CHAPTER 4

RESEARCH FINDINGS: LOCAL EXPERIENCE IN ISO 9000

As at 11th January 1996, there are only two major construction firms and two major
property developers in Malaysia have been successful in the development and
implementation of the ISO 9000 Quality System until their registration with SIRIM under
the Scheme for Certification of MS ISO 9000 Quality System.

This chapter includes the experience of both the property developers and one of the
construction firm in ISO 9000.

In-depth personal interview using unstructured and some loosely structured question has
been carried out with key personnel from the three companies. In order to look at the
subject under study from the other perspective; i.e. from the viewpoint of an
accreditation body (SIRIM, in this case), an interview has been arranged specifically for
this purpose with the former Head of Registration of Quality Systems Unit from SIRIM,
Mr. Lee Ng Chai. Mr. Lee is now the SIRIM’s Head of Marketing, Finance and
Administration of Quality Assurance Section.
The findings from the interviews are presented in the following sections.

4.1 Sime UEP Development Sendirian Berhad

The Company United Estate Projects Limited, UEP as it was known then, was incorporated in Malaysia on 31st December 1964, with the objective of developing a 583 hectare rubber estate into a modern township.

The company was granted listing on The Kuala Lumpur Stock Exchange in 1980. Its initial authorized share capital of $20 million has today grown to $500 million of which $404 million have been fully paid up in 1992.

In 1985, UEP became a member of the Sime Darby Group.

In 1989, UEP changed its name to Sime UEP Properties Berhad. The change was necessary so that the company’s principal business activities in property development and its strong association with the highly diversified Sime Darby Group, will be reinforced. Sime UEP is a core business division of the Sime Darby Group, one of Southeast Asia’s largest multinationals.
The Sime Darby Group’s core business activities are plantations, manufacturing, heavy equipment and motor vehicle assembly and distribution, property development, insurance services, and oil and gas. To support its extensive trading and manufacturing interest in the region, the Group has operating companies in Hong Kong, Singapore, The Philippines, Australia, Thailand, Indonesia, Brunei, United Kingdom, United States of America, Japan and Egypt.

Sime UEP, with the backing of Sime Darby, is today a financially sound, well-managed and progressive company, and a leader in the Malaysian property market.

On August 10, 1994, Sime UEP Development Sendirian Berhad, a subsidiary company of Sime UEP Properties Berhad has become the first property developer to achieve the ISO 9002 Certification in Malaysia.

**Their Experience**  The outcome of the interview with the Total Quality Executive, Encik Ahmed Bin Ismail on 19th. January, 1996 can be summarized as follows:

Sime UEP chose the ISO 9000 Quality System because it is recognized by the whole world and it is customer oriented because the system look into the interest of purchasers. The company was motivated to implement the ISO 9000 because they want to be the first property developer who is serious about their product quality.
Before implementing ISO 9000 Quality System, Sime UEP has already set up a special committee called Total Quality Management Committee to look into the quality aspect of the work processes in the whole organization. There are four of them in the TQM committee to study the strength and weakness of their existing quality system before engaging an external consultant. According to Encik Ahmed, this help to speed up and ease off the process because it saved the consultant lots of investigations and at the same time, minimized the cost on consultation. The external consultant used by Sime UEP was QMI-Quest Sdn. Bhd.

In the process of developing the quality system, Sime UEP’s first step was to appoint a representative from each and every department in the organization as working team. This working team was sent to a special in house education program conducted by the consultant. Then, these representatives were sent back to their own department and start collecting data and information from area concerned.

The second step was to appoint head of each department to develop their Quality Manual with the guidelines provided by TQM Department. All of the department heads were equipped with essential skills and knowledge by attending some in house seminars and training courses conducted by consultant. At the same time, Sime UEP also set up a TQM Steering Committee consisted of top management and the head of TQM department. After the Quality Manuals were completed by each department, they were reviewed based on ISO 9000 guidelines.
Upon approval of the quality manuals, trial implementation were carried out in every department. The period for trial implementation was fixed for six months. At this time, Sime UEP has booked a date with SIRIM for the third party quality system certification and registration. A mock-up audit (internal audit) was conducted with the assistance from consultant at the end of the trial period. A few review sessions were carried out to improve on the weak area and the quality manual. After some corrective actions, the revised quality system was implemented fully in every department.

About three months after the full implementation, SIRIM came for the compliance audit. Some corrective actions was requested by SIRIM. Sime UEP was asked to submit a Quality Corrective Plan to SIRIM in three weeks time and if it fulfills all the requirements; SIRIM will come back for the second audit.


Encik Ahmed attributes the success to the all-out commitment from top management and also the involvement throughout the whole organization.

However, there was not without any difficulties in the process of implementing the quality system. "People's Attitude" seemed to be a major stumbling-block to the whole
process. About 50% of the employees, especially those who are quite senior in the organization tend to resist the program in the beginning. The reason was that they did not like to change the way they used to do things and they felt that they could perform better by using their own way in carrying out their tasks. Therefore, a lot of effort has been put into educating employees in order to create awareness and acceptance and thus to obtain co-operation from them. In order to motivate the employees, Sime UEP has completed a plan to reward its employees in making ISO 9000 a successful quality system. The new reward system is schedules to be implemented this year.

After achieving the ISO 9000 certification, maintaining the quality system proof to be the most difficult task. The main reason for this problem came from the external factors. This is because the whole process of property development involved a lot of outside suppliers such as architects, engineering consultants, material suppliers, main contractors, sub-contractors, etc. These external suppliers normally do not aware of the quality system requirement and as a result created a lot of trouble and confusion in the whole process. To solve this problem once and for all, Sime UEP carried out some studies and formulated some strategies. First, they worked out some programs to educate external suppliers through training and seminars by getting assistance from outside consultant. Second, they made it as a requirement that all their suppliers have to start on their own ISO 9000 Quality System and get themselves certified within three years time.
In addition to above mentioned external factors, internal factors like lack of trained manpower to overlook the strategic positions in the quality system also contributed to the problem in maintaining the quality system. To overcome this problem, Sime UEP has got two plans. One is to keep on looking for suitable candidates from outside labour market and the other plan is to conduct booster courses to generate departmental assignment statement in order to stimulate and motivate the employees within the organization.

In spite of the difficulties in maintaining the quality system, ISO 9000 has in fact brought in a number of benefits to Sime UEP. For example, it has created a more effective work system and efficient working hours. It has also increased the level of satisfaction for Sime UEP’s customers (based on the record of complaints on product sold). The new ISO 9000 Quality system has also increased the working morale among the employees and the employees are more motivated to do a “quality work”. In addition, based on their in house record, it shows some improvement in the sale as compare to their competitors. This benefit could, perhaps become the prime motivation factor for some companies to start on the ISO 9000 program.

According to Encik Ahmed Ismail, Sime UEP spent less than RM. 200,000 from the beginning until its registration with SIRIM. He further explained that most of the cost was initial cost used to establish the TQM Department.
Since the ISO 9000 Quality System has brought in so much benefits, Sime UEP has decided to expand its TQM Department and to look into safety, health and environmental aspects of their existing quality system. Sime UEP also plans to start another program to apply for ISO 9000 certification for high-rise development. Meanwhile, they have set up a Process Research Committee and a Process Control Design Team to improve on weak areas and at the same time to work out the detail work process (method statement) and give it to their suppliers especially the building contractors in order to show them how a particular work need to be carried out base on their quality system.

Finally, Encik Ahmed Ismail would like to advise those construction and property development companies who wish to adopt ISO 9000 Quality System to study their own organization first before they go straight to an external consultant for help. This will help them recognize what they have (their present quality system, their resources) at the moment and what they want from the outside consultant. Then they will have a good chance to select an appropriate consultant suitable to their industry; their employees, their need as well as their company culture.
4.2 Road Builder (M) Sendirian Berhad

The Company The Road Builder Group was incorporated on June 27, 1985. Initially, they were primarily involved in the building of bridges, highways and roads. Since then, they have diversified their scope of activities to include the construction of building, water supply and treatment plants, resorts, turnkey projects, quarries and material supplies.

Road Builder's dramatic growth and expansion can be attributed to their steadfast commitment to the progress of our nation. They have established themselves as a leader in the industry, trusted for their proven ability to provide innovative and practical solutions.

To meet the growing needs of the community, Road Builder has several joint ventures set up with local companies to undertake even more sophisticated projects and further strengthen their presence in the industry. With offices across Malaysia and key representatives overseas, Road Builder is set to form an international network and joint the ranks of international construction firms that provide quality services to global clients.
On 17 November, 1994, the Quality Management Systems of Road Builder (M) Sdn. Bhd. have been assessed and registered as meeting the requirements of ISO 9002 by SGS Yarsley International Certification Services Limited. Five months later, on April 18, 1995, Road Builder (M) Sdn. Bhd. has been certified by SIRIM that it has implemented a quality system complying with MS ISO 9002 under the scope of “Provision of Construction Services for Building and Civil Engineering Works”. This made Road Builder the first construction company in Malaysia to achieve the ISO 9000 certification.

Their Experience  The interview with Road Builder’s Senior Quality Assurance Manager, Mr. Yeoh Sek Chew is summarized as below.

Same as Sime UEP, Road Builder chose ISO 9000 as their quality system because it is a system recognized worldwide.

Four major factors that motivated Road Builder to implement ISO 9000 are:

(i) to help them in the international venture; (ii) to serve as a measuring yardstick;
(iii) to improve their own quality and (iv) to increase their marketing edge.

Before implementing ISO 9000 Quality System, Road Builder only practices non(documented) quality system. Initially, when Road Builder decided to embark on ISO 9000, they engaged an external consultant to help. However, this proof to be a failure as
the external consultant did not familiar with the nature of construction industry. After considering every aspects of their needs, Road Builders has decided to set up an in house Quality Assurance Department to develop their own quality system base on the ISO 9000 guidelines. Also, in order to show their determination and to avoid unwanted delays, Road Builder has set for themselves a fixed time of not longer than fifteen months to obtain the ISO 9000 certification.

Road Builder has sent all the relevant personnel to training courses, seminars and workshop in order to gain knowledge in quality system. They have also formed a Steering Committee consisted of all the Heads of Department and headed by the Managing Director as the Committee Chairman. The Steering Committee will meet every fortnight to discuss about the progress and the problem faced by the Quality Assurance Department in developing and implementing the quality system. They have also set monthly milestone to monitor the overall progress of the process.

In the documentation development stage, Road Builder has divided the responsibilities into a few levels. The Project Managers are responsible for the development of Project Quality Plan, the Heads of Department are responsible for the development of Work Instruction and the development of Project Quality Plan will be the responsibilities of Site Personnel.
After documentation and quality manual were completed, the process went into the next stage: Awareness Training Stage. Here, members from the Steering Committee would visit to various job sites to explain to individual project manager. The main purpose is to sell the idea, ask opinion and feedback, and to collect any further suggestion. Internal training has been carried out to explain how the document related to their work and how it works. External training also being carried out through sending candidates to public seminar in order to acquire some skills and knowledge about the application of documentation and quality manual in day-to-day work.

After the awareness training stage, Road Builder started the full implementation of the quality system in their organization. During the implementation stage, they have carried out a mock-up internal audit by their own quality assurance personnel. To reassure that everything is in its perfect tune, Road Builder has invited external auditor to audit their system one month before the proper accreditation by SIRIM. It took Road Builder about fifteen to eighteen months in developing the ISO 9000 quality system from its start until its registration; and it cost them about RM. 250,000 in total. Beside setting up a new Quality Assurance Department, there was no other changes in the organization structure of Road Builder.

According to Mr. Yeoh, negative attitudes among some employees are the biggest problem faced by Road Builder in the process of implementing the ISO 9000 Quality System. "Resistance to change" is a common phenomenon among some old hands.
This situation could be due to fear of uncertainty, job security, ego and other psychological reasons.

Mr. Yeoh further explained that some problems in the implementation of quality system are commercial problems like the lowest tenderer will always get the job. However, some of the problems are inherent in the construction industry. For example lacked of skilled workmen, untrained foreign labour, inferior supplies of materials, inferior technology ( unlike the manufacturing line ), unfair condition of contract favoured toward client and consultant. Also, construction normally involved a lot of general labour, and the usual and most popular way to make sure that they will carry out their work according to requirement is by direct supervision. However, according to Mr. Yeoh, this is not the best solution. The labour should go for training before they are allowed to work. Therefore, in his opinion, the Construction Industry Development Board ( CIDB ) should come in for help. As for Road Builder, they normally evaluate the sub-contractors on the availability of skilled labour, good past performance and workmanship before awarding a contract to them. For those subcontractors who did a poor job, they will be black listed.

Another problem faced by Road Builder is in maintaining the quality system, especially the registration with SIRIM. This is because maintaining the system required even more and more resources, specifically human resources. Therefore, in order to cope up with the pressure in maintaining the quality system, Road Builder went on expanding its
Quality Assurance Department. They have also a plan to continue the improvement process on their quality system and also streamline some critical procedure. In addition, Road Builder has planned to introduce a specific reward system to motivate their employees in the near future in order to make ISO 9000 a successful quality system.

In Road Builder, high turn over rate in project personnel is not a main problem in the implementation of quality system. This is because every new comer will have to go through the Quality Assurance Training and this training will equip them with the required knowledge about the quality system implemented in their organization.

Apart from immediate recognition and a better work system, there is no evidence that Road Builder has experienced any benefits from the implementation of ISO 9000 Quality System. According to Mr. Yeoh, it would take some time to proof and at the moment, they are still collecting data and feedback. It would probably take at least three years before they could feel and enjoy the benefits brought in by the quality system.

When asked about Road Builder’s future plan toward improving their current quality system, Mr. Yeoh said they will streamline the process and procedure, train more staff and find more solution from feedback of existing quality system.

For other construction companies who intend to embark on the ISO 9000 Quality System,
Mr. Yeoh would like to say something; "they must really committed to Quality and not like most contractors who are still rushing again completion time. They should cultivate a long term commitment instead of just for the sake of the certificate. Implementing a good quality system in an organization is an on-going process. It should not be treated as a short term objective."

4.3 SUNRISE Berhad

The Company  Just as the sun rises every day, the aspiration for better living is forever alive.

This is the philosophy behind SUNRISE Berhad. Started in 1968, the company has not wavered from the corporate motto that inspired its formation, "to build for better living."

The prestige and success which SUNRISE Berhad enjoys today is directly attributed to its Executive Chairman, Dato’ Alan Tong Kok Mau, an entrepreneur with an acumen for market niches. An architect by profession, Dato’ Tong established the company, then known as SUNRISE Sdn. Bhd., with the support of his family members in 1968. The
early projects were modest in scale, comprising terrace houses, shophouses and light industrial units in Klang and Port Klang, near Kuala Lumpur.

The turning point came in 1986 when Dato' Tong redefined the company's business and embarked on high-rise condominium development. Its first condominium project, OG Heights, was launched at the height of the economic recession and amidst a scenario littered with abandoned projects country-wide. In spite of this all the units were sold out within months and the project was also completed six months ahead of schedule.

SUNRISE's success with OG Heights soon paved the way for other condominium projects, each of them a winner in its own right. Demand for SUNRISE's condominium has been overwhelmingly high since then.

Today, SUNRISE Berhad is one of Malaysia's biggest property developer, especially in the development of condominium and it is also the first Malaysian recipient of the ISO 9002 certification for condominium development. Early this year (1996), SUNRISE was granted listing on the first board of The Kuala Lumpur Stock Exchange.

**Their Experience** The interview with Mr. Quah Choon Hooi can be summed up as follows:

There are two reasons why SUNRISE chose ISO 9000 as the model of their quality.
system:

(a) Because of the quality system itself and
(b) Immediate public recognition

Before starting on the ISO 9000 quality system, SUNRISE has faced with a lot of complaints on defective works and enormous amount of time and money has been spent to rectify and make good those faulty items. However, reputation and good name is not something that can be easily bought or repaired by just spending time and money into it. It has to be cultivated and earned through a well done job, consistently. Naturally, to do a good quality job has become the main motivation factor for SUNRISE to implement the ISO 9000 Quality System.

Although there are some philosophy about quality management in the company, there was no proper committee or a specific department set up for quality assurance in SUNRISE. Therefore, at the initial stage, SUNRISE has engaged an external consultant, QMI-Quest Sdn. Bhd. to assist them in the development of the ISO 9000 Quality System until they have completed the documentation stage. After the documentation stage, SUNRISE has decided to go on their own where at that moment, they have already established an in-house Quality System Department.

When SUNRISE developed their quality system, they lay great emphasis on the construction aspect as this is the hardest area to control. Since they do not carry out
design work themselves, ISO 9002 is used as the quality model. In SUNRISE, it is also the "People's Attitude" that become the major obstacle in the implementation of the quality system. This situation was due to employees did not really understand and not fully committed to the new quality system. To overcome this problem, SUNRISE's top management has played an active role where they have organized several talks and briefings to explain the benefits of the quality system as well as to show their commitment and support.

After implementing the quality system, SUNRISE has enjoyed a more systematic working system as well as a more defined organization structure. Accountability and traceability has also improved a great deal. Defective works has also reduced tremendously. However, SUNRISE is still collecting feedback and data on other benefits that could have been brought in by the new quality system.

According to Mr. Quah, maintaining the quality system appeared to be a difficult job because it involves a lot of works to update regularly on every department in the organization. It has cost SUNRISE about one million Ringgit to develop the ISO 9000 Quality System until its certification with SIRIM and it took them about three years in the whole process.
Since a good quality system has managed to help SUNRISE eliminates defective works; they have decided to keep going with the current ISO 9002 quality model and they have also planned to move toward the Total Quality Management in the near future.

Mr. Quah’s advice for other property developers and construction companies is to be very careful in choosing an external consultant and the top management must really committed to quality and provide long run support to the implementation of quality system in their organization.

4.4 Standards and Industrial Research Institute of Malaysia (SIRIM)

The Organization The Standards and Industrial Research Institute of Malaysia (SIRIM) is established with the merger of the Standards Institution of Malaysia (SIM) and the National Institute for Scientific and Industrial Research (NISIR) under the laws of Malaysia Act 157 on 16th September, 1975: Standards and Industrial Research Institute of Malaysia (Incorporation) Act 1975. The Institute is vested with the power to provide for the promotion and undertaking of industrial research and for the preparation and promotion of standards for commodities, processes, practices and services; and to provide for matters incidental to or connected with those purposes.
One of the functions of the Institute is to prepare Malaysian Standards in the form of specifications for material and products, methods of testing, codes of sound and safe practice, nomenclature, etc. Malaysia Standards are prepared by representative committees which co-ordinate manufacturing capacity and production efficiency with the user's reasonable needs. They seek to achieve fitness for purpose, simplified production and distribution, replacement interchangeability, and adequate variety of choice without wasteful diversity.

The Institute operates entirely on a non-profit basis. It is a grant aided body receiving financial aid from the Government, funds from membership subscriptions and proceeds from sales of Standards and other publications, testing fees and license fees for the use of SIRIM Certification Mark and other activities associated with Standardization, Industrial Research and Consultancy Services.

**Their View** The interview with Mr. Lee Ng Chai, the former Head of Registration of Quality System Unit and the current Head of Marketing, Finance and Administration of Quality Assurance Section of SIRIM, was held on January 20, 1996 at his office in SIRIM. The meeting with Mr. Lee is essential as it provides a view from different perspective on the development and implementation of ISO 9000 Quality System in local property development and construction industry.
According to Mr. Lee Ng Chai, SIRIM played an active role in promoting and creating awareness about the importance of ISO 9000 Quality System in producing better quality products and services in our country in order to be able to compete in the international market place. At the moment, SIRIM is providing the training and certification services in relation to ISO 9000.

Based on his exceptionally vast experience in the ISO 9000 Quality System in Malaysia, Mr. Lee commented that the reason why it is more difficult for a construction or property development company to achieve the ISO 9000 certification is that the construction process is not easy to be standardized like the manufacturing industry. Most of the works are customized to the requirements of each individual customer. Besides, high mobility of labour is also one of the factors that contributed to the problem.

The same problems provided the explanation to the difficulties in maintaining the quality system in construction and property industry. Another major problem in maintaining the quality system was due to the incontinuity of certification in suppliers and subcontractors. This is an important issue because suppliers and subcontractors formed a major share of the works involved in a building works contract.

Therefore, Mr. Lee went on commenting that far too many companies continue to treat their suppliers and subcontractors as problems rather than trying to develop them as solutions. The suppliers and subcontractors are not an external influence upon company
processes, they are an integral part of them and must be handled as such. Only when companies started to do so, the problems would not be able to solve easily.

Finally, when asked about the future of ISO 9000 in construction and property industry, Mr. Lee said that there are still a lot of scope to be covered and awareness is still very low. More training and awareness courses need to be organized by both the government and private sectors. Mr. Lee strongly believes that ISO 9000 Quality System will eventually become a way of life in our country as well as other part of the world.

4.5 Analysis of Research Results

By comparing the findings of the interviews, it is noticed that there are many similarities among the experience of local companies in developing and implementing the ISO 9000 Quality System in property development and construction industry.

First, all of the companies did set up a new Quality Assurance Department to co-ordinate and to be responsible for the overall planning, monitoring, organizing training courses, co-ordination between departments and top management, liaison with consultant and third party accreditation body.
Second, they normally appoint all the heads of department as the committee member of the Quality Assurance Committee. And they would send these people for some training and seminars in order to acquire some basic knowledge about the ISO 9000.

Third, all of the companies did employ external consultant for help; at least at the early stage. However, their experience disclosed a fact that one should not choose an external consultant blindly before carried out some initial study on themselves about their own organization, in order to ensure their needs and requirements.

Fourth, the major difficulty faced by them was the attitude of the employees who tends to resent the changes at the beginning.

Fifth, the top management of all the companies are very committed to implement the ISO 9000 Quality System in their organization. This is because even there is no obvious and immediate benefits from implementing ISO 9000 at the moment, they have already made plan to keep on improving and expanding their Quality Assurance Department. This shows that they are committed to quality and they have the vision and long term objective on the trend of the future business world.

Sixth, it is common in all the companies that maintaining the quality system is the most difficult task because it required a lot of resources, especially manpower to monitor and
to update the process. In addition, since this stage involved dealing regularly with external suppliers and contractors, it is therefore more difficult to control.

Another problem that is common in all the companies is that experienced and properly trained personnel are not sufficient in numbers, and the companies commonly find it impossible to maintain continuity in such staffs.

Apart from the similarities, the only contrast between the companies in the process of developing and implementing the ISO 9000 Quality System is the amount of money spent and the time taken from the beginning until its successful registration with SIRIM.

4.6 Summary of Research Findings

After analysing the experience of all the three companies, the whole process of developing and implementing the ISO 9000 Quality System in Property Development and Construction Industry can be summarized by the following elements:

1. Top management decision and commitment in establishing the Quality Policy

2. Establish management representative and a steering committee
3. Development of standards or specifications and Quality Manual

4. Education of personnel of both the companies and their suppliers' organization

5. Full implementation of the Quality System according to the procedures documented in the Quality Manual

6. Carry out Internal (mock up) Audits for the actual measurement of performance against the standards and procedures for both quality control and quality assurance

7. Evaluation of deviations from the established standards

8. Feedback to take note of problem areas and carry out corrective action. Improve on Quality Manual if necessary

9. Carry out Pre-Assessment by external consultant and Management Review

10. Final Assessment by authorized third party Accreditation Body

11. Official Registration / Certification

12. Continuous improvement.