Vol. 5, No. 3 March 2010

# A Preliminary Study of Green Micro-entrepreneurs in Kelantan, Malaysia

Mohd Rafi Yaacob

Faculty of Entrepreneurship and Business
Universiti Malaysia Kelantan, 16100 Kota Bharu, Kelantan, Malaysia
Tel: 60-9771-7265 E-mail: rafi@umk.edu.my

#### **Abstract**

A recycling business or a green business which involves micro entrepreneurs is nothing new in Malaysia. Upon the country independence in 1957, green entrepreneurs used to go from house to house with their bicycles or trishaws to buy used bottles as well as cooking utensils (made from copper, aluminium or irons) and old batteries to resell to bigger used items collectors for profits. But in those days, such an entrepreneurship was the last thing thought by ones who wanted to be entrepreneurs because it was considered as a low status business and least profit as well. However, at present this kind of business is steadily growing and profitable enough. As far the environmental management is concerned this kind of entrepreneurship contributes significantly to sustainability as it reduces usage of raw materials as used materials are recycled to produce new products. Notwithstanding with the contribution of this kind of business. there is a dearth of literature of green business in Malaysia as researchers of small and medium enterprises (SMEs) in the country have concentrated their studies in the areas of finance, micro credit, human resource management, strategic management, marketing as well as leadership. Against this background, a study of green entrepreneurship is paramount. In general, amongst important questions sought in this research were: what push and/or pull factors to be green entrepreneurs? what strategies adopted?, what business routines of green entrepreneurs?, what challenges faced by the entrepreneurs?, and what the prospects of green business? This research capitalized a qualitative study where interviews were conducted with two green micro-entrepreneurs in Kota Bharu, Kelantan. The interviews were conducted at the entrepreneurs' premises at their conveniences and were audio-recorded. The findings from the interviews provided answers to the above-mentioned research questions and to a little extent filled a void in the field of business and natural environment in the country in particular and in developing country in general.

**Keywords:** Green entrepreneurs, Environmentally friendly product, Recyclable items

#### 1. Introduction

According to Paul Hawkin (1993 p.12) in his influential book entitled *The ecology of Commerce: a declaration of sustainability*, each and every business has three questions pertaining to the natural environment. First, in order to produce a product, business sources raw material excessively. Second, product's production uses excessive energy, and lastly, methods of producing it is not environmentally efficient - produces excessive wastes by which harmful to current and future generations. Because business's activities partly responsible for environmental problems, entrepreneurs who run the business should be responsible and should play proactive roles to address the problem.

Although, the exact time when businesses first concern about the environment is debatable, it is believe, businesses first took environmental issues seriously as a result of the Earth Summit, in Rio de Janeiro, Brazil in 1992. During the summit, leaders especially from big organizations across the globe agreed to work towards sustainable development through the Agenda 21. However, it must be borne in mind that sustainable development can only be achieved if other parties (government, the public, ENGOs, academicians, to name but a few) work hand in hand with business organization. It requires holistic approach that warrants cooperation from all parties. Furthermore, one should also realize big organizations are not alone in business, small and medium sized enterprises (SMEs) should work hand in hand with their big businesses counterparts for the cause of the environment.

Amongst businesses, a green business or recycling business is one of the many environmentally friendly activities, a business can contribute to address environmental issues. This is because this type of business affords to lengthen any life cycle of products. Apart from that, such an activity affords to reduce problems related with waste materials of which commonly perceived as externality – something is not included in business activities. For example, roles of enterprises

come to an end, when buyers buy their products - packages and wastes as a result of usage of products by customers are not considered as responsibility of the enterprises to look upon.

However, recycling business in which generates sustainable income to entrepreneurs promises a bright future for sustainable development. In developing countries, such a kind of business is not only paramount important from the environment perspective *per se* but as a means of job opportunities as well as alleviation of poverty. Hence, this preliminary study aims to explore micro-green entrepreneurship. This research focuses on two entrepreneurs in Kota Bharu, the capital state of Kelantan, Malaysia. It is worthwhile to inform here that this enterprise is getting popularity amongst Kelantanese who traditionally involved in business activities related with agriculture and cottage industry such as textile (*batik, songket*) and silvercraft.

#### 2. The State of Kelantan

Kelantan (Map 1) has an area of 14,920 sq.km, situated at the northeast of Peninsular Malaysia. It borders Thailand in the northeast, Perak in the west, Terengganu in the east and Pahang in the south. Kota Bharu is the capital of Kelantan. The state of Kelatan is oft-quoted as a cradle of Malay culture. About 95 per cent of its 1.8 million populations are ethnic Malays, the rest are Thai, Chinese, Indians and aborigines. Politically, Kelantan has been ruled by the opposition Islamic Party of Malaysia (PAS) since it took over the state from the National Front in 1990.

As far as her economy is concerned, Kelantan has a chiefly agrarian economy dominated by rice, rubber, tobacco as well as oil palm. Fishing and livestock are also important economic activities. Another important economic activity is related to cottage industry – employing traditional skills in handicraft production such as *batik*, woodcarving and *songket* weaving. Logging activities are active, given remaining area of forest available in the hinterland and tourism has increased in important over the last four decades.

Kelantan has a GDP per capita RM 10,000 (US\$2632) (http://en.wikipediaorg/wiki/kelantan, accessed on 3/5/2007), which is considered as the second poorest state in Malaysia after Sabah. Arguably, it is well known fact that many Kelantanese are actively involved in small and medium enterprises and enjoy good income. However, this is not reflected in the GDP calculation since in most cases the income is not reported or under-reported. In Malaysia, Kelantanese people are well-known because of their entrepreneurship capabilities and admired by many Malays counterparts throughout the country.

## 3. Entrepreneurship, SMEs and a Recycling Business

It cannot be denied that entrepreneurship especially amongst SMEs has contributed significantly to Malaysia economy. According to the latest census of enterprise in 2005 (http://www.bnm.gov.my/index.php?ch=1048pg accessed on 12/11/2007) 99.2 percent or 518,996 enterprises were SMEs, of which 411,849 (79 per cent) were in the micro sector. The report also showed the number of labourers in SMEs across the country more than 3 million or 30 per cent of total workforce, and this sector generated added-value RM 154 (US\$40.5) billion in 2003.

Realising this sector is crucial to the country; the government as well as academicians pay particular attention to it as it is considered as the engine of the country social-economic growth. Over the last four decades, many researchers have studied SMEs in Malaysia in different fields of interest. For example entrepreneurship (MEDEC, 1997), micro credit (Sudin, and Bala, 1994; Moha Asri, 1997, Rosman *et.al.*2004), franchise (Abu Bakar and Rohaizat, 2003), business strategy (Mohd Rafi and Syed Ihsan, 2002), human resources management (Wyer and Mason, 1998; Hooi, 2006), and information technology (Moha Asri, 2002; Foong, 1999). But nevertheless, as far as the researcher is concerned no or little comprehensive academic study capitalizing on a qualitative method involved a recycling or green business, especially in micro sector of SMEs in the country. As a result this research will reduce the information gap pertaining to a recycling business area in the country. In the meantime, this study is timely as this type of enterprise is more and more popular as a result of modernization of life style amongst Malaysians coupled with the availability of the modern recycled technology throughout the region. In addition, limited sanitary landfills, issues of deforestation, as well as depletion of natural resources are amongst the hot topics amongst the public in the country.

Simply speaking recycling can be defined as a business activity by which involves gathering, sorting and selling used materials to premises for further processes to reuse the materials. In other words, used materials will be used again after they are processed. These indeed can extent a life cycle of a product. Paper, boxes, aluminium cans, cooking utensils, bottles, cooper wires, irons, used batteries, as well as electrical components are used materials can be recycled.

This sector of industry is important to Malaysia in both economic and environmental terms. Economically, it provides job opportunities to local people to be entrepreneurs because ample of used and recyclable materials can be sourced locally. Lately, this business has gained attention, more and more people have jumped into the business bandwagon. Some of them were so successful and be millionaires (Berita Minggu, 17 August 2000, Harian Metro, 29 April, 2004, Berita Harian, 3 June 2005). Environmentally, this business can reduce domestic and industrial wastes collected by the local municipal and in turn lengthen the period of sanitary landfills across the country. Furthermore, it can reduce operational costs of the local authority as well as cost to open up new areas for sanitary landfills. Since getting a new

land for the purpose is getting scarce, this business to a small extent addresses the above-mentioned problem. It is worth to mention here the Ministry of Housing and Local Government of Malaysia has implemented recycling campaign throughout the country, however, such a program has not been successful as the public at large has been too slow to respond. Alternatively, green entrepreneurs can contribute in order to address environmental issues especially solid waste in Malaysia. For example, with the existing recycling business, recycling activites will increase as people see financial profits of it. At the same time usage of recycled paper can reduce deforestatation to produce paper. Usage of reused iron, aluminium also avoid mining of the earth surface dan reduce usage of fuel and electricity. Over time such activity can also nurture and enculture recycling habits amongst the public. Prior to this, all these wastes (except for a few items) were thrown away because they were useless, as no monetary value attached with them. But no more, nowaday they are valuable, and the public keep them and recycle for some money.

Overall, there are three types of recycled business operator:

#### 1. Scavangers

Scavangers are individuals who search recycleable items through rubbish bins or throw away items from business premises. Usually they obtained those items for free. In other words they do not usually use capital to get them. What they usually need is transportation - bicycle, trisaw or motorcycle. Once the quantity of recyclable materials reached certain weights, they will be sent to small collector at the vicinity to earn some money.

#### 2. Small collectors

Small collectors involve individuals who collected recycleable items relatively at the larger quantity compared to scavengers. They usually buy recyclable items from scavengers, business premises, schools, government departments as well as from houses especially from housewives. Usually, they have their own workers, one or two persons and they also have their own transporation –small lorry or van to facilitate transportation of the materials. Once small collectors have enough recyclable items, they will send them to recycling centres. On the other hand, some collectors do not send the items straight away to the centres, whenever possible, they try to separate the items according to their grades because sorted items will be paid more than unsorted items. The amount of capital to start up and run this business quite small (a couple of thousands ringgit).

#### 3. Recycling centres

Establishing a recyling centre needs more capital, it is common for entrepreneurs to spend close to a million ringgit. They use heavy vehicles- magnetic crane, backhole, etc. to sort-out and place materials onto trailers to transport them to processing plants in west coast states of peninsular Malaysia. This involves individuals or private companies who buy recyclable items from small collectors and/or to the small extent from scavengers. They usually have a bigger compound to keep and sort-out recyclable items in a certain period of time.

#### 4. Definition of SMEs – a Recycling Business (green business)

Thought, there is no universal definition of SMEs in Malaysia, in general the acceptable definitions by academicians, government agencies and related associations pertaining to SMEs based on two criteria: number of workers or annual sales or both. These two criteria are usually used to define SMEs in Malaysia and they are also approved by the National SME Development Council on 9<sup>th</sup>. June 2005 and the Central Bank of Malaysia (Bank Negara Malaysia2005 p. 2). Since SMEs involve various sectors of economy, the above definition from the council is using for the definition of SMEs for five main sectors: (i) primary agriculture; (ii) manufacturing (including agro-based); (iii) manufacturing related services (MRS); (iv) mining and quarrying and (v) construction. Based on the above classification of economic activities, recycling businesses are classified under the third sector - manufacturing related service. Under this classification there are five types of recycling business: recyling of tin (37101); recyling of other metal waste and scrap (37109); recycling of non-textile fiber (37201); recycling of rubber (37202); and recycling of non-metal waste & scrap (37209) (http://www.smeinfo.com/my, accessed on 29 April 2009) Appendix 2, Bank Negara Malaysia, 2005).

According to the National SME Development Council, the definition of SMEs in service sector is: "A small and medium enterprise in manufacturing (including agro-based) and MRS is an enterprise with full-time employees not exceeding 150 or with annual sales turnover not exceeding RM 25 million" (National SME Development Council and Bank Negara, 2005 p.5).

In the meanwhile, any business in the above mentioned sectors is defined as either micro, small and medium if they respectively have full time employees less than 5 and annual sales less than RM250,000, 5-50 employees or RM 250,000 to less RM 10 million (National SME Development Council and Bank Negara, 2005 p. 5-6).

#### 5. Research Aim

The main aim of this preliminary study is to make an early exploration from green micro entrepreneurs activities as well as to answer several research questions pertaining to the industry. In turn, those information will be valuable inputs for the actual research which will be conducted in the very near future.

#### 6. Research Questions

Altogether, there are ten research questions of this study. (i) What are recyclable items? (ii) Who are micro-green entrepreneurs? (iii) Why they involved with recycling business? (iv) Why a recycling business is unique? (v) What's business routines and strategies employed by those entrepreneurs to ensure their sustainability? (vi) How a recycling business can contribute to recyling habit amongst the public? (vii) Do entrepreneurs obtain micro credit? (viii) Why entrepreneurs do not establish recycling centres? (ix) What are the challenges of this business to entrepreneurs? and (x) What are the future prospects of this industry?

#### 7. Research method

This preliminary study involved the second type of recycling business activity – small collectors. They are entrepreneurs who buy recyclable items from scavengers and/ or buy them from individual suppliers from houses, schools, government agencies and/ or business premises.

This research capitalized a qualitative technique where it involved interpretative and descriptive analysis of words. Instead of number, this technique analyses words from conversation with the respondents. Two green micro entrepreneurs who were known by the researcher voluntarily participated in the study. Even though, this technique can be criticized as bias, it helped in terms of accessibility and cooperation from the entrepreneurs. The fieldworks were conducted in the end of 2007. Apart from accessibility and cooperation, a qualitative technique was chosen because it helped the researcher to probe micro-green entrepreneurs' business activities. In addition it provides valuable information of how and why of the research questions. This research technique seemed more relevant in the context of a recycling business as this type of business is not widely explored by researchers in SMEs in the country. Moreover, no or little study has been conducted so far pertaining to this type of business in Malaysia. In addition, this technique allowed some flexibility – researcher could easily interact with respondents to establish rapport and can reduce barrier or bias between them.

Information were gathered through semi-structure interview of research protocol. Questions pertaining to the study were first drafted. The medium of conversation of the interview was in *Kelantanese* dialect as to ensure accurate and comprehensive information gathered from the respondents. English is not widely spoken in the state after all. The interviews were audio-recorded under the consent of the both entrepreneurs. Overall the interviews took about two hours and conducted at the interviewees premises at their convenience. Once the interviews completed, the data then were transcribed verbatimly. This process took longer time than the interviews. The researcher than read the whole transcripts of the interviews to get an overview of the whole conversation. Then, various codes were given according to the topics of the interview and they were were classified under different themes.

#### 8. Findings

In this qualitative study, the researcher gained some insights into various research questions pertaining to SMEs recycling business activities in Kelantan. The following discusses the answers of each research question:

## 8.1 What are recyclable items?

As far as the both enterpreneurs were concerned recyclable items consisted of aluminium cans, used paper including books and newspapers, corrugated containers (cardboard), electrical products, vehicles' batteries, irons, copper wires, corrugated zink as well as plastics and glass bottles. Amongst these items, copper wires were the most expensive, almost RM20 per kilo, followed by aluminium cans – RM3 to RM4 per kilo. Used paper was the most cheapest item, between 15 cents to 20 cents per kilo. Amongst the items, used bottles did not get attractive demand in the business.

# 8.2 Who are green entrepreneurs' and why they involved in the business?

Two participants from Kota Bharu voluntarily involved in the study. In order to ensure anonymity, the researchers named the first entrepreneur as Mrs. W and the second one as Mr. S (not their real names). Both of are Kelantanese Malays who run recycling businesses in Kota Bharu and in the vicinity districts.

Mrs. W, a petite woman, aged 65 years old, mother of 12 and has a score of grandchildren. Two of her children studied at local higher institutions. When the researcher questioned her involvement in the industry, she told that she first involved in the late 1960s, shortly after her marriage. During that period her husband ran the business, where he used his old trisaw across villages at the vicinity of Kota Bharu to buy used bottle as well as cooking utensils made from aluminum, copper and steel. Though she was a housewife, at home her neighbours brought various recyclable items to sell. That, undoubtedly, nurtured her interest to buy recylable items. Eventhough her husband abandoned the business to concentrate to retail business in the early 1980s and turned to be a taxi driver after the business was not so successful, she continuously bought recyclable items from her neighbours. In the late 1980s she replaced her husband as recycling entrepreneur. At the time of interview she had two assistants, not included her husband who worked as her driver and two of his sons who worked at home, sorting out various recyclable items brought home to ensure they get a higher price for those items. Mrs. W actually could straight away sell the items to a private recycling centre without doing so,

but unsorted and ungraded items would be sold at a cheaper price. Once those items were sorted out, in the morning of following day the items will be sold to the recycling centre.

Aged 53 years old, Mr. S has 2 children, both at a secondary school in his village. He involved in recycling business almost 10 years. Prior to that, he was a driver of a Chinese recycling entrepreneur in Kota Bharu. His interest in recyling budding when he gained business knowledge in the area and saw opportunity from the business. In the late 1990s he resigned as a drive and ran his own business and rented a small lorry to buy recyclable items. Previously, he had a full time employee and concentrated on steel scraps, especially junk cars. He had two business partners. Due to the diffulty to get junk cars as more and more people jump into the business, sometimes he and his partners travelled to the neighboring state, Terengganu to get the items.

# 8.3 Why recyling business is unique?

There were a number of uniqueness of a recycling business compared to other businesses as perceived by those entrepreneurs. According to Mr. S recyclable items are non-perishable products. He argued that 'if someone sell fish...if unsold they would be rotten, it is risky'. Moreover, "if there are recyclable materials, they have no problem to sell them as private recycling centres are mushrooming in Kota Bharu" he added. Compared to other businesses, recycling entrepreneurs do not need to promote their products and/or to wait customers to come to them to sell their goods. Another reason why this business interesting according to them, especially to Mr. S because it gave ample opportunities to him to wander around to various villages in Kelantan. He enjoyed the freedom of travelling, rather than being confined in a small premise.

8.4 What are the entrepreneurs' routines and what their strategies to ensure sustainability?

According to both entrepreneurs there were three daily main activities pertaining to the business. First, purchasing, second, sorting out purchased items and lastly selling those items to recycling centres.

They had their own strategies to unsure survival of their businesses. As far as purchasing is concerned, they must ensure that they had enough cash – worker's salary, fuel for their vehicles, food for breakfast and lunch, as well as money to buy recyclable items. Roughly in a day they need between RM 300-RM 500 ringgit. For example, Mrs. W usually spend RM100 for daily use and another RM300 for the purpose of purchasing recyclable items. They bought materials from domestic users, schools, government agencies, business premises, as well as from 'scavangers'. In the meanwhile, another common strategy was to develop a relationship with their customers. According to Mrs. W the majority of their customers preferred to deal with her once they knew her. She related her story that in a number of occassions in her absence, her husband and sons failed to make a good purchasing. Her presence made a difference. Logically, housewives would feel comfortable to make a business deal with Mrs. W because of the same gender, the same is also true for business premises where wives of Chinese entrepreneurs usually responsible to sell recycleable items of their enterprises since their husbands are busy with their businesses. These items are considered as not main business but only provides side-income, after all.

Mr. S reiterated the same line of story. According to him, "if someone don't know their customers, they don't want to sell their items". Customers sometimes made an excuse that other buyers already interested. In order to ensure a good relationship and ease of communication both of the entrepreneurs gave their telephone numbers to their prospective customers.

Another strategy commonly used by the both entrepreneurs was to compete in term of price. They bought recyclable items at slightly higher price from their competitors. This was practised to attract their customers to sell to them as well as to ensure they would be regular customers in the long run. Price factor, more or less important for them to attract their customers. For example, for a kilogram of paper bought at 15 -20 cents, and they sold back at 20-25 cents, at 5 to 10 cents profit per kilogram. In the meanwhile, aluminium can be bought at RM 3-4 and sold back at between RM 4 – 4.50 for a kilogram.

Sorting out and grading recyclable items was a further strategy practised by the both entrepreneurs to gain more profits. This especially for paper and aluminium. Usually papers were not directly sent to a recycling centre, but were brought home and sorted out according to the grades. Book's covers needed to be sorted out from plain papers. For that purpose Mrs. W had two sons to help her at home. As for aluminium cans, the materials needed to be pressed to ensure there are compact enough. Apart from paper and aluminum cans, her sons also salvaged steel and cooper wires from used electrical products. On the other hand, Mr. S specialized in buying scrap cars - salvaged valuable components of the cars such as aluminum. This job was usually done by his business partners.

Honesty was another important element came upfront during the interview. According to Mr. S, Chinese customers were particular about that. Sometimes they tested his honesty, where prior to business deal. They weighted their recyclable items prior to the transaction and would ensure the weight of recyclable items from buyers is the same with the actual weight of the items. Failure to do so is a big mistake - chinese customers would shift to other buyers who they

perceive as honest. Because Chinese customers sell their items at the higher volume, failure to get supply from them should be avoided because they realise they would miss the opportunity.

In relation to the honesty, according to Mrs. W some recyling entrepreneurs cheated their customers due to customers' ignorance. They mixed up expensive items with cheaper items to reap more profits. This is very dangerous practices, once customers knew the truth, they would not make business deal with them in the future. Mrs. W policy is to tell the truth, she told her client of the values of different recyclable items and weight them separately. Honesty is a strategy to main customers in this case.

#### 8.5 How recyling business activities inculcate recycling practices?

Even though both entrepreneurs as well as their customers involve in the activity motivated largely by profits, such an activity at the same time encourages environmentally friendly habits amongst community. In those days, only a handful of items could be recycled, items such as paper, aluminium cans, as well as plastic containers were perceived as rubbish, no monetary values attached to them, so they were thrown away indiscriminately. Nowadays, when these items have monetary values, they keep them in a proper places and then sell to recycling entrepreneurs. It is obvious in Kota Bharu, Kelantan in particular and in Malaysia in general, monetary value is a push factor, not awareness of the importance of recycling habit for the cause of the environment.

# 8.6 Why not operate recycling centre?

According to the news from local newspapers from both daily English and vernacular newspapers some recycling entrepreneurs earned handsome profits and be a millionaire, this is especially true for those who run recycling centres. They buy recyclable items on bulk and send them to recycling process with trailers. A question here is, why entrepreneurs in this study do not move one step a head - to be owners of recycling centre? The answer is obvious. For example, Mrs. W who has been in this business for more than four decades, when the researcher raised such a question, with a soft voice she told the researcher in order to do so she needs a large capital, reaching million ringgit. "We need cash money...since all transaction in cash" she said. On her gross calculation, at least in a day a recycling owner needs about RM300,000 to pay recyclable items from entrepreneurs who usually come to their premises to sell the items them in the evening. That's not include assets such as buildings and a big compound to temporarily keep recyclable items. It is a common scenery to see a mountain of scrap irons, at a recycling centre's compound. Apart from that, recycling centre need to be equipeed with heavy machineries such as forklifts, magnetic cranes to uplift and sorted-out recycled materials. So it does not come as a surprise this category of business in Kelantan, and other states in Malaysia is overwhelmingly monopolised by Chinese and Indian entrepreneurs who are financially capable.

### 8.7 Do green entrepreneurs obtain micro credit?

As far as micro credit is concerned, Mrs. W received a small loan from the Amanah Ikhtiar Malaysia (AIM) as additional capital to run the business. First, she borrowed RM1000 and when she settled the loan, she received another RM5,000 credit from the agency. Due to a good payment record, she asked a higher amount of loan - RM8,000. During the time of the interview she had to pay RM110 a week. According to her the highest amount of loan from the AIM is RM20,000. Interestingly, amongst borrowers of the agency, only Mrs. W runs recycling business. Other women entrepreneurs involved in business activities commonly run by women - food industries and sewing clothes to name but a few. On the other hand, since the above mentioned agency only caters micro credit for women entrepreneurs Mr. S is not eligible for the such a loan. However, he told the researcher a couple of years ago his wife borrowed money from the agency and she allocated some money from the loan to finance his business.

## 8.8 What challenges faced by recyling entrepreneurs?

Based from the interviews there were a number of challenges faced by the entrepreneurs in the recycling business were identified.

Shyness is the first challenge faced by recycling entrepreneur, this is especially true for women who need to visit houses, business premises, as well as government offices. It is a big challenge especially in the early phase of the business. This job requires patience and full commitment as it will take some times to familiarize oneself with the business as well as to develop a good rapport with clients. As far as Mrs. W was concerned, she's the only woman in the business in Kota Bharu. Though she knew that another woman involved in the business before, it not sustained – that women ceased her business in a couple of month after operation.

Second challenge is competition form other entrepreneurs in the same type of business throughout the state of Kelantan. According to Mrs. W, in the 1970s and 1980s until in the early 1990s not many entrepreneurs actively involved in the business. But lately (since the late 1990s) when more items can be recycled and more importantly, recyclable items have monetary values and provide job opportunities. As a result many people have jumped into the bandwagon. Due to the intense competition in the industry, both entrepreneurs in the study had their own strategies to secure recyclable items from their customers. Mr. S told the researcher that junk cars are more difficult to get because competitors also

search the items. If his client contacted him, he need to get the items as soon as possible, if he procrastinated, oftentimes his competitors first bought the cars. In another case, Mrs. W referring to other recycling entrepreneurs from Tumpat (neighbouring district of Kota Bharu) who are well-known hardworking. They work in a group of four, and in a day usually they managed to sell a ten full-load of small lorries to recycling centres in Kota Bharu. It is worth mentioning here even though competition exists in the industry, at the same time it seems there is some sorts of understanding or mutual respect amongst recycling entrepreneurs. If they know that any business premise has its regular buyer of recyclable items, other entrepreneurs would not try to buy from the the premise.

Apart from competitor, capital is another challenge. As being discussed in previous section this type of business requires a certain amount of cash in comparison to other businesses. This problem was admitted by both entrepreneurs. Financial problem can be closely related to the question why entrepreneurs in this study do not establish their own recyclable centres which generate more income. According to Mrs. W what she observed from recycling centres, at least ones need to have RM30,000 cash, and all transactions in cash. She estimated that she needs capital at least one million to run such a centre

Furthermore, a challenge faced by Mrs. W was her sons who currently help her not capable enough and do not show high interest to expand her business in the near future. Her good reputation as well as her experience in the business field (which she considered as an asset), not properly capitalised by her sons. Instead, their sons preferred to work at home – sorting out recyclable items at their house. It is difficult for her to ask her sons to purchase recyclable materials from her customers. She wondered who are going to inherit her business when she retired.

8.9 What the prospects of a recycling industry in Malaysia?

When the researcher asked the hypothetical question of the prospects of the recycling industry, both entrepreneurs were optimistics. Amongst others, the following answers summarised their opinions. The availability of recycling technologies coupled with modernisation of lifestyle in Malaysia were strong grounds for optimism. Both would promise profitable and continous supply of recycleable materials. In addition, the prospect of such a business looks good because it is inline with the aim of the Ministry of Housing and Local Authority of Malaysia to see a more proactive recycling activity, overtime becomes part of culture of Malaysians. At the same time, more and more public and entrepreneurs started accepting this business as a good career to earn money to eke of their families living and to alleviate poverty in the country.

# 9. Conclusion

The results of the study of green micro enterprises in Kelantan show the industry is interesting to study and warrant in-depth investigation in the future. Lately this industry has attracted more and more small entrepreneurs in Kelantan who in the past overwhelmingly involved in traditional activities of entrepreneurship. In the same development, due to increasing demand of recycled materials more and more recycling centres have been established in in Kota Bharu, Kelantan. In this preliminary study a number of research questions were answered from the interviews with the two micro green entrepreneurs participated in the study. Information extracted provide insight into green entrepreneuship in the state in particular and Malaysian in general. But nevertheless, more interviews should be conducted in the future to ensure validity and reliability of the data.

#### References

Abu Bakar A. H., and Rohaizat B. (2003). Franchising as a tool for small medium enterprises: A study on critical success factors. Proceedings the 1st. International Conference of the Asian Academy of Applied Business, 10-12 July Sutera Harbour Resort Kota Kinabalu, Sabah, Malaysia, 263-270.

Bank Negara Malaysia. (2005). Definisi Perusahaan Kecil dan Sederhana di Malaysia. Majlis Pembangunan PKS Kebangsaan.

Bank Negara Malaysia. (2007). [Online] Available: http://www.bnm.gov.my/index.php?ch=1048pg(November12)

Berita Harian. 17 August 2000. Jutawan besi buruk.

Berita Harian. 21 April 2005. Syarat perniagaan besi buruk diperketatkan.

Berita Harian. 3 June 2005. Penjaga lif kini tauke kitar semula.

Foong, S. (1993). Effect of end-user personal and system attributes on computer-based information system success in Malaysia smes. *Journal of small business management*, 37(3), 81-87.

Harian Metro. 29 April, 2004, Siva gigih usaha bisnes besi buruk.

Hawken, P. (1993). The ecology of commerce: a declaration of sustainability. New York: Harper Collins.

Hooi L.W. (2006). Implementing e-HRM: The readiness of small medium sized manufacturing companies in Malaysia. *Asia Pacific Business Review*, 12(4). 465.

Malaysian entrepreneurial development centre (Medec). (1997).

Moha Asri Abdullah. (1997). Industri kecil di Malaysia: *Pembangunan dan masa depan*. Dewan Bahasa dan Pustaka, Kuala Lumpur.

Moha Asri Abdullah. (2002). Entrepreneurs and their influence on usage of IT in smes: Evidence from Malaysia. *Journal of small business and entrepreneurship*, 16(2), 60.

Mohd Rafi Yaacob., and Syed Ihsan Adam Al-Jafri. (2002). Strategic management practices: The case of small business in Dungun, Terengganu. Proceedings on Seminar kebangsaan pengurusan dan pembangunan sumber manusia, 22-23 Oktober, Hotel Puteri Pan Pacific, Johor Bahru. 357-370.

National SME Development Council and Bank Negara. (2005). pp. 5-6.

Rosman Mahmood *et al.* (2004). Laporan kajian impak program pinjaman tekun negeri Terengganu, kajian disediakan untuk Kementerian Pembangunan Usahawan dan Koperasi.

Schmidheiny, S. (1992). *Changing course: a global business perspective on development and the environment.* Cambridge, Mass:MIT Press.

Wyer, P., and J. Mason. (1998). An organization learning perspective to enhancing understanding of people management in small business. *International Journal of Entrepreneurial Behaviour and Research*, 4(2), 112.

Table 1. Map 1: The State of Kelantan, Malaysi

