Learning and Growth quadrant has a fundamental impact and is a core foundation to these perspectives. This is because in order to achieve the targets and goals of the Business and Financial quadrant, private higher education sectors usually focuses on these underlying three perspectives as the main areas for improvement and benchmarking in their strategic goals.

1.8 Significance of Research

One of the major research challenges against academics and practitioners is to establish the relationships between characteristics of the learning organization and organizational performance. Rubienska and Bovaird (1999) raised a question as to how performance management transforms an institution into a learning organization. Meanwhile, Baldwin and Danielson (2002) suggested a further research in pursuing a greater understanding
of when and how learning organization elements can contribute to an organization’s performance. A suitable methodology is required to ensure organizational performance and one of the most significant framework that was developed for the purpose of charting the course of the performance of an organization is the Balanced Scorecard.

The Balanced Scorecard was introduced to fill the gap between the development of a strategy and its realization by supporting and linking four critical management processes. Kaplan and Norton (1996) emphasized “the feedback and learning process to be the most important aspect of the entire Balanced Scorecard management process.” This perspective is defined as “the priorities to create a climate that supports organizational change, innovation and growth” (Kaplan and Norton, 2001). It is created to measure the capabilities of employees, information systems, and organizational procedures to manage the organization and adapt to change. It is argued that the learning and growth perspective is the basic foundation for gaining and maintaining competitive advantage observations and experience (Kaplan and Norton, 1996). Kaplan and Norton (2001) further wrote that a good Balanced Scorecard can provide a useful feedback system “to verify that their trajectory remains on course to a profitable future” and the feedback system can function automatically to identify and correct strategies before serious damage has been done.

As the BSC is still a relatively new approach within the Malaysian educational sector; therefore by implementing the e-BSC system, it would inevitably assist the academic fraternity to plan, manage and maintain their key performance factors in their respective working environments. In this dissertation, the focus is on the academicians in the private education sector (IPTS) where the goals and aims are taken into account and measured as a benchmark for their performances.

The significance of the study is that the implementation of the e-BSC system would be able to evaluate and measure the respective appraisal review of performance for the
academics in INTI-UC based on the analysis from the individual scorecards in the
system. This would assist the academicians to check on their performance against the
criteria set as benchmarks to ensure that they are able to keep track of their performance
records, as well as to trace and take note of their weaknesses or failures. By keeping
track of their achievements and failures, they would know how to plan for further goals
and aims in the future, trace their successes and keep room for greater improvement.
Besides, another significance of the research is to prove that the establishment of the
scorecard would ensure that the measures of the academicians’ performance will always
be aligned to the corporate strategies and organizational goals.
Thus, the implementation of such an effectual tool is to attest that it would advertently
and effectively help to provide the tracking and feedback facilities to the academicians
as to ensure that they can make good progress and maintain their career development.

1.9 Terminology
The following is a list of terms that will be often used throughout the research. A short
description accompanies each term for the readers to be familiarized.

Balanced Scorecard
The Balanced Scorecard is a powerful performance measurement and management
system developed by Robert Kaplan and David Norton and has been adopted by a wide
range of leading edge organizations, both public and private. It is used to align business
activities to the vision and strategy of the organization, monitor and improve
organization performance against strategic goals as well as motivate and educate
employees. In comparison to other management tools, the BSC focuses on strategic
non-financial performance measures rather than traditional financial metrics alone to
give managers and executives a more 'balanced' view of organizational performance
(Kaplan and Norton, 1992).
It is a conceptual framework for translating an organization’s vision into a set of performance indicators distributed among four perspectives: Financial, Customer, Internal Business Processes, and Learning and Growth. Indicators are maintained to measure an organization's progress toward achieving its vision and to measure the long term drivers of success. It provides feedback around both the internal business processes and external outcomes in order to continuously improve strategic performance and results (Niven, 2002). When fully deployed, the balanced scorecard transforms strategic planning from an academic exercise into the nerve center of an organization (Adapted from PwC Analysis for INTI-UC, 2007).

**e-Balanced Scorecard (e-BSC)**

The e-Balanced Scorecard is an automated version of the Balanced Scorecard framework that is adapted from the original model by Kaplan and Norton for the cause of this research. It will be developed to support the performance management and evaluate the performance measurement of the academics at INTI-UC. Moreover, with such an implementation of a performance measurement tool, it also ensures that their individual scorecards are directly aligned to the corporate strategy and organizational goals.

**INTI University College (INTI-UC)**

INTI University College, situated in Bandar Baru Nilai, Negeri Sembilan has been part of the INTI Education Group since 1986 and marked its entry into a new era of global participation on 12 November 2008 when the New INTI was officially commemorated and transformed into a part of the prestigious Laureate network of universities that spans the globe. With an emphasis on holistic education, whereby the student develops important skills while learning to think critically – INTI-UC envisions fully operational e-campuses by 2010 (Excerpt from ‘Inauguration of the New INTI’, Press Release, November 2008).
Key Performance Indicators (KPI)

Key Performance Indicators (KPI) provide a means for tracking performance against organizational goals or objectives and are used to assess current performance and guide action toward improvement and enhancement. KPI may be thought of as essential and crucial elements for the overall planning and monitoring system. They are usually derived from the vision and mission statement and consist of an integrated collection of target values which helps the individual and organization to know whether they are succeeding in their mission. KPIs are an important management tool for tracking progress against strategic goals as they direct and prioritise behavior towards achievement of the vision, goals and objectives (Palermo and Carroll, 2006).

Performance Management

Performance Management is one of the key processes that, when effectively carried out, helps employees know that their contributions are recognized and acknowledged. A performance management system usually displays figures for key performance indicators so that employees can track individual and project performance relative to corporate goals and strategies. It is an ongoing process of communication between a supervisor and an employee that occurs throughout the year, in support of accomplishing the strategic objectives of the organization. The communication process includes clarifying expectations, setting objectives, identifying goals, providing feedback, and evaluating results (University Of California, Berkeley, 2008). Thus, it is a philosophy which values and encourages employee development through a style of management which provides frequent feedback and fosters teamwork. Furthermore, it emphasizes communication and focuses on adding value to the organization by promoting improved job performance and encouraging skill development.
Performance Measurement

Performance measurement is one of the cornerstones of business excellence. It is the use of statistical evidence to determine progress toward specific defined organizational objectives. Strategic performance measures and monitor the implementation and effectiveness of an organization's strategies, determine the gap between actual and targeted performance and determine organization effectiveness and operational efficiency (Neely, 1998).

Performance Appraisal

Performance appraisal may be defined as a structured formal interaction between a subordinate and management that usually takes the form of a periodic assessment, in which the work performance of the subordinate is examined and discussed, with a view to identifying weaknesses and strengths as well as opportunities for improvement and skills development. In many organizations appraisal results are used, either directly or indirectly, to help determine reward outcomes. By the same token, appraisal results are also used to identify the poorer performers who may require some form of counseling, or in extreme cases, demotion, dismissal or decreases in pay (McGregor, 1957, quoted by Grote, 1996).

Knowledge Management (KM)

Knowledge Management (KM) refers to a range of practices used by organizations to identify, create, represent and distribute knowledge for reuse, awareness, and learning across organizations (Hamid et. al., 2007). KM consists of activities focused on the organization gaining knowledge from its own experience and from the experience of others, and on the judicious application of that knowledge to fulfill the mission of the organization (Wenig, 2002).
Organizational Strategy

Strategy is the way in which a company orients itself towards the market in which it operates and towards the other companies in the marketplace against which it competes. It is a plan an organization formulates to gain a sustainable advantage over the competition (Kotelnikov, 2007). A successful organizational strategy adds value for the targeted customers over the long run by consistently meeting their needs better than the competition does.

Vision Statement

Corporate vision is a short, succinct, and inspiring statement of what the organization intends to become and to achieve at some point in the future, often stated in competitive terms. It should contain as concrete a picture of the desired state as possible and also provide the basis for formulating strategies and objectives (Niven, 2002).

Mission Statement

A mission statement is an organization's vision translated into concrete measurable aspects or substance. It defines and conceptualizes the top management’s view of the direction and formally articulates the purpose of the organization. For many corporate leaders it is a vital element in any attempt to motivate employees, promote organizational loyalty and to give them a sense of priorities and inspiration (Kotelnikov, 2007).

Action Plans

An action plan is a specific series of steps taken to accomplish a specified goal. An action plan generally includes steps, milestones, and measures of progress, responsibilities and a timeline. Action plans can be used for any endeavor or project (Source: Excerpt from INTI-UC, PwC Analysis, 2007).
Performance Planning

Planning is defined as setting performance expectations and goals for groups and individuals to channel their efforts toward achieving organizational objectives. It also includes the measures that will be used to determine whether expectations and goals are being met. Involving employees in the planning process helps them to understand the goals of the organization, what needs to be done, why it needs to be done, and how well it should be done (US Office of Personnel Management, 2008).

Tracking Performance Progress

Tracking performance is essential in managing employees, management, and departments check on their progress of work performance based on actual objective performance standards instead of subjective guesswork. Performance tracking defines performance standards for employees and managers and measures actual performance against standards. It identifies employees and departments who are meeting, exceeding, or lagging behind performance standards (Montana Manufacturing Centre, 2009).

Performance Progress Feedback

Performance feedback is the on-going process between employee and manager where information is exchanged concerning the performance expected and the performance exhibited. Constructive feedback can praise good performance or correct poor performance and should always be tied to the performance standards (Indiana University, 2009).

1.10 Content and Overview of Dissertation

The dissertation will contain seven chapters as outlined below:

Chapter 1: Introduction

Chapter 1 begins with the overview of employee performance assessment, the background of the problem and the statement of the problem, the objectives of the research and the research questions. It will also introduce the methodology of the
research, expected research outcome and the scope of study. Finally it provides the significance of study and outline of the research.

**Chapter 2: Literature review**

Chapter 2 begins with the introduction to the concept of performance appraisal system, and how the performance measurement system is carried out in the private higher education sector. It continues with the literature review on Key Performance Indicators and the Balanced Scorecard. It also establishes a study and research on various other measurement frameworks, tools and techniques, the Balanced Scorecard implementation in the corporate and education sector world-wide. Finally, a personal research perspective is also included; on the factors why the Key Performance Indicators and Balanced Scorecard is deemed important in the private higher education sector (IPTS) – namely in INTI-UC.

**Chapter 3: Research Methodology**

Chapter 3 begins with the discussion on the various techniques that are currently used to conduct research methodology followed by the chosen fact-finding methods that will be used for this research. Consequently, this chapter will also include the survey questionnaire which is used to assess the present appraisal performance system and to determine the user requirements that will eventually be used in the design and development of the proposed system. Finally, an appropriate systems development methodology will also be selected and justifications made as to why the particular methodology is chosen is explained.

**Chapter 4: Data Analysis**

In this chapter, the conclusive results of the analysis from the data collected through the survey and other fact-finding techniques is presented and the outcome obtained from the survey results will be used to model the framework, interface, functions and features of the proposed system.
Chapter 5: Requirements Analysis and Design

Chapter 5 will incorporate the system prototype framework design, system architecture design, functional and non-functional requirements and the Unified Modeling Language (UML) diagrams of an ideal e-based balanced scorecard prototype system that was derived from the outcome of fact-finding results. It will also establish the design of the characteristics and facilities that will support the prototype.

Chapter 6: System Prototype Development and Implementation

Chapter 6 will encompass the development phase of a prototype of an electronic balanced scorecard. It also describes the hardware and software requirements that will be used to develop the system in length. The graphical interface screen shots of the developed prototype will also be presented in this chapter. Finally, the prototype testing results, implementation of the system and post-implementation user evaluation phases of the system will also be presented in this chapter.

Chapter 7: Discussion, Summary and Conclusions

The final chapter will ascertain the discussions and implications of the research findings. It will also establish conclusions based on the findings as well as present the possibilities for future research work.

1.11 Summary

The research will mainly review the existing literature on organizational performance measurement and Key Performance Indicators (KPI) with a focus on private educational institutions of higher learning. In addition, with regards to being a highly popular and successful performance measurement tool, the Balanced Scorecard approach will be adopted as a framework to measure the performance of the academics in a private institution of higher learning; INTI University College (INTI-UC). Consequently, references on Balanced Scorecard system practices in the corporate organizations as well as educational institutions throughout the world and within Malaysia will be
conducted to advocate the research. Based on the references and research conducted, an electronic BSC system will be designed, developed and implemented to assess the performance of the academicians at INTI-UC. An evaluation of the system will then be carried out to determine the depth of user acceptance, achievement and success of the research and prototype. The drawbacks of the existing appraisal system and the reins of advantages of the e-based balanced scorecard system will be compared, evaluated and discussed. The proposed system will attempt to enhance and improvise the current processes derived from the current appraisal system and to arrive at a better and ‘balanced’ performance measurement system that would enable the academicians to plan, monitor and evaluate their own respective appraisal and performances which will be aligned to the corporate strategy and mission.