Chapter 3 – Research Methodology

The adapted soft system methodology propounded by Yusof Omar (2001 d) shown below is used as a framework of this research.

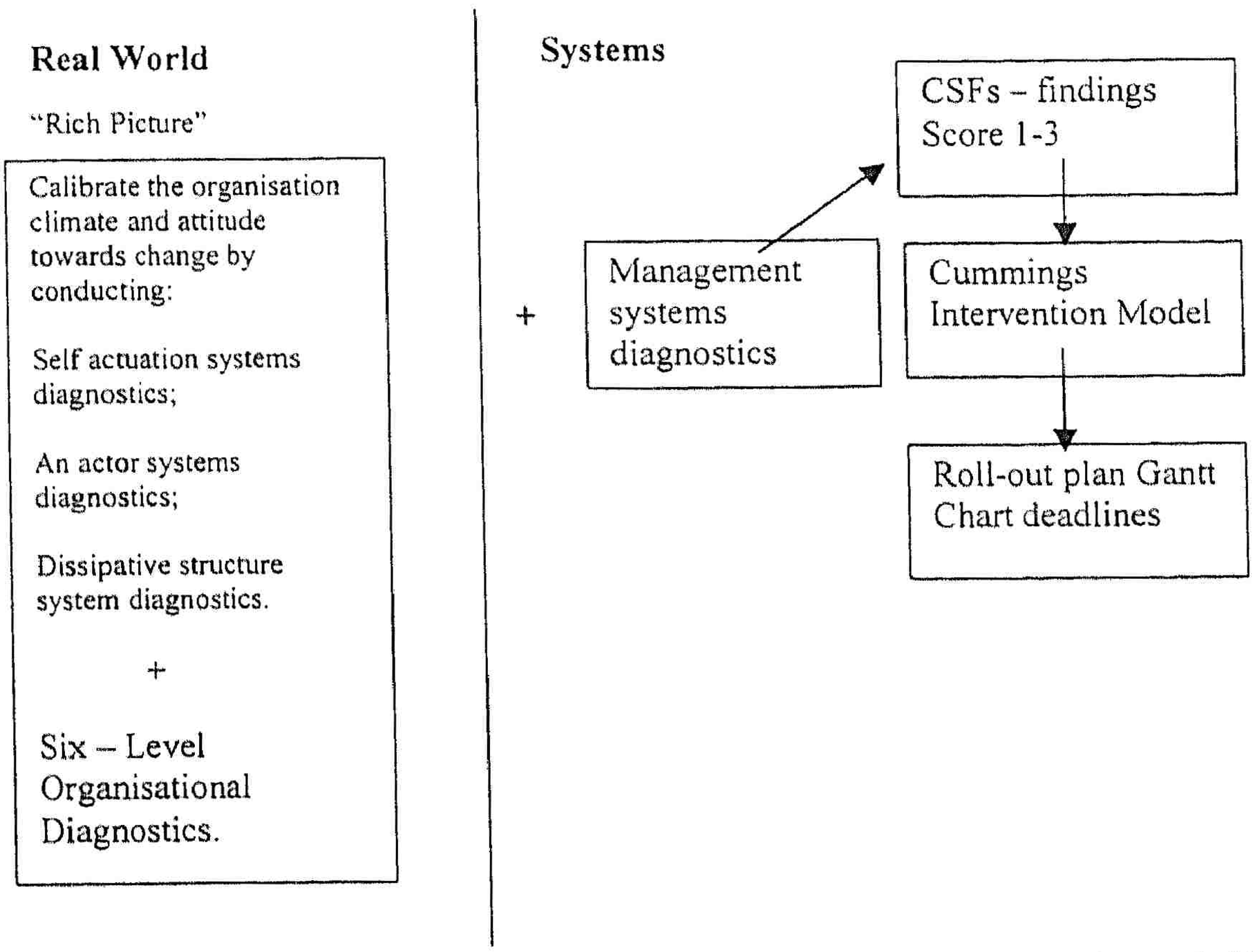

Figure 1: Mohd Yusof Omar's Organisational Diagnostics and Planned Change Model

Primary data was collected from division PTD in X Engineering Sdn. Bhd. Observation techniques were used. The division was taken as an organisation in the general environment, industrial structure, strategic orientation, self-actuation and dissipativeness diagnostic. The three departments were taken as subjects in the group level diagnostic, which includes the group level diagnostic and the actor system generic identity diagnostic. Every employee in the division was taken as subjects in the personal characteristics diagnosis and actor system individual identity diagnosis. Each employee's job was taken as subject in the individual effectiveness diagnostic.

The system diagnosis is done for the organisation system.

3.1 Research Proposition

The proposition are as below.

P1 : The organisation maintain its stability through the process of self-actuation, $\mu = 4$ or $\mu > 4$.

P2 : The organisation is able to survive under change through actor system adaptation, $\mu = 4$ or $\mu > 4$.

P3: The organisation structure is able to survive change through its dissipative structure, $\mu = 4$ or $\mu > 4$.

P4 : The organisation viable according to the six level organisation diagnosis, $\mu = 4$ or $\mu > 4$.

P5 : The organisation management system is sufficient according to the ISO 9001:2000 international standard, $\mu = 4$ or $\mu > 4$.

3.2 Research Instrument

Observation form was taken from Yusof Omar (2001a, b, c) for the real world diagnosis. Similar observation is also been used by Chan (2001) in the diagnosis of CHS Industry Berhad. The observation consists of four parts in general. First was the overall organisation, second was the group level consisting the departments, third the individual level and lastly the system of the organisation (Please refer to appendix D for detail).

3.3 Sample design

The samples for this research are the total population. All individuals in the division are subjects, since there is only thirty-eight employees in the division. The division was taken as a subject for the organisational level diagnostic and the three departments were taken for the group or departmental diagnostic. Therefore, there is only one subject for the organisational level diagnosis and three subjects for the departmental or group level diagnosis.

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3.4 Data Collection Procedure

Observation was done during working hours for all subjects in the month of March, 2001. There was only one subject for the first part and forth part of the research since there is only one division that is been considered. The second part of the research consists of three subjects. The third part of the observation consists of thirty-eight subjects.

3.5 Data Analysis Techniques and selection of measures

Microsoft Excel 97 was used to summarise the data obtained from the observation. Mean score and frequency were used to analyse the data. Z- test were then used to test the hypotheses. Additional statistical tools could not be adopted to provide additional information from the data due to the limited subjects.