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10	Economic of construction environment	3.807	0/1	3.807 x (0 or 1)
11	Defective building materials	3.790	0/1	3.790 x (0 or 1)
12	Project Information, Specification and Documentation	3.774	0/1	3.774 x (0 or 1)
13	Low bid mindset	3.645	0/1	3.645 x (0 or 1)
14	The human resource management	3.629	0/1	3.645 x (0 or 1)
15	Supplier relationship	3.597	0/1	3.597 x (0 or 1)
16	Understandable and applicable design	3.597	0/1	3.597x (0 or 1)
17	Too much paperwork	3.532	0/1	3.532x (0 or 1)
	Sum	**65.16**		**VALUE**

The score of the company will be calculated using equation 4 of the methodology as follows:
Company Score (CS) = [1-(VALUE/65.16)]*100%

If the CS is closer to 100%, it can be considered that the tendency of occurring total quality management TQM problems is minimal. While If the CS is closer to 0% means that a very high tendency to face TQM problems and need to concentrate on the highlighted factors by the program. A CD consisting of the computer program is attached to the report.

Application of the Program
The model has been run using data from the listed construction companies in Malaysia. Figure 4.2 to figure 4.3 shows the data input windows of the program.

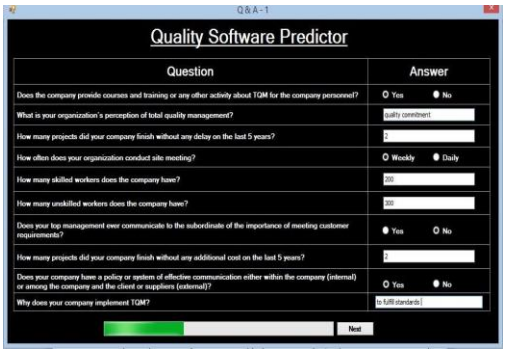

Figure 2: Data Entry Window Number 1

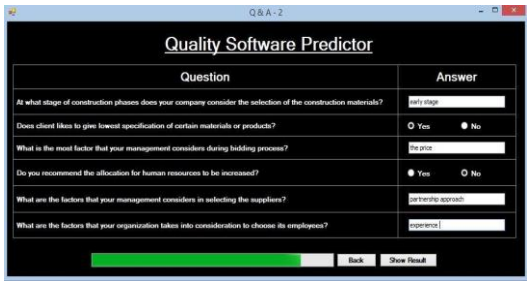

Figure 3: Data Entry Window Number 2

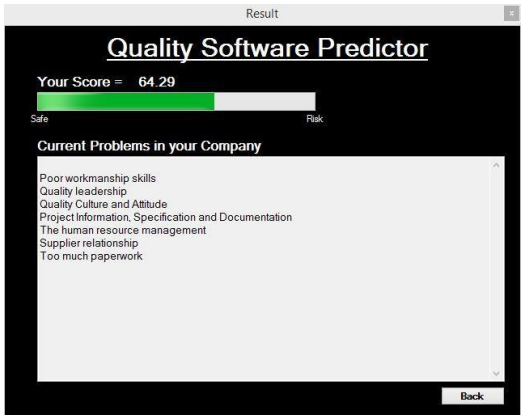

Figure 4: Result From the Program

The model highlights seven problems to which the company must pay attention. The seven problems are as follows:

1. Poor workmanship
2. Quality leadership
3. Quality culture and attitude.
4. Project information, specification and documentation.
5. The human resource management.
6. Supplier relationship
7. Too much paperwork

In the meantime, the model has assigned a score of 64.29% for the company. This provides an idea for the company how critical their situation is regarding total quality management TQM. A score of 64.29% can be considered comparatively safe.

CONCLUSION

The major objective of this research is to examine how severely contractors see roadblocks to Total Quality Management (TQM) being implemented in the Malaysian building sector. This investigation covered seventeen distinct issues. The following concerns have been identified by construction firms as having a high potential for causing difficulties in total quality management (TQM):

1. Lack of management commitment and support
2. Extra time consuming
3. Project supervision
4. Lack of knowledgeable personnel
5. Poor workmanship skills
6. Quality leadership
7. Extra cost
8. Lack of effective communication
9. Quality Culture and Attitude
10. Economic of construction environment
11. Defective building materials
12. Project Information, Specification and Documentation
13. Low bid mindset
14. The human resource management
15. Supplier relationship
16. Understandable and applicable design
17. Too much paperwork

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The detection model that has been developed using the finding of the research will be helpful for construction companies. This model has been converted into a simple computer application, which is very versatile and user-friendly. This program works like a self-assessment; hence the users or the companies do not need to reveal their secured information to a third party. The program will assist the management of the companies in identifying the probable causes or problems of TQM within the organization. Further, the model's score assigned for the company will provide an ideato the management of their current organization situation in terms of total quality management TQM.

Moreover, the most pressing issues with total quality management (TQM) stem from administrative causes. The construction sector in Malaysia has come to appreciate the value of root-cause analysis in addressing TQM issues. Further, most of companies are contented to get assistance in the process of identifying their weaknesses. The developed model through this research will be beneficial for the industry in the future.

Limitations and Future Perspective

- Due to limitations, the study was restricted to one administrative district of Malaysia (Klang Valley). The data survey can be carried out in the other districts and compare the results
- Due to limitations, the study was restricted to one administrative district of Malaysia (Klang Valley). The data survey can be carried out in the other districts and compare the results.
- The implementation of the detection model can be tested and improved by Malaysian construction companies.
- The next step would be to find the most effective remedies that construction companies can implement to avoid these causes and problems.
- To develop a full detailed model and program that can detect the problems of TQM, at thesame time provide some effective remedies for the construction company

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