

**IDENTIFYING CRITICAL SUCCESS FACTORS FOR SCHOOL  
IMPROVEMENT AMONG EXCELLENT PRINCIPALS IN HIGH  
PERFORMING SCHOOLS IN MALAYSIA: A CASE STUDY**

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**THESIS SUBMITTED IN FULFILMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF DOCTOR OF  
PHILOSOPHY**

**INSTITUTE OF EDUCATIONAL LEADERSHIP  
FACULTY OF EDUCATION  
UNIVERSITY OF MALAYA  
KUALA LUMPUR  
2018**

**UNIVERSITI MALAYA**

**ORIGINAL LITERARY WORK DECLARATION**

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Registration/ Matrix No: YHA070001

Name of Degree: DEGREE OF DOCTOR OF PHILOSOPHY

Title of Project Paper/Research Report/Dissertation/Thesis ("this Work"):  
IDENTIFYING CRITICAL SUCCESS FACTORS FOR SCHOOL IMPROVEMENT  
AMONG EXCELLENT PRINCIPALS IN HIGH PERFORMING SCHOOLS IN  
MALAYSIA: A CASE STUDY

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**IDENTIFYING CRITICAL SUCCESS FACTORS FOR SCHOOL  
IMPROVEMENT AMONG EXCELLENT PRINCIPALS IN HIGH  
PERFORMING SCHOOLS IN MALAYSIA: A CASE STUDY**

**ABSTRACT**

This study identifies through explorative investigations on the critical success factors (CSF) of school improvement. Literature review show two models commonly observed in the process of school improvement (a) the top-down and (b) the bottom-up models. However there are missing links to explain further between these models. Therefore this study proposes to identify the critical success factors under these two models. This study is designed with a descriptive, non-experimental approach while adopting the case study framework. The processes are set out in three stages sequenced into an exploratory-inquiry-observation for data collection and analysis. The exploratory investigation has identified three main principalship practices contributed towards school improvement efforts. These are (a) leadership (b) managements and administrations and (c) strategies. The inquiry method has been condensed through interviewing. The interviewees were selected through ‘critical sampling’ approach among the population of principals. The approach is by identifying those excellent principals who are in the highest category according to their salary scales which is in the ‘JUSA C’ category. During the study there are only eight excellent principals out of the total number of 2354 principals in the country’s mainstream education system that are in this category. Out of these eight excellent principals six excellent principals formed the sample of this study. An open-ended questionnaire was used during the interviews. Qualitative data was analyzed using the (i) within-case analysis and (ii) cross-case analysis. For the qualitative approach thematic analysis was conducted using the three levels of coding process (i) open coding (ii) axial coding and (iii) selective coding. The

results have identified a number of constructs that were clustered into (i) critical success factors and (ii) functional factors. The outcomes of these clustering showed that there are certain similarities and differences from among these excellent principals in their approaches towards school improvement. Observations further enhanced the validity and reliability of these critical success factors identified. Flanagan's 'Critical-Incident Technique' (CIT) was used during the observation. It was to further establish these findings through evidences acquired contextually in high performing schools. The final results of all these findings are in support towards the critical success factors identified and the model developed. Firstly, it addressed the five research questions posited. Secondly, it confirmed that the proposition through the critical success factors model developed is significant and relevant to the needs. Thirdly, the study concludes that the model developed has empirically proven of its potentials. This model can enable principals to lead school improvement more effectively.

**Keywords:** critical success factors, school improvement, excellent principals, high performing schools, models

**MENGENALPASTI FAKTOR-FAKTOR KRITIKAL KEJAYAAN DI  
KALANGAN PENGETUA CEMERLANG SEKOLAH BERPRESTASI TINGGI  
DI MALAYSIA: SUATU KAJIAN KES**

**ABSTRAK**

Kajian ini mengenalpasti melalui penyiasatan secara eksplorasi terhadap faktor-faktor kritikal kejayaan (FKK) berkaitan dengan penambahbaikan sekolah. Tinjauan literatur menunjukkan bahawa ada dua model yang kebiasaannya terdapat dalam proses penambahbaikan sekolah iaitu (a) 'model atas ke bawah' dan (b) 'model bawah ke atas'. Walau bagaimanapun terdapat jurang atau terputusnya kesinambungan di antara model-model ini untuk huraian lanjutan. Oleh itu suatu pernyataan atau proposisi dikemukakan untuk mengenalpasti faktor-faktor kritikal kejayaan di bawah kedua-dua model ini. Pembinaan model ini direkabentuk berdasarkan pendekatan secara diskriptif bukan eksperimental menggunakan rangka kerja 'kajian kes'. Proses kajian terbahagi kepada tiga peringkat disusun secara eksplorasi-inkuiri-pemerhatian untuk pengumpulan data dan analisis. Melalui penyiasatan eksplorasi telah mengenalpasti tiga amalan kepengetuaan utama yang menyumbangkan ke arah usaha-usaha penambahbaikan sekolah. Ketiga-tiga ini ialah (a) kepimpinan (b) pengurusan dan pentadbiran (c) strategi. Kaedah inkuiri diringkaskan melalui temuduga. Mereka yang ditemuduga dipilih secara 'sampel kritikal' dari kalangan semua pengetua. Pendekatan yang dilakukan ialah melalui mengenalpasti pengetua cemerlang yang berada dalam kategori gaji tertinggi iaitu 'JUSA C' sahaja. Semasa kajian ini dilakukan terdapat hanya lapan orang sahaja pengetua cemerlang di antara 2354 pengetua dalam sistem persekolahan kebangsaan yang tergolong dalam kategori ini. Daripada jumlah lapan orang ini enam orang adalah sampel dalam kajian ini. Soalan-soalan temubual yang digunakan ialah

secara terbuka. Data kualitatif yang diperolehi dianalisis dengan menggunakan kaedah (i) penganalisan dalaman kes (ii) penganalisan merentasi kes. Pendekatan penganalisan ialah melalui kaedah tematik dengan menggunakan tiga peringkat proses pengkodan (i) kod terbuka (ii) kod axial atau sehubungan dan (iii) kod terpilih. Dapatan daripada penganalisan ini telah mengenalpasti beberapa kontrak yang dikelompokkan sebagai (i) faktor kritikal kejayaan (ii) faktor fungsional. Dapatan daripada mengelompokkan kontrak-kontrak ini menunjukkan adanya beberapa persamaan dan perbezaan di kalangan pengetua cemerlang ini dari segi pendekatan mereka untuk penambahbaikan sekolah. Pemerhatian dilaksanakan demi mengukuhkan lagi kesahan dan kebolehppercayaan model ini. Kaedah 'Teknik Insiden Kritikal' (TIK) oleh Flanagan digunapakai untuk pemerhatian. Dengan cara ini dapat mengukuhkan lagi segala dapatan melalui bukti-bukti yang diperolehi secara kontekstual di sekolah berprestasi tinggi. Rumusan yang dibuat melalui dapatan kajian ini menyokong faktor-faktor kritikal kejayaan yang telah dikenalpasti dan model yang dibina. Pertama, suatu pencerahan yang membolehkan terdapatnya jawapan terhadap kelima-lima soalan kajian yang dikemukakan. Kedua, melalui jawapan ini telah mengukuhkan lagi model faktor-faktor kritikal kejayaan yang dibina kerana mempunyai signifikan dan keperluan. Ketiga, bahawa model yang telah dibina secara empirical terbukti akan potensinya. Model ini membolehkan para pengetua untuk lebih berkesan dalam usaha penambahbaikan sekolah.

Kata kunci: faktor-faktor kritikal kejayaan, penambahbaikan sekolah, pengetua cemerlang, sekolah berprestasi tinggi, model

## ACKNOWLEDGEMENTS

First and foremost praise to Allah for the blessings bestowed on me in completing this thesis. I would like to take this opportunity to express my heartfelt gratitude to my present supervisor who is also the Director of the Institute, Professor Dr. Chua Yan Piau and earlier Dr. Sathiamoorthy Kannan and Associate Professor Dr. Suria Baba for walking with me through these years of my study at the university. Their meticulous attention and the continuous support were very helpful towards arriving at the completion of this study. They brought out the best in me and words of thanks for enriching my life. Furthermore I would like to thank the rest of the supervisory committee for their constructive inputs during the two candidacy presentations. Your thoughts in provoking ideas are very much appreciated.

On personal side I would like to express my thanks to all members of my family, especially to my dear wife Khatijah and my children Arfah, Aina, Norli, Siddiq and Luqman. Their continuous support and patience in seeing the study gets through is very much appreciated. Things would have not been in place if it were not for their encouragements towards my efforts especially in time of difficulties.

Thank you to all.

Umar Bin Man

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## LIST OF ABBREVIATIONS

BPP-SBT: *Bahagian Pengurusan Perkhidmatan-Sekolah Berprestasi Tinggi*

(Service Management Division-High Performing Schools)

CAQDAS: Computer Aided Qualitative Data Analysis Software

CATWOE: Customer, actor, transformation, worldview or weltanschauung, owners and environment

CEO : Chief Executive Officer

CIT : Critical Incident Technique

CPD : Continuous Professional Developments

CSF : Critical Success Factors

DG : *Kod Klasifikasi Perkhidmatan dan Kod Gaji: Perkhidmatan Pendidikan*

(Code for classification of services and salary scheme assigned by Public Service Department for Educational Service Officers)

DSS : Decision Support System

EP : Excellent Principal

EPRD : Educational Planning Research and Development

ETeMS : English in the Teaching of Mathematics and Science

FF : Functional Factors

GPS : *Gred Purata Sekolah* (School's Average Grade)

GTP : Government Transformation Plan

HPS : High Performing School

JNJK : *Jemaah Nazir dan Jaminan Kualiti* (Inspectorate and Quality Assurance)

JPN : *Jabatan Pendidikan Negeri* (State Education Department)

JUSA C : *Jawatan Utama Sektor Awam C* (Premier Designation Super Grade C in Public Services Sector)

IBDP : International Baccalaureate Diploma Programme

IBMYP : International Baccalaureate Middle Year Programme

ICT : Information and Communication Technology

ISQA : Inspectorate of Schools and Quality Assurance

KBSM : *Kurikulum Bersepadu Sekolah Menengah* (The Integrated Secondary Schools Curriculum)

KBSR : *Kurikulum Baru Sekolah Rendah* (The New Primary Schools Curriculum)

KPI : Key Performance Indicators

KSSR : *Kurikulum Standard Sekolah Rendah* (The Standard Primary Schools Curriculum)

KSSM : *Kurikulum Standard Sekolah Menengah* (The Standard Secondary Schools Curriculum)

KRA : Key Results Area

LW : Learning Walk

MidLed: Middle Leaders

MIS : Management Information System

MOEM: Ministry of Education Malaysia.

MPSM: *Majlis Pengetua Sekolah Menengah* (Council of Secondary Schools Principals)

OECD : Organization for Economic Cooperation and Development

PIBG : *Persatuan Ibu Bapa dan Guru* (Parent-Teachers Association)

PIPP : *Pelan Induk Pembangunan Pelajaran* (Educational Developments Master Plan)

PIRLS : Progress in International Reading Literacy Study

PISA : Programme for International Student Assessment

PLC : Professional Learning Community

PMS : Performance Management System

PPD : *Pejabat Pendidikan Daerah* (District Education Office)

PPSMI: *Pengajaran dan Pembelajaran Sains dan Matematik dalam Bahasa Inggeris*

(English in the Teaching of Mathematics and Science)

PSBM: Positive Students' Behaviour Management System

PT3 : *Pentaksiran Tingkatan Tiga* (Form Three Assessment)

SBT : *Sekolah Berprestasi Tinggi* (High Performing School)

SGE : School of Global Excellence

SKPM: *Standard Kualiti Pendidikan Malaysia* (Standard Quality Education Malaysia)

SLQ : Strategic Leadership Questionnaire

SLT : Senior Leadership Team

SMK : *Sekolah Menengah Kebangsaan* (National Secondary School)

SPM : *Sijil Pelajaran Malaysia* (Malaysia Certificate of Education)

SPS : *Sistem Pengurusan Sekolah* (School Management System or SMS)

SQEM: Standard for Quality in Education in Malaysia

SSQS : Smart School Qualification Standard

STPM : *Sijil Tinggi Persekolahan Malaysia* (Malaysia Higher School Certificate of Education)

STQ : Strategic Thinking Questionnaire

T & L : Teaching & Learning (*Pengajaran & Pembelajaran or P & P*)

TIMSS: Trends in International Mathematics and Science Study

UPSR : *Ujian Pencapaian Sekolah Rendah* (Primary School Achievements Test)

VLE : Virtual Learning Environment

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University of Malaya

## CHAPTER 1: INTRODUCTION

### 1.1 Introduction

Principals need to continuously improve their schools in meeting to the various demands and challenges expected on them in their roles as leaders. All these improvements are towards realizing those continuous transforming efforts in the present educational system of the country (Hussein, 2012). The urgency to these is mainly because of the desire to ensure that it is relevant to the 21<sup>st</sup> century global educational developments and needs. These are as stated in the *Malaysian Educational Blueprint 2013-2025* (Ministry of Education Malaysia, 2013a). In the process principals as heads of schools are assigned with the various duties and responsibilities. Mainly they are to lead towards realizing the schools' vision, mission and other goals and objectives set (Fullan, 2014; Robbins & Alvy, 2014; Mohammed Sani & Jamalul Lail, 2012); Hallinger & Heck, 2002).

However in meeting to these demands and challenges as well as the journey towards its success in these improvement efforts are usually hindered by the number of problems and difficulties. These are observed on studies locally undertaken (Mohammed Sani & Jamalul Lail, 2012; Rahimah & Tie, 2004a). For example, Muhammad Faizal, et al., (2013) explored on the various aspects of these. They found out that these are related to the development of competencies among principals. Elsewhere others are also observed to be faced with similar problems in western countries (Fullan, 2014; Townsend, 2007). Some of these are beyond the means and capabilities of these principals to undertake even though they are supported by the various resources. These are such as manpower, financial and physical facilities.

These situations are unavoidable. It is because of the developments of these schools since the past decades are in environments of continuous change. The roles of principals are changing as well in adapting to these (Harris & Jones, 2016). Rahimah &

Simin, (2014) elaborates on school leadership for the 21<sup>st</sup> century that it has to be inclusive, distributive and at the same time promoting leadership capacity building. So school improvement efforts have to take these into considerations.

There are a number of views and perspectives on these. Among these are in Muhammad Faizal, et al., (2016), in their study has shown that aspect of these is on the teachers' continuous professional development (CPD). In addition Zuraidah (2016) and Dima Mazlina@Siti Aishah (2016) highlighted on aspects related to professional learning community (PLC) as another aspects. Harris, (2014) has shown how distributed leadership is practiced by school leaders in enhancing their school improvement efforts. Most of these studies focused their reasons to those developments where schools are being in a more challenging and dynamic situations. In the context of Malaysia are commonly discussed on the process of its educational transformation developments efforts by the government (Hussein & Mohammed Sani, 2016; Idris Jala, 2014; Hussein, 2012; Chapman, Tan & Tan 2010).

However more studies are needed that is able to enlighten on these situations. These are mainly because of the two main reasons namely (i) those findings discussed above and elsewhere usually see these principals from a general perspective and (ii) these studies assume that they are homogeneous as school leaders. Often overlooked (perhaps unaware) of their differences as a result of the stratified status of these principals. It missed the main point that they are not specifically homogenous and there are gaps between these principals of different categories. It is not only on their salaries but also other aspects such as experience and performance as school leaders. As a result of these stratifications examining these principals as a whole is inconclusive.

In the context of Malaysia, the educational system stratified these principals based on the categories of their salary scales (Government of Malaysia, 2016). These categories are identified as DG48, DG52, DG54 and JUSA C. Those at the highest



categories being the JUSA C are the preferred choice to head the high performing schools (HPS) as principals. These are mainly because of their experience and outstanding performance enabling them to be elevated to the status as excellent principals (EP) (Government of Malaysia, 2011).

In view of the various limitations only a certain category of principals are identified to be as the case for this study. It is on those certain number of outstanding principals in the category of JUSA C salary scale. They are identified as excellent principals (EP). These are the principals of a certain small number of schools in the country clustered as high performing schools (HPS) (Ministry of Education, 2010a). These EP are the few selected principals who have been recognized for their outstanding school leadership. They are those considered as 'the few who are able to make the difference' similar to those discussed in Hargreaves, Boyle & Harris (2014).

## **1.2 The research problems**

However though regarded as excellent principal these EP too have their specific problems. It is mainly because of the high expectation demanded on them and the challenges faced in meeting to these. Though being under these situations they are still able to show through their school leadership practices and make the difference. Certainly there those contributing factors that enables these EP to succeed and make the difference. It is these factors that the study is identifying to show that it is through these factors that school improvement can be successful.

The main problem faced by these EP in school improvement is in meeting to the two categories of influencing factors being the main variable in the study. These are:

- Those who are at the top categorized as policy makers.
- Those at the bottom categorized as implementers.

The efforts of these EP in meeting to the various demands and expectations from the policy makers are those of the top-down relationship. These are usually in the form of directives and circulars channelled through the respective departments. Usually are through the chain-of-command system in the organizational structure of the Ministry. Efforts in meeting to those challenges from the implementers are mainly the teachers. They are the main agent of change in school improvement. Besides are also students and stakeholders such as parents and alumni. All these follow to that of the bottom-up relationship.

In both situations of these top-down and bottom-up relationship involves all the parties concerned. These are in converging towards realizing a certain aims and objectives commonly desired upon the schools and student as outcomes of the teaching and learning process. Since these EP are the leaders of the respective HPS the expectations towards realizing these aims and objectives are very high as compared to other principals elsewhere. It is mainly because of their outstanding record of excellence and achievements related to the schools. These are in meeting to the needs to continuously improve their respective HPS in accordance to the various expectations. Especially are from those at the top being the policy makers as well as those at the bottom being the implementers. According to Harris (2002:11) 'school improvement is largely concerned with changing the internal practices of schools by influencing how people work together'.

Thus the undertakings of these are very demanding and challenging for all these EP under the situations of these two influencing factors. The fact that these EP and the respective HPS has been recognized for their excellence proved that their efforts in improving their HPS are successful. Their achievements are considered by the study as a special case of educational success in school improvement that needs to be further examined for a better understanding. So far their success are seen and discussed in

general without specific identifications towards those contributing factors that have yet to be explored.

Central to the thesis of this study are those unknown factors that contribute to the success of these EP. For a better understanding the approach identified for the examination is from the theoretical perspective of models. These are those theories related to the top-down and bottom-up models (Sufean, Alyahmadi & Suriansyah, 2014; Mintzberg, Ahlstrand & Lampel, 1998). However undeniably it is an accepted fact that the relationship between the theories of the top-down and bottom up models has been widely debated. Usually both theories on the models are in conflicting situation (Sufean, Alyahmadi & Suriansyah, 2014). Mostly are centred on which model is more effective in bringing about improvement to the school. Some are more inclined towards the top-down model while others are for the bottom-up models.

This resulted in the problems of differences in their understandings and conceptualization. Often it led to emergence of a continuum or polarization between these two models giving rise to more debates and conflict of ideas. Rarely has these two models are seen as integrated to show that both are equally important towards the various improvement efforts. In the context of schools and for these EP and other principals elsewhere the adoption of these models is very important. Especially are in meeting to the various demands and challenges in improving their schools as a result of the two influencing factors discussed.

### **1.3 The gap analysis and missing links**

#### **1.3.1 The conflicting models in school improvement**

##### **1.3.1.1 Definitions of model**

What is a model? Firstly statement from Cohen, Manion & Morrison (2001:12) is taken to define the word model.

*“Sometimes the word model is used instead of, or interchangeably with, theory. Both may be seen as explanatory devices or schemes having a broadly conceptual framework, though models are often characterized by the use of analogies to give a more graphic or visual representation of a particular phenomenon”.*

(Cohen, Manion & Morrison, 2001:12)

Another more definite definition of the word ‘model’ is by Bullock & Stallybrass (1983:394) which states that:

*“All models have one characteristic in common, whatever their purpose. This characteristic is the mapping of elements in the system modeled onto the model”.*

(Bullock & Stallybrass, 1983:394)

It is discovered that there are two models commonly in practice in most organizations. These are especially observable in economic and social entities including schools. The two are the top-down models and the bottom-up model. Studies have shown that both are adopted by policy makers and principals in the case of schools (Sufean, Alyahmadi & Suriansyah, 2014; Mintzberg, Ahlstrand & Lampel, 1998). These models have strong implications upon school improvements efforts. Particularly are upon the roles and responsibilities of these principals.

#### **1.3.1.2 The top-down model in school improvement**

The top-down model originally identified as the centre-periphery relationships (Silin & Mulford, 2007; Scheerens, 1997; Schon, in Blenkin, Edwards & Kelly, 1992). It is structured through controls from the central or the top and passed down to the

implementers and users considered as periphery. It means that these people at the lower levels are not much in control but are marginalized. It is observed to be commonly in practice for school improvements efforts discussed elsewhere in a number of literatures since the past (Fullan, 2016; Hussein, 2014; Hargreaves, et. al., 1998).

The strategy adopted for this model as termed earlier by Bennis, Benne, & Chin (1992) is the power-coercive strategy. It takes the form of intervention with legal authority to alter conditions (e.g. the government). In the case of schools it is these principals who are those at the periphery and are mainly assigned with the undertaking of these initiatives directed by the authorities. It is towards ensuring of its success at the implementation level but in the environment of the school contextual situations.

#### **1.3.1.3 The bottom-up model in school improvement**

The bottom-up model or commonly termed as the ‘problem-solving model’ due to its nature (Havelock, in Blenkin, Edwards & Kelly, 1992) usually requires the adoption of different approach as compared to the top-down model. One of the popular strategies through this model is the ‘normative-re-educative’ strategy (Bennis, Benne & Chin, 1992). These conflicting situations identified are the major problems faced by these principals. It is the problem of adapting to these two approaches in these models in leading their school towards improvement. It challenges their capacities and capabilities as heads of schools towards bringing success. Further analytical discussions on these two models are in chapter two in the literature review.

#### **1.3.2 The main problem concerning these two models**

The main problem is on these balancing acts by the principals in adapting to the situations of these two models. It is argued that it is through this act that is the key to lead them into whether they will be successful or less successful or has failed in their

efforts. To these principals and in the context of their respective school it is assumed that their successes are mainly due to their abilities to adapt to these situations between the two models.

In Malaysia these conflicting situations are even more challenging for all those involved. It is because of its contextual situations where the educational system is very bureaucratic (Teoh, Sathiamoorthy & Chua, 2017). The country's population is about 32 million people. They are made up of various races such as Malays, Chinese, Indians and other ethnic races practicing various religions and cultures. They usually speak their mother tongues languages at homes though the national language is *Bahasa Melayu* for official and communicative purposes. Efforts to continuously maintain that the people are united are an on-going process though a number of challenges had to be faced discussed in Tan & Santhiran (2014). According to Kee, Hill & Yin (2016:78) there are a number of policies introduced by the government in uniting all these people of various races. These are through the means of education. Language is one of the other means. Besides, in a study by Abu Bakar, Norlidah & Saedah (2013) found out that national integration is achievable if it is undertaken through multicultural school setting.

Others also emphasized of its potential towards its realization especially through economic and social developments means particularly education (Tan, 2011). Presently the country is steadily arriving towards becoming a developed country that has been targeted by the year 2020 (Mahathir, 1991). One of the means towards realizing the 'VISION 2020' as it was termed is through education. As a result of these on-going developments, the country's educational system is undergoing a very dramatic transformational process never witnessed before (Hussein & Mohammed Sani, 2016; Jamilah, Yahya & Siti Nor, 2016; Hussein, 2012; Government of Malaysia, 2010). HPS has never been left out of the bandwagon and the focus is more on them. According to

Hussein (2012), it is because these schools have better potential and promise of realizing the nation's vision and the various expectations stated.

The position of this study is that it is assumed that all EP adopts these two models but operates differently and individually. For the top-down models are related to those policies from the highest level being the Ministry of Education and flows downwards to the state, the district education office and finally the school. Major decisions are from these higher levels. Some are coming directly from the Ministry to the schools while others flow through the chain of command. These are from the highest to the lowest levels in the Ministry's organizational structure.

Those at the bottom-up levels are mainly the teachers and students (up to a certain extent also involves parents, local community members and certain stakeholders such as the school's alumni). They are not directly involved in any policies, decisions or directives. Mainly the teachers, they are just implementers but with heavy responsibilities. It is these teachers that are directly involved or affected by those various changes as discussed earlier. They are assigned with the responsibilities to implement these changes and ensure that all are successful. They are expected to adapt to the various technological changes introduced into the schools for improved educational outcomes. These outcomes are usually measured quantitatively. Mainly in the form of the school's examination results and compared with others implicitly between schools in terms of their academic performance. It is just like an unofficial academic league among schools. All these are aimed at producing the maximum numbers of excellent academic achievers measured and indicated through the best examination grades achieved.

It is the skills and competencies of the respective EP that determine how successful they are. Their balancing acts between these two models in undertaking their roles and responsibilities towards the school improvement efforts are the most important

factor. These are as shown in Figure 1.1 below. In the case of the top-down models these EP need to translate these policies into actions. Whereas for the bottom-up model they need the full support of the implementers (especially the teachers) to carry out these translated actions towards achieving those goals and objectives set by the policy makers.

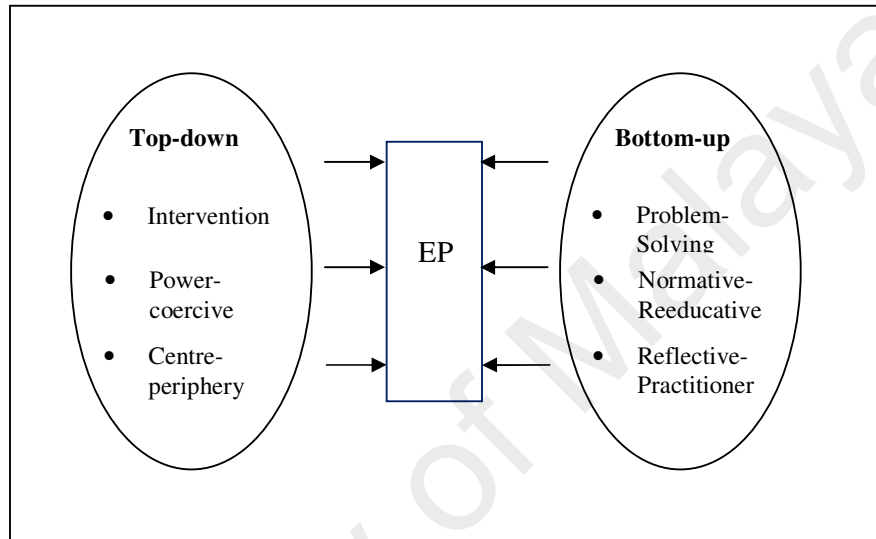


Figure 1.1 Influences of the two models upon Excellent Principals (EP) in school improvement process

What type of model that might emerge through the balancing act by these EP between the top-down model and the bottom-up model? So far there is no study has yet being discovered within the available literatures that provide the empirical explanations needed. Elsewhere certain scholars dubbed this mixture of two models as ‘a hybrid models theory’. According to Sufean, Alyahmadi & Suriansyah, (2014) quoted from Puizl and Treib (2007):



*“The hybrid theory approach brought two important innovations to implementation. The hybrid proponents tried to overcome the conceptual weaknesses of the polarized debate between bottom-up and top-down scholars. Moreover, some hybrid theorists have pointed to important factors that had hitherto received little attention, such as the relationship between policy implementation and the policy formulation process, and the impact of different policy types on the way policies are executed”.*

(Sufean, Alyahmadi & Suriansyah, 2014: 24)

The conflicting situations between these two models have shown that those difficulties faced by these EP in improving their schools are problematic. It caused uncertainties in their approaches in meeting to those demands and challenges faced in the process of bringing about improvement to their schools. However the case of these EP of the respective HPS has shown how these are overcome. These are through their success as school leaders that have been recognized by the Ministry of Education and elsewhere such as the MPSM (Council of Secondary Schools’ Principals).

#### **1.4. Research Objectives**

##### **Objective one:**

1. To identify those critical success factors (CSF) contributing towards school improvement.

##### **Objective two:**

2. To identify other contributing factors besides the CSF considered as functional factors (FF).

##### **Objective three:**

3. To show the linkages of these CSF in a form of a model called the ‘Critical Success Factors Model for School Improvement (or in short the CSF Model).

## **1.5 Research Questions**

To guide the developments of the study 5 research questions are posited. These are:

### **Research question one:**

1. What are the main principalship practices involved in school improvement?

### **Research question two:**

2. What are the various factors identified contributing towards school improvement?

### **Research question three:**

3. Which among these factors identified are the CSF?

### **Research question four:**

4. Which among these factors identified are functional factors (FF)?

### **Research question five**

5. What are the linkages of these CSF in the structure of the CSF Model developed?

## **1.6 The success case of these excellent principals (EP) of the respective high performing schools (HPS)**

The case of these EP and their respective HPS provides the basis as platform for the examination on these situations. So far there is no known study that detailed out on how these EP are able to balance to these top-down and bottom-up situations in the process of improving their schools. Especially in showing those various contributing factors towards their success and present it in a model form. The importance is because it is these factors that enable the success of these EP. These are in meeting to the various demands and challenges and making the difference.

Undeniably it is known that leading high performing schools (HPS) are very demanding and challenging for principals. It is especially to those categorized as

Excellent Principals (EP). These EP are the small group of principals who has been awarded the recognition by the Ministry of Education Malaysia for their excellence in school leadership (Government of Malaysia, 2011). They are those who have shown their capacity and capabilities to make the difference through school leadership. Studies by Zuraidah Hanim, Mohd Hasani & Khaliza (2017) as well as by Muhammad Faizal & Saedah, (2014) have shown how the leadership of EP are challenged by best practices as school leaders.

Thus it is uncommon for these EP to be assigned to lead a certain category of premier schools in the country identified as HPS. These HPS are schools clustered by the Ministry as among the best in virtually all aspects of excellence compared to the rest in the country (Ministry of Education, 2010a). All these are schools that have continuously met to the various criteria set in the evaluation process in the clustering especially on curricular and co curricular activities (Ministry of Education, 2010b).

It is demanding for these EP towards making the difference because of the various high expectations. Mainly it is because these HPS are regarded as model schools and are exemplary, benchmarked for their educational successes and in keeping to their excellent educational practices (Muhammad Faizal & Abdul Khalil, 2015). Therefore as school leaders to make these differences, these EP need to ensure that these schools are continuously getting better and better year after year. They need to keep up to the various developments introduced by the policy makers at the Ministry. Particularly are such as those expectations stated in the *Malaysian Educational Blueprint 2013-2025* (Ministry of Education Malaysia, 2013a). To these policy makers (who are at the top) through the various directives and circulars demands that all their policies are successfully implemented with the high expected outcomes and impacts upon the school.

It is very challenging because these EP has to make the differences by meeting to the various high expectations. These are especially among the teachers, students, parents and the various stakeholders at the implementation levels (who are at the bottom). All these who are involved (directly or indirectly) set their focus and the high expectations on the schools' all-round outstanding achievements under the leadership of these EP. To all these at the implementation levels expects for the best outcomes of these process. These are mainly such as in best academic results and outstanding achievements in co curricular activities locally and internationally (Perera, C.J., et al., in Harris & Jones, 2016).

As shown in Mariani, et al., (2016) and in Chong, Muhammad Faizal & Zuraidah (2016), they found out that there is a high level of professional developments and instructional competency among the school leadership team (SLT), middle leaders (Midleds) and teachers in these HPS. All these contribute to their outstanding qualities in their teaching and learning processes core to their achievements (Muhammad Faizal, et al., 2014; Rosnah, Muhammad Faizal & Saedah, 2013). However more studies are needed that is able to enlighten on the success of these EP and the respective HPS. These are for better understandings on school leadership. Especially are on those factors that contribute to their success in view of the importance of these EP towards school improvement. For example, Harris (2014:18) mentioned that:

*“It remains the case that there is no single example of school, district, or system transformation without some change in leadership or leadership practice. The fact remains that in terms of school’s performance, leadership is second only to the influence of teaching and learning on student outcome”.*

(Harris, 2014: 18)

The case of these EP to have been able to meet to these demands and successfully faced to the various challenges has been of interest to all concerned. Especially are among the educational community and school leaders in the success of these EP in making the difference. There are those who would like to know on 'what' are those differences that they had made. Others would also like to know on 'how' they are able to make these differences. The main problem is that so far studies specifically on their successes have yet to be discovered or undertaken in a more empirical manner. There are needs to examine on the case with the hope that it is able to enlighten on the various questions related to their achievements and successes.

In the case of this study the main interest is focused on their efforts in bringing about improvement to their schools. Specifically are on those factors contributing towards these and making the differences. It is intended to shed light on how these EP bring about successes to their respective HSP. In so doing contributes to others by sharing these findings. Especially are for the rest of the principals in the country and elsewhere. These are for the better understandings on school improvement and their efforts towards excellence and making the difference for school leaders.

### **1.7 The needs for the study**

Through the explorative efforts on the case of these EP and their respective HPS is hoped to meet to the need to enlighten on the problems discussed. In this study the focus is on the school leadership practice that is within the context of the two models stated. The approach is by focusing on the case of these EP of the respective HPS by showing on 'how' they perceived the most practical ways in bringing about improvement to their schools. These are based on their experience in undergoing through these problems and difficulties.

There are urgent needs to be very clear of the most effective ways in improving their schools through the adaptation of these two models. Possible mistakes due to ineffective approaches and strategies adopted may create more problems and issues. It may negatively affect the improvement efforts undertaken. These are because of their lacks of understanding in adapting to these two influences which are regarded as the roots to these issues and problems discussed earlier. All these will undermine these EP in their principalship practices as school leaders.

### **1.7.1 The need for developing a model**

So far studies that authentically focus on EP from among the HPS related to these issues and problems have yet to be discovered or identified. Earlier Marzano (2003) has suggested for a model for the implementation of school improvements efforts by categorizing these into three factors namely; (i) school-level factors (ii) teacher-level factors (iii) student-level factors. He has left out on the school leadership or the principal-level factors. But he explained that leadership was purposely omitted from his model.

The main reason is that leadership could be considered as the single most important aspect of effective school improvement and reform that has been highlighted by Harris (2014). Thus in this study it is argued that there should be certain underlying factors contributing to these that make the difference. It has to be originated from the principals' factors that are critical to the success of school improvement efforts. The focus need to be on these principals who are categorized as EP of the respective HPS.

Yukl (2013) pointed out that the effectiveness of leaderships is the shift from transaction leadership to transformational leadership. However the process of it (in school contextual situations) has not been thoroughly explored. Others have substantially undertaken studies on school leaderships but in the western contextual

situations (Fullan, 2014; Davies, 2007; Caldwell, 2006; Busher, 2006; Hoyle & Wallace, 2005). Elsewhere, Yusef (2011) is on Islamic leadership and others particularly leadership *gurus* such as Blanchard (2007) and Maxwell (2007) mostly focus on leaderships in organizations. These are mainly in business and industries similar to others that have left out the school leaderships. Thus there are needs for a model that is derived from studies on these EP on school improvement.

### **1.7.2 The needs for a model based on excellence**

In school improvements we know that it adopts certain models for its implementations. In education, these are discussed in the number of literatures during the earlier time by Fullan (1994); Huberman & Miles (1984); Dalin (1973). These are followed by many others later (Smylie, 2010; Townsend, 2007; Harris, 2002; Harris & Bennett 2001). Lately are such as Harris & Jones (2016); Fullan, M. (2014); Harris (2014); Hargreaves, Boyle & Harris (2014).

In Davies & Brighouse (2008) is an attempt to develop a model for passionate school leaders. Local examples are in Muhammad Faizal (2008) who developed a model on school improvement and effectiveness through Delphi technique. Earlier in Abdullah Khir (2006) developed the 'AKS 2005 Model' on strategic behaviours as indicators for teaching program by principals and teachers.

However what is missing is a model developed for school improvement that is based on excellence. Specifically are on these EP and their respective HPS. Retrospectively there are number of models that are being developed but are based on excellence in organizational practices. These are since the classical studies made by Schon (in Blenkin, Edwards & Kelly, 1992) and also by Havelock (in Blenkin, Edwards & Kelly, 1992). These are related to changes in organizations and continue to be adopted until presently. Sarros, & Sarros, (2011) made a study on leadership model and

linked it to principals but is on their experiences and their roles as chief executive officer (CEO) instead of excellence in school improvement.

The most popularly discussed about on model that is built on studies of excellence is by Peters & Waterman (1982) in their book, *In Search of Excellence: Lessons from America's Best-Run Companies*. Through their studies they developed a model called 'McKinsey 7-S Framework'. These 7 alphabets are short-form for the respective influencing factors that contributes to the success of the companies. On success criteria for organizations, Peters & Waterman (1982:9) stated that:

*“Our research told us that any intelligent approach to organizing had to encompass, and treat as interdependent, at least seven variables (7-S): Structure, Strategy, Staff/people, management Syle, Systems and procedures, guiding concepts and Shared values (i.e., culture), and the present and hoped-for corporate strengths or Skills”.*

(Peters & Waterman, 1982:9)

The model developed by them provides a more relevant example for this study. Especially are on how the model discussed on the relationship between the CEO of the respective business organization and the success of the companies.

### **1.7.3 The need in understanding on excellent school leadership**

We also know that successful school improvement efforts have to be under the effective leaderships of certain people of responsibilities. These are among those policy makers and principals who are able to ensure that all the necessary actions are executed accordingly. The importance of these is evidenced through a number of studies since the classical work of Max Weber on charismatic leaderships (Hargreaves, Boyle & Harris, 2014; Weber in Thomson & Tunstall, 1987). Others in the literature that discuss on the charismatic leadership are such as in Yukl (2013). Particularly in education is in



Robbins & Alvy (2014); Mohammed Sani & Jamalul Lail (2012); Achua & Lussier (2010); Sergiovanni (2007); Drake & Roe, (2003) and Daresh (2002).

## **1.8 Significance of the study**

The outcomes as a result of this study in responding to these situations are beneficial to these principals in many ways. Specifically it is as a means in enabling these principals to build their leadership capacity and capability for school improvement in meeting to the 21<sup>st</sup> century challenges (Harris & Jones, 2016; Rahimah & Simin, 2014). The special emphasis on their leadership development is one of the main agenda in the Government Transformation Plan (GTP) (Idris Jala, 2014; Chapman, Tan & Tan 2010). All these are based on studies on global perspectives of future leaders in education. Comparatively in an earlier literature by Harris & Lambert (2003) has also studied cases of building leadership capacity for school improvement in schools in United Kingdom. A number of suggestions have been forwarded by them towards the various school improvement efforts. In the case of this study is intended to provide a localized perspective from that of a developing country such as Malaysia. Among these are discussed in the following sub-sections.

### **1.8.1 Facilitates the mapping out of strategies at school level**

The importance of strategies in organizational improvements has long been highlighted in a number of earlier literatures elsewhere (Robbins & Alvy (2014; Montgomery, 2012; Pisapia, 2009; Kim & Mauborgne, 2005; Wit & Meyer, 2004; Goodstein, Nolan & Pfeifer, 1993; Martin & Leben, 1989). Details on aspects related to strategies are on the process, content and context in organizations. In Kaufman, et al., (2003) has even specifically focused on the ‘Critical Success Factors’ approach in

planning for strategies. They have identified six elements in their model for strategic thinking and planning for success in organizational change.

The importance of strategy in being a leader is to meet to the respective needs. An example is the earlier planning that has been undertaken by the Ministry (Ministry of Education Malaysia, 2007a). It is locally known in short as PIPP (*Plan Induk Pembangunan Pelajaran*) or Educational Development Master Plan. It stated clearly of the importance of these 'success factors'. It is as a strategy in the process of implementing the various programmes identified for the five years period between the years 2006 to year 2010. As stated in the plan, the various elements identified are achievable only if these stated 'success factors' are seriously taken into consideration by those involved. In chapter ten of the PIPP (Ministry of Education, 2007a:132-133) are identified two elements of these factors. These are:

- cooperation and commitment of the stakeholders
- cooperation and commitment of the educational community

Limitedly these elements in the plan are more appropriate for the Ministry at the macro level. It is because those leaders involved are also the policy makers (Sufean, 2014). However 'success factors' based on model for principals in the school improvement process has yet to be explored empirically. Especially are from among the EP of these HPS.

### **1.8.2 Focused on micro level involving the principal**

Sharatt & Fullan (2009) proposed on the fourteen parameters as key factors for success in capacity building for school improvements but their focus are on district levels. The case of the PIPP is obviously at the higher level and is already in the past. In Abdullah Khir (2006) has attempted by identifying those micro indicators towards the success at the school levels. While those found in the literature elsewhere related to CSF

are on industrial and business organizations (King, 2007; Huotari & Wilson, 2001; Hongjiang, 2003; Nah, Lau & Kuang, 2001; Tibar, 2002; Bergeran & Begui, 1989).

This awareness has made the study to realize that there are needs for identifying such CSF specifically for principals at the micro level. The attempt in this study is thus to assist them. Especially are in their efforts in mapping out the various activities in the process towards the success in school improvements. These are possible through a more systematic approach such as through the decision support system or DSS (Papa, 2011; Laudon & Laudon, 2000), and the school management system or SMS (Leong, et. al., 2016).

Through these the responsibilities of the principal can be shared out among all those involved especially the senior leadership team (SLT) such as the school's senior assistants, heads of departments and the middle leadership team (Midled) such as the subject's panel heads. Harris (2014) suggested for a distributed leadership approach for this type of situations. She emphasized that it is the practice of leadership that is most important if the goals in schools is to secure better instruction and improved learner outcomes. The adoption of a distributed framework under the right conditions can contribute to organizational development.

### **1.8.3 Self-reflective for principals (especially in action research).**

The outcome of the study is useful for principals in reflecting on their achievements and performance for further improvements related to their role as school leaders. Reflective approach in school improvements has been discussed widely elsewhere in the literature such as in York-Barr (2006) and Sergiovanni (2001). According to the practice, reflection is a continuous process in improving all activities undertaken. These are through the identification of those shortcomings in the journey towards the realization of those vision, mission, goals and objectives set.

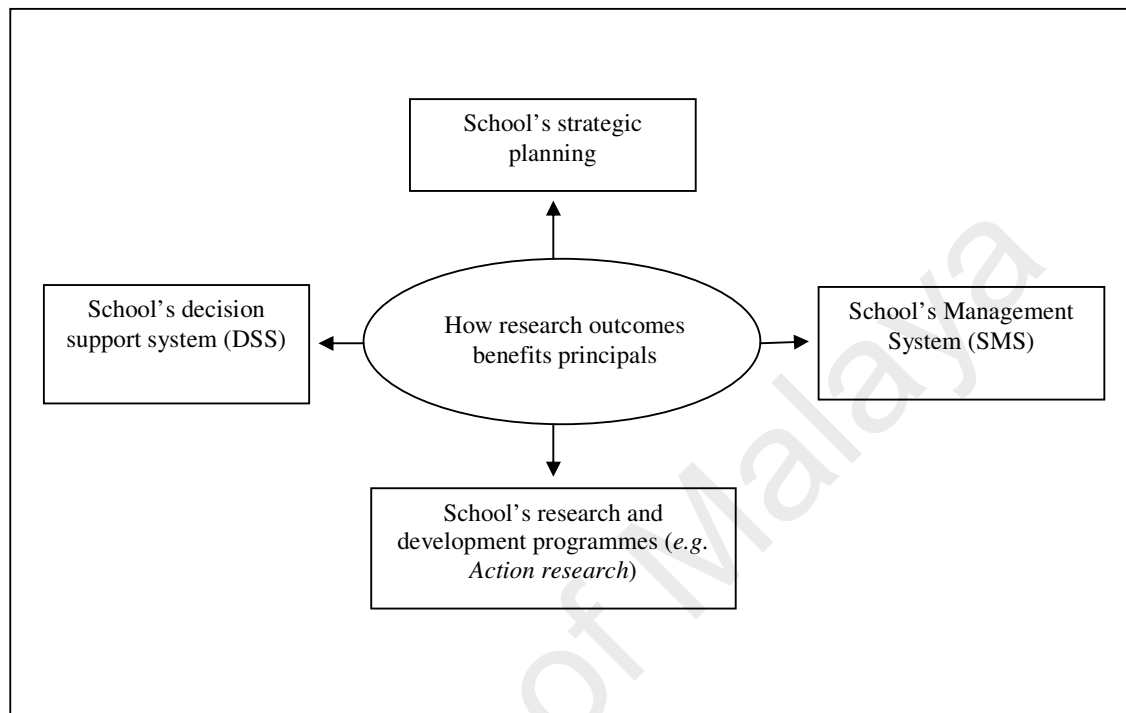
Through these will enable the principal to monitor the developments and progress on the various activities that has been planned. Also these can be acted upon and action research be further undertaken for continuous improvement (James, Milenkiewicz, & Bucknam, 2008; McTaggart, et al., 1982; McKernan, 1996). All these are made achievable through the CSF Model generated by the study if it is wisely and effectively used.

#### **1.8.4 Other beneficial outcomes for school improvement**

Studies through focusing on factors model on the success of the implementation of improvement initiatives have been popular phenomena in organizational change since the past (Hoffer, George & Valacich, 1998). The usefulness is because the model has been extended and being applied into its contextual situations. The final outcome of this study is hoped to contribute to the school. Especially are for the principals in assisting them towards improving their schools. The outcome can later be further extended in its application in the context of school effectiveness for measurement of performance among teachers. For example Siti Rafiah, Sharifah Sariah & Nik Ahmad (2012) made a study on teaching quality and performance among experience teachers in Malaysia. It can be made by being part of the elements in the identification of 'Key Results Area' (KRA) and 'Key Performance Indicators' (KPI) (Rusmini, 2006).

In addition it can also be used as a decision support system (DSS) for the principal in making the various decisions related to the school improvement process. All these can be later explicitly documented in the form of school's improvement's strategic plan or as means of performance measurement. Implicitly the model can be of assistance for the principal in a more tacit manner for decision making as well. All these when applied accordingly is expected to assist in the overall journey towards the success in school improvement.

All these are summarized in Figure 1.2 below. It shows of the relationships between the research's outcomes and other components of its applications.



**Figure 1.2:** Areas where benefits of the research's outcomes are permeable to other school's activities

## 1.9 Limitations

In approaching to the situation the study converged to focus on certain aspects related to the EP's leadership practice in school improvement only. It sets the initial boundary to be within its means in view of those various constraints and limitation as suggested in literatures on research (Miles, Huberman & Saldana, 2014; Miles & Huberman, 1994). These aspects are:

### 1.9.1 Focus of the models

The focus of the study is on the two models being the top-down and the bottom-up models. Both of these are being adopted by policy makers and principals in implementing those school improvement initiatives. Both adopt differing models in the

implementation process but shared common aims at realizing the success of those objectives related to school improvements. Those numbers of other models that might be possibly found elsewhere in the literature are not within the scope of this study.

### **1.9.2 School leadership**

These EP are the heads of schools. They are also the leader in the school's leadership team (SLT). They are directly involved in implementing those school improvement initiatives introduced by the policy makers. Other leaders that are directly or indirectly related to the school such as those from the Ministry, State Education Department and the District Education Office are not included.

### **1.9.3 Management and administration system of the school.**

It refers to the country's system of school's management and administration. It is under the formal structure in accordance to the national education acts, rules, regulations and other legal provisions (Mohammed Sani & Jamalul Lail, 2012; Zaidatol Akmaliah, 1991; Robiah, 1989). In view of this both the word 'management' and 'administration' are simultaneously used to show in its complete meaning how the various practices of principalship are carried in schools.

### **1.10 Scope of the study**

The focus is on the processes of school improvement only. Thus the other two aspects being the 'input' and 'output' in accordance to the system model of analysis in organization are beyond the means of this study to undertake. Though undeniably they are important and are inter-related. For the understandings of these process and its relationships to school improvement, the scope covers three aspects of the principalship practices only. These are (i) school leadership (ii) the management and administration

of the school and (iii) strategies adopted for school improvement. All these are linked to the school improvement process in the school. Other aspects such as the involvements of parents, the various stakeholders and local communities are not included in the study.

### **1.11 Operational definitions**

There are a number of terms and phrases used throughout the study that need to be more specific. These are for consistency in the examination and discussion purposes throughout the chapters. These are:

#### **1.11.1 Critical success factors (CSF)**

It is those factors considered as the most important or critical among a number of factors that contribute to the success of the school's improvement efforts. Elsewhere in the literature the meaning tends to slightly vary depending on the situation and the organization concerned (discussed in chapter two). The word 'critical' in this context is to mean 'important, key, determining, vital or strategic rather than to mean 'alarming or anxious'. For convenience, the abbreviation CSF shall be used throughout this study for the words critical success factors whether singular or plural. In this study identification of these factors is based on the perceptions of those selected EP of HPS through interviews. The aggregation of all these perceptions using thematic analysis approach are the CSF arrived at. The outcomes of these aggregations are the indicators of the CSF (Laudon & Laudon, 2000). These are further verified through observations on the various activities undertaken by these principals towards improving the school. All these are identified through the observation stage in the study (Fetterman, 2010; Patrick, 1992). Finally the outcomes of the analysis of all the three sources of findings namely (i) documents (ii) interviews (iii) observations are triangulated for confirmation of the research results.

### **1.11.2 Functional factors (FF)**

These are those factors identified through the data analysis other than the CSF. It is to mean that the FF is less critical but is still important among all the factors identified compared to CSF which is the most critical. This is to mean that in this study from among the number of informants identified in the sample, FF is only relevant to 1 or 2 EP on but not to all EP. Whereas in the case of CSF it is relevant to all EP identified.

### **1.11.3 Constructs**

These are all those factors in general identified through data analysis but have yet to be clustered into either CSF or FF. According to Bullock & Stallybrass (1983:133):

*“Construct is name given to a term or concept to which it is thought that there is nothing corresponding in reality, so that it is merely a useful fiction. It may be useful for summarizing masses of detailed facts, or formulating explanatory theories”.*

### **1.11.4 School improvement**

In this study the term school improvement is seen a *process*. There are two perspectives in the discussion elsewhere related to the concepts. Firstly, the process of improvements is undertaken through interventions. These are usually inter-related to that of planned educational change in which the improvement process follows planning. Secondly, improvements are seen as a continuous process associated to quality or commonly termed as *kaizen* (Smylie, 2010; Hawley & Rollie, 2007). Since in this study it is seen as a process it is irrespective whether the respective school improvement efforts derived in the form of intervention or as a form of continuity from the past



efforts towards improving the school for the better. School improvements are those efforts through educational process to make the school a better place for teaching and learning. These are towards realizing all those aims and goal stated irrespective whether it is physical or non-physical in form.

#### **1.11.5 Principal and excellent principal (EP)**

They are the head of schools in the mainstream secondary schools system in Malaysia. They are categorized under the coded salary scale of DG48, DG52, DG54, and JUSA C (Government of Malaysia, 2016). Those under the categories of DG54 and JUSA C are called Excellent Principal (EP). Sometimes those under JUSA C categories are also called as ‘Super Leaders’ (Hussein, 2014; Hussein 2012). He states that:

*“The aim and purpose is to inculcate and develop among principals and educational leaders about the new style and value orientations of super leadership model. The model essentially emphasizes development of positive attitudes and values in terms of professional integrity, competence and capability in conducting their role within the context of the national educational goals and in tandem with the new culture of super leadership training of the international environment”.*

(Hussein, 2014:13)

The first batch of EP category JUSA C was appointed in January 2005, where 5 of them were officially named among all the principals under the Ministry (Marzita, 2011). The experience of being an EP JUSA C has been documented as a personal memoir by Khuzaimah (2009) who is one of these 5 pioneers EP.

#### **1.11.6 High performing school (HPS)**

HPS is the official highest accreditation awarded to both primary and secondary schools in Malaysia (Masriwanie, 2017; Ministry of Education Malaysia, 2010a). It is by the Ministry of Education upon schools that has achieved outstanding performance based on certain standard set. According to a booklet by the Ministry of Education Malaysia's Fully Residential and Excellent Schools Management Division (Ministry of Education Malaysia, 2010b):

*“HPS are schools having a conducive Teaching & Learning environment which promotes collaboration between public and private sector to accelerate students’ achievement. HPS by definition are schools with ethos, character and a unique identity which enables the school to excel in all aspects of education. These schools have strong and excellent work cultures and a dynamic national human capital for holistic and continuous development in addition to being able to compete in the international arena, hence becoming the school of choice”.*

(Booklet ‘HIGH PERFORMING SCHOOLS (HPS) FREQUENTLY ASKED QUESTIONS (FAQ)’, pp 3).

#### **1.11.7 Other terms**

There are occasionally certain terms used in this study which carries the meaning within its local contextual usage but are unfamiliar elsewhere. All these are shown earlier in List of Abbreviations.

#### **1.12 Summary of chapter**

Discussions in this chapter has explored into the various aspects related to school improvements undertaken by principals as leaders of schools. The study is intended to

examine on these by focusing on EP of HPS. It initially explores in brief into the literature to discover some insights and how the problem emerged. In the context of those theories and practices discovered, it is observed that there are gaps and missing links that need to be addressed. In approaching to this the focus of the study is based on the exploration on the debates between the top-down model and the bottom-up model. It examines on those factors critical to the success of these EP in the process of improving their schools. The main objectives of the study are on the identification of these CSF and the FF towards developing a model called as the CSF Model for School Improvement. To facilitate for the process of the study five research questions are posited. All these questions are to guide the research process towards arriving at the various objectives set. The various significance of the study and its potential applications as tools towards the various efforts in school improvement are discussed. Definitions of terms are to ensure that discussions and arguments are within the contextual meaning referred to in this study. Boundary and limitation are set for the study so that it does not go beyond its scope and be within its means.

In the following Chapter 2, shall discuss on the literature review. Mainly are on aspects related to the system model in educational developments, the concept of school improvement, the top-down and the bottom-up model and the concept and practices of CSF observed in a number of organizations. All these are to arrive at the research framework developed.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1. Introduction**

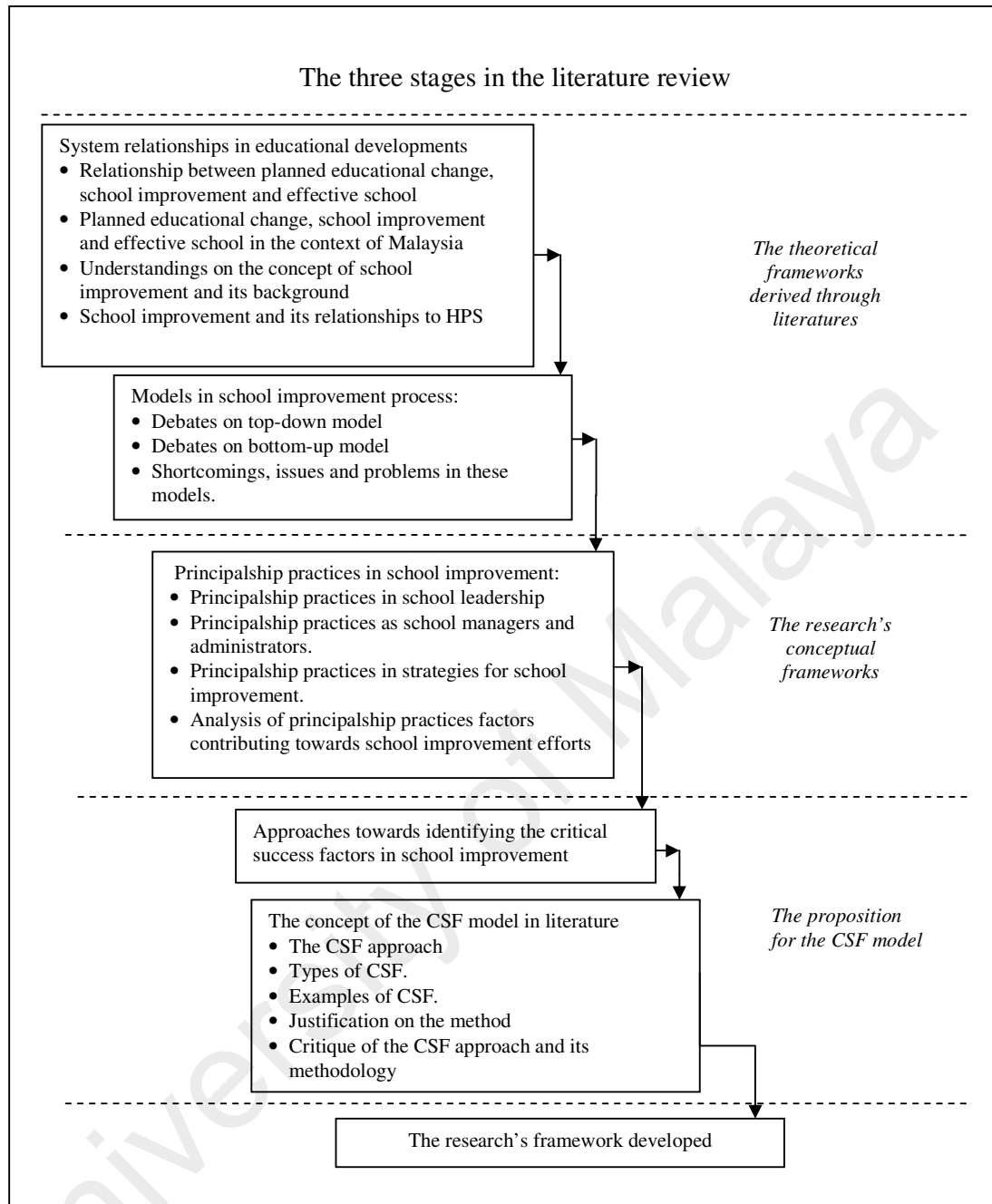
The purpose of the literature review is to identify, evaluate and interpret the existing body of recorded work produced by researchers, scholars and practitioners in a systematic, explicit and reproducible method (Noraini, 2013; Cohen, Manion & Morrison, 2001; Fink, 1998). In this chapter it departs through the brief discussion in chapter one on issues and problems faced by EP in school improvement by exploring further on these. It focuses on key aspects on systems in educational developments, models in school improvements, the concept of HPS and the principalship practices of EP in school improvement. It then examine on how the concept of CSF be made applicable for the research methodology. The outcome of all these is the development of the research framework shown later at the end of this chapter. All these are to build up the theoretical perspectives, the research's conceptual framework towards identifying the CSF and the proposition for the CSF Model in school improvement. These are to provide a general overview for the following chapter on research methodology to be established.

This chapter starts with a brief discussion on educational developments. It shows of the system's relationships between planned educational change, school improvements and effective school. These relationships emplaced school improvement as a process. The following in-depth exploration through literatures is focused on school improvement. It identifies the emerging theoretical model in practice since the past and the present. The discussion continues on HPS and how the improvement process undertaken has elevated these schools to be of the status.

Discussion progresses on models observable in school improvement. Two models are identified which are closely related to the roles and responsibilities of these EP. These are the top-down model and the bottom-up model. The continuing debates on

the influences of these models on principalship practices are further discussed. Shortcomings, issues and problems as a result of the implications of these two models upon these EP are identified.

School improvement and its relationships to these EP are discussed by exploring into three aspects of principalship practices. These are (i) leadership (ii) management and administration and (iii) strategy. The concept of CSF and its applications in school improvement efforts are explored to identify the types and examples of CSF. Justification for the method and some criticism on the model's shortcomings are discussed. The outcomes on discussions of all these are to propose on how the model can be practically adopted as an approach for the identification of the CSF in the case of the EP. All of these are in their sequential relationships shown in Figure 2.1 below. It adopts the traditional Simon's problem-solving model of the so called 'waterfall diagram' (Hoffer, George & Valacich, 1998) commonly used in system analysis. Each of these is related to one another and goes deeper into details step by step to eventually form an overall perspective of the topic discussed.



**Figure 2.1:** The research's theoretical and conceptual framework linked to the proposition for the critical success factors model

## **2.2 The system relationships in educational developments**

### **2.2.1 Relationships between planned educational change, school improvement and effective schools**

Discussions in this study are rationalized through that of the system model. It is suggested that efforts towards better understandings in education be based on the concept (Romiszowski, 2016; Leithwood, Aitken & Jantzi, 2006; Richetti & Tregoe, 2001; Senge, *et al.*, 2000). Highlighted on the situation is on the key word *process*. According to the literature a process is a meaningful, repeatable series of steps that produces outcome. Every *process* requires *inputs* to produce some *output*. Similarly aspects of educational developments usually consisted of (i) planned educational change (ii) school improvement and (iii) effective school (Fullan, 2016; Chapman, et al., 2012). Though there are those who mostly viewed these three concepts as being of separate entity (Harris & Bennett, 2001). They are considered as a different field of study or discipline in education.

However undeniably they are related when educational developments are concerned. It means that they are characterized by the '*cause-effect*' phenomena. These are observed in some of the available literature. In planned educational change it is about all forms of changes (Simin, et.al. 2013; Holbeche, 2006). It is systematically introduced into the school and in general is regarded as *inputs* for the better (Fullan, 2016; Carnell, 2007; Duke, 2004; Hargreaves, et.al., 1998). School improvement is about the *processes* on these changes introduced (Harris, 2014; Townsend, 2007; Harris, 2002; Hopkins, 2001). Effective school is about the *outcomes* (output) on whether the school has any effect on the developments of the child or student (Muhammad Faizal, 2008; Townsend, 2007; Everard, 2004; Harris & Bennett, 2001; Teddlie & Reynolds, 2000).

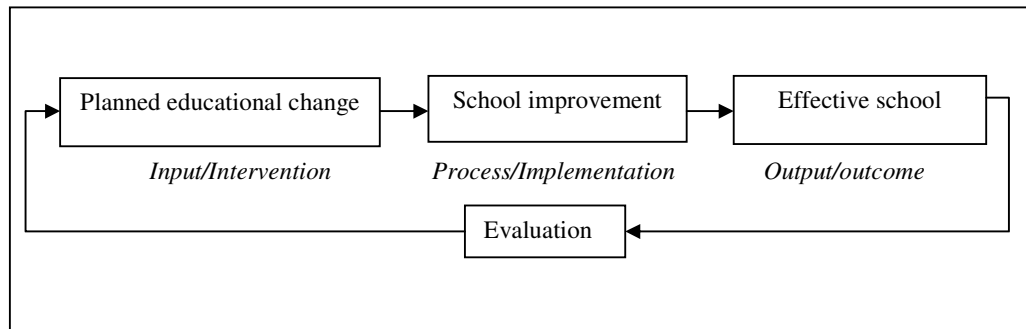
Comparatively in research, effective school focused its considerable energies upon the outcomes or schooling and the characteristics of school that are effective (James & Connolly, 2000). School improvement research is concerned mainly with the processes of schooling and ways in which the quality of schooling can be enhanced (Harris, 2014; Harris & Bennett 2001).

In summarizing these three concepts, depicts to that of the system model being *Input-Process-Output/outcome* relationships according to Hussein (2012:131) and others (Romiszowski, 2016; Sergiovanni, 2001). As a system all these three concepts are related. They bear certain implications whether positively or negatively as a result of certain actions undertaken upon aspects related to any of these. However it is beyond the scope of this study to explore into all aspects related to the analysis of the system. Undeniably the system model is very important towards a better understanding about educational change and school improvement. It is especially when schools are being seen as organization similar to others elsewhere (Muhammad Faizal & Saedah 2014; Handy & Aitken, 1986).

These could be observed elsewhere in the case where the concept is applied. Particularly in other models such as problem-solving model and system development life cycle model (Laudon & Laudon, 2015; Kendall & Kendall, 1999). Elsewhere in education, Scheerens (1991) used the system model to examine the process indicators of school functioning. In addition to *input*, *process* and *output* he included *context* in his conceptual approach to system analysis.

In this study all these three relationships are simplified diagrammatically in a closed loop system as shown in Figure 2.2 below.





**Figure 2.2:** Relationships between planned educational change, school improvement and effective schools

Briefly in this study:

- Planned educational change is defined as all those changes introduced into the educational system. It is inclusive of its conceptualization, implementation and outcomes.
- School improvement is more towards the process of bringing about the school to a much better state. It needs to be conducive for the educational efforts to achieve its expected outcomes.
- Effective school specifically focused on the school whether it has been able to bring about the expected effect to the students after undergoing the schooling process.

It is important to understand school improvement through the system model. School still continues to play critical and pivotal roles. School can be seen in both ways either as the problem or as the solution. They are problem because they are central component of the system and deemed to be under performing. Conversely, they are also the solution because the system cannot improve its overall performance without them (Harris, 2014).

### **2.2.2 Planned educational change, school improvement and effective schools in the context of Malaysia**

In view of the specific situation of this study these terms are further clarified. It is to adapt to the research contextual meaning especially upon the roles of principals in these schools locally in Malaysia. In the context of Malaysia, planned educational change has been clearly made explicit through the *Malaysia Education Blueprint 2013-2025* (Ministry of Education Malaysia, 2013a). It is a roadmap towards transforming the national education system to that of global standard with those in most of the developed countries. Those outcomes stated in the blueprint are to be realized through the three stages termed as ‘waves’ according to the year stated. These are wave one (2013-2015); wave two (2016-2020) and wave three (2021-2025).

The efforts towards realizing all those aims and objectives as stated in the blueprint are the process. It is analogous to the term ‘school improvement’ used in this study. It is a process of transforming the present state of these schools to be far better, benchmarked to be among the best in the world. Hussein (2012) discussed these transformational challenges through the various strategies that the country needs to undertake. Among these he includes the developments of school leadership capacities. Especially are on principalship and school management.

The expected outcomes in the blueprint are to witness those evidences proving that schools have achieved those various aims and objectives set. Expectedly it is to show that the schools are effective. In the case of this situation certain schools in the country are benchmarked as the ‘High Performing School’ (HPS). HPS are those small numbers of selected schools in the country that has shown of proven evidence of its effectiveness in achieving the various aims and goals set. These schools are those that excel academically and also all aspects of its co-curricular activities. Their successes are as a result of their high work culture especially among the teachers and the management

teams. Relationships between the school and parents are excellent. So are with the local community and the various stake holders involved.

Thus these three concepts (planned educational change, school improvement and effective school) have been defined based on the system model adapted to the local situations in Malaysia. In local context, as a system these concepts are the journey in the educational developments for the country. Undeniably aspects on *inputs* will bear certain implications on the *process* and it will then affect the *output* showing of their relationships as inter-related factors.

### **2.3. Understanding on the concept of school improvement and its background**

How much do we know about school improvement? Retrospectively this is the question posited by Huberman & Miles (1984) in their study upon 12 elementary and secondary schools in United States in the 1980s. It has been found out that, this is the time when school improvement movement is still in its early developmental stage as a field of study. They strongly emphasized that:

*“The term improvement is itself problematic, “that one person’s version of improvement is another person’s wastefulness or even worsening the school”. Furthermore the version that wins out in any particular school is not necessarily technically the ‘best’. Improvement sometimes turns out to be merely a code word for the directives that administration have successfully put into place”.*

(Huberman & Miles, 1984, p. v)

Based on the above statement, the concept of school improvement is subjective. It is interpretive in nature based on the contextual situations where the process is taking place. As studies on school improvement arrive at its maturity, exploration through the number of literature has shown that the term ‘school improvement’ is becoming more

refined. It is commonly used to refer to those efforts in bringing positive changes to the school for the better. These are related to the efforts through the school's learning process. It is to make it a better place for pupils and students in the contextual situation of 'schools that learn' (Senge, et al., 2004). Wrigley (2004: 5) summarized on the developments of school improvement by saying:

*"In the 1990s, school improvement was overwhelmingly perceived as being the discovery of generic processes of school change: the field looks very different now. The greater understanding of this brought of how to promote change—development planning, capacity building, distributed leadership—was a major breakthrough, but it is increasingly clear that this is not enough. Improvement requires a far broader understanding of society, schools and education, and a more rounded conception of achievement".*

(Wrigley, 2004: 5)

Such is very relevant in the context of Malaysia. This is in view of its multi-racial society having different types of schools under a national education system (Hussein, 2012). To reiterate, though these wider understanding in promoting change and improvement are clearly understood however these are in the western contextual situation.

Unavoidably there are certain shortcomings of these in the local contextual situations in Malaysia. Particularly, those related to the development of planning, capacity building and distributed leadership in the process of school improvement raised above. Other discussions related to the meaning and the concepts of school improvement shows certain variation. Though mostly would describe in their respective way based on the various perspectives adopted. For example Harris (2002) focused on research findings showing certain aspects related to school improvement. These are:

- The vital importance of teacher development.
- The importance of school leadership.
- That there is *no one blueprint for action* but approaches vary across different types of school.
- Emphasized the importance of focusing attention to student level.
- The importance of understanding and working with school culture.

According to Hussein (2012) and Hopkins (2001) school improvement is also aimed at enhancing student outcomes as well as strengthening the school's capacity for further developments in the continuous journey of the educational change process.

Others stated that school improvement is also concerned with raising the students' achievements. It is through focusing on the teaching-learning process and the conditions that support it such as the professional learning community (Zuraidah, 2016; Dima Mazlina@Siti Aishah 2016; Gordon, 2004; Woods & Cribb, 2001; Gleeson & Husbands, 2001; James & Connolly, 2000; Brighouse & Woods, 1999).

Teddlie & Reynolds (2000) quoted on the definition of school improvement taken from the work of OECD sponsored International School Improvement Project (ISIP) as:

*“A systematic, sustained effort aimed at change in learning condition and other related internal conditions in one or more schools, with ultimate aim of accomplishing educational goals more effectively”.*

(Teddlie & Reynolds, 2000: 210)

Earlier, Reynolds (in Hargreaves, 1998) attempted to show of the differences in the continuous debate between school improvement and school effectiveness. He stated that school improvement is:

- A 'bottom up' orientation in which improvement was owned by the individual school and its staff.
- A qualitative orientation to research methodology.
- A concern with changing organizational processes rather than the outcomes of the school (the much lauded concern with the 'journey').
- A concern to treat educational outcomes as not 'given' but problematic.
- A concern to see schools as dynamic institutions requiring extended study more than 'snapshots' cross sectional study.

According to Muhammad Faizal, & Saedah, (2014) and others (Harris, 2014; Harris & Bennett, 2001; Teddlie & Reynolds, 2000) further elaborated on the conceptual meaning that shows the scopes of the involvement of school improvement are wide. It goes beyond the school boundary. Improvement is the bottom-line to all the efforts. It is seen as an approach that rests on a number of assumptions namely:

- The school is the centre of change.
- A systematic approach to change.
- Key focus for change is the 'internal conditions' of school.
- Accomplishing educational goals more effectively. Educational goals reflect the particular mission of the school, and represent what the school itself regards as desirable.
- A multi-level perspective—although the school is the centre of change it does not act alone.
- Integrated implementation strategies.
- The drive towards institutionalization.

Furthermore as mentioned by them, although the term 'school improvement' is now in common usage (as the journey of the school improvement movement arrived to its present stage), the complexities of the approach have not necessarily been fully

explored. The more rigorous recent definition above implies a broader and more sophisticated view of the concept, in which school improvement can be regarded:

- As a vehicle for planned educational change (but also realizing that educational change is necessary for school improvement).
- As particularly appropriate during times of centralized initiative and innovation overload when there are competing reforms to implement.
- As usually necessitating some form of external support.
- As having an emphasis on strategies for strengthening the school's capacity for managing change.
- As concerned with raising student achievements (broadly defined).

Finally to sum up on the literature review is that school improvement has certain aspects that are in common that are very important towards the success of the efforts (Mariani, et. al., 2016; Preedy, Glatter & Wise, 2003). These are:

- Leadership is throughout the school.
- The focus is on the quality of teaching and learning.
- Promotes and facilitates professional discussion around improvement.
- A proactive and shared approach to planning and strategies adopted.

As was raised earlier by Huberman & Miles (1984) on the meaning of the words '*school improvement*' and through the rest of the literature, the concept of school improvement is shown to be very wide. It touches upon almost all aspects of the school as a system. These are such as leadership, management, curriculum, instruction, assessment, co-curriculum, teachers, students and others including the parents and local community involvements. A summary of findings and observations through the literature review is shown in Table 2.1 below.

**Table 2.1:** Summary of background literature on school improvement seen as a process

No.	Authors	Salient points identified on school improvement process.
1.	Huberman & Miles, 1984.	<ul style="list-style-type: none"> <li>• Subjective; interpretive.</li> </ul>
2.	Senge <i>et al.</i> , 2000.	<ul style="list-style-type: none"> <li>• Making a better place for pupils.</li> <li>• Situational for 'schools that learn'.</li> </ul>
3.	Harris, 2014; Harris & Bennett, 2005; Harris & Lambert, 2003.	<ul style="list-style-type: none"> <li>• Capacity building, leading school improvement, improving classrooms, improving teaching.</li> <li>• Organizational view of power, structure, culture and distributed leadership.</li> </ul>
4.	Hussein, 2012; Wrigley, 2004.	<ul style="list-style-type: none"> <li>• Developmental ; promoting change.</li> <li>• Requires understanding of society, schools and education.</li> <li>• Requires more rounded concept of achievement.</li> </ul>
5.	Fullan, 2016; Hopkins, 2001.	<ul style="list-style-type: none"> <li>• Aimed at enhancing student outcomes.</li> <li>• Strengthening school's capacity.</li> <li>• Continuous journey of educational change process.</li> </ul>
6.	Zuraidah, 2016; Dima Mazlina@Siti Aishah, 2016; Brighouse & Woods, 1999.	<ul style="list-style-type: none"> <li>• Focusing on teaching and learning process and the condition that support it.</li> </ul>
7	Muhammad Faizal, & Saedah, 2014.Teddlie & Reynolds, 2000.	<ul style="list-style-type: none"> <li>• Systematic.</li> <li>• Aimed at change in learning condition.</li> <li>• School is centre of change and does not act alone.</li> </ul>
8.	Muhammad Faizal et. al., 2014; Reynolds (in Hargreaves, 1998).	<ul style="list-style-type: none"> <li>• Concern with organizational process.</li> <li>• Schools as problematic and dynamic.</li> </ul>
9.	Mariani <i>et al.</i> , 2016; Preedy, Glatter & Wise, 2003.	<ul style="list-style-type: none"> <li>• Continuous leadership focuses on quality of teaching &amp; learning.</li> <li>• Professionalism in approaches &amp; practice.</li> <li>• Appropriate planning &amp; strategies.</li> </ul>

Source: Developed by the researcher derived through literature.

## 2.4 School improvement and its relationship to high performing school (HPS)

It has been the practice in education where the successes of school improvement efforts are usually measured based on performance (Siti Rafiah, Sharifah Sariah & Nik Ahmad Hisham, 2012; Rusmini, 2006; Visscher & Coe, 2002; Gleeson & Husbands, 2001). These are the main indicators to show that the school has improved and continue to improve. Besides Visscher & Coe (2002) introduced on how school improvement be



undertaken through feedback. Similarly is for the Ministry of Education Malaysia to classify schools based on their performances measured through certain system developed. Currently schools that have continuously achieved highest score in certain measured performances are categorized as 'High Performance Schools' (HPS).

When the first cohort of HPS was granted the status in 2010 there are altogether 20 schools comprising of 14 secondary schools and 6 primary schools chosen from among all the secondary and primary schools in the country (Masriwanie, 2017; Ministry of Education, 2010b). The second cohort was granted the status in 2011 that listed another 20 schools (13 secondary and 7 primary schools). The process of listing these HPS continues until presently with the latest cohort granted the status to total up to 140 HPS altogether (Hakimi, 2017). All these are schools that have met certain criteria set by the Ministry through the three stages of screening process. It entitled them to be categorized as HPS.

These are criteria as stated in the guidebook produced by the Ministry of Education Malaysia (2010) (*High Performing Schools (HPS) Frequently Asked Questions (FAQ)* booklet page 6). Among these are:

- Schools that are listed in Band 1 i.e. primary schools with a minimum Composite Score of 85 % and secondary schools with a minimum Composite Score of 90% must complete the HPS Candidacy Form. The school will be ranked according to their Composite Scores and marks obtained in the HPS Candidacy Form.
- Ministry will select schools from among those listed in Band 1 for evaluation and verification using SQEMS (Standard for Quality Education in Malaysian Schools) and HPS-Annex by the Inspectorate of Schools and Quality Assurance (ISQA). HPS-Annex evaluates the following five criteria of school excellence and uniqueness:

- (i) Towering personality.
  - (ii) Awards received at a national and international level.
  - (iii) Linkages at a national and international level.
  - (iv) Networking at a national and international level.
  - (v) Benchmarking at a national and international level.
- Schools that have been verified by ISQA will be ranked according to verified SQEMS and HPS-Annex scores. Only schools with a minimum score of 90% in the SQEMS evaluation and a minimum score of 40% in the HPS-Annex evaluation after verification by ISQA will be considered. The Selection Committee will identify the schools which qualify as HPS.

Obviously HPS are schools that proved to have met these criteria set. Their performances are achieved through the continuous improvement process and efforts.

## **2.5. Models in school improvement**

Continuing on what has been discussed earlier on the research problem (in chapter one in section 1.2) the study has stated that there are two theoretical models observable affecting the school improvement process. These are commonly in practice that directly involves these EP. These are the (i) top-down models and the (ii) bottom-up model where both have significant implications upon the principalship practices of these EP. As a result, these EP (as those being among at the lower level in the organizational structure of the national educational system) are the most affected. Particularly is the top-down model which is commonly in practice for school improvements efforts discussed elsewhere (Silins & Mulford, 2007; Hargreaves, et al., 1998; Scheerens, 1997). These EP are those at the periphery. They are assigned with the undertaking of these initiatives towards ensuring of its success at the implementation level but in the environment of the school contextual situations. This usually requires

the adoption of different approach preferably such as the bottom-up model. The situation of this conflicting model is the major problems faced by them.

In this section is examined on problems related to the debates between the top-down models versus the bottom-up model. Both are adopted by policy makers and these EP. They have significant implications upon school improvements and their roles and responsibilities as EP as well as strategies adopted in executing these efforts (Sufean, 2014; Davies, 2006; Abdullah Khir, 2006; Preedy, Glatter & Wise, 2003; Fidler, 2002; Bush & Coleman, 2000). The approach in the discussion in this section is through highlighting those problems and issues and other difficulties that these EP are faced with. These are the implications in adopting these models. It draws upon those relevant researches and studies synthesized that highlights on the implications of these models upon these EP and their respective HPS.

### **2.5.1 Debates on the top-down model.**

According to Myers & MacBeath (2002), critics of this top-down approach are often seen as lacking rigour, complacent about standards and uninterested in raising achievement. To seek for a better understanding, the study has examined in Mintzberg, Ahlstrand & Lampel (1998) on these two models that provides those comparative examples in their discussions. It showed of their similarities and differences and cases of their effectiveness towards the attainments of the organizational goals and objectives.

The study departs by firstly focusing on the case of the top-down model. It was originally termed as centre-periphery by Schon (in Blenkin, Edwards, & Kelly, 1992). The efforts towards realizing those school's vision, mission, goals and objective set out, in realities are the educational process. It is a journey towards becoming an effective school as the final outcome expected upon the roles of the school. These are through reforms or continuous improvement (Smylie, 2010; Hawley & Rollie, 2007). The

undertakings of these school improvements efforts towards success and making a difference are unavoidably the main duties and responsibilities of these EP as the head of school (Fullan, 2014; Harris, 2014).

It is observed that problems and issues on the implication of the top-down model is not a recent phenomenon but have been around for more than three decades (Fullan, 2016; Hargreaves, et. al., 1998). Findings through the literature on research related to educational innovation (as the term was used in the seventies and eighties) upon a number of schools in the west by Dalin (1973) and Huberman & Miles (1984) have proven on these. Elsewhere Banya (1993) have similarly highlighted on the West African experience. Others in international studies in which Malaysia is one of the countries identified have also arrived at similar conclusions (Marsh & Morris, 1991; Adams & Chen, 1981). In the local context for example the number of research on the implementation of the New Primary Schools Curriculum (or KBSR as was known locally) also highlighted on the similar problem way back in the eighties and nineties (Sharifah Maimunah, 1990; Siti Hawa, 1986).

It is concluded that these recurring problems related to the top-down model and aspects of its negative implications upon these principals are because they are at the periphery. These problems have been the imperative since the past decades for the need towards a more pragmatic model in the approach for school improvements. The study argues that the model has to be in a more interpretive and reflective manners. It has to be derived authentically from the practitioners being the principals rather than those at the top or central levels. The justification for such needs has been highlighted much earlier through the work of Schon (in Blenkin, Edwards, & Kelly, 1992).

The recent scenario related to the school improvement efforts in the country introduced by the Ministry of Education through the various initiatives highlighted of

the concerns. Directly and indirectly these initiatives are assigned to the principal (Ministry of Education, 2005f). For example, in the Ministry's efforts to enhance the educational system to a world class standard a number of initiatives specifically intended for schools has been introduced. Among these, is as part of the National Transformational Programme whereby the Ministry introduced the '*rollout of the school improvement programme*' (Hussein & Mohammed Sani, 2016; Govt. of Malaysia, 2010).

However, virtually the initiative is in the form of interventions. It means that these are externally imposed for the purpose of improving the schools or to overcome certain internal problems or difficulties that these schools are facing. Highlighted among these is the clustering of a certain number of schools into high performance schools or HPS. The selection processes for these schools are based on key performance indicators (KPI) using the instrument such as the Education Quality Standard of Malaysia (EQSM) or commonly known as SKPM 1 (Ministry of Education Malaysia, 2004c; 2004d).

Others are firstly, the new ranking of schools into its 'banding' system categorized from seven (being the lowest) to one (being the best). This makes the earlier practice of categorizing them into any of the five statuses as 'super, excellent, hopeful, average and weak schools being made to be more specifically measured (Ministry of Education Malaysia, 2004c; 2004d). Secondly is the evaluation of the on-going smart schools using the Smart School Qualification Standard instrument (SSQS) (Ministry of Education Malaysia, 2007a). Thirdly, the 'school on-line tool-kit' introduced towards assisting the school for self-evaluation. These are among the numbers of other initiatives introduced. Besides is those of the phased out curriculum programme known as the 'Teaching and Learning of Science and Mathematics in

English' (or locally known as *PPSMI*) introduced in 2003 by the Ministry of Education (Tunku Munawirah, 2013; Cheong, 2010; Rosli, 2005).

As a result of the introduction of these numbers of initiatives by the Ministry, schools are gearing themselves towards realizing those goals and objectives in a more competitive environment. The reason is because their performances and productivities are made to be measured in a more systematic way and are comparable to others locally. It is even extended to the international levels such as those shown through the *International Mathematics and Science Study-Report* or commonly termed as TIMSS (Harris & Jones, 2016; Ministry of Education Malaysia, 2000). Priya (2012) highlighted on the concern of the continuing drop of Malaysian students in TIMSS scores.

All these have put these schools into a situation analogous to a form of an informal league system. Obviously these initiatives have significantly high impact upon the schools and these EP particularly from the perspectives of the policy makers (Sufean, 2014). Firstly, are the high expectations that schools must be seen as continuously improving in an environment that school must learn in order to succeed (Harris, 2014; Smylie, 2010; Senge, et. al., 2000). Secondly, schools have to move beyond the traditional paradigm commonly indicated by their examination successes. These are those achievements records on the annual national examination results being acronym such as the *UPSR*, *PT3*, *SPM* and *STPM* that has been traditionally used since the past.

However in most discussions and debates related to these initiatives and the interventions by the Ministry a number of issues and problems highlighted. These are on its implications and success that has been seen from the perspectives of the efforts of the policy makers or those who are at the top (Sufean, 2014; Simin, et. al., 2013). Often overlooked but are missed opportunities are the importance of these EP.

Particularly are their roles and efforts that they are able to contribute towards the realization of the success of these initiatives (Ministry of Education, 2004a; 2005d; 2005e). In this study it is emphasized that:

- These EP are very important and need to be given reasonable attention and opportunities similar to others.
- These EP are the authentic practitioners of school improvements efforts and school leaderships.
- They are the main agent of change at the school levels as compared to others.

Ironically the various initiatives introduced for school improvement are externally imposed and centrally controlled that adopt the centre-periphery or the top-down model. These are as observed through those numbers of initiatives that the study has highlighted. In the local context for the case of this top-down model, experience has shown that the limited assistance given to these EP towards the successful implementation of these initiatives are those short courses and briefings given during meetings. Usually for duration of one or two days or at the most a week or so using the training model developed by the Ministry.

The case of the implementation of the smart schools programme is an example related to this kind of situation. The Ministry developed a process model called the '*KASA Bestari*' for the principals. It is to assist them in implementing the smart school programme at school levels (Ministry of Education Malaysia, 2005b). To further help these principals in the analysis of the process, a model called the 'soft system methodology' was appended. The analytical process is abbreviated through the term called CATWOE (customer, actor, transformation, world view or *weltanschauung*, owner and environment).

Certain identified principals are called to attend the three or four days of workshops towards the understanding of these models. They will return to their respective schools with the high expectations that they will successfully implement the initiative. Similarly the approach was adopted for other cases of initiatives as those mentioned earlier. As a result in the case of the top-down model, when these initiatives are implemented (under the situation of being marginalized) these principals are those who are over-burdened with the number of difficulties and problems.

Upon further examination of the situation, a number of problems were identified. Firstly is the problem of understanding the concept and interpreting the contents of these initiatives, for it to be translated into its operational actions at the implementation stage in the school. Secondly are the difficulties in getting the total commitments and their involvements. These are from among the teachers, staff and parents for the building up of the spirit of collegiality or *esprit de corps* required towards its success. The main reason is because these initiatives are externally imposed through the top-down model where the sense of belongings and shared interest are the shortcomings of the model.

Incidents of slippages are observed to have happened upon the original intents and concepts of the initiatives introduced by the top or policy makers and the translation of these by the implementers or users (Sufean, 2014). These are due to the occurrence of misinterpretation or the ‘uncalled-for’ adjustments made by the implementers at the school level.

The reason is because of the needs to adapt to the contextual situations through self-solving of those problems and difficulties faced. Fullan & Stiegelbauer (1991) commented on the situation of this slippage:



*“One of the most fundamental problems in education today is that people do not have a clear coherent sense of meaning about what educational change is for, what it is and how it proceeds. Thus there is much faddism, superficiality, confusion, failure of change programmes, unwarranted and misdirected resistance, and misunderstood reform. What we need is a more coherent picture that people who are involved in or affected by educational change can use to make sense of what they and others are doing”.*

(Fullan & Stiegelbauer, 1991:4)

Retrospectively, as a result these principals are faced with difficulties in aligning these slippages so that the improvements expected are realized. The termination of the ETeMS (English in the Teaching of Mathematics and Science) or locally known as PPSMI (*Pengajaran dan Pembelajaran Sains dan Matematik dalam Bahasa Inggeris*) programme by the Ministry of Education is as an example of this situation. It was originally aimed at enhancing the usage of English language through the science and mathematics subjects. According to Mohd Nazri, Latiff & Mahendran (2013) one of the main reasons for the failure is because of the ineffectiveness of the courseware used in the teaching and learning process.

The change of the medium of instructions from the original *Bahasa Melayu* to English for these subjects has caused great difficulties for certain groups of teachers especially those whose foundation in the language are rather weak. As a result the instructional process for these subjects has not been effective thus affecting the learning outcomes of the students. The situation has not been conducive for the developments of the students in terms of the usage of the English language and may have negative implications if it continues (Cheong, 2010). Finally in the year 2009 the programme has to be withdrawn by the Ministry after it has been implemented for about six years.

### **2.5.2 Debates on the bottom-up model**

On the hindsight, Havelock (in Blenkin, Edwards, & Kelly, 1992) who originally conceptualized the bottom-up model called it as a 'problem-solving model'. He stated that it specifically focuses on the process of educational change that favoured most of the educational practitioners. According to Bennis, Benne and Chin, (1992) the model adopts the 'normative-re-educative' strategy for its implementation. They suggested that individuals or members are encouraged to change their normative orientations in attitude, beliefs, values, knowledge, skills, roles and relationships. The approach is through shifting their orientation. Normally from 'being out the box' from their past familiar practices that are strongly dependant on directives from the top, the shift is to a more pragmatic model. Silins & Mulford (2007) has shown of a case in their study related to the bottom-up model in their case study on LOLSO project.

It is argued that for a bottom-up model the paradigm has to be in a more interpretive and reflective manners. It is to be derived authentically from the practitioners being the principals rather than those officers at the top or central levels. In accordance to the bottom-up model, starting from the initial conceptualization and developments process for these initiatives undertaken by the central, the presence and participation of these principals for their inputs at all levels are the precursor. It is to mean that it is from the bottom first and disseminated to the top before it is passed back downward for its applications or usage at the lower or school level later.

However there are problems in school improvements process using the bottom-up model. Firstly, the main problem with this model is that most people who are involved find it very difficult to be 'out of the box' mode and to be more creative and innovative in the way school improvement efforts are undertaken. As mentioned earlier it was mainly because these people are used to being dependent on directives from the top, a situation conducive in the 'top-down' model.

So are those reflective efforts by those involved. The outcome of these reflections will bring about the need for further adjustment and changes to the initiatives for school improvement introduced. However the inflexibilities and the strong control from the central under the various directives might not provide the manoeuvrabilities required for these people to be adaptable to the new situations.

Secondly, that in order for these initiatives to be implemented it have to be under certain leaderships whether at the policy makers or at the school levels. These have been extensively discussed by a number of authors (Sufean, 2014; Harris, et al., 2003; Sergiovanni, 2001) and those writers in the collection of articles in books on these (Townsend, 2007; Teddlie & Reynolds, 2000; Hargreaves, et al., 1998). Thirdly that the effective and successful executing of these school improvement initiatives requires certain strategy through well planned programmes and monitoring efforts undertaken in stages or phases (Fullan, 2016; Preedy, Glatter & Wise, 2003).

## **2.6 Shortcomings, issues and problems seen through these two models**

Outcomes of the various explorative efforts through the literature (lightly discussed in chapter 1 and the in-depth exploration in this chapter) has discovered of the two major factors influencing the school improvement process. These are (i) top-down model factor and (ii) bottom-up model factors. The top-down model factor leads to the various initiatives introduced by the policy makers mainly those in the Ministry of Education. These initiatives are then being introduced into the school system in the form of planned educational change (Fullan, 2016; Mintrob, MacLellan & Quintero, 2001). As discussed in section 2.2 earlier, all these planned educational change are considered as inputs when viewed from the perspectives of system modelling. In the context of Malaysia there are numerous initiatives being introduced into the schools which are examples of inputs. The introduction of the *Malaysian Educational Blueprint 2013-*

2025 (Ministry of Education Malaysia, 2013a) is an example. It has been shown of these chains of relationships and dependability between the environmental factors and input factors upon the process of the school improvement efforts.

However in earlier discussion the focus of the study is limited to the process only. In section 1.2 in Chapter 1, there are two theoretical models that have been identified in the process of school improvement. These are the top-down model and the bottom-up models which have been further explored and discussed in section 2.5 above. Specifically in these two models there are certain shortcomings, issues and problems upon the school improvement efforts that have been discovered.

- These two models have not clearly showed the specific roles of these EP. Importantly on how they undertake the challenges in bringing about the success towards improving their schools through the principalship practices.
- These two models existed in a polarized or on the opposite end of a continuum. Considering the nature of the work and responsibilities of EP, it has shown that both models have their influencing effects upon them. However it is up to these EP to adjust and be adaptable to the various situations when adopting these models. There is no specific indicator to show how these two models strongly influence these EP in their efforts.

Thus their dependability as influencing factors towards the process of school improvement could not be ascertained. Based on what has been highlighted thus there is a need for further explorative efforts in understanding of all these relationships to continue the discussion that has been raised earlier in chapter one (in section 1.7).

## **2.7.    Principalship practices in school improvement**

Harris thoroughly discussed on the relationship between leadership and school improvement specifically on head teachers or principals (Harris & Jones, 2016; Harris 2014; Harris & Lambert, 2003; Harris, et al., 2003). Comparisons are made to show of the different leadership approaches. It is about how leadership at different levels within the school is part of the necessities in building capacity for school improvement (Boyle, 2000; Earl & Lee, 1999; Fullan, 1997).

In this study the scope of the inquiry related to modeling is focused on the roles and responsibilities of these EP. In hind-sight there are a number of authors that discussed on school leadership and principalship (Fullan, 2014; Mohammed Sani & Jamalul Lail, 2012; Bush, Bell & Middlewood, 2010; MacBeath, et al., 2007; Male, 2006). The outcomes of the exploration upon the literature have uncovered a number of issues, problems and challenges related to the roles and responsibilities of these principals. Especially are on their roles as instructional leader shown by Rahmad Shukor, Haris & Lee (2016) in their study and how it influenced the teachers' pedagogical creativities. Within the scope and limits of this study the focus is only on the main aspects of principalship practices. Through study based on the literature there are three aspects that are closely related to principalship practices in schools (Mohammed Sani & Jamalul Lail, 2012; Male, 2006; Matthews & Crow, 2003). These are (i) leaderships (ii) management and administration (iii) strategies.

### **2.7.1    Principalship practices in school leadership**

There is a continuing controversy and predicament about the concept of leadership and management highlighted in the number of literatures (Leithwood, Aitken & Jantzi, 2006; Rahimah & Hee, 2004b; Bottery, 2004; Bush, 2003; Bush & Coleman, 2000). They had shown of the similarities and differences between these two concepts

adapted from elsewhere. Others such as Bush, Bell & Middlewood (2010), have proposed on the principles of educational leadership and management. To them it is obvious that a person can be a leader without being a manager (e.g. an informal leader), and a person can be a manager without leading.

Literatures elsewhere also showed how principals and teachers too can be effective leaders in school improvement (Jamilah, Yahya & Siti Nor, 2016; Everard, Morris & Wilson, 2004; Harris, et. al., 2003; Bennett, Crawford, & Cartwright, 2003; Frost, et. al., 2000). For example in Ackerman & Maslin-Ostrowski (2002) provide examples of real leaders are those who successfully faced to certain crisis. Thus leadership is the process of influencing others to understand and agree about what needs to be done. It is how it can be done effectively and the process of facilitating individual and collective efforts to accomplish the shared objectives (Yukl, 2013). In addition Harris & Jones (2016) and Rahimah & Simin (2014) explored on the school leadership of the 21<sup>st</sup> century highlighted on the concept of distributed leadership which is gaining its importance in school effectiveness and school improvement efforts.

Thus management and leadership are differentiated in terms of their core processes and intended outcomes. Management seeks to produce predictability and order by:

- Setting operational goals, establishing action plans with timetables and allocating resources.
- Organizing and staffing (establishing structure, assigning people to jobs).
- Monitoring results and solving problems.

Leadership seeks to produce organizational change by:

- Developing a vision of the future and strategies for making necessary changes.
- Communicating and explaining the vision.

- Motivating and inspiring people to attain the vision.

Principals being school leaders must be well prepared to undertake the challenges of the school improvement efforts (Sarros, & Sarros, 2011). Davis, et al., (2005) emphasized on developing successful principal through 4 key findings. These are (a) Essential elements of good leadership (b) Effective program design (c) Multiple pathways to high quality leadership development (d) Policy reform and finances. Fullan (2001a:142) described on the characteristics of the principal (analogous to the three key words used in this study) being *leadership* orientation, *management* or *administration* orientation and *strategic* orientation). These successful principals had:

- Inclusive, facilitative orientation.
- An institutional focus on student learning.
- Efficient management.
- Combined pressure and support.

They had a strategic orientation, using school improvement plan and instructional focus to 'attack incoherence'. Effective headship, therefore, is the reconciliation of personal, organizational and systemic needs and aspirations. Usually this will mean reconciling personal, organizational, local and national agendas into an effective *gestalt* of activity.

Fullan (2001b) suggested a model or a framework through the convergence of five components of leadership in a culture of change. These are:

- Moral purpose.
- Understand the change process.
- Relationship building.
- Knowledge creation and sharing.
- Coherence making.

Through these components and with the commitment of members (external and internal) is assured of the results desired. More good things happen as compared to fewer bad things. Principals are assigned with the essential roles in effective schools and successful school improvement processes. Their leaderships in all aspects of the school development process are vital (Rahimah, Tie & Fatanah, 2006). A study by Silins and Mulford (2007) upon the LOLSO project concludes that:

- Leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school. It accounts for about a quarter of the total school effects.
- Mostly leaders contribute to student learning indirectly. It is through their influence on other people or features of their organization. Thus their success will depend a great deal on their judicious choice of which parts of the organization to spend time and attention on.
- Three sets of practices can be thought of as the ‘basics’ of successful leadership, being developing people, setting directions and redesigning the organization.
- All successful leadership is ‘contingent’ to the unique contexts in which it finds itself.

These can be summarized in Table 2.2, adapted from Sergiovanni (2001:56-72) in proposing for a theory on principalship based on issues identified for alternative suggestions in facing to these situations.



**Table 2.2:** Summary on theory for principals as leaders in school improvement adapted from Sergiovanni (2001: 56-72)

<b>Issue</b>	<b>Traditional rule</b>	<b>The alternative</b>
How school are structured	Schools are managerially tight but culturally loose	Schools are managerially loose but culturally tight
Getting and maintaining compliance.	<ul style="list-style-type: none"> <li>• Announcing goals/major objectives.</li> <li>• Use goals to develop work requirements.</li> <li>• Use work requirement to develop compliance strategy.</li> <li>• Observe and correct involvement and commitments.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish &amp; use compliance strategy.</li> <li>• Develop complementary requirements.</li> <li>• Decide on work strategy.</li> </ul>
Fitting the people into the improvement planning process.	<ul style="list-style-type: none"> <li>• Emphasize ends.</li> <li>• Emphasize ways.</li> <li>• Emphasize means.</li> </ul>	<ul style="list-style-type: none"> <li>• Emphasize means.</li> <li>• Emphasize ways.</li> <li>• Emphasize ends.</li> </ul>
Strategic planning.	Clarity, control, and consensus are important to effective management are achieved by detailed planning.	Clarity, control, and consensus are important to effective management and are achieved by planning strategically.
Developing a motivational strategy.	What gets rewarded gets done.	What is rewarded gets done, gets done well, and gets done without close supervision or other controls.

Source: Developed by the researcher adapted from Sergiovanni (2001: 56-71).

A consideration of all these writings and including others elsewhere shows that principals do make a difference in their leadership efforts towards the school improvement (Hargreaves, Boyle & Harris, 2014; Harris, 2014; Fullan, 2014; MacBeath & Dempster, 2009; Sergiovanni, 2007; Townsend, 2007). Gurr (2015) developed a model on the success of these school leaders called ISSPP model that showed of the various factors in answering to the questions of ‘why, how and what’. The insight arrived is congruous to the statement by Marzano (2003) discussed earlier (in section 1.7.1) who has left out on the school leadership or the principal-level factors. But he explained that leadership was purposely omitted from his model. The reason is that leadership could be considered as the single most important aspect of effective school

reform. In his model he only suggested for a model for the implementation of school improvements efforts by categorizing these into three factors namely; (i) school-level factors (ii) teacher-level factors (iii) student-level factors. Thus the principal factor identified in this chapter is in a way a continuation of his efforts.

The success of the efforts of these EP thus strongly depends on their leadership abilities. It is their abilities to identify and apply the appropriate strategies and maximizes all resources available. These are to achieve the intended goals and objectives set out in facing to those challenges. Through the literature explored so far, has been able to identify those relevant models needed for the principal to adopt in the process of facing the challenges in school improvement. For example Bush (2003) discussed on a number of models that he introduced for educational leadership and management. These are (i) formal model (ii) collegial model (iii) political model (iv) subjective model (v) ambiguity model and (vi) cultural model.

An overview of school improvement and school leadership has shown a wide spectrum of insight. These are related to information and knowledge that principals need to understand and to put them into practice. Virtually all aspects of these that have been discussed are the influencing factors upon these EP. It is the determining factor towards the success or failure of the school improvement efforts undertaken by them. Retrospectively within the hind-sight of the past history of more than forty years of studies on educational change, school improvement and school effectiveness has thus unfolded a number of insights (Fullan, 2016; Hargreaves, et al., 1998). Most of these are on those problems and issues; frustrations and disappointments related to the shortcomings of these leaderships. More often are related to failures to realize the desired outcomes through school improvement. Rarely are found discussions on aspects related to excellence on school leadership in which this study is examining through these EP.

### **2.7.2 Principalship practices as school managers and administrators**

School is an organization and has its own complexities. It has its own system, structure and culture which in certain ways are different from those in business or other organizations (Scheerens, 1991). It needs to (i) define its role and their specific contributions (ii) deal with individuals and group (iii) run the organization and (iv) face the future (Jamilah, Yahya & Siti Nor, 2016; Handy & Aitken, 1986). As an organization schools operates on certain concepts and these are applied to the various situations needed in bringing about the realizations of the goals and objectives set (Fullan, 2014; Abdul Shukor, 1991). One of the means to all these is through management and administration (in situation where both of these terms are used interchangeably) (Rahimah & Tie, 2004a; Rahimah & Tie, 2004b; Sergiovanni, 2001).

Specifically in this study the term ‘administration’ sometimes precedes that of that of the term ‘management’ for reason of its contextual relevance (Mohammed Sani & Jamalul Lail, 2012; Zaidatol Akmaliah 1991). Administration has its overtone towards interpreting the goals and objectives of the organization based on the bureaucratic guidelines adopting the top-down model. In Robiah Sidin (1989) are discussed the administration of the country’s education system. It adopts the pyramid system where at the apex being the highest level is the ministry and the lowest being at the base is the school. She highlighted of the centralized nature of the system where policies and major decision makings authorities are emplaced at the highest level in the Ministry. Hussein (2012) considered these structure and organizational system as a model and exists in a continuing process of change with additional improvements introduced in adapting to current situations.

For these EP, the process of school improvement operates within the concept of management and administration system similar to other principals (Robbins, & Alvy, 2014). In particular are those on decision makings that involve stringent guidelines

termed as *circulars* and *directives* from the ministry. Among these are those related to policies, financial aspects, provision and maintenances of physical facilities, appointment of teachers and staff and a number of others (Norfariza, et. al., 2013; Rahimah & Tie, 2004a). All these are within the scope of the country's education law as stated in ILBS (1999) and the Department's of Public Services General Orders (Government of Malaysia, 2016).

However the approach through the bottom-up model ideally propagated by most in the literature has its limitation from the scope of the administrative system. Especially are on decision makings towards the school improvement efforts under the guidelines of these *circulars* or *directives*. These are the '*do's*' and '*don'ts*' for the respective EP in making decisions in the course of carrying out their duties and responsibilities. The reason is because all these came from the highest levels of the country's educational administrative structure. Thus the authorities of these EP towards school improvement are confined to their abilities in maximizing the only available means mainly the administrative or management power similar to others in the literature (Male, 2006; Walker, 2004).

Within the structure of the school administrative system, responsibilities or duties are delegated by these EP in a manner commonly observed and practiced that adopts the distributed leadership model (Harris, 2014; Bush, Bell & Middlewood, 2010). For example in Zaidatol Akmaliah (1991) described the administrative power of the principal as formal in that teachers can be directed to undertake their roles and responsibilities accordingly. However there are limitations to these since teachers are specialized according to the various subjects that they taught. Thus in this situation teachers are the authorities in their respective subjects and principal are the informal authority as curriculum head involving the subject. Hence the leadership for the respective subject has been distributed to these teachers.

### 2.7.3 Principalship practices in strategies for school improvement

The importance of leaders being strategists in organizations has well been discussed in a number of literatures (Montgomery, 2012; Kim & Mauborgne, 2005; Kaplan & Norton, 2001). In education are such as by Robbins & Alvy (2014), Davies (2006) and Fidler (2002). The emphasis is how leaders approach their way in facing to challenges and problems towards being successful. According to Simin, et al., (2013:5) educational change needs an effective strategy. Thus strategies need to be formulated (e.g. in planning) before the intended attempt for certain change or improvement being undertaken (Mintrop, MacLellan & Quintero, 2001). These have been highlighted in a number of literature (Mua'azam, Yahya & Siti Nor, 2016; Hussein, 2014; Abdullah Khir, 2006; Wit & Meyer, 2004; Kaufman, et. al., 2003). According to Mintzberg (2000) and Mintzberg, Ahlstrand & Lampel (1998: 372-373) emphasized that:

*“Strategy formation is judgmental designing, intuitive reasoning, and emergent learning; it is about transformation as well as perpetuation; it must involve individual cognition, cooperation as well as conflict; it has to include analyzing before and after programming after as well as negotiating during; and all of this must be in response to what can be a demanding environment. Just try to leave any of this out and watch what happens!”*

They listed the ten schools of thought in strategy showing how it influenced the types of strategies being applied for its respective contextual situations and needs. Thus the respective strategy to be adopted depends on the needs of the organization and the goals and objectives desired. Many others such as Michaelson (2007) and locally in Keling & Othman (2006), discussed on the strategies in executing initiatives towards success through the strategy of Sun Tzu's historical documents titled as *The Art of War*

(Michaelson, 2007). Earlier in Peters & Waterman (1982) for example, include strategy in the model developed by them towards achieving excellence in organization. They called the model as 'Seven Ss' where the alphabet 'S' refers to strategy, structure, systems, style, staff, skills and shared value. For example Kaplan & Norton (2001) showed how strategy is being focused for companies to thrive in new business environment through their balanced scorecard model. They showed how vision and strategy are linked to customer, financial, internal business process and learning and growth.

Elsewhere Kim & Mauborgne (2005) introduced the 'Blue Ocean Strategy' on how to create uncontested market space and make the competition irrelevant. Montgomery (2012) considered leadership and strategy as inseparable where the need to find time and courage to address strategy is a constant challenge for most leaders. Thus management assigned with strategic responsibilities in their organizational process is considered to be as of the highest level among the group of management personnel (Laudon & Laudon, 2015; Hussein, 2014). So are the principals and the case of these EP in this study.

In education these has been shown by a number of authors elsewhere (Robbins & Alvy, 2014; Davies, 2006; Davies & Ellison, 2003; Preedy, 2003; Bush & Coleman, 2000). Among which is the work of Fidler (2002) on the application of strategic management for school development. Others have also highlighted on the importance of strategy in the process of undertaking the challenges of school improvement for principal (Daresh, 2002; Frost, et. al., 2000). Wallace & Pocklington (2002) discussed on how these could be undertaken in reorganizing the school in the process of change. Thus the understanding of strategies in the process of school improvement is very important for these EP as leader of the school and their understanding of the concept need to be well established.

Pisapia (2009) identified the actions and tactics framed around six habits gleaned from leaders who have successfully developed and maintain high performing organization. These are the habits suggested by him to be internalized by leaders in change process:

- Habit 1 : Artistry - The mega habit.
- Habit 2 : Agility – Developing the strategic mindset.
- Habit 3 : Anticipating the future.
- Habit 4 : Articulating strategic intent.
- Habit 5 : Aligning colleagues with intent.
- Habit 6: Assuring results.

He uses two sets of questionnaires to for these leaders to discover their attributes related to these habits. These are (i) The strategic thinking questionnaire (STQ) and (ii) the strategic leadership's questionnaire (SLQ). In both the STQ and SLQ instruments are means in measuring the leaders' strategic use of the four sets of actions in leading their organization namely, managerial, transformational, political and ethical. These questionnaires are instrumental for leaders in knowing about themselves before embarking on the challenges of the improvement efforts.

In most cases aspects related to strategies are depicted in the form of planning. In the context of school, Davies & Ellison (2003) detailed out how planning is strategically done in schools improvement efforts in England. As the saying goes, "*If you fail to plan, you are planning to fail*", speaks by itself on the importance of planning in any undertakings.

Fullan (2001a:93) considered planning (as well as coping) being the most difficult problem of all in educational change by saying, "We need better implementation plans and planners, we are embarking on the infinite regress that characterizes the pursuit of theory of changing". He highlighted of the need for better

implementation plans and planner. These are to ensure that implementation and to sustain programmes are systematically executed. However these are difficult to be realized. Thus he concludes by saying that there are three reasons why most planning fails namely, (i) it is hyper rational (ii) it fails to take into account local context and culture and is (iii) dangerously seductive and incomplete which he closely relates these phenomena to the low level of commitment from among those involved. Mintzberg (1994) analyzed on the rise and fall of strategic planning among which are closely related to problems of leadership as planners.

Discussions related to the relationships among these influencing factors in this three sections on principalship practices has discovered of the various aspects related to school improvement. All these have shown how the expected successes of the school improvement efforts are depicted based on the '*cause-effect*' relationship. These are as follows:

- Leaderships, specifically these EP have strong influence in the process of school improvement. They have the capabilities and capacities to maximize the various leadership approaches towards realizing the success of the school improvement efforts undertaken. The positive effects of their leaderships bring about successful results in school improvement efforts.
- The key factor in the effectiveness of the process of school improvement is the efficiency of the management and administrative system. These are practiced at the school level under the leadership of these EP.
- There are a number of strategies in effectively executing these school improvement efforts. These strategies are systematically planned before the processes of the school improvement are undertaken with continuous adjustment and adaptation carried out during the process. Well planned school improvement effort is the most effective strategies towards the success.



However further descriptions on these three principalship practices need to be specified since the various writers in the literature has their own way of describing the features as shown in Table 2.1 earlier. A further analysis is undertaken to identify these in the following section.

## **2.8 Analysis of principalship practices factors contributing towards school improvement**

In brief, all these insights discovered as the outcome of the explorative efforts through the literature on the principalship practices and its contributions towards school improvement are summarized in Figure 2.3 below. The figure shows the three main factors identified namely (i) leaderships (ii) the management and administration (iii) strategies. These short lists of principalship practices are further categorized into either of these models namely (i) top-down or (ii) bottom up. These show that:

- Principalship practices in school improvement involve both models.
- Generalized to all principals irrespective of the types of categories of schools inclusive of EP and HPS.
- Does not differentiate which are more critical than the other among the various features or salient points discovered.

The findings shown in Figure 2.3 below can be clustered into the categories of principalship practices as shown. These are:

(i) - **Leadership modeled on top-down.**

- Making a better place for pupils.
- Capacity building, leading school improvement.

- **Leadership modeled on bottom-up.**

- Promoting change.
- Focusing on teaching and learning process.

- Concern with organizational process.
  - Leadership focuses on quality of teaching.
- (ii) - **Management and administration modeled on top-down.**
- Strengthening school's capacity.
  - Systematic.
- **Management and administration modeled on bottom-up**
- Organizational view of power, structure and culture.
  - Aimed at enhancing student outcomes.
- (iii) - **Strategy modeled on top-down**
- Situational for 'schools that learn'.
  - Continuous journey of educational change process
  - School is centre of change and does not act alone.
  - School as problematic and dynamic.
- **Strategy modeled on bottom-up**
- Developmental
  - Requires understanding of society, schools and education.
  - Requires more rounded conception of achievement.
  - Aimed at change in learning condition.

Conclusion derived through the analysis shows that all the three categories of principalship practices in school improvement are inclusive of both model being the top-down and bottom-up. These are derived through the literature which needs further study through the contextual realities on EP and the respective HPS. The approach for the purpose is through the means of identification of the CSF.

Features of school improvement identified (emerged through salient points from the list earlier in Table 2.1)	Principalship practices factors			Models	
	Leadership	Management & administration	Strategy	Top-down	Bottom-up
Making a better place for pupils	/			/	
Situational for 'schools that learn'			/	/	
Capacity building, leading school improvement,	/			/	
Organizational view of power, structure and culture		/			/
Developmental			/		/
Promoting change	/				/
Requires understanding of society, schools and education.			/		/
Requires more rounded conception of achievement			/		/
Aimed at enhancing student outcomes		/			/
Strengthening school's capacity		/		/	
Continuous journey of educational change process			/	/	
Focusing on teaching and learning process	/				/
Systematic		/		/	
Aimed at change in learning condition			/		/
School is centre of change and does not act alone			/	/	
Concern with organizational process	/				/
Schools as problematic and dynamic			/	/	
Leadership focuses on quality of teaching	/				/

Source: Developed by the researcher derived through literature.

**Figure 2.3:** Summary of features in school improvement and its relationships to principalship practices factors and models

## 2.9 Approaches towards identifying the critical success factors (CSF)

Discussions through the literature have so far shown of the major characteristics of the process in school improvement. Improving some or all of an organization's processes can make a real difference to the overall effectiveness of the efforts (Leidecker & Bruno, 1984). Kelly (2001) further mentioned that some processes are 'critical' while others are merely 'functional' and it is important to distinguish between the two. Critical processes are ones which, if done badly, result in the organization failing to achieve its primary purpose.

In figure 2.4 below are examples of the differences between critical and functional processes adapted from Kelly (2001:12).

Some critical processes: Administration and leadership	Some functional processes
Policy-making process Financial management Distribution of funds Promotion and appraisal Dissemination of information Staff development Industrial relations Ancillary services Quality assurance of system	Health and safety work requirements Fair employment practice Contractual obligations Reporting truancy and illegal activities Keeping records of attendance Keeping abreast of requirements Financial auditing Keeping records of attainment

Source: Kelly (2001:12)

**Figure 2.4:** Sample list of critical processes and functional processes

He suggested that by choosing and prioritizing these critical processes through the system of mapping is a means to ensure of the effectiveness of the improvement efforts undertaken. Leithwood, Aitken & Jantzi (2006) includes leadership, management and planning as among the critical processes but has left out on strategy.

Therefore with specific reference to this study the term ‘critical’ is the keyword. Thus the main question arise is, “what are the activities to be listed as critical among the number of activities in the process of school improvement as listed in Figure 2.4 above. It has been shown that in school improvement process efforts undertaken by principals involves all the three aspects of the principalship practices discussed. Further details to these aspects from the perspective of model showed that it is inclusive of both the top-down and the bottom-up model as shown in Figure 2.3 earlier. Since school improvement efforts undertaken by these principals involve both of these models thus there are needs to examine further. These are to identify those which are critical and those which are functional as discussed by Kelly (2001) above. However Kelly (2001) has not shown specifically of the means in separating these critical and functional factors in the case of school improvement process. He uses the word ‘process’ rather than ‘factor’ as in the case of this study. Thus further explorative efforts are needed to meet the case of these EP of the respective HPS in identifying for the CSF and also the functional factors (FF).

## **2.10 The concept of critical success factors (CSF) model in literature**

Further discussions through the literature in this section are to establish that the CSF approach is viable and applicable in the context of the research related to school improvement. It is to show that firstly, the methodology through the CSF approach is systematic but flexible enough for its application in various contextual situations. Secondly, as has been the practice it is the managers who are the main source of information for data analysis. This will be shown diagrammatically in the following section in section 2.10.4. In the context of the school, it is these EP who as leader of the school will be the main source of information and data. It is through their leadership’s information and data that matters most in the understanding of the improvement process

at the school level. An investigative approach is adopted for the process of the inquiry. It focused on these EP to solicit for their perceptions on their personal experience related to their efforts in the successes on school improvements. These EP are the authentic practitioners of school improvements.

#### **2.10.1 The critical success factors CSF) approach: background, definition and its organizational applications**

The idea of identifying critical success factors as a basis for determining the information needs of managers was proposed by Daniel (in Rockart, 1982). Originally it was as an interdisciplinary approach with a potential usefulness in the practices of evaluation within the library and information units. It was a very simple idea where in any organization certain factors will be critical to the success of that organization. It is in the sense that, if objectives associated with the factors are not achieved, the organization will fail (perhaps catastrophically). It is based on the assumption that there are few key areas where things must go right for the business to flourish. Ironically if the results in these areas are not adequate, the organization's effort for the period will be less than desired. This statement has similarity to that of the concept of 'critical' by Kelly (2001) quoted earlier. Briefly, CSF can be defined as:

- The limited number of areas in which the results, if they are satisfactory will ensure successful competitive performance for the organization.
- Those areas of activities that should receive constant and careful attention from the management. This core area assists the management by focusing on the important aspect that ensures of the success.

It is a small number of easily identifiable operational goals (described in terms of activities) shaped by the industry, the firm, the manager, and the broader environment that are believed to ensure the success of an organization.

Through the outcome in identifying the CSF it can be used to determine other related requirements for the organization in enabling it to strategize itself in facing to the various challenges. Thus CSF is the areas in business, project or organizations that are absolutely essential to its success. By identifying and communicating these CSF will help to ensure that the business, project or organizations are well focused. It is able to avoid wasting efforts and resources in less important areas. By making CSF explicit and communicating them with everyone involved will help keep the business, project or other organizational intentions be on track towards common aims and goals.

Later it was popularized by Rockart (1982), from the Sloan School of Business, Massachusetts Institute of Technology, USA. It was meant for application in the business setting, but has later extended and proven to be applicable to any other forms of organizations including education. Functionally the CSF model is commonly used for:

- Development of strategic goals and objectives.
- Examination of the organization's accountability.
- Improvement of programmes and administration.

Presently, in wider context the CSF approach has been applied in many situations. For example, White (2006) showed how the approach is used to review the progress of educational technology from an educational perspective. It is derived from studies in a six UK higher education institutions. Others in Chrusciel & Field (2003) also apply the approach. They examined the organizational change strategy through identifying the CSF for performance excellence in knowing whether the change is effective or successful.

Elsewhere the CSF approach is used both as a planning and accountability tool by the Planning and Research Section of the North Carolina Community College System (1998). Among those related is a study on 'Critical Success Factors for schools

implementation learning platform'. It revealed of the five CSF identified in the need to ensure that their learning platform or Virtual Learning Environment (VLE) will be successful in delivering quality teaching and learning in their school.

The CSF approach is also applicable in the organization's strategic analysis, which if it is realizable ensures the success of the organization's improvement efforts (Kaufman, et al., 2003). In this case the process through the CSF model is closely related to the development of strategic goals and objectives whereas the mission and goals focus on the aims and what is to be achieved.

The CSF focuses the most important areas and get to the very heart of both what is to be achieved and how it will be achieved. All these are being interpreted through the intents of the organization's mission and vision. The CSF mainly assists in keeping the process of the organization's improvement efforts focused in a more systematic manner. These take into considering of all the external and internal factors and influences. As a result of the combination of these it facilitates the various processes at the operational level towards realizing the various goals or objective identified.

Similarly in the local context the model was earlier applied in *Plan Induk Pembangunan Pelajaran* (PIPP) or Educational Developments Master plan (Ministry of Education Malaysia, 2007a). The CSF are identified and integrated in the plan for the efforts to be successful in the developments of the various programmes. However CSF is not a key performance indicator (KPI) but is the identified elements that are vital for a strategy to be successful. KPI are measures that quantify objectives and enables the measurements of strategic performance. Furthermore CSF is what drives the organization forward. It is what makes the organization or breaks the organization.

### **2.10.2 Types of critical success factors (CSF)**

There are four basic types of CSF generalized through the literature. These are:



- Industry CSF resulting from specific industry characteristics. These are the things that the organization must do to remain competitive.
- Strategy CSF resulting from chosen competitive strategy of the business. The way in which the company chooses to position themselves, market themselves, whether they are high volume low cost or low volume high cost producers, etc.
- Environmental CSF resulting from economic or technological changes. These factors result from macro-environmental influence on an organization. Things like business climate, the economy, competitors and technological advancement are included in this category.
- Temporal CSF resulting from internal organizational needs and changes. Specific barriers, challenges, directions and influences will determine the CSF.

### **2.10.3 Examples of critical success factors (CSF)**

There are two examples selected for this study. Firstly, in Kaufman, et al., (2003:40) is on aspect related to delivering high payoff results. It is one of the four types of CSF related to 'competitive strategy of the businesses'. He has shown by giving examples of these CSF which he has identified and clustered into six elements. These elements are the promises that those results to be achieved are correctly defined, related and delivered in a more specific manner. These are in the context of the strategic thinking and planning process to be undertaken. All these are summarized as shown in Table 2.3 below.

**Table 2.3:** Model of 6 critical success factors in Kaufman, et al. (2003:40)

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<b>CSF</b>	<b>Critical success factors for strategic thinking and planning</b>
CSF1	Move out of your comfort zone—today’s paradigm—and use new and wider boundaries for thinking, planning, doing, evaluating, and continuous improvement.
CSF2	Differentiate between ends (what) and means (how).
CSF3	Use all three levels of planning and results (Mega/Outcomes; Macro/Outputs; Micro/Products).
CSF4	Prepare all objectives—including the Ideal Vision and Mission—to include precise statements of both where you are headed, as well as the criteria for measuring when you have arrived. Develop “SMARTER” objectives.
CSF5	Use an ideal Vision (what kind of world, in measurable performance terms, we want for tomorrow’s child) as the underlying basis for planning and continuous improvement.
CSF6	Defining ‘need’ as a gap in results (not as insufficient levels of resources, means or methods).

---

Source: Kaufman, Oakley-Browne, Watkins & Leigh (2003:40)

Note: (SMARTER: S= Specific; M= Measurable; A: Audacious; R= Results; T= Time bound; E= encompassing; R= Review

The second example is as taken in Laudon & Laudon (2000:337) to show of the differences between CSF and organizational goals. This is as in Table 2.4 below.

**Table 2.4:** Organizational goals and critical success factors

Example	Goals	CSF
Profit Concern	Earning / share <ul style="list-style-type: none"> <li>• Return on investment</li> <li>• Market Share</li> </ul>	(in automotive industry) <ul style="list-style-type: none"> <li>• Styling</li> <li>• Quality dealer system</li> <li>• Cost control</li> </ul>
Non-profit	Excellent healthcare	Regional integration with other hospitals
	Meeting government regulation	Efficient use of resources
	Future health needs	Improved monitoring of regulations

Source: Laudon & Laudon (2000: 337)

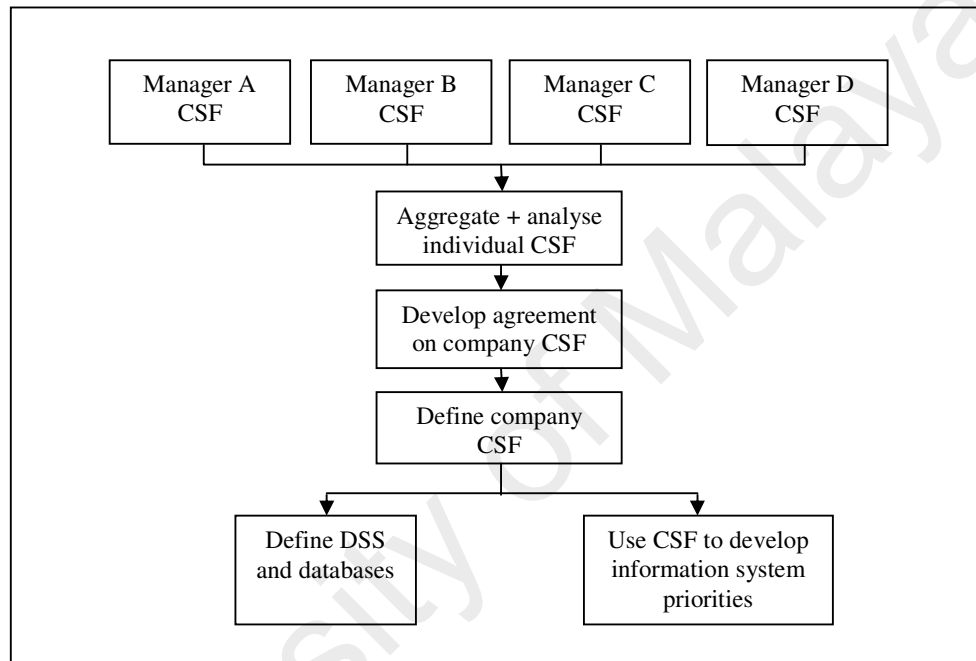
#### 2.10.4 Justification for the critical success factors (CSF) method towards the research design.

The main method used in CSF approach in the development and analysis in the research process is through personal interviews. These are with a number of top managements in order to identify their objectives and goals and the resulting CSF being seek. To illustrate the model, an example is taken from Laudon and Laudon (2000). It is shown diagrammatically on how the CSF are identified from among the managers in the organization and followed by the process of refinement through the aggregation method.

According to definition by Bullock & Stallybrass (1983:12) aggregation is:

*“In statistics, the reduction of data brought about by grouping the categories in a classification. For instance, in INPUT-OUTPUT analysis the individual branches of production may be grouped, thereby reducing the size of the table of intermediate product flows”.*

This consensus process will finally arrive at its accepted stage and thus the CSF approach is established. The CSF thus becomes the derived information for its later application by the organization. Especially are for the purpose of the implementation of the improvement efforts or other initiatives by the organization. This is as shown in Figure 2.5 below.



Source: Laudon & Laudon, 2000:337)

**Figure 2.5:** Stages in arriving at the desired critical success factors

A survey of the literature has discovered of the number of organizations and researchers that make use of the CSF approach for the required information towards its organizational improvement (Hongjiang, 2003; Bergeran, 1989; Chung, 1981). For example Peffers, Gengler & Tuunanen (2003) used the methodology for the organizations' system planning. Similar to this is observed in Tibar (2002). Both have explored the potential of CSF methodology to assess information requirements of heads of university departments. Upon reviewing other previous studies as well, they concluded that the main strengths of the method are:

- It has been accepted by senior managers.
- Consideration of all the information needed, not only that which is easy to collect.
- The CSF point to priorities for development.

Tibar (2002) showed how the research was undertaken. It is by applying the method through the CSF approach upon 27 managers from 16 manufacturing companies using semi-structured interviews. Respondents were asked to specify the CSF for their organizational level, which support the achievements of the company's goals. As a result of the research it was concluded that the method through the CSF approach produced the findings related to the information. It will enable the Estonian industry to focus on priority areas for development.

In another comparative case study was carried out by Houtari & Wilson (2001) upon two different organizations in Britain (academic organization) and Finland (business organization). The results shows of the importance of the CSF approach in identifying the organization's critical information needs. They used the qualitative research strategy through open-ended interviews and adopt the grounded theory (Strauss & Corbin, 1990; Glaser & Strauss, 1967) to define the CSF in both cases in UK and Finland.

Besides interviews for the research method, others elsewhere have also used the quantitative strategy through the survey method. Firstly, is that observed in King (2007) and secondly, is in Dobbins & Donnelly (1998). Both these researchers used the survey method to acquire the information related to the CSF. Furthermore, Hongjiang (2003) used the mixed method. It is a combination of the interview for the case study in seven Australian organizations towards confirming the model arrived. To further test the emergent theory, two large-scale survey methods are used upon selected members of Australian CPA and Australian Computer Society.

Discussion through the study based on the experience of others elsewhere in this section show of the possibilities in adopting the CSF approach. Comparatively at school level principals are the managers where the total responsibilities of the schools are in their hands. Initiatives in school improvement efforts begin with these principals. These involves the three principalship practices discussed earlier being (i) leadership (ii) management and administration (iii) strategy. The success or failure of the efforts in improving their schools depends on their abilities in maximizing the effectiveness of these three aspects of principalship practices. The case of these EP of the respective HPS is an example of the success in school improvement efforts. However what need to be further examined are those contributing factors towards their success. By adopting CSF approach justified through discussion in this section as instrumental means is expected to arrive at the objectives of the study discussed earlier in section 1.4 in chapter 1.

#### **2.10.5 Critique on critical success factors approach and its methodology**

An important premise underlying the CSF approach is that there are a small number of objectives that managers (principals) can easily identify. These, when acquired can be focused in the preparation for the various challenges such as for the organization's (school's) improvement efforts. The unique strength of the CSF approach is that it ideally takes also into account the changing environment with which organizations and managers must deal.

However the weakness of this approach as argued in Laudon and Laudon (2000) is firstly, that the aggregation process and the analysis of the data are art forms. There is no particular rigorous way in which individual CSF can be aggregated into a clear organization's pattern. Secondly, this method is clearly biased toward top managers because they are the ones being interviewed for the inputs. Thirdly, there is often confusion between and among the individual and organizational CSF. They are

necessarily must be the same but ironically what can be critical to a certain manager may not be important to the organization. Dobbins (2001:47) highlighted this problem in his study on projects in Department of Defence, USA. He stated that:

*“What the research did produce was lists of CSF for project management. The problem was that the lists, produced by different research tasks, differed in content. Besides some overlap, differences were apparent from one list to the next. Thus, managers faced a dilemma. If they wanted to use CSF, which list should they pick?”*

Since Rockart (1982) introduced the concept, large body of research on CSF has been conducted. However most of these prior research mainly focused exclusively on CSF identification (Boynton, 1984). Further attempt to test the credibility of these identified CSF against any defined analysis, criteria or other aspects especially in contextual situations is virtually absent (Dobbins, 2001). Thus those lists of CSF identified through the research efforts remained as list only. The implications as a result of the situation are:

- By simply adopting a list, managers most likely never learn how to think in term of CSF, and therefore CSF utility is minimized.
- The list produced from the research tended to be stated as simply ‘factors that are critical towards certain successes for the efforts concerned’. The list deliberately eliminated any reference to CSF having a contextual flavour. Yet any valid set of CSF for manager (principal) will always be contextually relevant to the person concerned.

In responding to the situation this study intends to show that firstly, the methodology through CSF approach can be made to have the rigor. It is by having the scientific and empirical characteristics. All these shall be discussed in the following chapter. Further exploration will be for the research design and methods to be adopted.

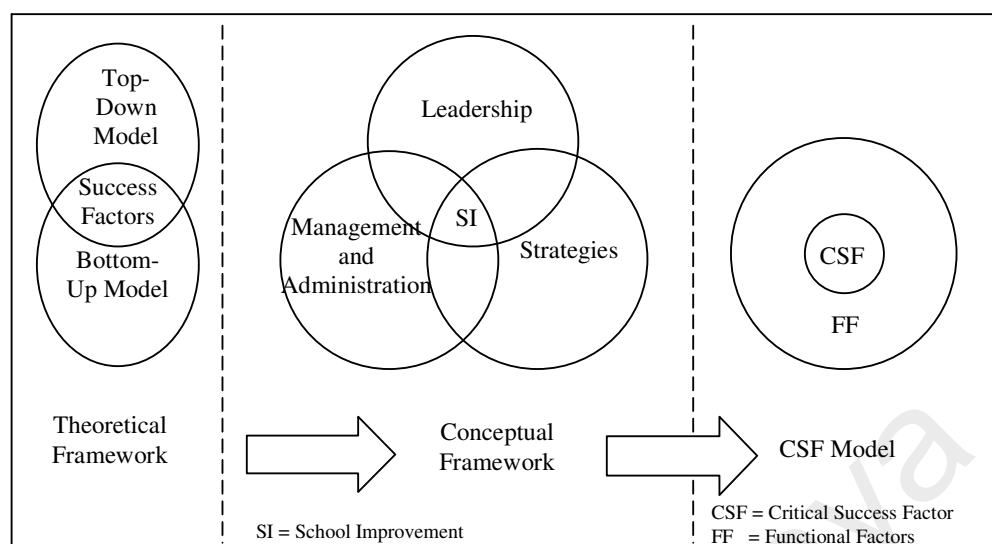
## 2.11 Framework for the study developed

Based on discussions on the literature explored, the respective theoretical and conceptual frameworks for the identification of the CSF and proposed model of this study are developed. A theoretical framework, as distinct from a theory, is sometimes referred to as the paradigm and influences the way knowledge is studied and interpreted (Mackenzie & Knipe, 2006:2).

*“It is the choice of paradigm that sets down the intent, motivation and expectations of the research. Without nominating a paradigm as the first step, there is no basis for subsequent choices regarding methodology, methods, literature or research design”.*

According to Sinclair (2007:39), “A theoretical framework can be thought of as a map or travel plan”. Thus when planning a journey in unfamiliar country, people seek as much knowledge as possible about the best way to travel, using previous experience and the accounts of others who have been on similar trips. Whereas conceptual framework is those knowledge outcomes from the literature carefully, permutations or links between these can be projected and predictions made on how relationships might impact on outcomes. It moves from being completely abstract and unconnected to becoming a tentative or loose framework to explore and test theory. These are depicted in Figure 2.6 below for later application towards the design of the study in Chapter 3.





Source: Developed by the researcher derived through literature.

**Figure 2.6:** Framework of the study towards identifying the CSF, FF and the CSF Model developed

It has been discussed earlier that there are three principalship practices identified in school improvement undertaken by these EP. These are (i) leadership (ii) management and administration and (iii) strategy. Leadership is mainly about how these EP led the school in facing to the various challenges. Managements and administration are principles and guidelines on the various policies by the government especially the Ministry of Education. Through these the process of implementing the school improvements efforts are undertaken accordingly. Strategy are the approaches in which all the various efforts are carried out in the most effective ways to ensure that all the various vision, mission, goals and objectives are realized (Montgomery, 2012).

All these are the major part of the explorative efforts in the literature discussed. Major challenges facing the EP in improving their schools are in adapting to these two influencing models. The main success factors lies in how these principals adapt to these two influences through the three principalship practices namely (i) leadership (ii) management and administration (iii) strategy.

## 2.12 Summary of chapter

The literature reviews discussed in this chapter are explorations on the various theories related to school improvements. These are summarized to form the theoretical framework to enable the research's conceptual theories developed. In addition touches on the introductory aspects on the concept of CSF, its importance and relevance to the study. School improvement is a process based on the various theories and practices. However, the journey towards its success is filled with problems and difficulties. These are because of those differing approaches adopted by the principals. They are those who are mostly dependent on their leadership abilities, knowledge and experience. Some may be successful while others are left to continue facing these difficulties and may eventually fail. Through the literature it has been shown that there are certain factors that contribute to the success of school improvement based on the model namely the top-down and bottom-up models. Through these models are the three principalship practices observed being (i) leadership (ii) management and administration (iii) strategy. However the effectiveness of these factors depends on how these principals adapt to the various contextual situations and school environment. This study is an examination on these situations. In the process explores into the concept of CSF and how it is applied in practical situation in the various organizational developments. What remained unknown is how these EP established their leadership practices towards the success of these HPS. Especially are on their leadership in the management and administration system of these HPS. In addition are on the various strategies being adopted in ensuring of the success of all those school improvement efforts. These are in meeting to the expectations of those policy makers at the top and the effectiveness of its implementations through those at the bottom. Especially are the teachers, parents, students and the various stakeholders. Therefore these phenomenal scenarios on the outstanding achievements of these EP and the HPS need to be further explored and examined. In the following

chapter is the discussion on the means towards a better understanding of these. The approach adopted is that of the qualitative strategies using multiple research methods such as interviews, observations and document analysis.

University of Malaya

## CHAPTER 3: METHODOLOGY

### 3.1. Introduction

This chapter progresses through an in-depth discussion on the following six areas. These are:

- Research framework towards the design.
- HPS and EP considered as cases in the study.
- HPS and EP considered as critical sampling.
- Methods in inquiries through interviews for data and analysis
- Methods in observations for data and analysis.
- Triangulations of findings for confirmations.

Various aspects on research methodology were explored to identify the most appropriate research methods to be adopted. Firstly, it shows how the research is appropriately designed to meet to its needs. The discussion sets out by defining on certain important terms commonly found in research. These include methodology and methods as well as aspects on scientific paradigms in forming the research framework. More importantly is the review of two common strategies of research methods. These are the quantitative and qualitative approaches that have been discussed in a number of literatures (Darussalam & Sufean, 2015; Zainudin, 2012; Flick, 2011; Brewer & Hunter, 2006; Mackenzie & Knipe, 2006; Thomas, 2003). A better understanding of all these terms will assists in deciding on the appropriate design developed (Bynner & Stribley, 2010; Lamer, 2006).

Secondly, all these are further linked to the main objectives of this study on the identification of the CSF and the developments of the CSF Model. These are through the explorative process of understanding through the literature on school improvement. It shows how it is related to the EP and the HPS based on the various documents

acquired. It enables for a better understanding in the selection of these EP and the respective HPS as samples for the study. All are the main source of information for the following respective stages in data collection and analysis.

Thirdly is the selection process for the samples. These HPS and EP are identified and considered as critical samples for the study. For these HPS it is mainly because of their special characteristics related to excellence. Especially those aspects related to the various achievements that are very outstanding. These are compared to the rest of other secondary schools in the country's mainstream education system. EP are identified as sample because they are the small number of very senior principals in the country being in the highest category of salary scale which is JUSA C.

Fourthly, through these EP are acquired data through interview for the two approaches in data analysis. These are:

- Within-case data analysis.
- Cross-case data analysis.

Discussions on the various aspects of these data are focused on (i) the process of its collection and documentations (ii) approaches and strategies in data analysis and (iii) how the results of these are to be arrived at.

Fifthly, following to the result of the cross-case analysis whereby the CSF has been identified observations are made upon these CSF in its contextual realities in one of the HPS identified. Sixthly is the triangulation on all these findings derived through documents, interviews and observations. These are confirmatory approach upon those findings related to the identifications of the CSF and the CSF Model developed.

## **3.2 The research design**

### **3.2.1 The exploration and the design arrived at**

Prior to designing the study, exploration through the literature shows that methodology is explained through its aim. It is used in helping to understand in the broadest possible terms, not the product of scientific inquiry but the process itself. Whereas method is a range of approaches used in the study. It is to gather data which are used to be as a basis for inference and interpretation. These are for explanation and prediction (Lichtman, 2011; Cohen, Manion & Morrison, 2001; Darling-Hammond, 1994). Both methodology and method are as an inclusive part of the process in the research design (Ghazali, & Sufean, 2015; Noraini 2013; Flick 2011).

In this study the design arrived at adopts a non-experimental descriptive approach. It has its basis on the concept of the grounded theory as described in Strauss & Corbin (1990) and Glaser & Strauss (1967). Basically in a grounded theory, interpretations are continually derived from raw data. The keyword in the approach is *emergent*. The story emerges from the data whereby the researcher will begin with a broad topic, then use qualitative methods to gather data that defines (or further refines) a research questions. The end result of a grounded theory study is to generate some broad themes to form a theory. According to Glaser & Strauss (1967)

*“The discovery of theory from data—which we call grounded theory—is a major task confronting sociology today, as we shall try to show, such a theory fits empirical situations, and is understandable to sociologists and laymen alike. Most important, it works—provides us with relevant predictions, explanations, interpretations and applications”*

Glaser & Strauss (1967:1)

In Chua, Tie & Zuraidah (2011) is shown how the process is undertaken by adopting the grounded theory in the context of promoting research practices in schools. Another example is the comparative case study that was carried out by Houtari & Wilson

(2001) quoted in section 2.10.4. In their study similarly adopts the grounded theory approach. It is about two different organizations in Britain (academic organization) and Finland (business organization). The study is a comparative approach on their importance of the CSF in identifying the organization's critical information needs. The strategy is through open-ended interviews to define the CSF in both cases in the two countries. These two studies provide some background perspectives for this study to depart. However in this study it is specifically on EP and HPS to identify the CSF and generate the CSF Model.

Being descriptive means that it is those various discussions towards the collections of raw data to become the basic source of grounded theory. In grounded theory, the particular theory to be sourced is the relationship among categories that is inductively generated from 'units of meanings'. In this study the meanings are derived through the perceptions of those EP through interviews. Observations are in schools. Even though the study is non-experimental but the practice of observations are still taking place. These are in real contextual situations in the HPS and are out of the usual norm being that in the laboratory.

In general this study is the process of discovering certain factors through the various raw data acquired to form a model. The result is the development of the CSF and the CSF Model. The definition of the word 'model' has been clearly defined earlier in section 1.3.1.1 in Chapter 1. To reiterate these are in according to Cohen, Manion & Morrison (2001:12) and Bullock & Stallybrass (1983:394). Models are often characterized by the use of analogies to give a more graphic or visual representation of a particular phenomenon. Furthermore according to Bullock & Stallybrass (1983:394) steps in building a model derived through theory can be outlined as follows:

- The variables to be used in characterizing and understanding the process must be specified.

- The forms of the relationships connecting these variables must be specified.
- Ignorance and the need for simplicity will ensure that all relationships other than identities are subject to error and so, for purposes of efficient statistical estimation, these error terms must be specified.
- The parameters of the model must be estimated and the extent of its identification ascertained; if this is inadequate, the model must be reformulated.
- The model must be kept up to date and used, so that an impression can be formed of its robustness and reliability.

### **3.2.2 Sequencing the design as ‘Exploratory-Inquiry-Observation’.**

In this study the approach is arranged sequentially adopting the idiographic approach described as an ‘Exploratory-Inquiry-Observation’ in the research design (Creswell, 2009). Firstly, the exploratory stage in this study seeks (i) to understand more about the school improvement and its relationship to these EP (ii) to acquire an in-depth picture on what the EP and HSP are. The background to all these is explored and discussed for a better understanding on the phenomena. Most of these explorations are the acquired information derived through analysis of documents. Through the various forms of documents such as reports, books, pamphlets, articles in journals and magazines, etc, are acquired the respective information especially on these EP and the respective HPS.

Secondly, the inquiry stage is the actual data collection in its contextual situation being the HPS. Selection are undertaken to inquire only those that are really related to the study through these contextual sources. These are mainly through interviews with the respective informants mainly the EP of these selected HPS. Through these



interviews are acquired the necessary data for analysis and the CSF identified in the form of a number of constructs.

Thirdly is the observation stage. It is the insight discovered interpreted through observation on the phenomena in its real contextual situations. This is in contrast to that of the experimental method where interpretations are in the laboratory. The observation in this study is about the realities in the school. In this case are the various activities in the process of the actual school improvement efforts that are taking place in these HPS. Through these observations will be selectively used as evidences to support or confirm those findings through interviews. All these will finally leads towards the establishment of the overall findings in the study when all the three sources being documents, interviews and observations are triangulated.

In general the main focus is on the success of school improvement efforts by the EP and how these successes are related to the HPS. All these are in qualitative form (Yin, 2011; Lichtman, 2011; Puvenesvary et al., 2011; Stake; 2010; Silverman, 2010; Flick, 2006; Holliday, 2002; Patton, 2002; Denzin & Lincoln, 1994). These collected data analyzed and discussed finally arrived at certain findings related to the research's main objectives, questions and the developments of the CSF Model.

### **3.3 Non-experimental descriptive approach**

The processes undertaken for this study are approached through four stages based on the respective objectives stated. These are the exploratory approaches used:

#### **Stage 1: Identification**

- To acquire the necessary information through those available information through document analysis on school improvement in schools.
- To identify those EP for research sampling and respondents.

- To identify the major activities of principalship practices in school improvement undertaken by these EP in their respective HPS.

**Stage 2: Pilot Phase**

- To briefly explore and understand the realities of school improvements process in HPS by being at its contextual sites.
- To assess the potential of success and viability of the instruments or guidelines developed for the (i) inquiry and (ii) observation.

**Stage 3: Factors influencing the success of HPS**

- To identify the main influencing factors of school improvement efforts perceived by these EP. These are through the means of a contextual inquiry on these EP of certain selected HPS in the country.
- By combining all these findings acquired through interviews, it will result in a certain number of common constructs. These are the conclusive perceptions of these EP towards their success of school improvements efforts undertaken.

**Stage 4: CSF in its contextual realities.**

- To be in the context of these HPS where the process of school improvement under the leadership of these EP is taking place.
- To provide the needed data through supporting evidences discovered through observations in enhancing those findings through interview.
- To ensure that those findings in the form of constructs in stage three are valid and reliable through these acquired real contextual evidences.

### **3.4 The descriptive exploration**

#### **3.4.1 Exploring on educational research**

Research is the systematic, controlled, empirical and critical investigation of hypothetical propositions (Noraini, 2013; Salkind, 2009). It is about the presumed relations among natural phenomena. Research is systematic which is depicted in a variety of ways many of which are visuals and in cyclical manner. The cycle begins with questions. Then it moves through the development of theoretical and conceptual frameworks. It is followed by the methodology for the research undertakings. Then is the collection of data using the research instruments followed by the preparation for its analysis. Finally is the presentation and discussion of the findings. The findings then lead to new questions arising. These show that the interpretation of the results go through a process described as cyclical and systematic. Literatures elsewhere show similarities to conclude that it has been the accepted practice (Creswell, 2009; Noraini, 2013; Yin, 2011).

In educational research, like most other researches commonly observed there are two views. Firstly, the established traditional view that concerns with the discovering of natural science. Secondly the recent interpretive view concerning the traditional social science that describe and explain human behaviour. Both views are in competing situations but are acceptable in research undertakings. Cohen, Manion & Morrison (2001:5) states that:

*“The traditional view holds that the social sciences are essentially the same as the natural sciences and are therefore concerned with discovering natural and universal laws regulating, and determining individual and social behaviour; the latter view, however, while sharing the rigour of the natural sciences and the same concern of traditional social science to describe and explain human behaviour, emphasizes how people differ from inanimate natural phenomena and, indeed, from each other”.*

(Cohen, Manion & Morrison (2001: 5).

Regarding social realities there are four sets of assumptions based on Burrell & Morgan (in Cohen, Manion & Morrison, 2001). These can be examined through the explicit and implicit assumptions underpinning them. These sets of assumptions are (i) ontological (ii) epistemological (iii) human nature (iv) methodological assumptions. *Ontology* is a branch of metaphysics dealing with the nature of being or existence. *Epistemology* is the nature of the relationship between the knower and the known or knowable. Ontology is about ‘what’ can be discovered about the nature of reality or the phenomenon of the study. Epistemology is about ‘how’ knowledge, reality or a phenomenon becomes known to the researcher (Langer, 1989).

However *human nature* is the relationship between human beings and their environment. Two images of human beings emerged: (i) the one that portrays them as responding mechanically to their environment and (ii) as initiators of their own actions. The *methodological* assumptions are the concept themselves, their measurements and the identification of the underlying themes.

The relationships between ontology, epistemology and methods in the context of this study (depicted in Table 3.1 in the following section) shows how these concepts are interpreted and arranged sequentially for the study undertaken. There are sets of

influential factors that contribute to the type of methodology chosen in most researches. These are modeled when discussed from the perspective of qualitative research to that analogous to the layers of an onion. Though in a much simpler form as compared to those in Siti Uzairah (2014), Keraminiyage (2010) and Saunders et al. (2007). In their cases according to Siti Uzairah (2014:10), these layers are:

- Research philosophy.
- Research approaches.
- Research strategies.
- Research choices.
- Time horizons.
- Research procedures.

A study that adopts the subjective approach is termed as *idiographic*. It is characterized by its emphasis towards understanding individual behaviour. Whereas the methodology that adopts the objective approach to social science is termed as *nomothetic*. It is designed to discover general laws characterized by procedures and methods. These two concepts being nomothetic and idiographic are the two different ways of looking at social realities. They are constructed on different ways of interpreting them.

### **3.4.2 Scientific realisms in the research framework**

In the introductory problems raised in Chapter 1 shows that the process of the inquiry departs from a certain conceptual paradigm. A paradigm or worldview is a basic set of beliefs that guide action (Creswell, 2007; Mackenzie & Knipe 2006). It sets the boundary to facilitate the process of the inquiry. These beliefs, philosophical assumptions, epistemologies, and ontologies are broadly the basis for the research being conceptualized (Miles, Huberman, & Saldana, 2014; Yin, 2009; Creswell, 2007; Miles

& Huberman, 1994). There are many different classifications of research paradigms. These are from the traditional positivist-phenomenologist paradigms developed from the scientific research to those of qualitative-interpretive paradigm. Examples are described in Creswell (2007) post positivism, constructivism, advocacy/participatory and pragmatism.

According to Cohen, Manion & Morrison (2001) there are three specific areas of research paradigms. They briefly draw the attention on the nature of the inquiry by focusing on these three aspects (i) normative (ii) interpretive and (iii) critical. Normative is more inclined on the technical interest taking the model of 'objectivity' in the natural sciences in explaining behaviour or seeking causes and is 'structuralist' and impersonal. Data collected are quantitative in nature mainly numerical and statistical in form (Coladarchi, et. al., 2008).

Interpretive is more towards practical interest, non statistical and being subjective and involving the interpretation of the researcher in analysing the phenomena. It is aimed at understanding actions or meanings rather than causes. Data collected are qualitative in nature usually through interviews and other forms of verbal expressions and observations (Noraini, 2013; Yin, 2011; Lichtman, 2011; Silverman, 2010; Stake, 2010; Torrance, 2010).

Critical or critical theory (Cohen, Manion & Morrison, 2001; Carr, 2000; Smith, 1993; McCarthy, 1982) is about understanding, interrogating, critiquing, and transforming actions and interests. These are on macro and micro concepts such as political and ideological interest and operations of power. Common examples of these are observed in action research or practitioners' research.

Earlier in Chapter 1 and Chapter 2 has already discussed on theories related to the study. It provides the basic foundation that paves a better understanding of the research process. Especially concerning the exploratory stage towards the theoretical

understanding on school improvements and its relationships to these EP and the HPS. The main purpose is to conceptualize the research's theoretical frameworks. Reiteratively as discussed in Chapter 1, the study starts with the concern of the phenomena faced by principals related to the issues and problems on school improvement efforts. The inquiry on these departs through the explorative efforts on those literatures. It discovers and further scrutinizes those various arguments on the continuous debates related to the phenomena. All these are summarized in Table 3.1 below.

**Table 3.1:** Summary of explorations on the research framework

Elements	Scientific Realism	
	In this study: Explorations through literature	In this study: Documentations, inquiries & observations
Ontology	<ul style="list-style-type: none"> <li>Reality is real but only imperfectly and probabilistically apprehensible</li> <li>The world exists independently of its being perceived</li> <li>Focus is on studying casual tendencies or generative mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>Discovery of unobservable realities (through interviews/perceptions)</li> <li>Little previous knowledge</li> <li>Focus on studying uncontrollable realities (out of laboratory observations)</li> </ul>
Epistemology	Modified objectivist: <ul style="list-style-type: none"> <li>Findings probably true with awareness of values between them</li> <li>Focus on exploration, theory building, inductive research</li> </ul>	<ul style="list-style-type: none"> <li>Capture the nature of the research problem and associated issues in their natural settings</li> <li>Theory building towards developing the CSF Model</li> </ul>
Methodology	Qualitative theories <ul style="list-style-type: none"> <li>Grounded theories approach for modeling</li> <li>Specific case of HPS as sample</li> <li>Convergent interviews model on EP</li> <li>Non-participant observations in HSP</li> <li>Analytical generalization</li> </ul>	Qualitative methods and inquiry <ul style="list-style-type: none"> <li>Interviews</li> <li>Observations</li> <li>Triangulation of evidence</li> <li>Multiple measures (within-case &amp; cross-case analysis)</li> <li>Develop the model based on results of data analyzed.</li> </ul>

### 3.4.3 Qualitative Approach

Creswell (2007) has listed out five approaches in qualitative inquiry and research design. These are narrative-biographical study; phenomenological study;

grounded theory; ethnography and case-study. All these approaches show certain common aspects among them. These are:

- Investigates a contemporary phenomenon within its real-life context.
- The boundaries between phenomenon and context are not clearly evident.
- Multiple sources of evidences are used.

These aspects are the main considerations in formulating the process of the inquiry for this study. Specifically the phenomena in the case of this study are on school improvement in HPS and how these EP responded and adapt to these. It is within the current realities of the school contextual situations in Malaysia. Presently these HPS are undergoing certain dramatic transformational process. All these have been highlighted through literatures discussed in Chapter 2. These are based on certain selected documents from the Ministry of Education and elsewhere. These transformational efforts are in facing to those challenges in the country's initiatives towards becoming a developed country by the year 2020.

Specifically in Hussein & Mohammed Sani (2016) and Hussein (2012) has thoroughly discussed on these transformational challenges at great length. These are mainly from the scope of the educational mission in schools in Malaysia. One of the aspects highlighted is on school management and leaderships and how these could be strategically approached for school improvements. However there are certain shortcomings in these explorative discussions. Among these are the lack of supporting evidences through research on local school improvement efforts. Thus for this study, by focusing on these schools and their leaderships will be able to provide those needed evidences and thus fills those missing links raised in Chapter 1 in section 1.4.

In earlier studies, quantitative theorists who are more suited to numerical measurement or statistical techniques described qualitative research as subjective,



unscientific, having limited generality and being 'soft'. Many years earlier Smith (1993) has discussed on the need for a better understanding of the phenomena through an in-depth inquiry being practiced in qualitative approach. It is because of certain uncertainty discovered in the results of those quantitative methods.

Through the qualitative approach it has the potential in exploring into the insight of the informants. Especially are on a certain phenomena resulting in an interpretive outcome of the inquiry. It is an inductive approach. According to Chua (2013:80) "Inductive approach presents the evidence collected from the respondents before drawing a conclusion from the event under study". The qualitative approach is more flexible in probing much deeper through questions upon the respondents such as through interviews. It is well suited because of its consensus-building approach in gaining agreed information among all the members involved on certain issues.

In the case of this study it is on the identification of those critical factors concerning the influences towards the success of school improvement efforts. It is to be acquired from the perceptions from among a selected group of these experienced EP. Elsewhere for example, experience of doing qualitative research in developing countries has long been discussed such as in Vulliamy, Lewin & Stephens (1990). It shows that the method has been well established since many years ago in the context of its local situations.

In this study the methodology adopted is determined by the need of the inquiry to be undertaken and how reliable are information and data acquired:

*"Data refers to a collection of organized information, usually through document analysis, interviews and observations. This may consist of numbers, words, or images, particularly as measurements or observations of a set of variables".*

(Yin, 2011: 130)

In relation to the study it is in view that the focus is on school improvement. The HPS are the research's contextual setting. These EP are the informants. One of the selected HPS is the identified case where the realities of school improvements are to be observed. All these characterizes to that of the qualitative approach being the most suitable for the study.

#### **3.4.4 Sources of Data**

Yin (2011) identified four types of data collection in qualitative research. These involve (i) interviewing (ii) observing (iii) collecting and examining and (iv) feeling. In view that this study is designed based on the "exploratory-inquiry-observation" approach, there were three types of qualitative research methods used:

- Document analysis
- Interviews
- Observations

Firstly relevant documents contributed as the major source for information about the phenomena under study. These documents are information acquired through the Ministry of Education Malaysia, the State Education Departments, the District Education Office and the schools. These are in the form of reports, brochures, pamphlets, magazines, booklets and handouts. Mostly are in printed forms providing the necessary official information that is being sought. All these are acquired directly from the respective departments or offices, their resource centres or library and the various publications sold such as books, journals, magazines and many others. Also available are through their respective web sites or portals through the Internet.

Secondly, interviews are ways of inquiring for the various forms of information directly from the source (Noraini, 2013, Cohen, Manion & Morrison, 2001; Arksey & Knight, 1999). In the case of interviews the main objective is to inquire a detailed

understanding on the phenomena being studied. Thus an in-depth approach is adopted. Yin (2011) termed this as qualitative interviewing in preference over alternatives such as unstructured interviewing, intensive interviewing and in-depth interviewing. According to Yin (2011) qualitative interviewing has become sufficiently diverse, that under different circumstances it may include any of the variants in some combination. In the case of this study is from the EP. These are recorded through the electronic means or audio-recorder and later transcribed into texts. The main purposes are to get the responses from these EP based on the questions posed related to certain issues or phenomena. These are their perceptions (Langer, 1989). In this case is on school improvement.

Thirdly, observation has been the major means in experimental research. The observation is for any change related to the experiment (usually in the laboratory) where controls are manageable. These are then quantified into data. However in the case of qualitative research control is impractical. Thus observation is more towards knowing what is happening. These are in the actual contextual situations where the study is taking place. In the case of this study the place is the HPS itself. The EP is the main actor that is being observed besides the teacher and other stakeholders involved.

There are many ways to conduct these observations. In the case of this study the approach is through ethnography as described in Fetterman (2010). The researcher stations himself in the school full time and carries out the observation for a certain period of time. For this study it is for the two terms in the school's calendar year from the months of January to the end of November 2015.

Fourthly, as was stated above by Yin (2011) on collecting and examining of data, feeling is also part of the process. Feeling is subjective. In this situation feeling is the personal attachment in gaining a better understanding of these HPS and EP by being concerned to be in more detail. These are expressed when doing the interviews and

observations where the intention is to go deeper into the understanding on phenomena. The approach is by being in the actual contextual situation in the HPS and the personal interaction with the EP. Similarly in analysing the data the researcher preferred to conduct the analysis manually. These are by listing all the various descriptors using sticker notes and later combine all their similarities into themes. Though it is tedious but is much better rather than totally relying on CAQDAS (Computer Aided Qualitative Data Analysis Software) such as ATLAS.ti (Othman, 2013) or NVivo (Bazeley, 2007).

### **3.5 The inquiry**

The main objectives of the inquiring efforts through these EP are to gain insights into their perceptions related to their personal experience and involvements on school improvement. The approach in soliciting for these insights is adopted from a model observed in Laudon & Laudon (2000). They used the concept of 'Critical Success Factors' or CSF discussed earlier in Chapter 2 (section 2.10.4 Figure 2.7). In this study it is mainly through interviews.

#### **3.5.1 The in-depth explorative inquiries for critical sampling**

In applying the qualitative strategy for the inquiry it has been an accepted practice that the number of sample is small. It is limited to a specific individuals or group and is sufficient to be based on certain homogeneity identified as 'critical sampling'. These are considered as purposeful sampling by being 'information-rich' in its character (Sandelowski, 1995). In this study the identification of informants in the sampling process is for among the assumed 'best principals'. It is based on the fact that they are in the highest category in their salary scales in the country's mainstream education system.

For the purpose, inquiries began through the Internet for the sourcing on the respective basic information needed. The study discovered that the total numbers of secondary schools in the mainstream education system at that time are 2354 schools ([www.moe.gov.my](http://www.moe.gov.my)). It has been the norm in the Malaysian educational system, that each of these secondary schools is headed by a principal. Thus there are a total of 2354 principals altogether (a co-relation to the number of schools) based on the information acquired.

According to an informal interview with a senior member from the *Majlis Pengetua Sekolah Malaysia* or commonly called as MPSM (Council of Principals Malaysia), though these numbers are according to the number of schools but there are differences between them. These are mainly because these principals are being categorized into different hierarchy based on their salary scales. Officially these principals are ranked according to their salary scales categorized as DG48, DG52, DG54 and JUSA C (Government of Malaysia, 2016; Government of Malaysia, 2011).

These salary scales has thus stratified them into much smaller groups or clusters making them less homogeneously. Those who started their appointments as principal are placed at DG48 category (being at the lowest level). The most senior principals are those in JUSA C category being the highest (Government of Malaysia, 2011). When the identification for these EP in the category of JUSA C was undertaken by the study in that year, their total number is only 8 of them altogether. Out of these 7 of them has been selected. The non-participation of one EP was due to logistical reason being in the state of Sabah. Thus these are the critical sampling for the study identified. However one of the samples is for the pilot study. Thus these remaining 6 EP are the representatives for the rest of the principals in the secondary schools in the country.

### 3.5.2 Early findings on EP in the category of JUSA C salary scale

Information gathered through informal interviews with senior members from the MPSM indicated that to arrive at JUSA C category they have to climb step-by-step all these salary scales from the lowest at DG48 to the highest. Normally it takes more than fifteen years of dedication to the position since appointed as principals. As a result very few from among these principals are able to achieve and be promoted into this category. The study found out that these experiences have been well documented as a memoir by one of the first batch of EP in the category of JUSA C in Khuzaimah (2009).

Hussein (2012) and Sanders (2011) identified these principals as 'Super Leaders' whose enlightened leadership style takes the model of 'creative and futuristic' orientation (in addition to being among the most experienced). Goldberg (2001) and Gray (2008) considered these as 'Exceptional School Leaders' in view of their performance in improving their schools. These EP are among the most experienced group of principals and are the most senior according to their ranks or categories.

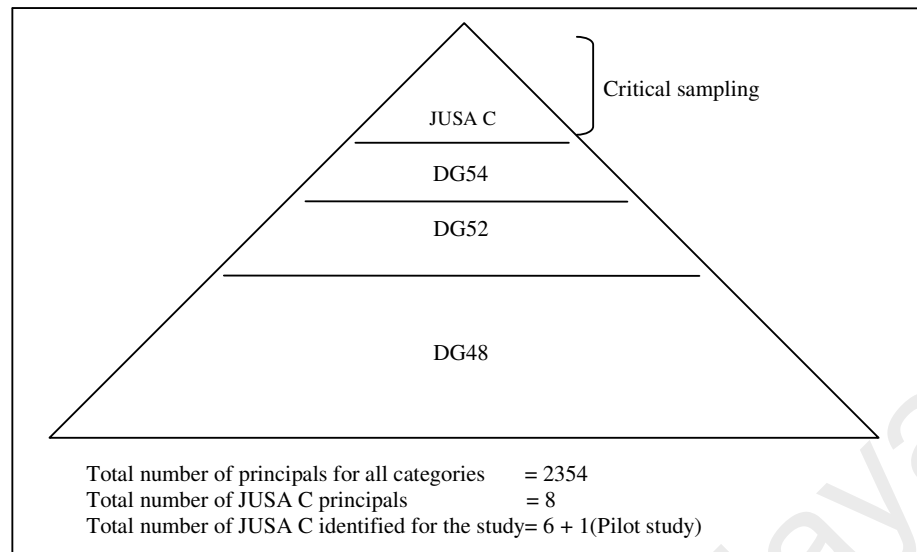
According to the Ministry (Government of Malaysia, 2016; Government of Malaysia, 2011) to be awarded the status of EP and be categorized into the salary scale of JUSA C, the respective candidate has to undergo a very rigorous process of selection. The reason is because to be categorized into this group, the evaluation processes by the Ministry of Education for their promotional appointments are very limited and selective. There are a number of criteria needed to be met. These are mostly related to their excellent record of service, their professionalism as leaders of schools and seniority.

These are school leaders having that *ceteris paribus* (Ahmad Murad, 2013). It is to mean that older and senior principals who are more experienced are assumed to be more effective. Especially are in influencing others as compared to other younger and less experienced principals. They are characterized mainly on their seniorities, experiences and their excellent records on school leadership which has well been

recognized by the Ministry. These are the principal who are considered to have explicitly shown characteristic of the tacit knowledge on school improvement and leaderships discussed earlier. According to Polanyi (in Ahmad Murad, 2013), in his book *Personal Knowledge* considered tacit knowledge as the expression used in many domains of the knowledge production system. To him tacit knowledge cannot be transferred from a scientist to a member of other (professional) communities, or even within the same scientific community. It is this tacit knowledge that the study intends to solicit from these EP to be reflected through the insights acquired during interviews.

Mainly due to these reasons has shown as to why their numbers are very small from among the total population of principals in the rest of the categories compared. Also it is understandable for them to be considered as the ‘model group’ among principals most suitable for benchmarking and standardization (Kelly, 2001). This is why when the identification for these JUSA C principals by the study there are only 8 of them from among the rest of the principals in the country. These are the model group identified by the study.

Figure 3.1 shows the structure developed through this study based on the result of these findings. It shows on how these principals are categorized according to their salary scales. It is in a simple pyramid form and the development is not based on the exact number of the stratification of these categories of teachers but is generally assumed to be of this form.



Source: Government of Malaysia (2011 & 2016) & Ministry of Education (2013b)  
 Note: The pyramid is not according to specific scale and population

**Figure 3.1:** Categories of principals according to their salary scales in critical sampling

### 3.5.3 The Sample Excellent Principals (EP)

In the study there are 6 EP in the category of JUSA C that has been selected. These are the samples in the study and are homogeneous. They are equally balanced in terms of gender being three males and three females. Also their schools' locations where they served are well spread out in peninsular Malaysia. Two of them are in the Northern Zone, two in the Central Zone and two in the Southern Zone. Each of them has been in the school system between 33 to 35 years of service. A summary on the data on these EP are as in Table 3.2 below.



**Table 3.2:** Summary of data on working experiences of these identified EP

No.	Informants (Category JUSA C)	Gender	Years of working experience in education	Number of schools served as principals	Other positions or duties held in education
1.	Principal A	Male	35+ years	4 schools (where 3 are fully residential schools)	Assistant District Education Officer & teacher in 2 schools
2.	Principal B	Male	34+ years	3 schools (where 2 are fully residential schools)	Senior Assistant, Head of Department & teacher in 3 schools
3.	Principal C	Female	33+ years	4 schools (where 2 are fully residential schools)	Lecturer in teacher training institute & teacher in 3 schools
4.	Principal	Female	34+ years	2 schools (where 1 is a fully residential school)	Senior Assistant in 4 schools & teacher
5.	Principal E	Female	35+ years	3 schools (non-residential)	Senior Assistant in 2 schools, Afternoon Supervisor in 1 school & teacher in 2 schools
6.	Principal F	Male	34+ years	1 schools (fully residential)	Senior Assistant in 1 school. Officer in the Ministry & Teacher in 2 schools.

Source: Developed by the researcher derived through in-depth exploration.

### 3.6 The Observations

#### 3.6.1 Selecting the high performing school (HPS) to be considered as a case

In the context of this study the success story of these HPS is considered as a ‘case’ for this research (Yin, 2009; Merriam, 1988). It is an attempt to study how the principals of these HPS bring about the success in their improvement efforts. These are towards realizing the schools’ transformational programmes. It sets the study to be focused on these with its limitations and the boundaries identified based on the respective theoretical criteria. According to Schramm (in Yin, 2009:17):

*“The essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions and why they were taken, how they were implemented, and with what result”.*

(Yin, 2009:17)

In applying the definition, the case of the HPS shows that it involves a very important decision by the Ministry of Education, Malaysia to classify a certain number of schools in the country as HPS. All justifications towards the decisions by the Ministry are based on their performance and the outcomes of all the efforts undertaken by these HPS. It is based on these contextual factors that the study considered these HPS to be as cases.

For the approach in examining these HPS is based on suggestion by Yin (2009:27). It is stated that research design consisted of five components. These are:

- The research’s questions
- Its propositions if any
- Its unit (s) of analysis
- The logic linking the data to the proposition and
- The criteria for interpreting the findings

Regarding the statement by Yin (2009), the five research questions posited in chapter one meets to that stated above in which these questions are about the principalship practices and the respective CSF and FF to be identified. The second component has to do with the proposition. In the case of this study the proposition is about the development of the CSF Model discussed. The third component is about the unit of analysis. In this study it refers to these EP. They are the focus of the study and are seen as units. The fourth component is on linking data to the propositions. In the study data collected are in two forms namely (i) interviews and (ii) observations. In both

forms, data collected are closely related to the CSF Model being discussed which is the proposition in the study. For the fifth components is on criteria for interpreting the findings are basically dependents on the analysis of these qualitative data discovered. Mostly adopts the thematic approach in the analysis (Miles, Huberman & Saldana, 2014; Miles & Huberman, 1994).

### **3.6.2 Initial data acquired on the HPS identified through in-depth exploration**

When the field-study is undertaken, 6 HPS has been identified from among all the rest of the country's mainstream secondary schools. The number correlate to the 6 EP selected who are in the salary scale categorized as JUSA C. These 6 EP are the principals of these 6 HPS. The information on these HPS and EP are acquired through the *Majlis Pengetua Sekolah Malaysia* (MPSM) (i.e. Council of Principals Malaysia, [mpsmkebangsaan.blogspot.my](http://mpsmkebangsaan.blogspot.my)). For a school to be awarded the status as HPS there are three screening processes that these schools have to undergo (Ministry of Education Malaysia, 2010). A summary of data on these schools are as follows in Table 3.3 below. Therefore it can be concluded that the sample of the study is represented by 6 of the best principals and the best schools. These are from among the rest of the principals and schools in the mainstream education system in the country.

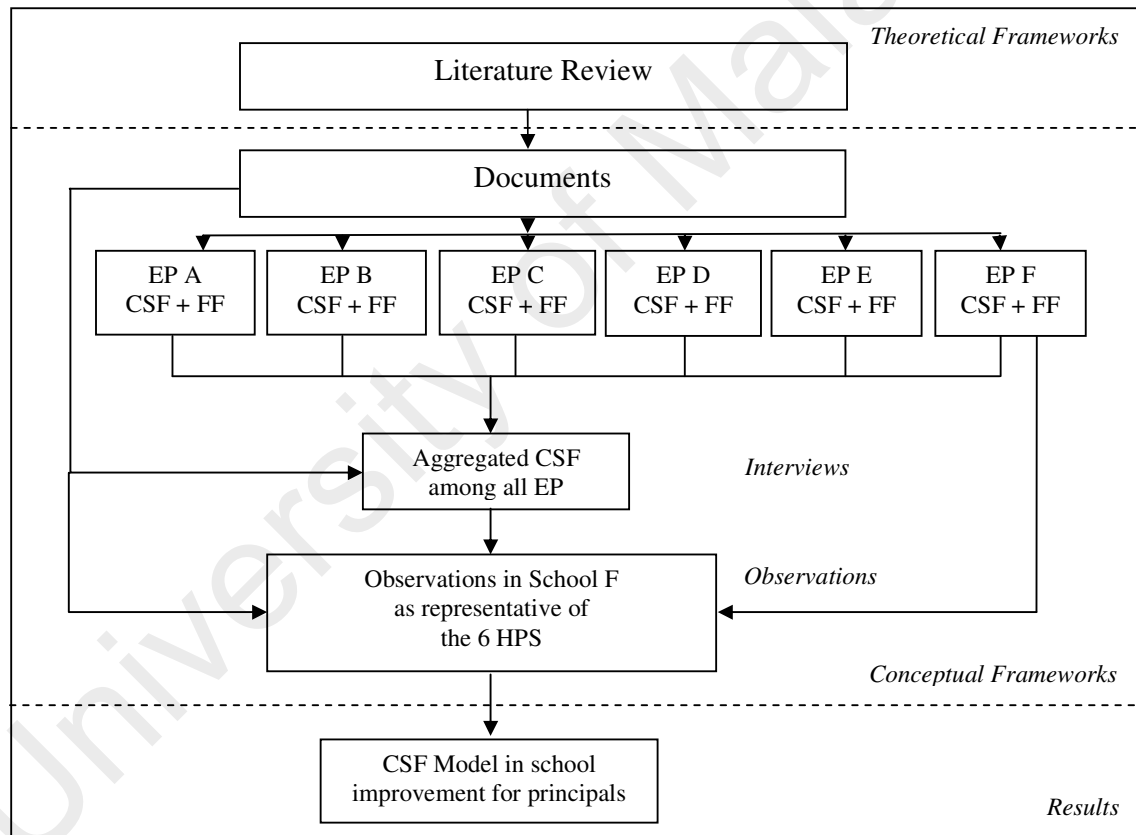
**Table 3.3:** Summary of data on high performing school (HPS) identified

No	Background Information	HPS					
		A	B	C	D	E	F
1	Location	Town	Town	Town	Town	City	Town
2	Co-education/ Boys/Girls	Co- education	Co- education	Co- education	Co- education	Girls Only	Boys Only
3	Students' Enrolment	800+	600+	700+	700+	700+	650+
4	Classes	Form1-5	Form1-5	Form1-5	Form1-5	Form1-5	Form1- Yr 2 IBDP
5	Curriculum	KBSM	KBSM	KBSM	KBSM	KBSM	<ul style="list-style-type: none"> <li>• KBSM</li> <li>• IBMYP</li> <li>• IBDP</li> </ul>
6	Residential / Non- residential	Residential	Residential	Residential	Residential	Non- residential	Residential & SGE
7	Year Awarded HPS Status	Cohort 5 2014	Cohort 3 2012	Cohort 2 2011	Cohort 1 2010	Cohort 1 2010	Cohort 1 2010

Source: Developed by the researcher through data collected through in-depth exploration.

### 3.6.3 The refined research framework for observations

The refined research framework is an adjustment made to the original research model discussed in Chapter 2 (shown in Figure 2.6) found in Laudon & Laudon (2000:337). It intends to link those aggregated findings or constructs arrived on the CSF through the six principals interviewed to the realities in the school contextual situation. These are through observations. Figure 3.2 shows the stages where observations were carried out in this refined research framework.



**Figure 3.2:** Refined research framework for observations

### 3.7 Ethical considerations prior to field-work

Flick (2006) discussed in depth on the code of ethics for researchers and the importance of being professional. As it has been the standard procedures by the

Ministry of Education Malaysia, any research attempt to be carried out in a school must be with prior official permission from the respective heads of departments. Thus letters for permission were sent out to the Educational Planning and Research Division (EPRD) of the Ministry. Copies of these are sent out to the respective State Education Departments and schools. Upon being permitted to conduct the research, care has been taken to inform the principals as early as possible for an appointment for the interview. Information and data acquired during the visits are strictly confidential and limited for the research purpose only. Name and other identities that are personal are replaced by using code names unfamiliar and difficult for anyone to recognize. These are to ensure that these informants feel assured and are free to express their views and to criticize.

### **3.8 The Pilot Phase**

#### **3.8.1 The pilot study through interviews**

Prior to the formal data collection process a pilot study was conducted. A pilot study is the best means to determine the feasibility of the inquiry. In the case of this study is to determine the usefulness of the interview guidelines which are in the form of open-ended questionnaires. A pilot test helps the researcher to get the 'feel' before being in the real interview session. These are in order that further refinement can be made at the early stage before the actual interviews are undertaken. Besides, are also to ensure that the feedbacks solicited are reflections of information that the study is seeking.

In this study it was upon an EP in similar category of salary scale of JUSA C of a fully residential school categorized as HPS. However the EP is not among those listed in the 6 EP in the category of salary scale of JUSA C in the study for the formal interview discussed earlier (in section 3.5.1). Early information acquired through the

non-formal process being the school's web-site shows that the EP is a very senior person in the education system. Through the formal process during the interview it was found out that the EP has served in a number of schools and is very experienced. Those good track records of excellent achievements are evidenced through the number of certificates and letter of recognitions shown.

Through the pilot study various forms of information and data are collected. These are later analyzed specifically for certain shortcomings that might be overlooked during the preparation for the interviews. A simple thematic analysis of the transcribed text through the interview undertaken has shown that the unstructured questionnaires approach is viable to provide the information expected. These are mainly related to aspects on the principalship towards school improvement on (i) leadership (ii) management and administration and (iii) strategy.

Based on the outcomes of these analyses a number of corrective actions are undertaken for further improvements. Among these includes those questions to be asked and also other additional information that needed to be acquired. These are aspects which have been rectified due to being overlooked prior to the pilot study. The final outcome is referred back to the respondents to cross-check for any misconceptions or other unintentional mistakes.

### **3.8.2 The pilot study through observations**

Similarly a pilot observation was carried in the same school where the pilot interview was undertaken. A simple guideline was developed for the observations using the basic concept acquired through Flanagan's CIT (that shall be discussed further on the concept in section 3.14.3). The development of the guideline is based on the outcome of the analysis of the pilot interview undertaken earlier. These are mainly on the three aspects discussed related to school improvements being (i) leadership (ii)

managements and administration (iii) strategy. Prior to the actual observation certain numbers of days were set for the pilot observation where the focus is on the improvement process in the school. These include attending one of the school's weekly assemblies, discussion with the principal and a few teachers that has been identified, some classroom observations and certain brief 'learning walk' (LW) with the EP.

All observations and findings through these are documented in the field note book. The follow-up to the documentation process is the data analysis. These are mainly to identify evidences related to the three aspects on school improvement discussed earlier being (i) leadership (ii) management and administration and (iii) strategy. The outcome of the analysis show that the guidelines developed for the observation is viable though with some adjustments and improvements before the actual or formal observation is undertaken.

### **3.9 The main data collection process**

Literatures have shown that inquiry using the qualitative approach starts with data collection and the documentation process from the multiple modes of information. These documentations are in various forms. These are such as acoustic and visual recordings, field notes, research diary and documentation sheets and transcription (Puvanesvary, et al., 2011; Lichtman, 2011; Silverman, 2010; Creswell, 2007; Flick 2006). Data collections processes are usually in two forms namely (i) non-formal and (ii) formal.

#### **3.9.1 Non-formal Data Collection**

The non-formal starts from the time when the identification processes are undertaken for these potential HSP and EP. These are from among the total population of principals in the government's secondary school in the country. Various forms of



information and data are acquired through numerous sources. Particularly are through electronic system such as web sites or portal from the Internet. Detail information on the respective schools, district education office, state education department and the various divisions in the Ministry are being accessed. Wherever any important information found (mostly are in printed hard copies) are systematically classified and filed for references. These are such as books, reports, magazines, fliers, brochures and others. These are mostly acquired from the respective departments in the Ministry of Education (particularly the resource centre in the Educational Planning and Research Division or EPRD), university libraries, other state and local libraries and business outlets mainly book stores. All these are to acquire the basic information related to the area of the study. These are part of the descriptive data that are very useful in the process of the study.

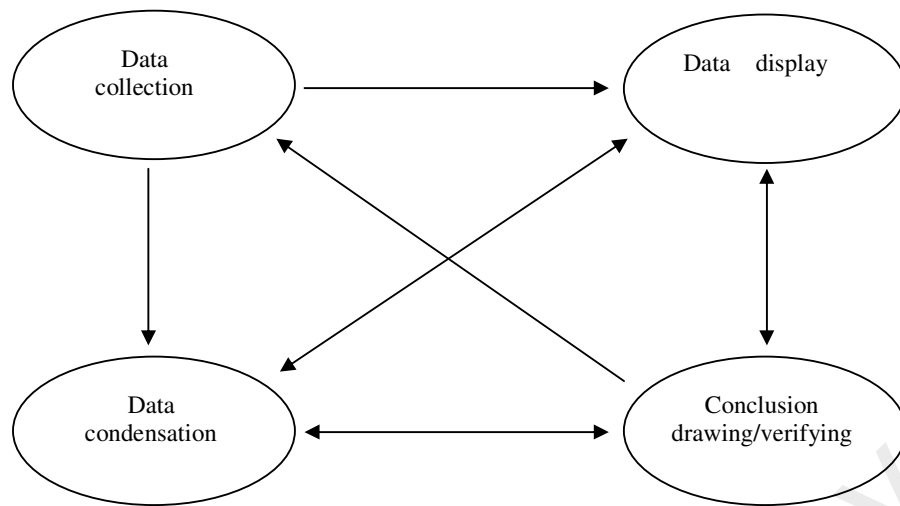
### **3.9.2 The formal data collection**

The formal data collections start during the fieldworks. These are for all those specific descriptive and inferential data needed. All the fieldworks starts during the second stage of the study discussed, after all the formalities in getting the official access to these places are obtained. These are obtained through postal mails or the e-mails. Normally a phone call is made to the respective EP for appointments and brief explanations related to the scope of the study prior to the interviews. These are then followed by intermittent visits to the school for interviews and follow-up discussions. The duration for each of these visits depends on the time available normally decided by the EP. It is usually from about one to two hours. Sometimes there are occasion that goes to more than three hours. These are when the issue being discussed went further into other wider and deeper aspects.

The approach adopted is non-participant observer for the interview during the identification stage. It uses the open-ended questionnaires in the form of simple guidelines intended to facilitate the progress of the interviews. Tape-recorder and note book are being used to record and document the process. At the same time other related printed documents are collected upon request from the principal. These are for later triangulation purposes. The interpretation stage is undertaken through the 'non-participant as an observer' approach. It is basically an ethnographic method where the researcher stations himself at the school (Creswell, 2007). It is for a certain number of months and observes every related activity in the process of data collections.

### **3.9.3 Data display**

One of the aspects discussed on research methodology is how data are acquired and documented for the analysis. All the processes of this abundance of data from documentation to analysis and findings are in stages. It starts from data reductions in the form of descriptors to later condensed into themes and finally displayed as constructs. All these stages shown are in accordance to the model suggested in Miles, Huberman & Saldana (2014:14) shown in Figure 3.3 below.



Source: Miles, Huberman & Saldana, (2014:14)

**Figure 3.3:** Components of data analysis: Interactive model

### 3.10 The interviews

The formal interviews are carried out after the outcome of the analysis on the pilot study undertaken. A general framework to guide the process of questionings for these interviews is developed. It is a refined guideline developed after the pilot study has been undertaken. The approach is that of non-structured interview procedure in which in this study it is preferred to be termed as '*qualitative interviewing*' in accordance to Yin (2011) discussed earlier in section 3.4.4. Though it is non-structured but the interview progressed within a framework based on core questions such as:

Question: *In your experience how do you undertake the process of improving your school?*

Question: *As principal of the school how do you implement those policies directed from the top at the school level?*

Question: *What are some of the responds from among the teachers when those policies are introduced and implemented?*

The 6 JUSA C EP were officially informed of the purpose of the interviews and appointments were made prior to the interview date. All interviews are on 'person to person' basis assisted by a research assistant to take notes and to record the discussion using an electronic tape-recorder. During the visit other supporting documents were requested and copies were taken whenever permitted. These were used for the intended purpose of triangulation. These include school reports, school magazines, bulletins, photocopies of letter of recognitions awarded to the EP and the schools. Besides includes other related information where photographs of these are taken.

Upon completion of the interviews, all these two-way interactive discussions recorded were transcribed into text. These transcripts were then printed out to facilitate the process of analysis. Prior to the analysis these drafted transcript were sent to the respective EP for their further comments and confirmation. Further discussions with these EP are usually through phones or through e-mails.

After the member-checking process the final transcript were then analysed manually for emergent themes and codes. *Appendix A* is an example of the opening part of one of the transcribed text (translated from Bahasa Melayu into English). It is an extract of one of the interviews carried out with one of the informants, (EP F). Transcript are the documented evidence of the qualitative interviews held with these selected EP.

### **3.11 Data display for analysis of interview:**

Those transcribed text are data that is displayed. These need to be analyzed. The initial process of analysis of these texts begins with the data reduction and the coding process. These are in accordance to Miles, Huberman & Saldana (2014) and Miles & Huberman (1994). The lengthy textual form of data displayed has to be reduced to be within its manageable form and be of relevance to the study. These are done through

editing and removing those unwanted texts that are irrelevant or out of the scope of the study. As stated in earlier section the researcher preferred to get it done manually mainly to get a better feeling of the process.

The following step is the coding. Coding is the process of reviewing notes and discovering common 'themes'. Whereas for themes describe the patterns or phenomena as results (Ryan & Bernard, 2013). According to Flick (2006) there are two categories of coding namely (i) theoretical coding and (ii) thematic coding. Theoretical coding is the procedure for analyzing data, which have been collected in order to develop a grounded theory (Strauss & Corbin, 1990; Glaser and Strauss, 1967). The thematic coding is applied as a multistage procedure with respect to the comparability of the analyses. For this study both the theoretical and the thematic coding approaches were adopted. This study was coded through multistage (i.e. from stage 1 to stage 4).

### **3.11.1 Data display through open coding**

#### **3.11.1.1 Transcribing and Coding**

All these transcribed texts were read thoroughly. Checking and counter checking were done to ensure of its accuracy and exactness between the audio and the textual forms. As these checking were in progress the process of note-taking or highlighting those important points (usually is termed as 'memoing') was done. This was to facilitate data analysis process. It is the separation of that abundance of data between those that are very useful and those that are less useful or unrelated. The outcomes of these are collections of main points in the form of descriptors that are found to be closely related to the study. These are paraphrases and are termed as elements. These main points or elements were shaded and underlined using coloured highlighter for easy tracking in the

later sorting process. An example of these is shown in Appendix A where the texts transcribed through interviews on EP F were highlighted for coding purposes.

#### **3.11.1.2 Inter-coder reliabilities**

According to Chua (2013) in order to increase the reliability of the qualitative research data should be triangulated using different persons to code the same transcript. In this study besides the researcher two more persons were engaged to do the manual coding. They are those who are very familiar and have the experience with the coding process. Each of them (or coder) were given the transcripts labelled EP A, EP B, EP C, EP D, EP E and EP F. They were requested to do individually the paraphrasing and highlighting of elements similar as shown in Appendix A. After having manually completed the coding exercise, all the 3 encoders met up to begin discussions on identifying codes. Every line of the transcripts was analyzed to find the common paraphrases or elements which were agreeable to the three encoders. Thus the process was very tedious and it consumed a significant number of man hours for the two days of data analysis. The two encoders assigned were paid for their professional services. Finally the agreed paraphrases and elements were reviewed for further coding and analysis. Since every line of the transcripts were scrutinized, discussed, analyzed and agreed upon thus the need to calculate for the kappa value based on the selected sample did not arise.

#### **3.11.2 Axial Coding**

This section describes the reduction of the paraphrases or elements into themes. These were the emergent elements which share certain similarities and they were grouped into common categories called themes. It reduced those 'wider or general aspects of points of interest' into its specific and more systematically organized

statements. These are in preparation for the following analysis of data. An example is the coding process done for one of the EP interviewed being that of EP A as shown in Table 3.4 below.

**Table 3.4:** An example of coding from interview texts into themes for EP F

Factors	Themes identified	Codes
Leadership	Knowing you leadership style through theories	FL1
	Flexible	FL2
	Democracy	FL3
	Spiritual	FL4
	Love the job	FL5
	Avoid insulting	FL6
	Less talk, more action	FL7
	Communication skill	FL8
	Sincere and not demanding	FL9
	Motivation	FL10
	Know people	FL11

Note: Short forms used in coding: F=EP F; L=Leadership.  
Numbers are sequencing of these themes e.g. FL1 is to mean that it is EP F on the first theme discovered and listed in cluster related to leadership factor.

### 3.11.3 Selective coding

Selective coding was conducted during the cross-case data analysis. It refers to the process based on the results of the accumulated interviews with these 6 EP derived through the axial coding. All these results from the respective EP were selected and are clustered according to similarities based on the themes identified. The clustering of these was done after the cross-case analysis had been completed which is shown and discussed later in Table 4.9 in Chapter Four. With reference to this study the process is termed as aggregation. It refers to the merging of all these common themes according constructs. As discussed in Chapter Two the process is according to the model derived from Laudon & Laudon (2000) shown in Figure 2.7. This is to mean that constructs are the general factors that have yet to be clustered either into CSF (critical success factors) or FF (functional factors). Those clustered as CSF is regarded as the most

critical factors of the school improvement efforts undertaken by the school principals. However there are those that are only applicable or have similarities with one or two EP when aggregated. These are clustered as the FF. This is to mean that these are applicable only to one or two EP but could not be generalized to all the rest of the 6 EP.

An example is shown in Table 3.5 where the clustering of all statements from all the EP share similar meanings under the leadership factor using colour coding.

**Table 3.5:** Example of themes compiled from among the 6 EP using colour codes

No.	Factors	Themes	EP A	EP B	EP C	EP D	EP E	EP F
1	Leadership	<p>- <b>Good relationship with teachers</b></p> <p>- <b>Humanistic approach in leadership</b></p> <p>- <b>Don't offend others as leaders</b></p> <p>- <b>Leading to success</b></p> <p>- <b>Positive thinking as leaders</b></p> <p>- <b>Knowing your leadership styles through theories</b></p>	AL8	BL3	CL4	DL4	EL3	FL1

EP A
 EP B
 EP C
 EP D
 EP E
 EP F

Source: Developed by the researcher.

Note: Interview text statements from the respective EP are in colour for convenience of selection of themes. Colours are according to respective Excellent Principal i.e. EP

### 3.12 Analysis of these displayed data

Through the exploration of the literature undertaken (discussed in Chapter Two) it is observed that there are precedents to approaches in data analysis that the study



identifies (Hardy & Bryman, 2004). There are two categories of methods used for the analysis. These methods are described as:

- Within-case data analysis.
- Cross-case data analysis.

Miles, Huberman, & Saldana (2014) and Miles and Huberman (1994), provides some basic examples of how these two forms of data can be undertaken for analysis. In addition, in the book, Huberman & Miles (1984) there is a realistic example of how data is collected and analyzed based on its contextual settings. In both of these sources the interview data is in the form of text. The approach in analyzing these texts are through identification of themes and matching these numerous quotations by linking them to the process of school improvement. In this study the method is adopted based on the updated approaches made available as described in Miles, Huberman & Saldana (2014).

The within-case data analysis refers to the analyses of the individual interviews with the respective 6 JUSA C principals of the HPS identified. These are the axial coding. It is a process that compiles all elements and groups them into themes from each of the respective EP interviewed. These are clustered according to the respective factors identified by the study through explorative means discussed earlier. These clusters are (i) leadership (ii) management & administration and (iii) strategy.

The main outcomes of these data analysis are the respective CSF and FF identified. It categorized the respective perceptions on school improvements derived through these EP into those that are critical (i.e. CSF) and those that are less critical (i.e. FF). The expected results through these two approaches of data analysis are the findings related to school's improvement efforts undertaken by these EP. These are shown theoretically in a form of a model being the CSF Model developed by the study.

### 3.13 Use of quotations

Certain parts of these transcribed texts have been selected. These are usually made up of short sentences or words termed as quotes. These are intensively selected in the process. It is because of its importance since it is able to further emphasize or clarify certain aspects discovered in the analysis related to these themes. Most of these are personal opinions from the respective EP regarding certain statements made. It helps in supporting the discussion for better understanding and clarification. It is used as a means to enhance its reliabilities and validities (the uses of quotations in this study are presented in ‘quotation marks’ using italics). It refers to the respective EP discussed. These quotations are placed at the respective themes identified shown in the following Chapter Four.

### 3.14 The Observations

The selection of sample for the observation is from the 6 HPS identified being HPS A, HPS B, HPS C, HPS D, HPS E and HPS F. The selection is decided through comparing all the respective information acquired from these 6 HPS shown in Table 3.3 in section 3.6.2. The school that has the best potential to provide the needed evidences on the process of school improvements is selectively chosen. The selected school of choice was HPS F which was listed in the table as compared to the other 5 HPS. This decision was based on the fact that it was regarded as the most established school compared to the rest. It offers 3 different types of curriculum according to the students.

The school is among the first cohort to be awarded the status of HPS in the year 2010. This is according to a booklet by the Ministry of Education Malaysia’s Fully Residential and Excellent Schools Management Division in ‘*Konsep Sekolah Kluster Kecemerlangan* brochure’, (page 83). Obviously the process of school improvement in the school is better established because of its early start. All are in keeping with the

various developments in the school's transformational process. It is in accordance to the country's educational blueprint (Ministry of Education Ministry, 2013). Recently this school was selected among the 10 schools in the country to be listed as a 'school of global excellence' (SGE) (Ministry of Education, 2014). Conclusively the school is the most appropriate to be selected for the critical sampling process as part of the observation.

### **3.14.1 Approaches in observations**

Observation is mainly to get the real information *in situ* rather than from secondary resources. It is to enable the researcher to get the real picture in its contextual situations in an inductive manner. It is to go beyond the informants' perceptions based on data gathered through interviews only. The focus is in generating a theory through the CSF model derived through the means of the grounded theory. These are the evidences for a full meaning in describing the realities of the situations (Leithwood, Aitken & Jantzi, 2006).

Three familiar approaches were adopted for the observations. These are (i) highly structured observation (ii) semi-structured observation and (iii) unstructured observation (Noraini 2013; Cohen, Manion & Morrison, 2001). For this study the unstructured approach was found to be more appropriate. The main reason, as in most research approaches is based on its purpose. In this study the main purpose is to generate a model being the CSF Model. The model was developed through the perceptions of the EP based on the interviews. However these perceptions need to be supported through evidences acquired in its real contextual situations. Thus the main purpose is to get the real picture in its natural situation without any interference. It is in contrast to those observations carried out in the laboratory through experimental research where inferences were made through certain reactions.

The study adopts the non-participant approach where the role of the observer was detached from the contextual activities and having no involvement. It was typified as a one-way mirror where document analysis involved video recordings, photographs and audio recordings. It is a non-interventionist approach with the aim of capturing the dynamic nature of the events for a certain pattern to be identified.

### **3.14.2 Procedures in observations**

Observation was conducted in school F which is one of the six HPS identified in this study. Alphabetical labelling system was used for the identification of each school. These pseudonyms were used for reasons of confidentiality and research ethics and also in accordance to the procedure of gaining access into the schools. Specifically the labelling and sequencing system in this study is according to the alphabetical order where A refers to EP A and is the head for HPS A. The same applies sequentially for B, C, D, E and F for the respective schools and principals.

Procedures for the observation upon the school take the form of '*on-site*' where the researcher is stationed at the school concerned. Most of those relevant activities that took place in the school were being observed and wherever were related to the study were taken note of. In the case of this study the duration of the '*on-site*' observation was stretched over two school terms which was about ten months. The approach adopted was that of non-participant observer. This meant that the researcher was distanced from all activities in the school except to observe and take note of activities that were related to the study.

Observations undertaken upon the school were documented in three forms namely:

- Writings: these were the field notes written in diaries and note books.
- Visuals: these were photographs captured using a digital camera.

- Audio-visuals: These were videos captured using the similar digital camera.

Field notes refer to records of what has been observed. Field notes were documented in text form in a research diary. Among those that had been taken note of were minutes of management meetings, teachers and staff meetings, briefings and discussions among the senior leadership teams or SLT, school's middle leaders or 'midleds' and the teachers. A compilation of all these notes form the main data for analysis. Almost all major events in the schools were photographed using a digital camera.

Throughout the observation period numerous photographs were taken and later saved in a computer hard-disk. Certain events and activities are also recorded using a digital video camera. Observations were mainly on classroom teaching and learning activities and other important events such as school sports, musical presentations and prize giving ceremonies. However these photos and videos are only meant for personal recollection of other supporting evidences used in the process of triangulation.

### **3.14.3 Approaches in data collections through observations**

Data collections approaches for the observations are through the use of ethnographic technique described in Fetterman (2010) and the 'Critical Incident Technique' (CIT) described in Patrick (1992). This means that the study adopted certain anthropological methods used in ethnography involving some aspect of identified observations in its contextual situations. It has been the tradition developed by anthropologists and community-study sociologists.

In the case of this study certain aspects of the research has already been identified. These are termed as constructs derived through data analysis of interviews from among the 6 selected EP. As discussed earlier these are through the (i) within-site data analysis and the (ii) cross-site data analysis. Observations are mainly for the

purpose of reliability and validity towards the findings as a result of the interviews. Thus only the required aspects related to these construct need to be observed. Thus there was no necessity for the observation to be prolonged unnecessarily. For this study the approach adopted that of the ‘Critical Incident Technique’ (CIT) introduced by Flanagan. A brief summary of this technique is stated in Patrick (1992:184):

- Determination of the general aim and objectives of the activity i.e. job, task to be investigated.
- Preparation of plans and specifications for collecting factual incidents about the activity including instructions to observers.
- Collections of the incidents from interviews, observations etc.
- Analysis of the incidents including developing categories of incidents.
- Interpreting and reporting

Table 3.6 below is an example of CIT from Flanagan described in Patrick (1992: 186).

**Table 3.6:** An example of guidelines in observation adopting the ‘critical incident technique’ (CIT)

Flanagan’s specifications regarding observations		In this study
1.	Persons to make the observations. a) Knowledge concerning the activity b) Relations to those observed c) Training requirements	The researcher’s experience and training background
2.	Groups to be observed a) General description b) Location c) Persons d) Times e) Conditions	The HPS F identified based on information shown in Table 3.3.
3.	Behaviours to be observed a) General types of activity b) Specific behaviours c) Criteria of relevance to general aims d) Criteria of importance to general aims (critical points)	School improvement activities only. These are related to those constructs identified

Source: Patrick (1992: 186)

By adopting the CIT approach, observations were based on certain identified constructs featured in the case of this study. Therefore not every aspect of the school improvement process was observed. Only those related to the findings on those constructs identified through the interview data analysis need to be observed. The observation data was compiled as memos in the form of as field notes and a research diary. Photos, videos and certain audio-recordings were also captured as data. All these were continuously reviewed and identified for similarities or descriptions related to these constructs. The process of the observation efforts were documented accordingly through an observations lists shown in Table 3.7 below.

**Table 3.7:** Observations according to the related constructs

No.	Constructs (CSF)	Critical Incidents				Others/ comments
1	Example: Personal qualities	<u>Observation 1</u> Place: Staff meetings.  Examples of situations: • SLT meetings • MidLeds meetings • Teachers meetings	<u>Observation 2</u> Place: School assemblies.  Examples of situations: • Daily assemblies • Weekly assemblies • Monthly assemblies	<u>Observation 3</u> Place: Staff developments activities.  Examples of situations: • CPD sessions • PLC sessions	<u>Observation 4</u> Routines. Place: Classes & school buildings. Examples of situations: • Classroom T & L (P & P) • LW	

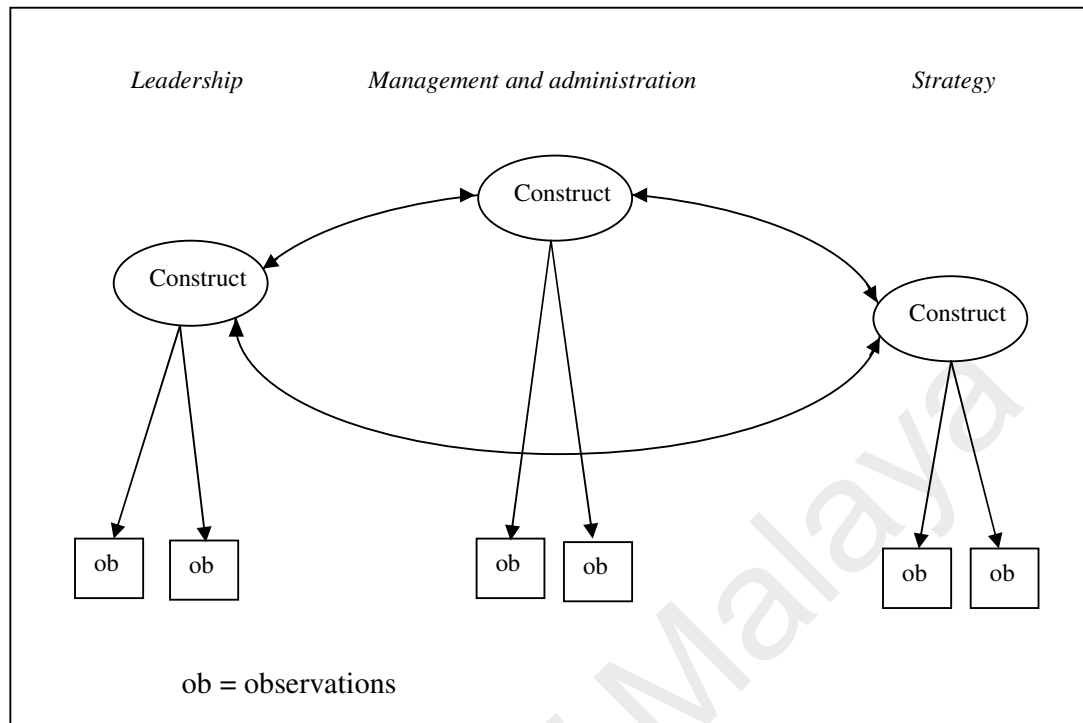
Further details based on the example above are shown in *Appendix B* where the summaries of all these observations are shown in a descriptive form. The reason for this descriptive form is due to the purpose that these are evidences only and not an analysis of observation. The limitation is by not extending the observations beyond the scope of this study. Evidences acquired are only towards the validities and reliabilities of those findings acquired through interviews.

### 3.15 Triangulation of interviews and observations

Through the research findings are discussions that show linkages between both of these two forms of documented data namely (i) interviews and (ii) observations. More specifically are the triangulation between the constructs identified through interviews and observations. Outcomes of observation data analysis are evidences that are closely linked to these constructs. Discussion on the linkages between these constructs and those selected pieces of evidences through observations adopts the approaches of the concept of 'nomological network'. This is a concept originally introduced by Cronbach and Meehl (2010) to measure construct validity. In general a nomological network defines a construct by illustrating its relation to other constructs and behaviours. It is a representation of the concepts (constructs) of interest in a study, their observable manifestations and the inter-relationship among them. It examines whether the relationships between similar constructs are considered a relationship between the observed measures of the constructs.

Basically in the study the concept is simplified into the diagram shown in Figure 3.4. Discussions between these observations and constructs are the process in establishing research findings. These shall be discussed in the following chapters 4 and 5.





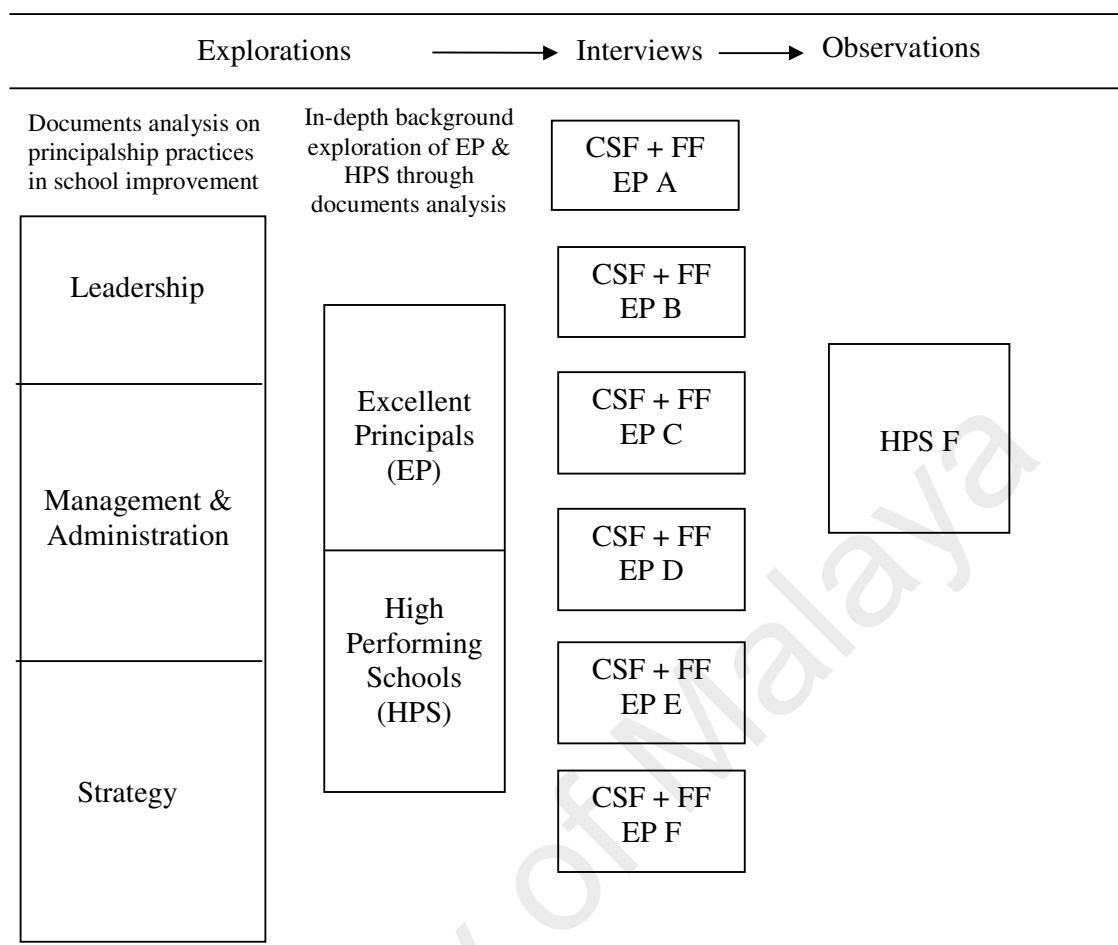
Source: Developed by the researcher derived through literature.

Note: The respective number of squares in the observation boxes in relation the construct does not represent the exact number of observations done i.e. the two squares per construct is only for the diagram. However more observations are done for the respective constructs in the study.

**Figure 3.4:** Linkages between constructs and observation adapting the 'nomological network' concept.

### 3.16 Outcomes of data analysis towards the development of the CSF Model

The three approaches used in this study in acquiring all the data for the development of the CSF Model discussed are sequentially linked. Figure 3.5 shows these linkages in a simple framework. It is to show what is expected to emerge after the data analysis is undertaken. The complete framework is after the CSF and FF has been clustered. This is done after the result of data analysis is obtained. All these are discussed in Chapter 4. The outcome of the findings is the creation of the CSF Model.



**Figure 3.5:** Linkages between exploration-interview-observation in a form of framework prior to data analysis

### 3.17 Triangulation of results: Exploration-inquiry- observations

These are towards arriving at the various discussions and establishing the conclusion of the study. The various findings are checked for their consistencies, validities and reliabilities through triangulation method. Results from these 3 sources of data namely (i) documents (ii) interviews and (iii) observations are triangulated. A summary of these 3 sources of data are shown in Table 3.8.

**Table 3.8:** Summary of sources of data and evidences

Sources for data	Items/materials/evidences	Comments
<b><u>Documents:</u></b> (other than some of those listed in the references)	<b><u>For HPS F only:</u></b> School's list of teachers & staff names. School's annual calendar. School's annual magazine. School's organization and duties booklet. Teachers' & classroom time-table. School's layout plan. Copies of pamphlets on the school's display board. Copies of minutes of staff meetings. Copies of minutes of subject's panel head meetings. Copies of 'e-Gerak' (i.e. records on teachers' movement for external duties). Numerous fliers related to school's co-curricular events and activities. Report/minutes of PIBG meetings. Booklets on International Baccalaureate (IB) programmes. Others such as those copies from pen drives.	All are in printed documents (official and unofficial)
<b><u>Interviews</u></b>	Audio tapes of interviews on EP A, B, C, D, E & F Transcribed texts of EP A, B, C, D, E & F	In audio and text forms.
<b><u>Observations</u></b>	More than 500 digital photos taken on all the school's important events, meetings, classroom teachings and learning, CPD and PLS. These are stored in the researcher's personal hard disk. Videos of certain selected events such the school's orchestra performance, official ceremonies and classroom teachings and learning activities. Field notes (hand-written & computerized) CIT lists to guide those important observations to be made (example in Table 3.6)	Photos and videos are taken using personal digital camera and smart phone. All are kept in the researcher's personal external hard disk.

This is the final stage of the analysis and is done manually through checks and cross-checks to ensure consistency and accuracy. Finally a simplified diagram of the various relationships of the CSF were identified and mapped out. It shows the various emergent factors related to the school improvement efforts undertaken by these EP. All these are shown through the CSF Model developed. Discussions on the findings related to the model developed and conclusion made are discussed in Chapter 5.

### **3.18 Summary of chapter**

In this chapter the methodology for the research undertaken was discussed. The approach departed from a general overview of the concept of research and its relevance to the problems and objectives of the study. It explored the various possibilities available in the undertakings of this qualitative inquiry. The qualitative approach was found to be the most appropriate strategy for adopting grounded theory. It was sequenced into exploratory-inquiry-observation and was designed into four stages. Exploration is towards developing the study's theoretical and conceptual frameworks. Inquiries were made through interviews and in the process identifying the CSF through the perceptions of the respective EP. Observations are towards enhancing the validity and reliability of these CSF identified. Observations were undertaken in one of the HPS identified. Methods for the interview data were analyzed through (i) within-case analysis and (ii) cross-case analysis. Observations were analyzed through the adaptation of the 'Critical-Incident Technique' or CIT. These approaches were aimed towards the main objectives of this research, which is the development of the CSF model. The various steps in the process of undertaking the study were based on the study designed especially on the methods of gathering data. These were followed by the process of analyzing the data. All these were acquired and analyzed in order to understand the phenomenon that emerged in the school improvement process. The results of all these through the discussions in this chapter are to show that the process of undertaking the study was conducted in the best way possible. In the following chapter were discussed on the findings through the various means of data analysis and how the CSF are identified and the CSF Model developed.

## **CHAPTER 4: DATA ANALYSIS AND FINDINGS**

### **4.1. Introduction**

Discussions on methodology in Chapter 3 has described of the various stages in the design of the study towards identifying the CSF and developing the CSF Model. The story line through the design starts with stage 1 through document analysis especially on EP and HPS. It is followed by stage 2 the pilot study. This chapter focuses on stage 3 and 4 and on the results of the data analysis of the interviews and observations. Prior to the analysis all these abundance of data were collected directly from the source through the field-work. These were sorted out and compiled accordingly through labelling and classification. Data through interviews captured through a digital audio-recorder was transcribed. In the case of observations, data was mostly in the form of hand written field notes. In some cases wherever possible, data was directly keyed-in into the smart phone and the lap top. In addition are the various forms of documents and records that were collected from the school as these were closely related to the observations. Most of these were in soft copies as well as in hard copies in the form of digital visual records and printed materials. These include photographs, videos and copies of the relevant documents and materials acquired from senior teachers and teachers. Also are the various collections of printed documents. Among these are such as the school magazines, brochures and fliers, those various internal reports and other published and unpublished materials. Approaches and methods towards the analysis of these data sets have already been discussed in detail in the previous chapter.

## **4.2 Results of within-case data analysis**

Within-case analysis is an approach towards analyzing data acquired from a particular EP. According to Miles, Huberman & Saldana (2014) it is an inclusive explanatory analysis of a single case data in helping to examine certain aspects from the various informants in depth. These are the step-by-step individual analysis of data on the respective EP. It goes from one EP and progressed to the next until all data on the rest of these 6 EP are analyzed. Thus analysis is within this individual EP in interpreting their perceptions on what is those CSF and FF in their view on school improvements. The approach undertaken for the discussion on the results of data analysis on interviews is according to the respective HPS:

- Interview for EP A is for HPS A
- Interview for EP B is for HPS B
- Interview for EP C is for HPS C
- Interview for EP D is for HPS D
- Interview for EP E is for HPS E
- Interview for EP F is for HPS F

The results are in the form of summaries of the thematic analysis shown. These are the paraphrasing and condensation of the various salient points or descriptors identified in the transcribed texts. These are the various interpretations derived from the respective EP. The results of the analysis of all themes identified are clustered under the three categories of the principalship practices in school improvement. These are those identified in the study through the analysis on the principalship practices in the literature discussed in earlier namely (i) leadership (ii) management and administration and (iii) strategy.

### 4.3 Results data analysis on the case of excellent principal (EP) A

The following is the summary of data analysis based on the interview upon EP A. These have been simplified into themes following the earlier stages in the process of data reduction through open coding discussed in section 3.11.1. These are shown in Table 4.1 below.

**Table 4.1:** Summary of thematic analysis on interview of EP A

<b>No.</b>	<b>Factors</b>	<b>Themes</b>
1.	Leadership	Excellent by example
		Understanding
		Principled
		Dedication
		Grateful
		Firmness
		Seriousness in teaching
		Good relationship with teacher
		Practicing good rapport
		Excellent work culture
		Responsible
		Culture of acquiring knowledge
2.	Management & Administration	Maximize usage of assets
		Decision through meeting
		Focus on excellent
		Self-evaluation
3.	Strategy	Increase activities
		Immediate communication
		Cooperation with stakeholders & others
		Establish moral values
		Staff development
		Have strategic planning
		Establish vision & mission

### **Results of findings from case EP A**

For EP A the most critical factors towards the success of school improvements efforts undertaken are as follows:

(i) **Leadership factor:**

- **Personal qualities in leadership:**

Whether it is following the directives from the top on the various policies or implementing these policies at the school level, it is the personal quality that is the most critical. It has to be the model in leadership qualities and is exemplary for others to follow. These are shown through behaviours in the form being understanding to others, principled, dedicated and being grateful.

Quotations from EP A:

*“Develop the culture of acquiring knowledge for the better. Good relationship to all concerned”.*

(Transcript EP A, page 5, line 9-10)

*“Being passionate and to love the school”.*

(Transcript EP A, page 3, line 7)

*“Understand the hardship of teachers and students who are from the rural backgrounds”.*

(Transcript EP A, page 6, line 26-38)



- **Dedication to work:**

As a school leader one has to show their seriousness in teaching. Having good rapport and relationships with teachers will assist in the success of the school improvement efforts undertaken. Though in the course of these, a leader needs to practice firmness.

Quotations from EP A:

*“Work from morning to evening and even Saturday and Sunday.*

*Willing to teach whether it is during the day or at night time”.*

(Transcript EP A, page 4, line 9-10)

- **Leading through excellent work culture and acquiring of knowledge:**

It is undeniable that being a leader the work culture of the school be excellent. At the same time a leader needs to be in the continuous process of acquiring knowledge.

Quotations from EP A:

*“We emphasize to them that excellence is what we want”.*

(Transcript EP A, page 3, line 36)

(ii) **Management and administration:**

- **Focus:**

Principals have the duty to be always focused on the goals and objectives set.

Quotations from EP A:

*“Have vision”.*

(Transcript EP A, page 3, line 34)

*“Hold to the principles that these students depends on us. If we are serious and dedicated student will excel”.*

(Transcript EP A, page 4, line 17)

- **Consultative:**

Though all aspects of the schools are under the prerogatives of the principal but decisions made are better through meeting and discussions to show that all involved are consulted.

Quotations from EP A:

*“Meetings are held every week”.*

(Transcript EP A, page 4, line 4)

*“Refer to Department for assistance. Consult and discuss with PIBG”.*

(Transcript EP A, page 7, line 20-29)

- **Maximizing usage of assets and resources:**

Success in the school improvement efforts can be more effective by maximizing the various assets available. These include physical assets such as facilities and equipments and also human capital resources such as experience and professionalism displayed by teachers.

Quotations from EP A:

*“We use all available assets for the benefit of the school and students”.*

(Transcript EP A, page 4, line 15)

- **Continuous evaluation:**

Productivity can be measured through evaluation. As a school leader principal should start by doing self-evaluation.

Quotations from EP A:

*“Experience in being evaluated by 7 principals and has learned from these. Let the teachers witness by themselves why others are evaluated as excellent”.*

(Transcript EP A, page 3, line 29)

### (iii) Strategy

- **Strategic Planning:**

For any school improvement efforts to be undertaken it must have its strategic planning. Thus through the plan the respective vision and mission are made clear to all involved.

Quotations from EP A:

*“Our strategy is through planning”.*

(Transcript EP A, page 4, line 28)

- **Continuous development for staff:**

School improvements can be more effective if all staff knew the best way to accomplish this. These can be achieved through staff developments and work culture such as cooperation and collaboration among members, communications and higher productivities.

Quotations from EP A:

*“We have staff developments. We have staff retreat and all feel like being in a big family. Then we have training programmes”.*

(Transcript EP A, page 5, line 26; page 8 line1)

#### 4.4 Results of data analysis on the case of excellent principal (EP) B

The following is the summary of data analysis based on the interview upon EP B which has been simplified into themes following the stages in the process of data reduction discussed. These are shown in Table 4.2 below.

**Table 4.2:** Summary of thematic analysis on interview for EP B

No.	Factors	Themes
1.	Leadership	Sincere
		Humanistic approach
		Apologetic for mistakes
		Motivation
		Spiritual approach
		Knowledge
		Personal abilities
		Personal attitude
		Personal efforts
		Anger management
2.	Management & Administration	Good inter-relationship to PPD
		Good rapport with police
		Empowerment in certain decision making
		Immediate action
		Not hesitant to request for fund allocations
		Focus on Hostel, Physical, Environment and Instructional
3.	Strategy	Work culture between students and teachers
		Establish vision and mission
		Face to bullying and hooliganism
		Immediate problem solving
		Psychological approach
		Counselling
		Be evaluated by others
		Train those at lower levels
		Team-building
		Reward for success and high performance
		Staff development
		Guidance to teachers
		Set high standards
		Study self-strength
		Examination centred
		Build teachers' capacity
		Modular approach

### **Results of findings from case of EP B**

For EP B the most critical factors towards the success of school improvement efforts undertaken are as follows:

(i) **Leadership factors:**

- **Personal qualities in leadership:**

Aspects on personal qualities in leadership is emphasized such as sincerity and being apologetic when needed. These qualities are important for getting the respect and thrust among those involved, especially the teachers.

Quotations from EP B:

*“Must have the abilities and together with positive attitudes and efforts”.*

(Transcript EP B, page 3, line 20-21)

*“Sincere and focus on our work”.*

(Transcript EP B, page 4, line 41)

- **Personal behavior:**

Motivated, being knowledgeable, having the required abilities. Also included is anger management. Behavior too has an effect upon the effectiveness of one's leadership. To display positive behaviors towards the effectiveness of school improvement efforts is needed.

Quotations from EP B:

*“My approach is humanistic. Never shout at others or high voice or angry. Motivate others”.*

(Transcript EP B, page 5, line 4-5)

- **Personal attitude:**

Have the right attitudes such as in being humanistic and spiritual. The key aspect in leadership is towards influencing others.

Quotations from EP B:

*“Be religious”.*

(Transcript EP B, page 7, line 19)

*“Apologize when make mistakes. Never think that you are always right”.*

(Transcript EP B, page 8, line 21)

(ii) **Management and administration factors:**

- **Good rapport:**

Establishing good rapport especially with the respective government departments such as the PPD in requesting for funds and even the police for their service and cooperation.

Quotations from EP B:

*“Aspects on communication we must have good rapport with PPD, with the Director, officials from the Ministry and even police”.*

(Transcript EP B, page 7, line 24-25)

- **Empowerment:**

Especially on aspects related to decision-makings. This is in accordance with practice of distributed leadership.

Quotations from EP B:

*“I give empowerment”.*

(Transcript EP B, page 3, line 26)

*“I have certain principle. Firstly follow procedures and take care of students’ welfare. The senior assistant will thus have confidence. If they have no confidence we are finished”.*

(Transcript EP B, page 3, line 26-27)

- **Prompt:**

Take actions fast and appropriately.

Quotations from EP B:

*“If there are mistakes made then rectify it immediately”.*

(Transcript EP B, page 8, line 14)

- **Priorities:**

Be focused on certain aspects of the school such as instructional, physical environments and hostels.

Quotations from EP B:

*“First change undertaken is teaching and learning. Focus on physical developments”.*

(Transcript EP B, page 1, line36-37)

(iii) **Strategic factors**

- **Strategic planning:**

Having vision and mission established. Specific approaches such as modular approach in the teaching and learning process and be examination centered.

Quotations from EP B:

*“School must be in the top 10. If better be the number 1. High target”.*

(Transcript EP B, page 5, line 16-17)

*“Others use module in teaching and learning why not adopt their ideas and plan for it”.*

(Transcript EP B, page 6, line 21-22)

- **Good work culture:**

Develop a good work culture environment especially among teachers and students. Use psychological approach.

Quotations from EP B:

*“Work culture and learning culture to be outstanding”.*

(Transcript EP B, page 6, line 10)

*“Principal must have ethos in their work for psychological influence for others to follow”.*

(Transcript EP B, page 6, line 4-5)



- **High Standards:**

Set high standards for performance, be evaluated by others and be rewarded for success. Know your self-strength.

Quotations from EP B:

*“We compete with other HPS. These are excellent schools to be set as standards”.*

(Transcript EP B, page 5, line 14-15)

*“We give hampers, awards and various contributions for the success achieved to teachers, and others”.*

(Transcript EP B, page 4, line 35)

- **Capacity and capability building for staff:**

These are through guidance, counseling, training and team-building.

Quotations from EP B:

*“Challenge teachers so that they are the best”.*

(Transcript EP B, page 4, line 32)

*“Counsel them through psychology. Have development programmes”.*

(Transcript EP B, page 4, line 12)

- **Being realistic:**

Handling problems such as bullying and hooliganism. Do problem-solving immediately. These are challenges and proper strategies applied to overcome such challenges.

Quotations from EP B:

*“Good rapport with police. Face these problems of bullying and hooliganism”.*

(Transcript EP B, page 5, line 25-26)

#### **4.5 Results of data analysis on the case of EP C**

The following is the summary of data analysis based on the interview upon EP C which has been simplified into themes following the stages in the process of data reduction discussed. These are shown below. Refer to Table 4.3.

**Table 4.3:** Summary of thematic analysis on interview for EP C

No.	Factors	Themes
1.	Leadership	In difficulties lies opportunities
		Be detailed and meticulous
		Go with the flow
		Don't offend others
		Be the best
		Sharing and guiding
		Positive thinking
		Know that cannot work alone
		Have self confidence
		Face challenges
		Spiritual factors
		Determined
		Trial and error
		Work as religious commitment
2.	Management & Administration	Proper usage of facilities
		Prudent in using funds
		Eye for details
		Correspondent to right department
		Channelling of funds appropriately
		Continuous thinking on the usage of funds for development
		Appropriate action according to situations and needs
3.	Strategy	Love and care for staff
		Sharing of ideas
		Transfer of knowledge
		Ask and be inquisitive
		Total empowerment
		Give support – scholarship
		Open system
		Flexible and adaptable
		Involvement for support
		Gain the hearts and minds of locals

**Results of findings from case of EP C**

For EP C the most critical factors towards the success of school improvements efforts undertaken are as follows:

(i) **Leadership factors:**

- **Personal qualities in leadership:**

Positive thinking such as where difficulties are opportunities, determined, self-confident, be the best, ready to face challenges and not to offend others.

Quotations from EP C:

*“To be an excellent Principal our heart and mind must be strong.*

*If you are not strong you will follow them”.*

(Transcript EP C, page 3, line 16)

*“We must lead. To be a transformational leader we must transform”.*

(Transcript EP C, page 18, line 18-19)

*“Work as a team. Have more encouragement. Be creative and innovative”.*

(Transcript EP C, page 29, line 11)

- **Have spiritual values:**

Religious commitments and understand spiritual factors.

Quotations from EP C:

*“To me people will evaluate you”.*

*“We can excel but must be guided by spiritual values. It is SQ or Spiritual Quotient”.*

(Transcript EP C, page 9, line 24-25)

- **Competency in leadership:**

Focus to details. Willing to share, guide and accommodate to team spirit with the awareness that work cannot be done alone.

Quotations from EP C:

*“I detailed it to them. Your involvement is very important”.*

(Transcript EP C, page 30, line 30)

*“Take care to be mindful of them as we need them”.*

(Transcript EP C, page 24, line 16)

**(ii) Management and administration factors:**

- **Competency in resource management:**

Systematic in the management and usage of funds.

Quotations from EP C:

*“When becoming a principal just see how funds are used. If it is correctly used all the rest will take care of itself”.*

(Transcript EP C, page 10, line 6-7)

- **Meticulous:**

Scrutinize details and actions. Get the right channel or departments for support.

Quotations from EP C:

*“Sometimes when there is no problem, there is no challenge. Go for detail. Do it according to the right channel”.*

(Transcript EP C, page 1, line 10)

**(iii) Strategic factors:**

- **Get the right support:**

Get involved for support such as from staff and locals by showing care and concern for them. Empower them.

Quotations from EP C:

*“Up to the present I, PIBG and all the committee members are like family”.*

(Transcript EP C, page 16, line 21)

*“Kampung folks are those that I tackled first. They will always give you full support for all your efforts”.*

(Transcript EP C, page 16, line 34)

- **Collaborations and cooperation:**

By being flexible, showing openness and sharing of ideas and knowledge. The approach enables better involvement of others.

Quotations from EP C:

*“Take advantage of others for support such as from ANZ”.*

(Transcript EP C, page 11, line 28)

*“Support from companies such as Toyota. Involve all others”.*

(Transcript EP C, page 14, line 28)

*“Even until now PIBG members are like family”.*

(Transcript EP C, page 16, line 21)

- **Inquisitives:**

Always ask questions and be inquisitive. Such practice ensures better understanding and a clearer picture of the various actions and activities to be undertaken.

Quotations from EP C:

*“I like to discover. Like the Malay idiom that says, ‘when dancing follow the tune or music’, which means is to be adaptable”.*

(Transcript EP C, page 32, line 23)

*“More reading and sharing of knowledge”.*

(Transcript EP C, page 34, line 8)

#### **4.6 Results of data analysis on the case of EP D**

The following is the summary of data analysis based on the interview upon EP D which has been simplified into themes following the stages in the process of data reduction discussed. These are shown in Table 4.4 below.

**Table 4.4:** Summary of thematic analysis on interview for EP D

No.	Factors	Themes
1.	Leadership	Professional involvement
		All are leaders
		Adaptable approach
		Leading to success
		Get satisfaction
2.	Management & Administration	Wise usage of limited fund
		Involvement in central planning
		Good relationship with sports council
		Do book publication
3.	Strategy	Supportive
		Flexibility and changing to approaches
		Apply appropriate strategy

**Results of findings from case of EP D**

For EP D the most critical factors towards the success of school improvements efforts undertaken are as follows:

**(i) Leadership factors:**

• **Being professional:**

Get involved professionally in any aspect and be adaptable in approaches. Achieve personal satisfaction.

Quotations from EP D:

*“I am appointed as EP. The success is because of my various achievements and involvements”*

(Transcript EP D, page 9, line32-33)

*“In school you cannot depend on the leader alone. You adapt accordingly and be a leader”.*

(Transcript EP D, page 1, line 3)



- **Flexible leadership:**

Evidence of distributed leadership practice where all members are seen as leaders.

Quotations from EP D:

*“Actually I am preparing them to be leaders. Being a leader but without a title. Don’t be a leader just because you have a title”.*

*“A senior assistant is a leader. Your senior teacher is a leader”*

*“Indirectly this is also distributed leadership”.*

(Transcript EP D, page 15, line 35-38)

(ii) **Management and administration factors:**

- **Competency in resource management:**

Centralized planning system at school level. Prudent in usage of those limited funds.

Quotations from EP D:

*“We collect money through activities such as a cultural show. We use the money for the school”.*

(Transcript EP D, page 10, line 23-24)

(iii) **Strategic factors:**

- **Strategic planning:**

Apply appropriate planning to various initiatives. The importance of planning in any undertaking is emphasized.

Quotations from EP D:

*“I am involved in the planning of a number of initiatives such as the publications of book in government agencies”.*

*I am involved in strategic planning such as a panel member for strategic planning and writings”.*

(Transcript EP D, page 9, line 1-4)

- **Publicity:**

These are through the publications of books and other initiatives. It shows of one’s willingness in sharing and exchanging of ideas. These publications are a means of disseminating information; especially those educational books published for students.

Quotations from EP D:

*“I do book project starting from Form One class. We publish these books for students to use especially those related to examination subjects. I had been collaborating with officers from various State Education Departments. We have produced a number of working papers”.*

(Transcript EP D, page 9, line 22-23)

*“Even SBP is being involved such as the PPSBP until the year 2015”.*

(Transcript EP D, page 9, line 22-23)

*“Publication of books and modules is my strength”.*

(Transcript EP D, page 8, line 1)

- **Adaptability:**

Be flexible and adapt to changing situations as well as being supportive to others.

Quotations from EP D:

*“We plan and produce modules for students. We want to improve the school results”.*

(Transcript EP D, page 9, line 22-23)

#### **4.7 Results of data analysis on the case of EP E**

The following is the summary of data analysis based on the interview upon EP E which has been simplified into themes following the stages in the process of data reduction discussed. These are shown below. Refer to Table 4.5.

**Table 4.5:** Summary of thematic analysis on interview for EP E

No.	Factors	Themes
1.	Leadership	Be extra-ordinary
		Be brave
		Positive thinking
		Sincerity
		Take action
		No need for appointment
2.	Management & Administration	Emphasis on comfort and facilities
		Follow ethics and code of administrations
		Less bureaucracy and more results
		Maximize external resources
		Take fast actions
		Risk-taking
		Fast action
		Follow administrative process and actions
3.	Strategy	Self-initiative for sources of limited fund
		Do things out-of-the-box
		Action oriented
		Team approach
		Flexible
		Team building
		Develop niche area
		Conduct courses for enhancement
		Get environmental support
		Always celebrate success
		Good relationship with teachers
		Understand the importance of change
		Use acronym (example – IDEAL)
		Innovative

**Results of Findings from case of EP E**

For EP E the most critical factors towards the success of school improvements efforts undertaken are as follows:

**(i) Leadership factors:**

- **Personal qualities as leader:**

Be extra ordinary, brave, positive thinking, sincere; take action when necessary and open-door policy.

Quotations from EP E:

*“I am very open. I always think positive and believe that there will always be blessings. If I do something and there is improvement people will see. We must be positive”.*

*“I am close to my teachers. We succeed in developing the school. People notice that. Whatever it is there will be blessings”.*

(Transcript EP E, page 1, line 22-27)

(ii) **Management and administration factors:**

- **Adhere to rules and regulations:**

Follow administrative process and actions.

Quotations from EP E:

*“I have been transferred. I take it because there must be something good about it”.*

(Transcript EP E, page 1, line 11-12)

- **Ethical:**

Follow ethics and code of administration.

Quotations from EP E:

*“We follow accordingly through plan, act, review and improve”.*  
(Transcript EP E, page 10, line 24)

- **Competency in resource management and result oriented:**

Maximize usage of external resources. Undertake self-initiatives for funds. Emphasis more on comfort and facilities, fast actions and take risks.

Quotations from EP E:

*“I did something to improve facilities and get funding. Be extraordinary and get results”.*

(Transcript EP E, page 4, line 15-16)

- **Flexibilities:**

Being less bureaucratic and being adaptable in various situations.

Quotations from EP E:

*“Go ahead with the initiatives. I don’t want bureaucracy. No need for appointment”.*

(Transcript EP E, page 10, line 7-8)

(iii) **Strategic factors:**

- **Innovative:**

Do things out-of-box, develop niche areas and use acronyms for simplification, understand importance of change and better understandings.

Quotations from EP E:

*“Our niche areas are English, the music orchestra and choir. I use the acronym ‘PARI’ where P is plan, A is act, R is review and I is improve”.*

*“Have short meeting. Keep it simple and short”.*

*“Excitement can result in change. New things, every year we have something new”.*

(Transcript EP E, page 10, line 24)

- **Collaboration and cooperation:**

Continuous relationship with all teachers by adopting team approach and always celebrate when success is achieved.

Quotations from EP E:

*“It is informal but more towards appreciation to the school. To be together is team building. It is not compulsory but just to have cooperation. We enjoy and we appreciate”.*

(Transcript EP E, page 10, line 17)

- **Progressive Development:**

Action oriented in approaches. Continuous staff development and being flexible in all situations.

Quotations from EP E:

*“I love things fast. I walk fast. I talk fast and everything.*

(Transcript EP E, page 10, line 27-28)

*We have games and flexible without those speeches”.*

(Transcript EP E, page 10, line 34)

#### **4.8 Results data analysis on the case of EP F**

The following is the summary of data analysis based on the interview upon EP F which has been simplified into themes following the stages in the process of data reduction discussed. These are shown below. Refer to Table 4.6

**Table 4.6:** Summary of thematic analysis on interview for EP F

No.	Factors	Themes
1.	Leadership	Sincere and not demanding Flexible Democratic Spiritual Love the job Avoid insulting Less talk, more action Communication skill Knowing you leadership style through theoretical knowledge Motivation Having connections Evaluate based on attitude, not product Pour out what comes to mind Discuss when faced with problems Realize dream Know teachers very well Suppression Religious values Know values, political, power and economics More thinking Forward looking Firmness Responsible and trustworthy Sincere and cautious in speaking Do self-evaluation and reflection Have open discussion Give present and rewards Cordial Have personal quality Be open-minded Know chain-effect of mistakes
2.	Management & Administration	Be a manager Principal set the policy System approach Know that you are evaluated Be an entrepreneur Understand organization Do framework in planning Discuss problems Cautious and not too brave Open for discussion Sometimes be Mr. Yes Follow general order No ordering Follow work procedure and rules Decision based on policy
3.	Strategy	Understand body language Teamwork and vision Project yourself Be brave but at the right place Build a system Have relevant programme Be theoretical Discuss with right person Do environmental analysis Have welfare Not too easily arrive at conclusion Use acronym ABCD Know very well the teachers Implement strategies by middle leaders and subordinates Understand people's behaviour



### **Results of findings from case of EP F**

For EP F the most critical factors towards the success of school improvements efforts undertaken are as follows:

**(i) Leadership factors:**

- **Personal qualities:**

Being able to communicate well, love the job, realizing dreams, being firm and responsible.

Quotations from EP F:

*“Communication skills are such that we must have it right”.*

*“When I speak with people I will ask later. If you want opinions of maybe any issue ask me”.*

*“We are sincere. We are challenged but it taught us to be great teachers and subsequently a manager of a school. Try to understand people”.*

(Transcript EP F, page 2, line 35)

- **Emphasis on values:**

Positive values such as sincerity, courtesy, attitude, not suppressing others, having religious values, trustworthy, reflective and appreciate others through gifts and presents.

Quotations from EP F:

*“It is according to my most important values. Firstly is the value I planted in policy which is power and I must know the limit. Secondly is the economic value. Thirdly is social value. Then it is the religious value. Another is the value of theory or theoretical value.*

(Transcript EP F, page2, line 3-6)

- **Theory based leadership:**

Being a motivator, knowing people well and being flexible.

Quotations from EP F:

*“This must have a theory based. The theoretical value of ABCD in management where A is administrator, B is the system, C is crisis catering, D is dumping and doing the right job”.*

*“Need to review the theory of leadership. Leadership is to what you saw yourself. It is your reflection that Islam always encourage”.*

(Transcript EP F, page 2, line 10-12)

- **Pragmatism:**

Pragmatism is described as less talk more action, being democratic, having knowledge in political and economic power, pour out what it comes, sharing and discussion, more thinking and forward looking, open-minded and understanding the chain effect of mistakes.

Quotations from EP F:

*“Principal decides on the policy, implementation and strategies”.*

(Transcript EP A, page 2, line 28-29)

*“When faced with problems discuss”.*

(Transcript EP F, page 2, line 35)

**(ii) Management and administration factors:**

- **Managerial approach:**

Systematic in setting policies with full understanding of the organization’s framework when following procedures.

Quotations from EP F:

*“I say this time we will be a manager, if it matters relating to the staffing and so on”.*

(Transcript EP F, page 4, line 31)

*“As managers we cannot avoid it. There is a need to follow circulars or directives”.*

(Transcript EP F, page 1, line 11)

**Reflective:**

Always know that we are being evaluated. So discuss problem cautiously and sometimes need to be ‘Mr. Yes’.

Quotations from EP F:

*“If there is no instructions always say ‘yes’. Do not say ‘no’.  
Because if you say ‘no’ there will be more questions”.*

(Transcript EP F, page 4, line 16)

**(iii) Strategic factors:**

- **Collaboration and cooperation:**

Working as a team and are free to discuss.

Quotations from EP F:

*“Work with teachers as a team. Have discussions with them. I am democratic”.*

(Transcript EP F, page 2, line 15-16)

- **Psychological approach:**

Understand people through their behavior and body language, show concern, be brave and carry out self-projection.

Quotations from EP F:

*“This leadership is in you that you must pull the people’s heart, so it is your role as a leader”.*

(Transcript EP F, page 2, line 33)

- **Strategic approach:**

Environmental analysis, systematic, use acronym, not easily arrive at conclusion, have relevant programme.

Quotations from EP F:

*“So you must get the concept that this is my strategy. We are flexible”.*

(Transcript EP F, page 2, line 42-43)

*“I use acronym ABCD i.e. administrator, be the system, cater to crisis, doing the dumping job”.*

(Transcript EP F, page 3, line 14)

## 4.9 Results of cross-case data analysis

### 4.9.1 The clustering process through selective coding

Cross-case analysis is a synthesis of all those findings through the within-case analysis of all the 6 EP interviewed. It is the aggregation of all those constructs perceived by the respective EP through the clustering process. These constructs are the eventual and final factors identified. A summary of all those constructs identified through all the 6 EPs and their aggregation are shown in the respective Tables below (Tables 4.7, 4.8, 4.9 & 4.10). The process is made simpler through the use of Microsoft Excel software. Figure 4.1 shows of the clustering of the various themes identified through interviews into constructs. Earlier in Chapter Three in section 3.5 in Table 3.5 is shown how the respective themes are sequenced accordingly to form the construct using the selective coding approach.

The following are the results arrived through the analysis shown in table form. The process towards arriving at the results is by paraphrasing all those themes from the respective EP according to their similarities in interpretive meanings. For example, for construct on '*personal attribute*' are derived from 4 EP which have almost similar interpretations. All these are shown by the 4 different colors in Table 4.7. So are for the rest of the respective themes identified. The same process applies to other Tables shown below.

The outcome of the cross-case data analysis is the clustering of these themes into 2 categories. These are (i) CSF category and (ii) FF category. The method in clustering these constructs into the 2 respective categories is through counting the number of similarities during the aggregation process. The cut-off number of similarities is between 2 and 3. Those constructs having more than 3 similarities are clustered into CSF category. Those with 1 or 2 similarities are clustered into FF category. Since there

6 EP in the critical sampling thus 3 similarities is considered 50% of the 6 EP and is thus categorized into CSF and those that are less is categorized into FF. Thus all the results of all these categorizing are as shown in the following tables from Table 4.7, Table 4.8, Table 4.9 and Table 4.10.

#### **4.9.2 Results of findings on cross-case data analysis clustered under the leadership factor.**

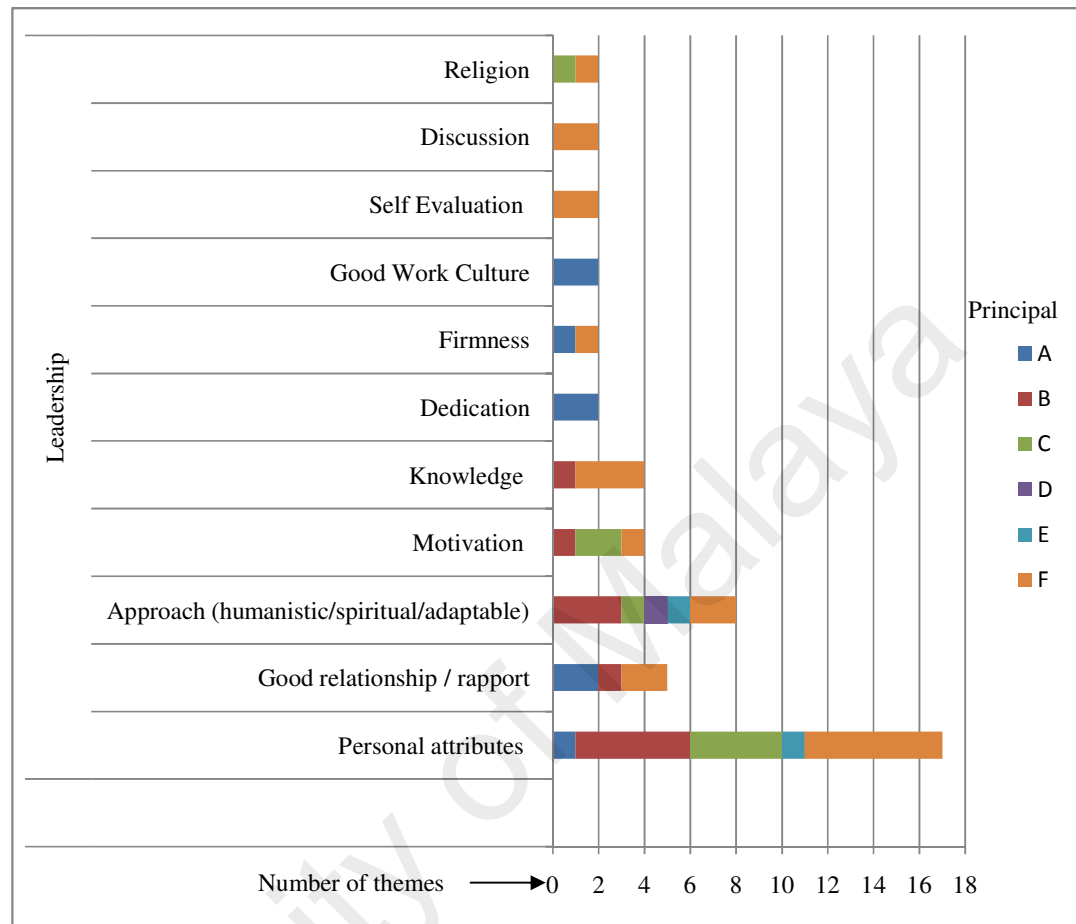
##### **4.9.2.1 Those categorized as CSF:**

- Personal attributes
- Appropriate approaches to those concerned
- Good rapport with others
- Be highly motivated
- Very knowledgeable and professional

##### **4.9.2.2 Those categorized as FF:**

- Dedication
- Firmness
- Good work Culture
- Self-evaluation
- Discussion
- Religion

**Table 4.7:** Results of aggregation of themes into constructs among all the 6 EP for leadership factor



#### 4.9.3 Results of findings on cross-case data analysis clustered under management and administration factor:

##### 4.9.3.1 Those categorized as CSF:

- Effective management of resources
- Adhering to rules and regulations
- Quick or fast in taking actions
- Personal initiatives for funds

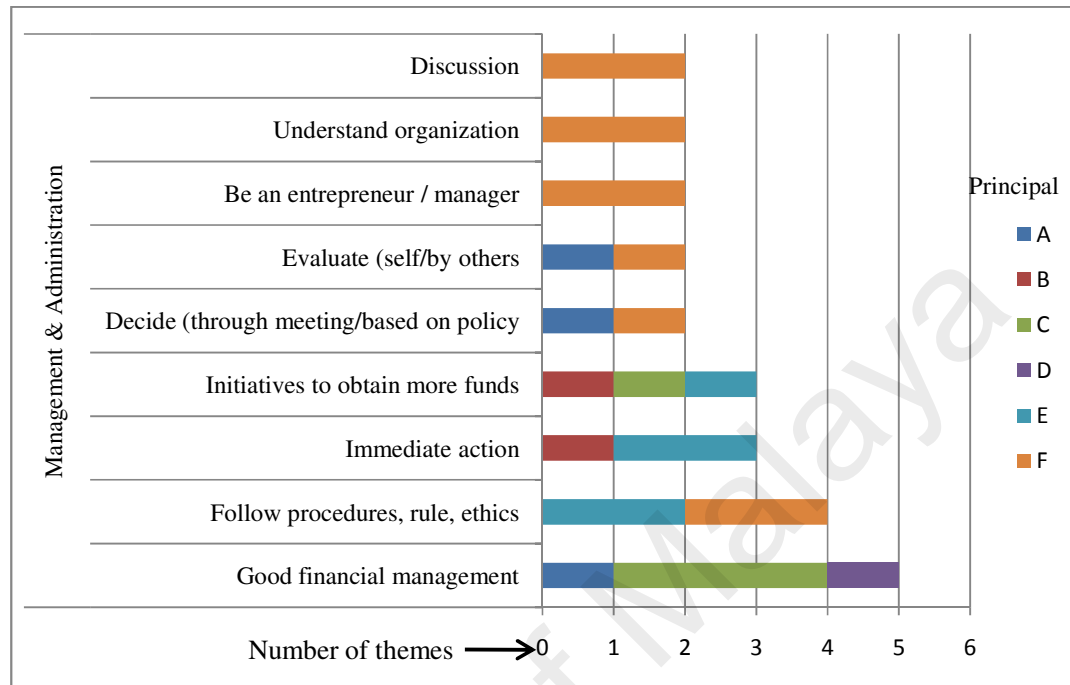
#### **4.9.3.2 Those categorized as FF:**

- Decide (through meeting/based on policy)
- Evaluate (self/by others)
- Be an entrepreneur/manager
- Understand organization
- Discussion

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**Table 4.8:** Results of aggregation of themes into constructs among all the 6 EP for management and administration factor



#### 4.9.4 Results of findings on cross-case data analysis clustered under strategic factor

##### 4.9.4.1 Those categorized as CSF:

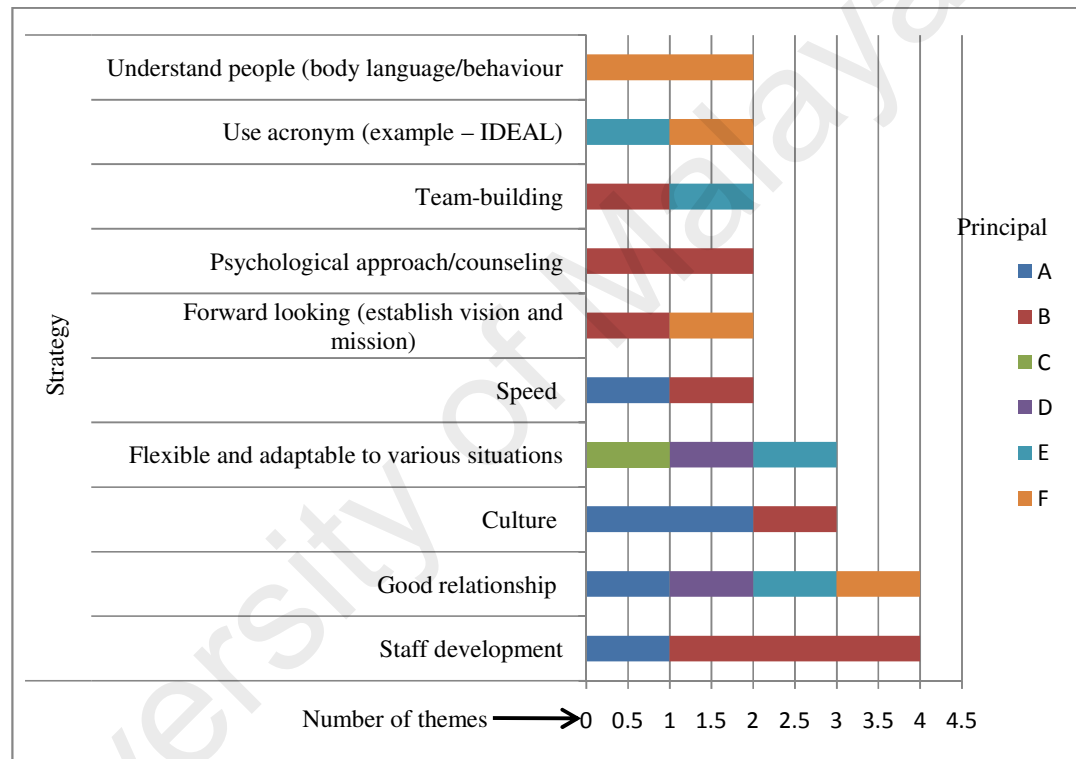
- Regular staff developments programmes
- Continuously liaise with agencies or organization concerned towards cooperation and collaboration
- Establish positive work culture
- Being flexible and understandings

##### 4.9.4.2 Those categorized as FF:

- Speed in actions
- Forward looking (establish vision & mission)

- Psychological approach/counseling
- Team-building
- Use acronym (example- IDEAL)
- Understand people (body language/behavior

**Table 4.9:** Results of aggregation of themes into constructs among all the 6 EP for strategic factor



#### 4.9.5 Summary of findings on cross-case data analysis

Those CSF identified are:

##### 1. Leadership factor

- Personal qualities
- Good rapport
- Positive way in approaches
- Motivational

- Knowledgeable

## **2. Management and administration factor**

- Effective resource management
- Adhering to rules and regulations
- Prompt and timeliness
- Maximum efforts and initiatives

## **3. Strategic factor**

- Maximize staff developments
- Cooperation, collaboration and liaison
- Positive work culture and environment
- Flexible and understanding

### **Those FF identified are:**

#### **1. Leadership factor**

- Dedication
- Firmness
- Good work Culture
- Self-evaluation
- Discussion
- Religion

#### **2. Management and administration factor**

- Decide (through meeting/based on policy)
- Evaluate (self/by others)

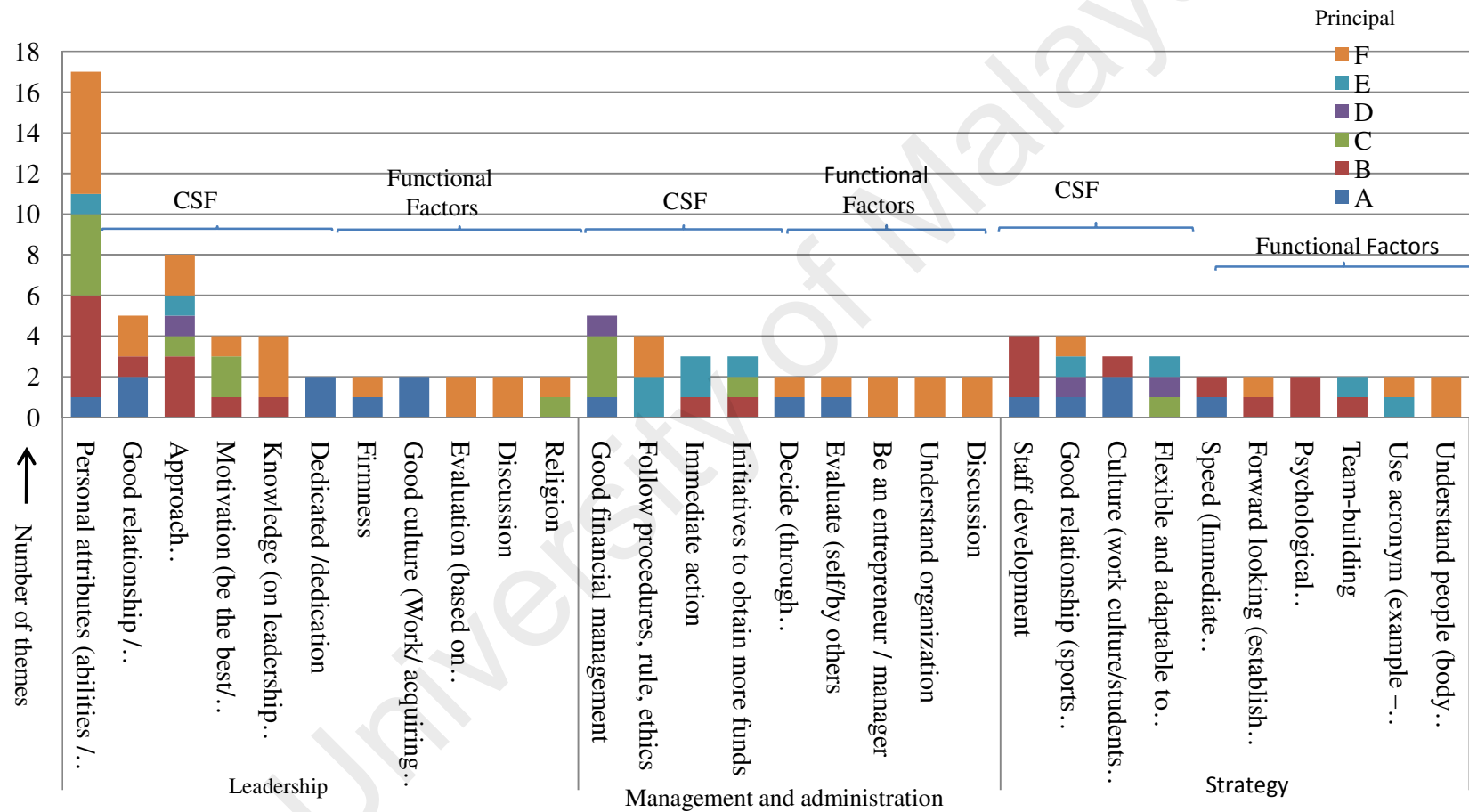
- Be an entrepreneur/manager
- Understand organization
- Discussion

### **3. Strategic factor**

- Speed in actions
- Forward looking (establish vision & mission)
- Psychological approach/counseling
- Team-building
- Use acronym (example- IDEAL)
- Understand people (body language/behavior)

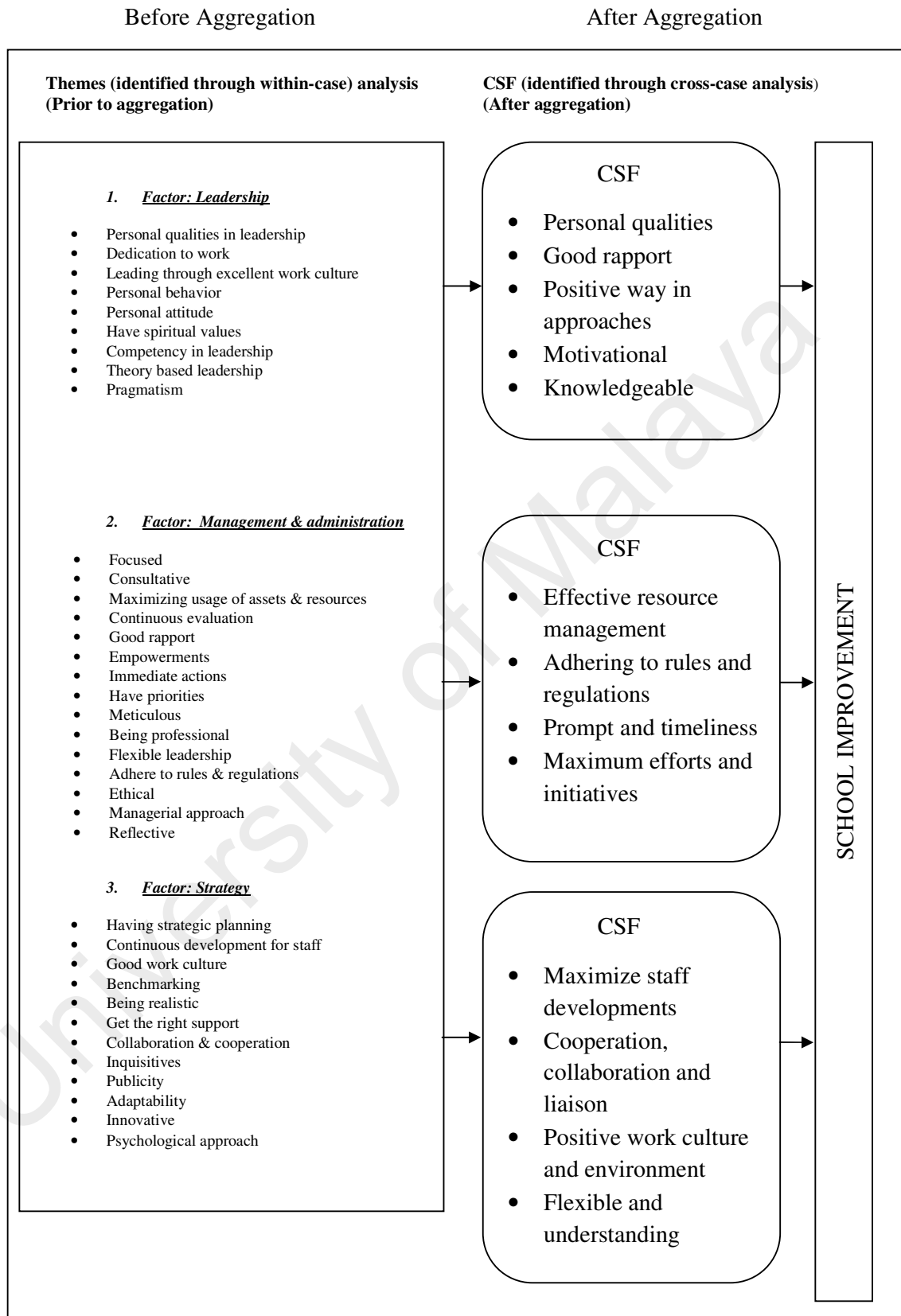
In Table 4.10 below is shown the summary of these in coloured codes

Table 4.10 Summary of findings on cross-case data analysis



#### **4.10 Summary on results through the within-case data analysis and cross-case data analysis**

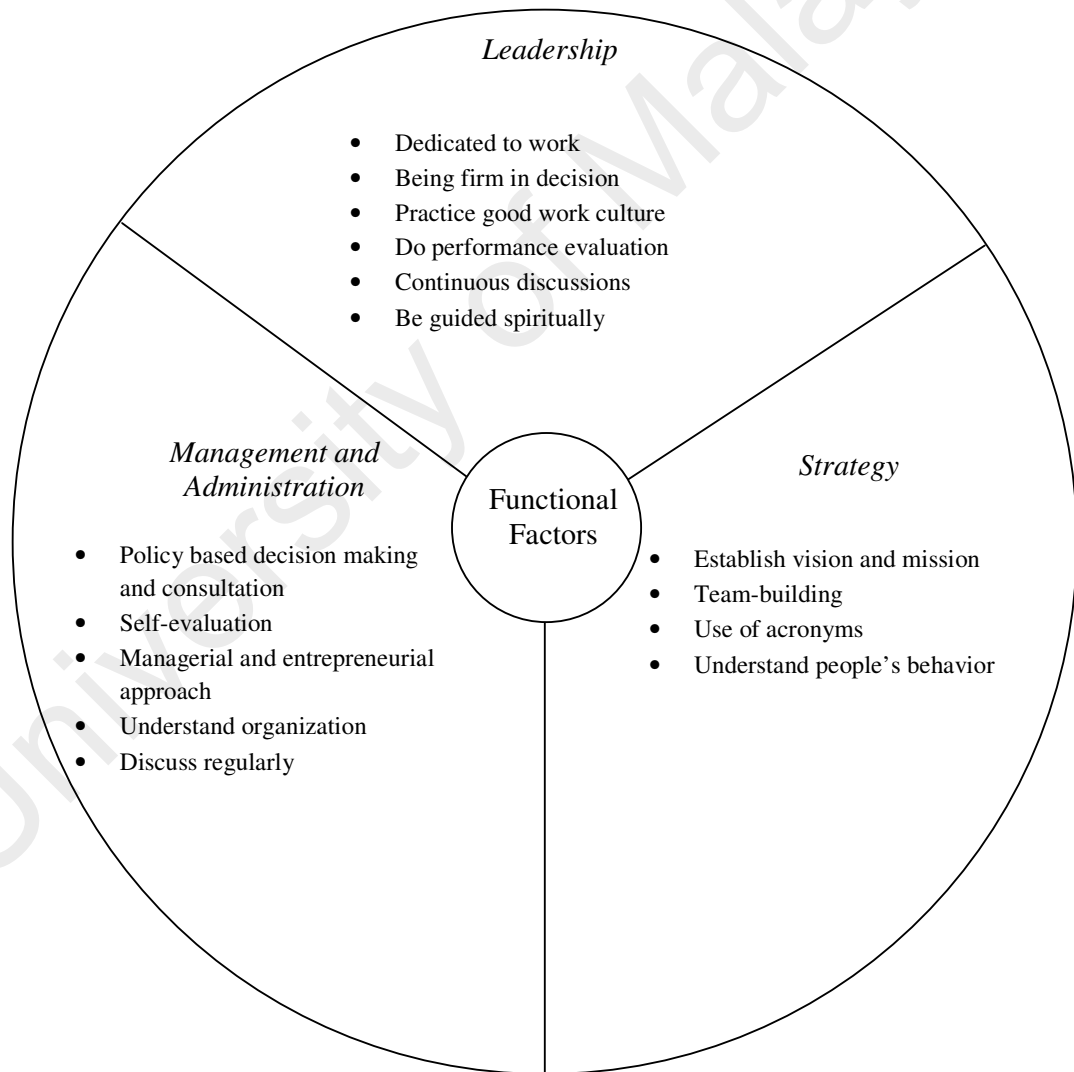
The 3 main factors identified through the explorative study being (i) leadership (ii) managements and administrations and (iii) strategy consisted of a number of themes derived through the analysis of interview data from the 6 EP. Following the results of the cross-case analysis these numbers of themes are being separated or categorized into 2 types of constructs being the (i) CSF and (ii) FF. In Figure 4.1 below are those CSF which have been identified. These are the aggregated CSF that contributes strongly towards the success of school improvement efforts interpreted by the study. The reason is mainly because it is derived from majority of the EP. Whereas the FF are those factors that are less critical to the success of school improvement because it is the practice observed from a few EP only. These FF are the individual actions undertaken by certain EP in adapting to their respective HPS where they are. Earlier in section 3.16:132 in Figure 3.5 is shown as the simple framework of these main factors and how they are linked. Thus in Figure 4.1 below is the complete framework showing how the CSF is derived from the various themes identified through interviews.



**Figure 4.1:** Summary of themes and CSF through analysis of interviews

#### 4.11 Summary of functional factors (FF)

Aspect on CSF has been well discussed throughout the study. Functional factor has been lightly touched upon in Chapter Two. Functional factors are those isolated factors perceived by individual EP that is not common among other EP. In the case of this study it is considered as less important and thus is not critical to the efforts of school improvements. Some EP considered these FF being critical only in the context of their respective school only. Based on the results of analysis is shown in Figure 4.2 the list of functional factors (FF).



**Figure 4.2:** Summary of functional factors (FF)



#### 4.12 Results of findings through observation on CSF in HPS F

The following discussion is on the findings through observation. These are the data collected in HPS F. All these data are compiled and summarized in *Appendix B*. It is a compilation of all selected data summarized in the appendix for further reference. For the discussion in this section only those related to the constructs in the CSF are selected and explained. Briefly these are listed in Table 4.11. Guidelines for the compilation are based on the following aspects:

- *Physical setting*: It is about the school's physical facilities and other aspects of the environment related to the school.
- *The human setting*: The stakeholders of the school such as the teachers, students and staff.
- *The programme setting*: Curriculum and pedagogical aspects of the school.

In Table 4.11 is the summary of those findings through observations on the CSF identified. These findings describe the CSF concerned, in a real contextual situation. It explains about the respective CSF when observed.

**Table 4.11:** Summary of observations upon excellent principal (EP) F of HPS F on leadership factor

Factors	CSF	Observations
Leadership	Personal qualities	Have sound background in educational involvements such as qualifications and experience. Shows maturity in facing to problems and issues. Very tactful and cautious when dealing with sensitive issues that involves students and parents such as disciplinary cases.
	Good rapport	Has established good rapport with all concerned. Especially with teachers, staff, students, parents and alumni. Less bureaucratic in approaching for discussions and getting his views. Remembers names of most of those under him including students and their parents.
	Positive way in approaches	Very tactful and respectful in approaches towards those that he is dealing with. Proactive in manner and see problems as challenges and opportunities. So are the heavy workloads are undertaken with full responsibilities. Apply PSBMS to cases of students' disciplinary problems.
	Motivational	Regularly use encouraging words to students and teachers. Especially during the school assemblies and meetings. Use of motivational approaches and encouragements to improve performance especially students towards their excellent in academic and co curricular activities.
	Knowledgeable	A well qualified principal academically at undergraduate and post graduate levels. Very experienced in school leadership. Has been working in a number of schools. Knows very well about school management and administration especially in instructional leaderships. Follows currents issues in the developments of education such as on International Baccalaureate programmes.

**Table 4.12:** Summary of observations upon excellent principal (EP) F of HPS F on management and administration factor

Management and administration	Effective resource management	Very systematic in human and physical resource management. Apply distributive leadership principles in maximizing performance of teachers, staff and students. Promotes teamwork and performance management system (PMS).
	Adhering to rules and regulations	Adheres to directives according to the Ministry's guidelines in most decisions making especially related to finance. The school's rules and regulations are always being reminded to all involved.
	Prompt and timeliness	Always punctual especially in school assembly and meetings. Usually actions are taken immediately upon any things that need the EPs attention and all those involved.
	Maximum efforts and initiatives	Did his best in improving the school through the various initiatives. Example are such those numbers programmes and activities introduced. Put extra efforts through the regular 'Learning Walk' (LW) for updating on problems that need immediate attentions.

**Table 4.13:** Summary of observations upon excellent principal (EP) F of HPS F on strategic factor

Strategy	Maximize staff developments	Continuously have professional developments programmes especially CPD (Continuous Professional Developments) and promotions of PLC (Professional Learning Community) and other form of activities related to staff developments such as educational visits, linkages to other schools and outdoor team buildings activities.
	Cooperation, collaborations and liaison	Ensure cooperation and collaboration especially among teachers and staff. Continuously liaise with the respective departments in the Ministry, JPN, PPD, alumni and parents.
	Positive work culture and environment	Work atmosphere are conducive. More of guiding rather than directives. Shows good examples to students and teachers in most of his actions through praises and shows value and appreciations of contributions by others.
	Flexible and understanding	Spirit of give and take in various situations but maintains that the various goals and objectives attained. Very understandings in ways of approaching duties and responsibilities. Especially when teachers and students are faced with difficulties. Helpful in most approaches in getting things done.

#### 4.13 Triangulation for confirmation

Data collected from the three methods are triangulated based on each CSF as shown in Table 4.14 below.

**Table 4.14:** Triangulations of results on interviews, observations and documents

No	CSF (Derived through interviews)	Observations	Documents
1	<b>Leadership:</b> <ul style="list-style-type: none"> <li>Personal qualities</li> <li>Good rapport</li> <li>Positive way in approaches</li> <li>Motivational</li> <li>Knowledgeable</li> </ul>	<ul style="list-style-type: none"> <li>Managements meetings.</li> <li>Staff meetings.</li> <li>School assembly.</li> <li>Staff developments.</li> <li>School's learning walk.</li> <li>School assembly.</li> <li>Tea-breaks at school canteen.</li> <li>Staff developments programme.</li> <li>Students' disciplinary cases.</li> <li>Speeches in assemblies and other meetings and events.</li> <li>Speeches especially during school's daily and weekly assemblies.</li> <li>Staff and management meetings</li> <li>Speeches on various aspects in educations during school assemblies, events and gatherings.</li> </ul>	<ul style="list-style-type: none"> <li>Original and copies of degrees, certificates letter of recognitions shown or displayed.</li> <li>Letters of recognitions.</li> <li>School magazines, leaflets etc.</li> <li>Minutes of meetings.</li> <li>Letters of appreciation by parents in PTA minutes of meeting</li> <li>Minutes of meetings.</li> <li>Documents on planning for various schools activities.</li> <li>Comments on students' report especially report cards.</li> <li>Comments on staff appraisal and performance.</li> <li>Records of services showing involvements in various capacities as leaders.</li> <li>Academic qualifications papers.</li> <li>List of certificates on various programmes attended.</li> </ul>
2	<b>Management and administration:</b> <ul style="list-style-type: none"> <li>Effective resource management</li> </ul>	<ul style="list-style-type: none"> <li>School's stock book</li> <li>The number of briefings and advises to teachers.</li> </ul>	<ul style="list-style-type: none"> <li>School's stock books.</li> <li>Teachers' record books.</li> <li>Resource centre's report and stock check books.</li> </ul>

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Continue

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>• Adhering to rules and regulations</li> </ul> | <ul style="list-style-type: none"> <li>- Briefings especially to teachers on the importance of following rules and regulations.</li> </ul>   | <ul style="list-style-type: none"> <li>- The various guidelines through internal circulars and directives.</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Prompt and timeliness</li> </ul>             | <ul style="list-style-type: none"> <li>- Schools' clocking.</li> <li>- Various actions taken are immediately.</li> </ul>   | <ul style="list-style-type: none"> <li>- Attendance records</li> <li>- Reports on various activities undertaken.</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Maximum efforts and initiatives</li> </ul>   | <ul style="list-style-type: none"> <li>- The various activities especially for students' enhancements for learning.</li> <li>- Routine discussions with staff on school improvement</li> </ul> | <ul style="list-style-type: none"> <li>- The respective schools' programmes books.</li> <li>- Record on learning walk.</li> <li>- School annual, monthly and weekly plans.</li> </ul> |

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3

**Strategy:**

- |   |   |   |
|---|---|---|
| <ul style="list-style-type: none"> <li>• <b>Maximize staff developments</b></li> </ul>            | <ul style="list-style-type: none"> <li>- The number of CPD (continuous staff developments)</li> </ul>   | <ul style="list-style-type: none"> <li>- Report books on CPD</li> <li>- Minutes of meetings</li> <li>- school's bulletins and magazines.</li> </ul>                     |
| <ul style="list-style-type: none"> <li>• <b>Cooperation, collaboration and liaison</b></li> </ul> | <ul style="list-style-type: none"> <li>- Meetings with parents, visitors from others schools.</li> <li>- Schools' important events.</li> <li>- Educational visits.</li> </ul>                 | <ul style="list-style-type: none"> <li>- School's various programmes reports.</li> <li>- School's documents on planning.</li> <li>- Various related reports.</li> </ul> |
| <ul style="list-style-type: none"> <li>• <b>Positive work culture and environment</b></li> </ul>  | <ul style="list-style-type: none"> <li>- Classroom observations.</li> <li>- Meetings</li> <li>- Various discussions formal and informal.</li> <li>- Physical environment of school</li> </ul> | <ul style="list-style-type: none"> <li>- Display boards</li> <li>- Reports on school activities.</li> </ul>   |
| <p><b>Flexible and understandings</b></p>   | <ul style="list-style-type: none"> <li>- Staff meetings.</li> <li>- School's assemblies</li> <li>- Discussions with staff.</li> </ul>   | <ul style="list-style-type: none"> <li>- Counsellors' report.</li> <li>- Letters of appreciations from PTA and others.</li> </ul>                                       |
-

#### **4.14 The main result: The CSF Model developed**

The concluding part of all these analysis is the CSF Model developed. Earlier in Chapter 3 on the research design was developed based on a simple framework (shown in Figure 3.5). Thus the CSF Model shown below in Figure 4.3 is the main result arrived. It is a model in accordance to what has been defined by Cohen, Manion & Morrison (2001) discussed in Chapter One in section 1.3. The model shows of the various factors identified in the process towards school improvement undertaken by these EP. There are three main factors identified through the exploration in the literature discussed in Chapter Two. These are:

- Leadership factor
- Management and administration factor
- Strategic factor

In the following examination through analysis of interviews it detailed out that within these factors consisted of other factors that are critical and less critical in the efforts of school improvement discovered through these EP. These are:

- Critical Success Factors (CSF)
- Functional Factors (FF)

Both of these CSF and FF are made up of a number of constructs. All these construct are thematic descriptions on the process of school improvement undertaken. Since this study is focused on these CSF it has further been confirmed of their validities and reliabilities aggregated through all the 6 EP. In addition the findings are enhanced by evidences through observations undertaken in one of the HPS identified.

Through the CSF Model developed provides a detailed description to suggest on how the principalship practices on school improvement could be carried out. It is based on the study qualitatively sampled through these 6 EP and the respective HPS. All these

factors identified have shown how these EP are able to position themselves in the balancing act in the process of their principalship practices. These are towards improving their schools. The process involved the policy makers and the various groups of implementers especially the teachers. These have been discussed in this study through the two models being the top-down and the bottom-up models.

Through the outcome of this study provides the contextual picture of the realities of successes by these EP in their respective HPS. Through the CSF Model developed fits to the landscape through the (i) big picture and the (ii) small picture discussed in the opening section in Chapter One. The main reason is because the study is able to identify examples of those principals who are able to make the difference through their successes. This is in accordance to Harris (2014) and Marzano (2003) mentioned earlier in the introduction of Chapter One (in section 1.3.2).

Thus the CSF Model developed is in respond to those problems that was raised earlier. To reiterate:

*“The main problem is on these balancing acts by the principals in adapting to the situations of these two models. It is through this act that is the key to lead them into whether they will be successful or less successful or has failed in their efforts”.*

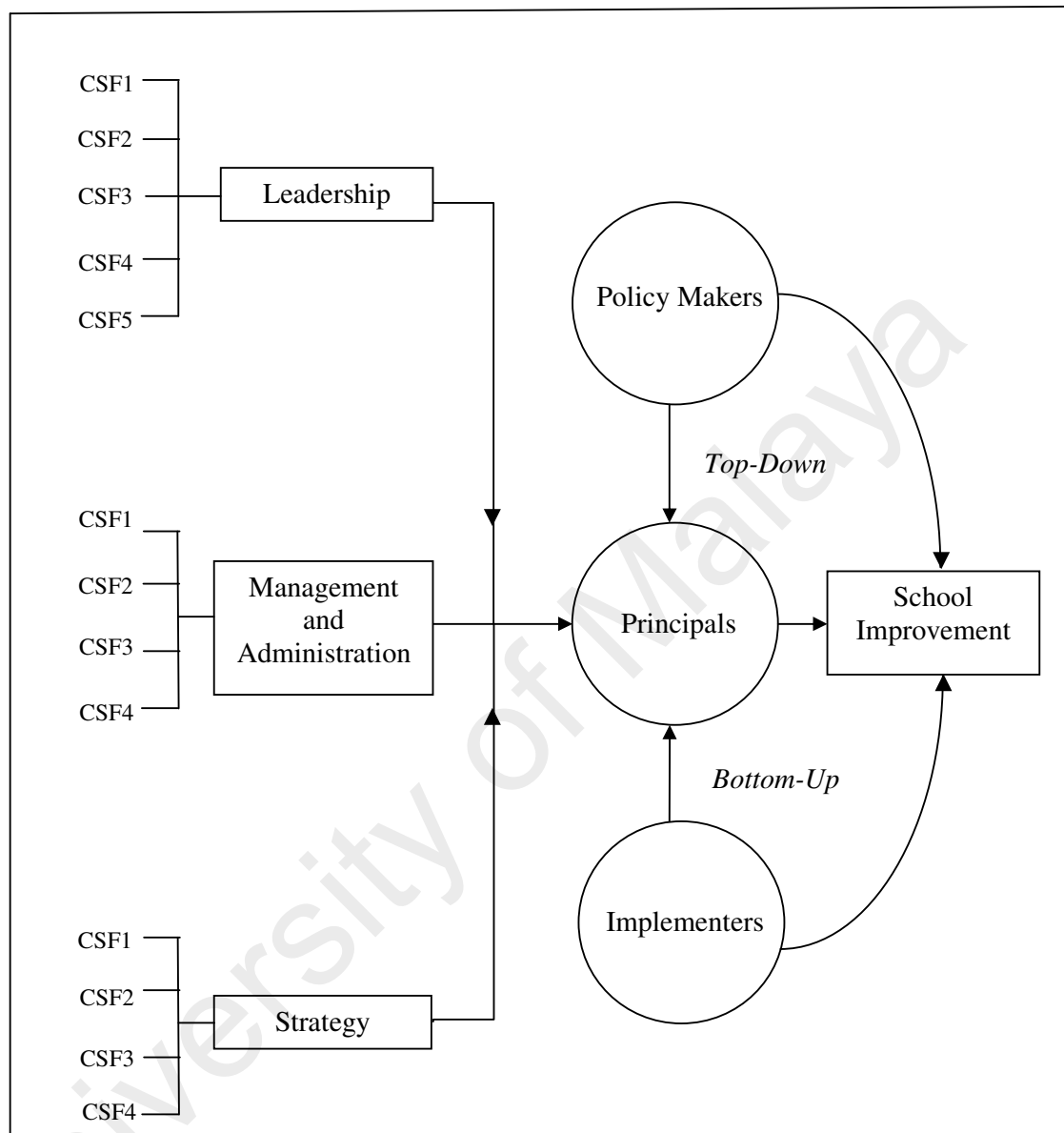
(In Chapter 1 section 1.3.2 page 7)

Those evidences shown through the CSF identified has empirically proved that there are certain factors that can effectively contribute towards the success of school improvement undertaken. All these have been shown through the study on these EP and the respective HPS identified. The CSF Model developed has summarized all their efforts through a theoretical framework of the various factors shown in accordance to the approach of grounded theory (Strauss & Corbin, 1990; Glaser & Strauss, 1967).



Earlier in Chapter 2:83 in Figure 2.6 is shown of the general framework before the study was undertaken. This is illustrated in figure 4.3.

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Note: FF is not included because it is not a critical factor

**Figure 4.3:** The CSF Model for principals towards school improvement

#### 4.15 Research questions answered

In responding to the five research questions posited in Chapter 1 to guide the developments of the research a number discovery has been made and answered. All these are in points form as follows.

- **Main points discovered as answer to research question one**

Research question: What are the main principalship practices involved in school improvement?

In section 2.7 has been identified and discussed the respective principalship practices discovered through the literature. These are (i) leadership (ii) management and administration (iii) strategies. All these three aspects of principalship practices are further discussed in section 2.7.1 on leadership, in section 2.7.2 on management and administration and section 2.7.3 on strategies. All these are further analysed to show of their contributions towards school improvements discussed in section 2.8 and summarized in Figure 2.3. Through the research questions has narrowed down the wide spectrum on principalship practices to three main aspects only for the study to be focused.

- **Main points discovered through research question two.**

Research question: What are the various factors identified contributing towards school improvement?

The main factors discovered are the CSF and FF shown in Figure 4.1. The CSF are the main factors related to efforts by the EP towards improving their schools. It is very important because by emphasizing on the CSF for their various actions ensured of its effectiveness and of its success. Whereas FF is those differences and flexibilities considered as minor and cannot be generalized to all situations. By knowing the differences between these two categories of factors clustered as CSF and FF enables

these EP to adopt a more appropriate approach in their efforts towards school improvement.

- **Main points discovered through research question three**

*Research question: Which among these are the CSF?*

The CSF Model shown in Figure 4.1 and Figure 4.3 are the CSF identified. Through the identification of these factors enables the respective EP in directing their focus at the various priorities as listed through the CSF. All these CSF are linked to the respective principalship practices discovered through the within-case data and cross-case analysis.

- **Main points discovered through research question four**

*Research question: Which among these factors are functional factors (FF)*

In Figure 4.2 is summarized the functional factors (FF). These are shown accordingly categorized into (i) leadership (ii) Management and administration (iii) strategy. The process of separation these functional factors (FF) from the CSF are through the process of cross-case data analysis as shown in Table 4.10.

- **Main points discovered through research question five**

*Research question: What are the linkages of these CSF in the structure of the CSF Model developed?*

The CSF Model is able to show of the various factors involved and is linked in the whole process of school improvement. These are such as leadership, management and administration and strategy. All those factors identified being CSF and FF are linked in a very clear manner to enable a better understanding for the approaches to be undertaken by the principals concerned. These are as shown Figure 4.1.

The CSF Model is the outcome of the study upon those very experienced and outstanding EP who have achieved excellent success in their respective schools

categorized as HPS. It is suitable for other principals to adopt. The model is able to show to all principals concerned of the various priorities to be identified and those pitfalls to be avoided. It creates a path for the appropriate approach towards the success of their efforts in school improvement. It makes these principals more adaptable to the conflicting situations being in the two different environments being that of top-down and bottom-up models discussed earlier.

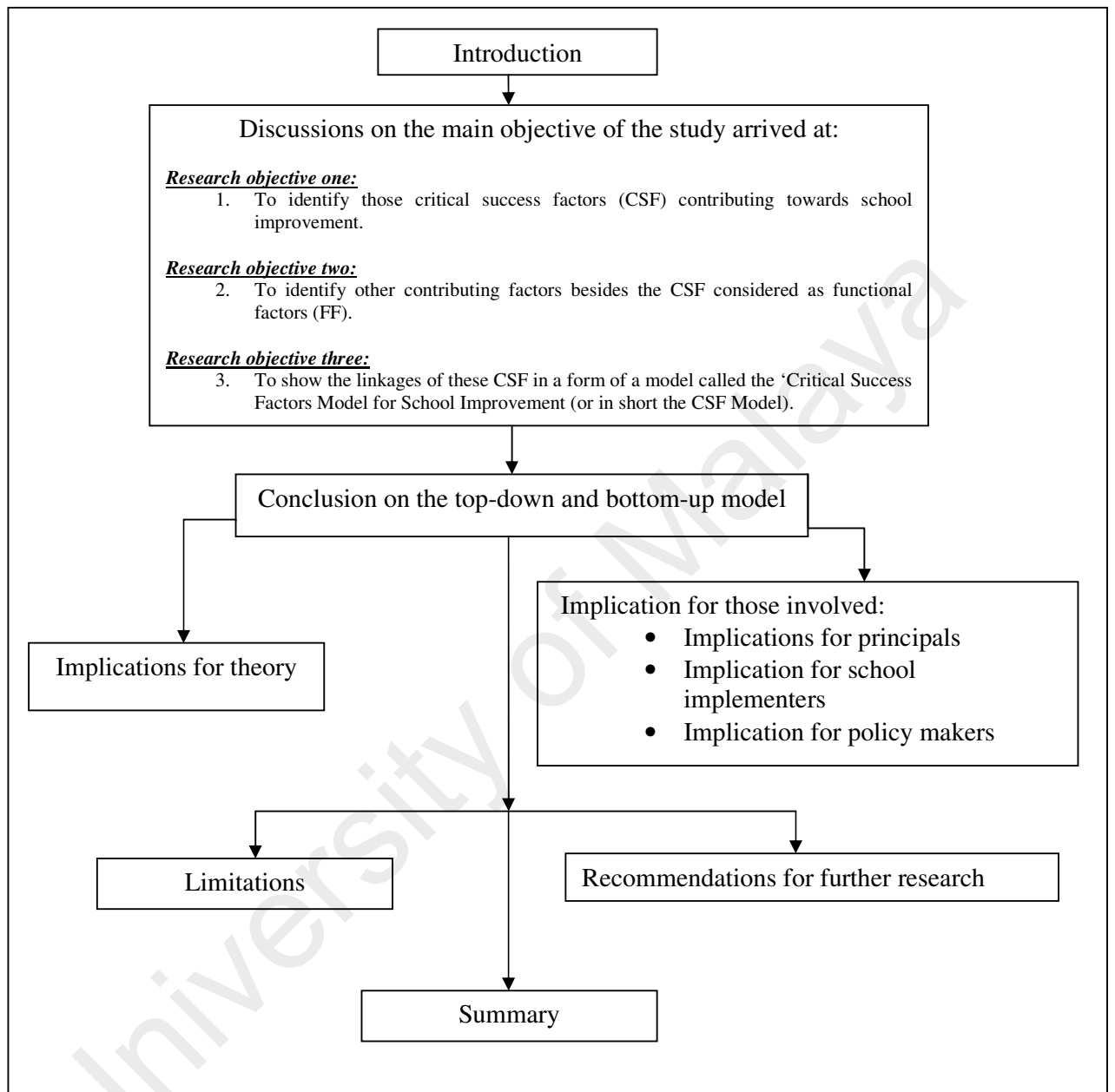
#### **4.16 Summary of chapter**

This chapter discusses the analysis of data and the various findings obtained. There are three categories of data discussed. These are documents, interview and observation data. Reiteratively the process of analyzing these data were based on the methodology discussed earlier in Chapter Three. It is because it comes directly from the source under study being the informants and the school contextual situations. The outcomes of data analysis are the number of findings identified. These are based on the various perceptions of the 6 EP of HPS identified through the within-case analysis. Their perceptions are those related to the respective CSF acquired through the interviews, clustered as themes. All these themes are identified and are further aggregated through the cross-case data analysis. The outcomes are the various constructs which are clustered into its respective factors being the CSF and FF. The findings as a result of these are the development of the CSF Model for Principals towards school improvement'. All these CSF are further examined through observations conducted in one of the HPS identified which is in school F representing the rest of the 5 HPS. The findings enhanced the validities and reliabilities of the CSF model generated. All these factors are arranged in a form of model being the CSF Model. These shall be further discussed in relation to the overall objectives of the study and how these findings are linked to school improvement.

## **CHAPTER 5: DISCUSSION AND CONCLUSION**

### **5.1. Introduction**

The developmental process towards arriving at the CSF identified and the CSF Model for School improvement developed shown in Figure 4.3 departs from Chapter 1, 2, 3 and 4. In this chapter is the discussions and conclusion on what has been arrived at. The approach starts through the discussions on the CSF Model for School Improvement developed and the objectives of the study arrived at. It is then followed by the discussion on the contributions of the study especially to education. These are discussed mainly in the form of implications to all those concerned. Finally within the limitations of the study are the recommendations for further study to be undertaken. The study concludes by reiterating on the significance of this study towards the school improvements efforts especially for the principals. In figure 5.1 below is outlined the flow of the discussions and their relationships in the discussions and the conclusion arrived.



**Figure 5.1:** Outline of research discussions and conclusions

## **5.2 Objectives of the study arrived at**

The study has arrived at its objectives in identifying the CSF in school improvement which is linked to the case of these EP as leaders of HPS. These are shown through the case study of these EP of the respective HPS identified. The successes of their principalship practices of these EP are linked to a number of contributing factors identified by the study as CSF. These are firstly identified through the literature of the respective principalship practices towards school improvement namely (i) leadership (ii) management and administration (iii) strategies. These are then linked to the respective CSF identified and shown earlier in section 4.13 in Figure 4.3 in Chapter 4. These CSF are based on the analysis on the cases of the 6 EP and the respective HPS identified by using the (i) within-case analysis and (ii) cross-case analysis. The results of the analysis are aggregated to results in the identification of the various CSF seek. The respective linkages of these CSF are shown of their relationships to the two models discussed namely (i) top-down (ii) bottom-up models is developed called the CSF Model for School Improvement.

### **5.2.1 Discussion on research objective one**

- To identify those critical success factors (CSF) contributing towards school improvement.

The respective CSF identified has been shown earlier in section 4.14 in Figure 4.3 in Chapter 4. The contributions of these factors are based on the analysis of interview data discussed. It is clear that CSF is the common factors related to the efforts by these EP towards improving their schools. These are those factors that are very important towards the success of the improvement efforts. It is because by emphasizing on these factors for their various actions ensured of its effectiveness and of its success in

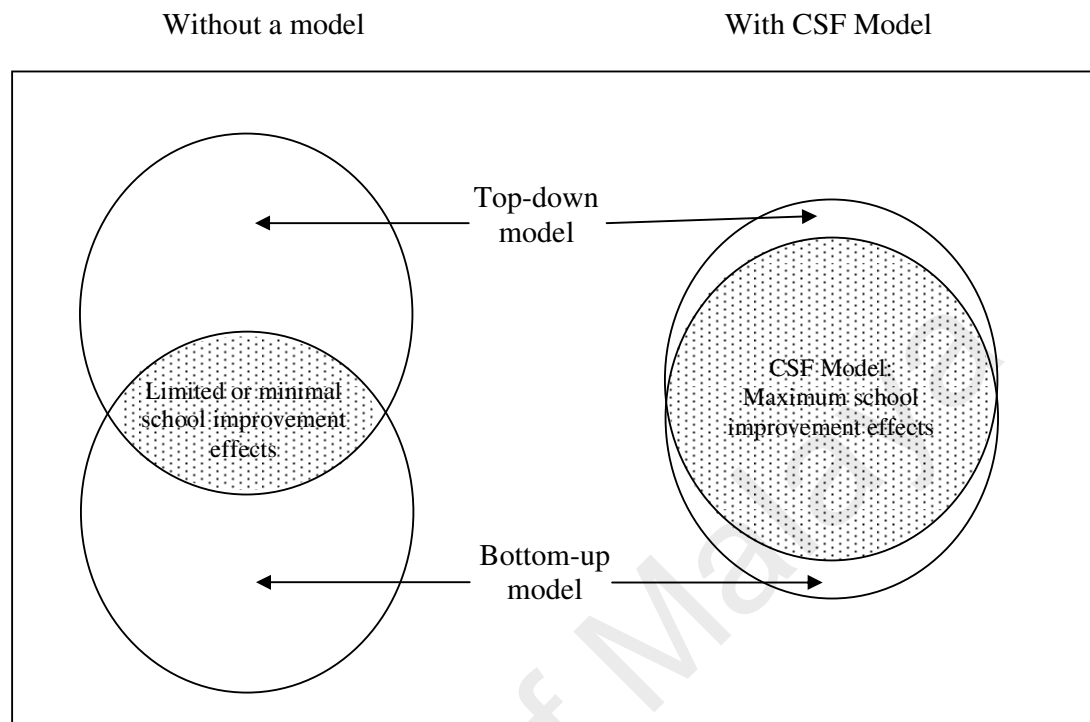


their school improvement efforts. The CSF identified as shown through the CSF Model is able to facilitate these EP in many ways.

Firstly through the approach will ensure that the various improvement efforts undertaken by these EP are systematically organized. It set a very clear path for these EP to undertake for the improvement process. Through such approach will ensure that major pitfalls are avoided that will negatively affects the process.

Secondly EP as transmitters of these policies is clear of their roles and responsibilities in undertaking these challenges. They are able to maximize their roles as school leaders. In addition are more systematic in their management and administration of the process of school improvement. Also they are able to chart out strategies to realize the various aims and goals.

In figure 5.2 below is shown diagrammatically how without adopting the CSF model in their approach towards school improvement efforts the success are limited or minimal. Whereas those adopting the CSF model approach as seen through the study upon these EP and HPS the success are maximized.



Note: Sizes in the diagram are not derived through any statistical calculation.

**Figure 5.2:** Comparison of implications upon school improvement between those without a model and those adopting the CSF Model

The identification of these factors enables the respective EP to limit their flexibilities in adapting to the various contextual situations. At the same time, it assists them in directing their focus on the various priorities listed through the CSF. These ensures that the school improvement efforts are successful. Thus as transmitters of policies on school improvement, these EP have their focus specified and at the same time have certain boundaries for them to be flexible.

Thus the CSF are the very important factors in identifying those factors that contribute to the success of school improvement efforts undertaken. By knowing these CSF, it helps to ensure that these EP play their important roles as transmitters of policies for school improvement.

Through the CSF Model developed it is able to show these EP of the various influencing factors towards their school improvement efforts. By showing these, the respective EP is able to be well prepared for the various challenges to be faced in improving their schools. The model is able to show them the various priorities to be identified and those pitfalls to be avoided. The model creates the appropriate approach towards the success of their efforts in school improvement through the various factors identified.

By contributing to the efforts, it makes these EP more adaptable to the conflicting situations being in the two different environments being that of top-down and bottom-up models discussed earlier. The model shows how these conflicting situations can be avoided. These are by full understanding of these relationships among factors and applied these in their efforts towards school improvement process and to strategize the approaches towards realizing the success of the various aims and goals set by the policy makers.

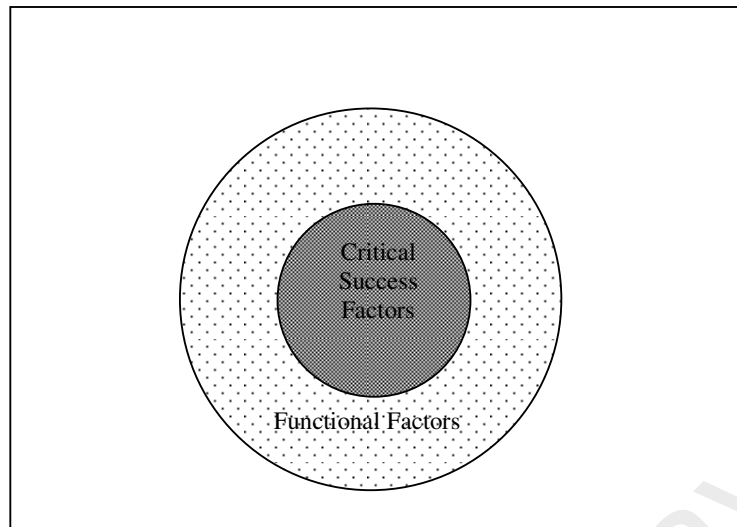
It can be concluded that the CSF model developed is a very effective way for these EP to undertake the challenges of the various efforts towards improving their school. The model is the outcome of the studies upon those very experienced and outstanding EP who have achieved excellent success in their respective schools categorized as HPS. Thus the model is very suitable in the benchmarking of schools towards the success in school improvements.

### **5.2.2 Discussion on research objective two**

- To identify other contributing factors besides the CSF considered as functional factors (FF).

In Chapter Four in section 4.9.5 and 4.11 and also as shown in Table 4.10 are the differences between CSF and FF. Whereas those FF are closely related to 1 or 2 EP among the rest of the 6 EP studied on their perceptions of those factors that are critical to the success in school improvements efforts. Whereas FF is those differences and flexibilities considered as minor and cannot be generalized to all EP. FF is only adopted by the respective EP concerned in facing to the various challenges based on their contextual situations in schools. These need to be undertaken due to certain differences among these HPS due to certain differences in their localities, teachers, students and others. By knowing the differences between these two categories of factors clustered as CSF and FF enables these EP to adopt a more appropriate approach in their efforts towards school improvements. It is important where contextual differences be approached appropriately according to situations and needs. These flexibilities and adjustments to the organizational situations such as the school are to ensure that the environments are conducive for the improvement process to take place. The observation in the case of HPS F is an example of these contextual differences.

In figure 5.3 below shows how CSF is the core factor towards the success of the various efforts undertaken by these principals towards school improvements. Whereas these FF are those supporting factors towards these core factors in ensuring of the success of these school improvement efforts.



**Figure 5.3:** Critical success factors (CSF) and functional factors (FF).

These two varying factors shown above being the CSF and FF towards school improvement, when discussed within the 3 principalship practices identified namely (i) leadership (ii) management and administration and (iii) strategy, shows of their complexities in the process of school improvement. A number of authors has discussed on these 3 main principalship practices especially such as Fullan (2016), Harris & Jones (2016) and Marzano (2007). There need to be certain flexibilities and adjustments in the process of change such as on school improvement. Though the main objectives to be achieved are through the CSF but certain differences stood out in accordance to the contextual situation.

### 5.2.3 Discussion on research objective three

- To show the linkages of these CSF in a form of a model called the 'Critical Success Factors Model for School Improvement (or in short the CSF Model).

As discussed earlier in section 5.2.1 on the model developed shown in section 4.13 in Figure 4.3 in Chapter 4 shows of the various linkages among these CSF. It also

show how these are related to the two models discussed namely the (i) top-down model and the bottom-up model. All these linkages through the model are the summarized description of the various processes in school improvement. Earlier in section 2.2 in Chapter 2 is shown how school improvement is seen as a process in a system. These are as in Figure 2.2 in Chapter 2 that deeply discussed in the literature. These linkages seen through the model are the simplified descriptions on the main problem related to situations of principals who are faced with challenges in effectively improve their schools. These are as a result in meeting to these a number of policies are introduced by the policy makers. These are especially through planned educational change such as the *Malaysian Educational Blueprint 2013-2025* (Ministry of Education Malaysia, 2013). Thus schools are expected to implement these policies towards its realization through the various principalship practices. Principals as (i) *leaders* of schools are to ensure that these are carried out effectively. All these are within the available resources through the school's (ii) *managements and administrative* system and the various (iii) *strategies* adopted. All these three principalship practices i.e. leadership, managements and administration and strategy has thoroughly been discussed in the study through the literature review in Chapter 2.

The linkages shown through the CSF Model is more practical is because it is able to show of the various factors involved in the whole process of school improvement. Firstly, the CSF Model is able to identify those factors that are critical to the success of school improvement. In so doing is able to separate between those that are very critical and those that are less critical. This is shown through the CSF and FF. Thus by knowing these differences is able to assist them in identifying the respective approaches for the efforts. Secondly, the CSF model is able to link all those factors in a very clear manner to enable a better understanding for the approaches to be undertaken by the respective principals. The model is developed through studies upon EP who are

experienced and outstanding as school leaders. They had proved of their capacity and capabilities in bringing about improvements to these HPS. Thus the CSF model is more appropriate to be applied by other principals and in schools elsewhere. The model is based on aggregation of perceptions among these categories of EP. The aggregation shows of the accepted approaches for the process. The respective factors identified strongly shows of the reliabilities and validities of the findings to be generalized for situations on understanding of certain principals' efforts towards school improvement. Analysis of data through interviews done through the two approaches namely the within-case analysis and the cross-case analysis followed by observations are rigorous enough for the generalization to be made.

### **5.3 Conclusion on the top-down and bottom-up models**

Through the CSF Model for School Improvement developed as shown in Figure 4.3 shows that there are two general conclusions arrived and the main conclusions made related to the two models discussed. These are:

#### **- General conclusion number 1**

Based on analysis of documents available collected through the literature discussed in Chapter 2, shows that leaders from among the policy makers such as those in the Ministry of Education (under the centralized system) commonly adopt the top-down model (Sufean, 2014; Hussein, 2014). These are usually undertaken through certain planned educational change (Fullan, 2016) such as those seen through the *Malaysian Educational Blueprint 2013-2025* (Ministry of Education Malaysia, 2013a). They use the power-coercive strategy as characterized in the top-down model in most of their initiatives introduced. Whereas those principals who are at the periphery and are in the school contextual situation are assigned to undertake these initiatives. It is expected that they ensures of its success at the implementation level adopting the imposed top-

down model. Most of these are channelled to these principals through policy instruments such as *circulars and directives* through the various chain- of-commands from the top at the Ministry levels to the bottom at the school levels. All these are then documents by the schools into internal guidelines to assist them especially the teachers to undertake the process of school improvement. These are shown in Table 3.8 in Chapter 3 on the various documents collected and analyzed. All these confirmed to the earlier discussions in section 2.5.1 in Chapter 2 related to ‘debates on the top-down model’.

- **General conclusion number 2**

Ironically the more realistic approach by these principals for the efforts is the bottom-up model. It is commonly termed as the ‘problem-solving’ model. Both the relationships between these two model upon the EP has been shown earlier in Figure 1.1 in Chapter 1. But the detail of how these EP approaches to the situation has been shown through the number of themes listed in Figure 4.1 in Chapter 4 derived through the within-case data analysis. All these themes are the salient points related to the various actions and efforts undertaken by these principals in the process of school improvement. Further to this is strengthened by the findings through results of the aggregation of these themes into CSF as similarly shown in Figure 4.1 in Chapter 4. The four CSF discovered under the factors of management and administrations are more related to the principal’s action towards the implementers in the school improvement process. These are:

- Effective resource management.
- Adhering to rules and regulations.
- Prompt and timeliness.
- Maximum efforts and initiatives.



These 4 CSF listed above is more towards the EP's initiatives in the management of resources to its maximum effectiveness, however all action are within the limits of the power and responsibilities given. All these are according to the time framework available. It shows that all those *circulars and directives* from the top-down model has been interpreted to suit to the school's contextual situations in ensuring the school improvement efforts is effective and successful.

- **Main conclusion arrived at**

Compared between the two general conclusions discussed above a certain specific conclusion can be made to arrive at. Between the two models discussed the main success factors on school improvement undertaken by the principals is more towards the bottom-up models. Through the CSF Model developed shown in Figure 4.3 in Chapter 4, the most influencing factors according to these EP studied are those related to the principalship practices of (i) leadership and (ii) strategy towards the school improvement efforts. These are as shown below:

- **Leadership factors**

- Personal qualities.
- Good rapport.
- Positive way in approaches.
- Motivational.
- Knowledgeable.

- **Strategy factors**

- Maximize staff developments
- Cooperation, collaborations and liaison
- Positive work culture and environment
- Flexible and understanding

The results of the study through the CSF Model in Figure 4.3 have shown that under the situations of both the top-down and the bottom-up models the roles for these EP has been clearly specified. It shows that their importance is mainly as transmitters of policies from the top to the bottom. They are to ensure of the various successes expected at school level undertaken by the implementers. The success of these depends on how these policies are translated through the transmission process. These are in accordance to those factors identified CSF. As EP they are to ensure that whatever has been transmitted to these implementers are in accordance to the policies directed from the top. However it has been shown that each of these EP also has within certain limits their own respective ways in approaching towards certain situations in their school improvement efforts. These can be seen through the results of the cross-case data analysis shown through the FF. As individual these very experienced and outstanding EP are unique in certain ways as shown in Table 3.2 in Chapter 3. These are in adapting to the various aspects of the organizational situations in the schools. Results in Chapter 4 in section 4.9 are shown of these differences and the uniqueness of these schools through CSF and FF. For example regarding the FF for EP A has his own way as compared to EP B. Whereas EP B has his own way as compared to EP C and so on.

Though as transmitters of policies all principals as head of the school have certain common aims and objectives to be achieved. The processes towards these are through those constructs listed as CSF identified in the CSF Model. Data through the cross-case analysis shows of these similarities as in Table 4.10 in Chapter 4. It is agreeable among these 6 EP studied that one of the main factors identified is their leadership qualities are of utmost important. Their abilities in understanding of these policies directed upon them such as in one of the CSF identified (being *knowledgeable* about the way in approaching to challenges). In approaching towards the success of school improvement under the two models these respective EP studied shows of their

abilities as transmitters of policies effectively. At the same time are relatively flexible in adapting to those various differences according to its contextual situations. In the situations where these principals are mainly as transmitters of policies the CSF model assist in identifying areas or scopes of priorities in undertaking their roles and responsibilities as EP. These CSF listed in the model (in Table 4.10 and diagrammatically shown in Figure 4.3) shows clearly how they are linked to other factors towards the effectiveness of school improvement.

The conclusion arrived shown through the approaches are in accordance to those findings in the literature review shown in Chapter 2 in Figure 2.3. These are especially on capacity building, leading school improvement, improving classrooms and improving teachings. These aspects are embedded in the respective CSF identified as shown in the CSF Model. All these are within those explorative findings regarding the 3 main principalship practices in school improvement. These are on (i) their individual *leadership* styles (ii) the way they *manage and the process of administration* of the school and (i) the various *strategies* adopted to ensure of its success.

#### **5.4 Implications for theories**

The CSF Model developed is a contribution to those theories based on literatures related to school improvement. It provides another example among the numerous examples elsewhere discussed on cases related to principalship practices towards school improvement. However in the case of the CSF Model the focus is on the situations of principals being in the two models discussed. These are the top-down and the bottom-up models. The explorative inquiries through the literature, interviews and observations and the CSF Model developed provides another perspectives on school improvement. These two theoretical models discussed have now been extended by another model being the CSF Model. The most important outcome as a result of the CSF Model

developed is that it provides another empirical evidence for the '*hybrid theory*' to be relooked again. It is because so far it has not been given its due attention according to Sufean, Alyahmadi & Suriansyah (2014: 24). The CSF Model is the study on situations related to the mixtures of these two models discussed. Through the methodology shown in the study and the results arrived has provided another basis to support for the '*hybrid theory*' to be given its importance and further studies be undertaken.

## **5.5 Implications for those involved**

### **5.5.1 Implications for principals**

Based on those main points highlighted through the 5 research questions discussed above has shown those major implication for principals in their efforts towards improving their schools. The CSF Model developed is hoped to enable these principals to make a difference in efforts towards improving their schools meant in Harris (2014). The model facilitates in mapping out strategies in planning for the school improvements efforts to be undertaken. Since it is the required practice to have proper planning for most serious undertaking thus through the CSF Model will clearly helps in identifying those critical factors contributing to the success of the efforts.

The effectiveness of the school improvement efforts does not solely depend on the principals. The CSF Model shows how responsibilities can be shared among all members involved. These can be undertaken through the practice of distributed leadership (Harris, 2014). All the respective SLT of the especially the senior assistants can be more involved in the efforts. The teamwork efforts followed according to the CSF Model developed helps in ensuring the success of the efforts. The CSF Model provides opportunities for principals to reflect on their actions in their efforts towards improving their school. It makes them more aware of where they are heading and

whether the desired goals and objectives are realizable or not. The reflection assists in their self-checking of their effectiveness as leaders of the school.

### **5.5.2 Implications for implementers**

Teachers are the implementers of the various initiatives introduced by the policy makers. However the situations are sometimes very challenging. This is because of the differences in the interpretation of those various expectations by the policy makers and these implementers being the teachers. Thus through the CSF Model these can be reduced as shown by the study. The conflicting situations between the top-model and the bottom-up model are solved by methods shown through the CSF Model. By adopting the model all the respective parties involved can be more focused through their understandings of the various relationships to guide them in the undertakings of the school improvement efforts.

### **5.5.3 Implications for policy makers**

Policy makers are those who initiate the school improvement efforts through its central planning system. In most cases there are lacks of understandings related to those who are implementing these policies especially the teachers. Thus the CSF Model is opportunity for them reconsider their usual practice to strongly adheres to the top-down model. The CSF Model provides the mediations between the top-down model and the bottom-up model. By adopting the model helps in avoiding conflicts and misunderstandings between these policy makers and those at the lower levels being the implementers.

## **5.6 Limitations of the study**

This study has its limitations. In view of the critical sampling used are limited to those 6 EP of the respective HPS identified thus the conclusion could not be generalized to all situations related to school improvements. The findings are based on inquiries in local situations in this country only. Thus applications to other situations might not be appropriate without the considerations of its contextual and local educational system and cultures. Since this research is self-initiated thus personal influences are unavoidable. There might be instances where the researcher is unaware of what is stated by the EP is different from those interpreted in the analysis. Even though checking and cross-checking are undertaken there might possibly be those that have been overlooked due to human errors. The situation is undeniable since the nature of qualitative is just like this. Furthermore the grounded theory adopted is mainly to develop a theory seen through the CSF Model acquired through sources mainly raw data through interviews and contextual observations.

## **5.7 Recommendations for further study**

This research is an explorative undertaking to eventually generate a theoretical model termed as CSF Model. These are only for those principals involved in the school improvement efforts. The approach adopted for the method is that of grounded theory using selected EP from certain identified HPS. There are some recommendations for further studies to be made. Firstly it is better to acquire a wider perspective of this study by replicating the method to other different categories of schools. These can be included the rest of the mainstream schools inclusive of the primary schools. Also include the different categories of principals in the undertakings shown in Chapter 3 in section 3.5.2 in Figure 3.1. Thus it is expected to produce a wider data for analysis and the final

findings derived. It also provides different contextual environments for comparison of results arrived.

Secondly, is to further examine these main contributing factors towards school improvements being (i) leadership (ii) management and administration and (iii) strategy. The relationships between these three main factors are further widened to include other contributing factors. In so doing it ensures that other factors that might be latent in the study are not missed out. The strength of the relationship among all these factors identified has not been established as well. It is recommended for the purpose a quantitative research strategy is adopted possibly through the statistical means using the Structural Equation Modeling or SEM.

## **5.8 Conclusion**

This chapter concludes the study. The focus is on the objectives of the study to conclude on the outcome of the discussions related to the top-down model and the bottom-up model. It is then followed by the discussion on the contribution and implications for the theory and practice of this study based on the model developed. It suggests that the study be extended towards the establishment of the '*hybrid theory*'. The chapter also points out on the implications of the CSF Model developed to all concerned. It also highlights on its limitations and further recommendations on certain aspects for other researchers to follow-up. The research has been able to provide a theoretical model developed through the explorative process, data collections and analysis and the conclusion derived. It shows of these critical factors identified through the rigorous process for principals in their efforts towards school improvement. These CSF are the main aspects which are able to assist these principals. These are in adopting the two models functioning in the school contextual situations being the top-down and the bottom-up model. The significant of this study is the establishment of the CSF

Model for school improvement efforts by the principals. The study can be used as references for those interested in the study on school improvement.

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