3.1 Research Framework

The human capital theory was used to expand upon the theoretical framework presented in this paper because the theory could explain the choices GLCs made in managing human capital to meet organizational results challenges. This theory also allowed GLCs to view global talent in terms of capital and make decisions about investments in talent just as they made decisions about investing in other types of capital.

Costs related to attracting, retaining, and developing talent could be viewed as investments in talent solutions. Efforts to develop human resource metrics that established the value of investments in talent solutions could be grounded in the logic of the human capital theory.

Given the relationships between talent solutions and talent results, GLCs could examine not only what talent decisions should be approached but which talent solutions were most effective for which challenges and which configuration of talent solutions could be used to realize talent results. Figure 1: Theoretical Framework of an Integrated Strategy-driven Talent Solutions



Figure I outlined the theoretical model of an integrated strategy-driven talent solutions framework. Based on the issues discussed, this study examined the relationship between independent variables and dependent variables in the context of strategic talent solutions identified.

3.2 Development of Hypotheses

The discussion in Chapter One and Two suggested the following hypotheses:

- H 1: The reasons in talent decisions for talent solutions have a positive impact on talent results in GLCs.
- H 2: The approaches in talent decisions for talent solutions have a positive impact on talent results in GLCs.
- H 3: The roles of human resource management in talent architecture have a positive impact on talent results in GLCs.
- H 4: The characteristics in talent architecture have a positive impact on talent results in GLCs.
- H5: The levels of sophistication in talent architecture have a positive impact on talent results in GLCs.

3.3 Selection of Measures

Measurement items used in this survey had been expanded from a study by Ntonga (2007) that assessed the perceived impact of talent management practices on business performance and literature review on the relationship between talent management, human resource management and talent results in terms of reasons and approaches for talent management, management of people resource, impact to the success and competitive advantages of the organization, employeesøperception of talent management, and key issues of talent attraction and retention.

The measurement items in Section A, B and C on the reasons, approaches and roles of human resource management were an attempt to integrate strategy and human resource practices to investigate whether they led to organizational outcomes, or organizational outcomes provided the resources to invest in them. The items were meant to address how talent solutions should be approached when strategy emerged or how talent solutions influenced the development of strategy.

The questions further probed whether talent management was a rebranded human resource management; or an integrated human resource management; or a continuity of human resource management; or how talent management and human resource management emphasized integration with business strategy; and managerial implications on how talent management was practiced.

Measurement items in Section D and E on the characteristics and level of sophistication of talent management were expanded from literature on talent management outcomes, talent

management processes, specific decision of talent management, human resource management practices and processes, and the use of enterprise-wide software systems.

Selection of measures for response format was made on a 5-point Likert-type scale ranging from 1 = strongly disagree to 5 = strongly agree to measure talent solutions in GLCs. The use of this type of response scale provided a wider range of possible scores and increased the statistical analyses that were available.

Strongly disagree	1	2	3	4	5	Strongly agree

It was anticipated that the possible influence of extraneous or confounding variables would provide an alternative explanation for the results. Steps were taken to control these confounding variables via analysis of covariance.

For the purpose of this study, talent strategy in GLCs was measured in six sections using the scale as follows:

- 1. The reasons for implementing talent solutions in GLCs;
- 2. The approaches taken to drive talent solutions in GLCs;
- 3. The roles of human resource management in executing talent solutions in GLCs;
- 4. The essential characteristics of talent solutions;
- 5. The level of sophistication of talent solutions; and
- 6. Talent results due to talent intervention in GLCs.

3.4 Sampling Design

The type of sampling design used in this study to carry out the research investigation was a closed questionnaire survey offering respondents a number of defined response choices. Respondents were asked to mark their response by placing a cross in the appropriate boxes and the data collected were later converted to the numerical format required for SPSS.

Before distributing the questionnaire survey, a pilot-test was first conducted to ensure that the instructions, questions and scale items were clear. 20 questionnaire forms were distributed for the purpose. The pilot-test was conducted on similar type of employment group people who would be used in the main study ranging from executive to managerial levels. The purpose of conducting the pilot-test was to identify any question or item that might offend potential respondents.

Descriptive design was undertaken to learn about and describe the importance of talent decisions in talent solutions towards achieving talent results in GLCs. Descriptive design was applied to ascertain and describe the characteristics of the variable of interest and to discover the relationship and interaction among the talent decisions, talent architecture and talent results scales.

3.5 Data Collection Procedures

The data relevant to the study were obtained through primary and secondary data research. A closed questionnaire survey was used to collect primary data to measure talent results in GLCs.

The following figure shows the process of selecting subjects for this research.

Figure 2: Steps in Selecting Sample



3.5.1 The Population

The data presented the results of a survey conducted on employees in the employment groups from executive to manager from selected 14 GLCs offices located in Peninsular Malaysia.

3.5.2 Sampling Unit

The list of GLCs identified for this survey was based upon the list provided by the Ministry of Finance. Altogether there were 103 GLCs in the list. After screening through the list, gathering pertinent information on the organizations, communicating the intent and acquiring agreement from the Human Resource Manager to participate in the survey, the list was narrowed down to 14 GLCs from four major sectors namely social, infrastructure, economy, and technology.

A questionnaire survey was subsequently administered to these 14 case study GLCs. A cover letter with the questionnaire form was emailed to the Human Resource Manager or person-incharge of human resource affairs after agreement was received from the person-in-charge of the organization by telephone.

Each participating GLC was given 40 questionnaire forms to be distributed among the employees. The questionnaire was prepared in English as English was an accepted medium used in the public and private sectors for Malaysia. The respondents were requested to return the survey directly to the researcher. Since the researcher was interested in exploring views on talent solutions, the researcher did not provide participants with a definition of talent or talent management.

3.5.3 Instrumentation and Scales

The instrument used in this study was a closed questionnaire survey designed to enable data collection without being constrained by current theory to determine the existence and the degree of application of talent solutions in GLCs.

All the scales measured the same construct that is talent results. Two important characteristics when choosing the appropriate scales were reliability and validity of measures. Dependent and independent variables chosen were pilot-tested on the same type of people of the intended sample for validity and reliability of the measures and scales before the questionnaire forms were distributed to the actual sample.

Altogether there were 73 measurement items in the survey instrument. The measures were arranged in sections of six. There were 15 items in Section A to measure the scale for reasons in talent decisions; 19 items measured the scale for approaches in talent decisions in Section B; 7 items measured the roles of human resource management in talent architecture in Section C; 11 items measured the scale for characteristics of talent architecture in Section D; 11 items measured the level of sophistication of talent architecture in Section E; and, 10 items measured the talent results in Section F.

Table 1 showed the scales and number of measurements items used in this study.

SECTION	SCALE	NO. OF MEASUREMENT ITEMS
А	Reasons in talent decisions	15
В	Approaches in talent decisions	19
С	Roles of human resource management in talent architecture	7
D	Characteristics of talent architecture	11
Е	Level of sophistication of talent architecture	11
F	Talent retention and organizational performance in talent results	10
	Total Number of Measurement Items	73

3.6 Data Analysis Techniques

3.6.1 Data Screening and Transformation

Data screening and transformation techniques were used in this research where the data collected were first screened and filtered for errors, missing values, values that fall outside the range of possible values for a variable, or answers without serious consideration by respondents that might distort the results of correlation analyses. This was to ensure the data had been correctly entered and the distributions of variables that were used in analysis were normal and reliable. Some data values and all reverse statements in the questionnaire had been corrected for data testing purposes to ensure the validity and reliability of the collected data. The data were then keyed into the Statistical Programmer for Social Science (SPSS) computer program to address the research questions.

3.6.2 Descriptive Statistics

Descriptive statistics were used to describe the characteristics of sample and to check the variables for any violation of the assumptions underlying the statistical techniques in order to address the research questions and hypotheses.

3.6.3 Reliability Tests

Reliability test was done to check the extent to which the different items, measures, or assessments were consistent with one another, and the extent to which each measure was free from random error. It was assumed that each item or score was composed of a true score measuring the underlying construct.

Cronbachøs coefficient alpha was used for this analysis because of Likert-type items that were summed to make a composite score or summated scale. Cronbachøs coefficient alpha was based on the mean or average correlation of each item in the scale with every other item.

3.6.4 Validity Test

The validity of a scale referred to the degree to which it measures what it was supposed to measure. The main types of validity were content validity, criterion validity, and construct validity.

3.6.5 Inferential Tests

Parametrics tests were carried out as follows:

- Pearson correlation ó to explore the strength of the relationship between two continuous variables to give an indication of both the direction (positive or negative) and the strength of the relationship.
- Multiple regression ó to explore the predictive ability of a set of independent variables on one continuous dependent measure and how much the variance in the dependent variable is explained when several independent variables simultaneously influence it.
- Factor analysis ó to identify the underlying structure.
- Independent sample t-test ó test to compare the mean score on two different (independent) groups of people (males and females).
- One way analysis of variance (ANOVA) ó to look at the impact of one independent variable on dependent variable.