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Quality Expectations in the Malaysian Wooden Furniture Industry: The Foreign Buyers Perspective

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Abstract: Although, the ISO quality management system is often perceived to be marketing tool within the manufacturing industry its implications on the design-sensitive wooden furniture industry remain unknown. Therefore, a survey of 500 foreign furniture buyers was conducted at the Malaysian International Furniture Fair (MIFF) to establish the status and perceived benefits of the ISO-certification in the furniture industry. The results revealed that although furniture purchase decisions is made on the basis of ten major attributes, ISO certification emerged as one of the more important attributes. Nevertheless, the influence of the ISO system on the product marketability is limited to specific markets, especially in Japan, Korea and East Asia which are markets most demanding for ISO certification. On the other hand, ISO certification generally improves the overall performance of the furniture companies and foreign furniture buyers prefer to purchase their merchandise from such companies due to their higher degree of confidence and product consistency. Despite the benefits to be derived, the lack of awareness prevalent among the Small and Medium Enterprises (SMEs) in the furniture sector explains the low adoption level of the system in the furniture sector. Therefore, market demand alone is not sufficient to boost the adoption of the ISO quality system among furniture suppliers. It appears a concerted effort must be drawn up to boost the awareness of benefits to be gained, if ISO certification is to be expanded throughout the industry in the future.

Key words: ISO quality system, furniture, factory performance, product design, price, delivery

INTRODUCTION

In 2010, exports of wooden furniture contributed 27.8% (USD 1.75 billion) to the total export earnings of the wood-based industry in Malaysia and the exports reached to more than 160 countries in the world, while providing employment for a workforce of 75,000 (MIDA, 2011). With an export value of USD 2.39 billion in 2011, Malaysia became Asia's second largest exporter of furniture and the industry has emerged as an important socio-economic sector in the country. It must be noted that the Malaysian furniture industry has been transformed into a technologically advanced multi-billion ringgit industry from a traditional, domestic cottage-based production over the last three decades (Matrade, 2012).

Malaysia exports nearly 80% of its furniture production and is ranked as the top ten largest exporters in the world (Matrade, 2012). Malaysia has a strong position in the global furniture markets which include the US, Japan, Australia. Malaysian furniture exporters have also penetrated into new markets, such as the UAE, Saudi Arabian, Philippines and Russian. The Malaysian furniture industry is an important component of the country's manufacturing and exporting sector.

In recent years however, Malaysian furniture manufacturers have come under increasing competitive pressure from other cheaper furniture producing nations, particularly in China and Vietnam. Therefore it is important for Malaysian furniture manufacturers to embark on strategies that could boost their productivity and competitiveness through the adoption of management systems, such as ISO 9001, in order to remain competitive. However, the number of ISO certified manufacturers are still relatively small (Ratnasingam *et al.*, 2010).

Two of the most relevant ISO standards for the furniture manufacturing industry are the Quality Management System (QMS), ISO 9001 and the Environmental Management System, ISO 14001 (Anonymous, 2012a,b). It must be stated that the ISO 9000 series (quality management system) and ISO 14000 (quality management system for environment) are known as generic management system standards. The ISO 9000 series comprises two basic types: (1) Quality assurance and (2) Quality management. Complying with the quality assurance standards will demonstrate that the certified company has a certain capability to ensure that all the products and services meet customer requirements (Hoyle, 1998). According to the ISO, quality system is a

simplified set of standards that will be similarly applicable to all types and sizes of organizations (ISO, 2008). The intention of an ISO 9001 quality management system is to provide an orderly and systematic way of providing quality products and services to the customers (Mariun, 2005).

Despite the fact that there are more than 3,500 furniture manufacturers operating in the country, the industry is predominated by Small and Medium Enterprises (SME). Malaysian furniture manufacturers are generally categorized into three categories, i.e. small scale, medium scale and large scale manufacturing. The 30% of furniture manufacturers are categorized as large and medium sized furniture plants, with exporting capacity (Matrade, 2012). The large furniture manufacturing plants have a paid-up capital above RM 9 million, medium plants between RM 2.5 million to RM 9 million, while small manufacturers have a paid-up capital of less than RM 2.5 million (MIDA, 2011). In terms of ownership it was estimated that about 70% of the furniture companies are either wholly or majority Malaysian owned, while foreign ownership of furniture plants have been reducing over the years (MIER, 2011).

Nevertheless, the export performance of the Malaysian furniture industry has been predominated by approximately 160 of the large furniture manufacturers, who collectively account for 85% of the total furniture exports. Among these manufacturers, only 36 are ISO certified companies which clearly reflect the lack of interest in ISO quality management system among wooden furniture manufacturers in the country.

However, information on the status of ISO quality management system among furniture manufacturers in the country is lacking (Ratnasingam, 2010). Therefore, this study aims to evaluate the quality expectation among foreign furniture buyers in the country. The study will provide the perspectives of foreign buyers on furniture quality expectations and their willingness to work with ISO certified furniture manufacturers which in turn will provide useful information to boost the competitiveness among furniture manufacturers in the country.

MATERIALS AND METHODS

A questionnaire-based survey was conducted during the Malaysia International Furniture Fair (MIFF) of 2012. The total number of respondents involved in the survey was 500 foreign buyers, originating from different countries. The interviews were conducted with the assistance of the fair organizers and the buyers were identified after seeking their approval for participation in the survey. The questionnaire was pre-tested using a

sample of 25 international furniture buyers and the necessary modifications were made prior to the conduct of the survey.

The respondents were predominantly senior managers (76%) of their respective companies, with the relevant authority to make purchasing decisions. Consequently, they were familiar with the furniture manufacturing industry as well as quality management systems. Further, 56% of the respondents were from furniture retailers, with specific market knowledge, while 36% of the respondents were importers into general furniture markets. The country of origin of the respondents were more or less equally distributed between the major furniture markets, such as United States of America, Europe, Australia, East Asia which includes Japan and Korea and Middle East. Hence, the data captured in this study were representative of the major markets to which Malaysian furniture were exported to.

There are six parts to the questionnaire. The first part covered the background of the respondent (i.e. position held in company, type of business, country of origin and years in purchasing function, etc.). The second part evaluated the criteria used in purchasing furniture based on 10 important criteria which had to be ranked by the respondents based on its importance. The third part assessed the awareness of ISO certification among their suppliers based on 5 criteria which accorded importance based on the 7-points Likert scale. The fourth and fifth part evaluated the level of satisfaction of the respondent when dealing with ISO certified and non-ISO certified furniture suppliers, based on 6 criteria which was compared against the specific market place. The last part of the questionnaire examined the comments and opinions of the respondents on their quality perception and experience in the furniture sector.

Data analysis: The data collected from the survey was compiled and analyzed using the SPSS software with relevant statistical tests as reported previously by Ratnasingam *et al.* (2010). Factor analysis and paired samples correlation were used to test the relationship of ISO and non-ISO certified companies. Both validity and reliability of the measures were checked in order to reduce measurement error using the Kruskal-Wallis and Chi-Square tests.

RESULTS AND DISCUSSION

Furniture purchasing criteria: The study confirmed the fact that in furniture purchasing decisions, ten attributes

Table 1: Furniture purchasing attributes of the different markets

Attributes	Region						Overall rank
	EU ¹	Middle East	US	East Asia	Japan	Australia	
ISO	3	5	8	1	1	4	3 (193)
Location	10	6	10	9	10	5	9 (402)
Delivery	4	8	4	4	4	6	5 (254)
Design	5	7	5	6	4	8	6 (285)
Peer recommendation	7	9	6	10	8	9	8 (382)
Instinct	9	10	9	8	9	9	10 (420)
Price	8	1	1	5	7	1	4 (218)
Service	1	2	2	2	3	7	2 (163)
Brand	2	3	3	3	2	2	1 (140)
Eco	6	4	7	6	6	3	7 (289)
Total score²	4 (550)	1 (275)	4 (550)	2 (385)	4 (550)	3 (436)	

¹Values reflect the ranking of the attributes based on its importance, ²Values in brackets reflect the total survey score

were taken into consideration. From a product perspective it was found that the most important attribute when making furniture purchasing decisions was branding (140), followed by service (163), ISO certification (193), price (218), delivery timeliness (254), design (285), eco-friendliness (289), recommendation by peers (382), location (420) and finally the attribute instinct (420). From the market perspective, ISO certification was ranked the most important attributed for the East Asian (385) and Japanese (550) markets, while the United States (550) market was the least demanding for ISO certification. Table 1 provides a summary of the results obtained for the various attributed based on the six markets examined in this study.

The results confirms that the furniture market in the United States of America, Middle East and Australia were price-sensitive and purchasing decisions were often dependent on the selling price points as reported previously by Ratnasingam *et al.* (2011). On the other hand, the East Asian and Japanese market were quality-oriented and accorded the highest importance to product quality and the ISO certification of their suppliers. This finding coincides with the reports by Ratnasingam (2011) who found that quality attributes were of prime importance in most of the East Asian and Japanese furniture purchasing decisions (Haddad, 2007). It has been shown that the Japanese market demands higher quality furniture and Japan is the second largest importer of Malaysian furniture after the United States of America (Anonymous, 2012b). The European market were on the other hand, highly demanding in terms of after sales service offered by the supplier, attributed to the direct mode of sales widely practiced in the region (Van Gaugh *et al.*, 2010).

In essence, this study shows that ISO certification is a basic requirement to improve market share and internal organizations of furniture companies especially in the Asian region which are fast emerging as large furniture exporters (Sampaio *et al.*, 2009). Foreign furniture buyers are looking for ISO-certified companies for quality assurance, as the ISO label is a branding strategy for the

Table 2: Percentage of supplier with ISO certification

Respondents percentage of awareness of ISO certification	%	Cumulative (%)
100	34.0	34.0
75	2.0	36.0
70	2.0	38.0
65	2.0	40.0
60	4.0	44.0
55	2.0	46.0
50	24.0	70.0
10	4.0	74.0
5	8.0	82.0
Missed	18.0	

furniture companies. Ratnasingam (2003) reported that the lack of branding strategy impedes the manufacturers' ability to enhance the fashion of furniture which leads to reduced amplitude of its life cycle. A similar observation was also made by Garvin (1987) who used a framework based on eight quality dimensions and reported that brand image and company reputation were the crucial indicators of product quality and as the likely determinants of the firm's market and financial performance. Furthermore, in the study by Lamprecht (2001) it was revealed that the company's branding image was more important than the product image. Consequently, the study shows that ISO-certification can make profound difference in the way quality is perceived and measured by foreign furniture buyers (Dick *et al.*, 2002).

Awareness of ISO-certification among foreign furniture buyers:

From the foreign furniture buyers' perspective, the result of the survey showed that 76% of the respondents were aware of the existence of ISO-certified companies in the Malaysian furniture industry. On the other hand, only 14% of the respondents indicated that they were not aware of ISO-certified furniture suppliers in the country. Further, the results showed that 34% of the respondents deal with 100%t ISO-certified furniture suppliers, while 70% of the total respondents have at least 50% ISO-certified furniture suppliers (Table 2). Therefore, more than 70% of the total respondents have at least 50% or more of their suppliers being ISO-certified,

suggesting that ISO-certification provides a sense of reliability and confidence among the buyers (Ratnasingam *et al.*, 2010).

ISO-certification is a good marketing tool in the furniture trade, especially for the export orientation companies (World Bank, 1997), with a strong correlation established between ISO 9000 certification and the export status of firms in Malaysia. From the results obtained, as expected, Japanese respondents were the most demanding for ISO-certification followed by European respondents. These results suggest that ISO-certification which paves the way for a systematic deployment of quality in furniture manufacturing is perceived to be important in these markets. However, other markets such as the United States of America, Middle East and Australia perceived furniture as a fashion which defies a systematic approach due to its inherent diversity and variability (Van Gaugh *et al.*, 2010). Although, ISO promotes continuous improvement through corrective action for those processes directly impacting the quality of products or services (Goetsch and Davis, 1998) its acceptance appears to be market-specific. In this context it must be recognized that the quality of Japanese products were far above the quality of similar products made elsewhere since 1980s which is a direct influence of ISO quality system implementation (Mizuno, 1988). It has been argued that through the quality management system awareness, effective and efficient systems of customer service, operational excellence and human resource integration could be realized in the company. This formalization of effective and efficient manufacturing activities and the clear management strategy for the total quality will lead to the Total Quality Management (TQM) system (Abdullah, 2010; Badiru, 1995).

The furniture industry in most countries are predominated by Small and Medium Enterprises (SMEs) which are under increasing pressure to improve their performance level (Aris, 2006). Although, ISO-certified companies showed greater customer focus and better quality management (Anuar and Yusuff, 2011), there appears to be somewhat limited embracement of ISO-certification among SME furniture companies. Nevertheless, as shown in this study, ISO-certification appears to be a pre-requisite for success in some of the international market and with the adoption of the quality system, a general improvement in product quality can be expected which would boost the performance of these furniture companies.

Satisfaction level when dealing with ISO-certified furniture suppliers: Generally, the respondents felt that ISO-certification contributed positively towards product

quality, overall management, marketing, price, product design and delivery timeliness of the furniture supplier. Nevertheless, the respondents indicated that their level of satisfaction decreased in the order of product design (Score = 295) > product quality (Score = 283) > overall management (Score = 281) and price (Score = 281) > marketing (Score = 280) > delivery timeliness (Score = 277). The Chi-Square test showed that there was notable statistical significance for these characteristics of ISO-certified suppliers based on this survey ($p < 0.05$). From the business quality dimension, customers not only pay attention to product quality but also judge suppliers by the general level of product quality, their concern for the environment and the adherence to safety and legal regulations.

From the market perspective it appears that the buyers from the Middle East (mean = 14.30) and the United States of America (mean = 14.30) were mostly satisfied with product quality when dealing with ISO-certified suppliers (Table 3).

On the other hand it appears that the perceived benefits of ISO-certification among furniture suppliers were markedly different among the buyers from the different country of origin. Buyers from the Middle East, Australia, United States of America and European, were of the view that ISO-certification improved product design (score = 295) among their suppliers, while United States of America (score = 52) buyers were of the opinion that ISO-certification improved product quality among their suppliers. East Asia was the only region which ranked the management (score = 41) and delivery (score = 41) perspectives more important than the quality perspective (Table 4).

Comparison between ISO-certified suppliers and non ISO-certified suppliers by paired samples t-test showed that the respondents were more satisfied with ISO-certified suppliers. Using the paired samples correlation test, all supplier characteristics were positively correlated, except for product quality which showed a negative correlation between ISO-certified suppliers and non ISO-certified suppliers. In this context, this study confirms that ISO-certifications improve the supplier characteristics, although the perceived level of

Table 3: Level of satisfaction of the product quality from ISO-certified suppliers

Region	Mean rank	Rank (from the highest satisfaction level to the lowest)
Middle East	14.30	1
US	14.30	1
Australia	24.50	3
East Asia	28.86	4
EU	31.10	5
Japan	35.15	6

Table 4: Satisfaction level of furniture buyers on supplier characteristics

Characteristics	Region						Total
	EU ¹	Middle East	US	East Asia	Japan	Australia	
Product quality	2 (59)	2 (26)	1 (52)	3 (40)	2 (61)	1 (45)	2 (283)
Management	2 (59)	3 (25)	4 (50)	1 (41)	2 (61)	1 (45)	3 (281)
Marketing	2 (59)	3 (25)	4 (50)	3 (40)	2 (61)	1 (45)	5 (280)
Price	2 (59)	3 (25)	3 (51)	3 (40)	2 (61)	1 (45)	3 (281)
Product design	1 (60)	1 (30)	1 (52)	3 (40)	1 (68)	1 (45)	1 (295)
Delivery ²	6 (55)	3 (25)	4 (50)	1 (41)	2 (61)	1 (45)	6 (277)

¹Values reflect the ranking of the attributes based on its importance by region, ²Values in brackets reflect the total survey score

satisfaction varies between the buyers from the different country of origin. The results from the study confirm the previous findings by Evans and Lindsay (1999), Ratnasingam (2003) and Kotler and Keller (2006) that ISO-certification can positively improve the performance of furniture suppliers from several different aspects.

Implication of results for the furniture industry: The results of this study have far reaching implications on the furniture manufacturing industry. Firstly it reveals that many factors are taken into consideration when purchasing furniture and ISO registration is only one of the factors. Secondly, the use of ISO-certification as a marketing tool is limited to specific markets, when ISO quality system is widely accepted. Thirdly, ISO certification can improve the overall performance of the furniture manufacturing companies, but the awareness of the benefits to be derived through the adoption of the system is limited, especially among Small and Medium Enterprises (SMEs). Therefore, the adoption of the ISO quality management system is limited among Malaysian furniture suppliers and efforts must be taken to promote the benefits to be derived from the system, if a greater adoption level is to be achieved in the future.

CONCLUSION

It is apparent that ISO certification can improve the overall performance of the furniture suppliers in Malaysia, but its adoption among wooden furniture suppliers in Malaysia is limited. Although, ISO-certification needs appear to be market-specific, certified companies tend to be better furniture suppliers in terms of quality, design, delivery as well as price. In order for Malaysia’s small and medium furniture enterprises (SMEs) to compete in the global furniture market, the adoption of ISO quality system should be expanded. However, this expansion can only be achieved through increased awareness of the benefits to be gained from ISO certification. It means furniture manufacturers must appreciate the benefits of systematic quality management in their manufacturing enterprises.

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