A STUDY ON MOBILE PHONE OWNERSHIPS AND PATTERN OF USE AMONG WORKING ADULTS, SIBU

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Corporate Master of Business Administration
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A Study on Mobile Phone Ownerships and Pattern of Use among Working Adult, Sibu

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A research paper submitted in Partial Fulfillment of the requirement for the degree of Corporate Master in Business Administration

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APPROVAL PAGE

I certify that I have supervised and read this study. I confirm this study is meeting the standards of scholarly presentation and is fully adequate, in scope and quality, as a research paper for the degree of Corporate Master in Business Administration.

Dr Zorah Abu Kassim
Supervisor

This research paper was submitted to the Faculty of Economics and Business, UNIMAS and is accepted as partial fulfillment of the requirements for the degree of Corporate Master in Business Administration.

Prof. Dr. Shazali Abu Mansor
Dean, Faculty of Economics and Business
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DECLARATION AND COPYRIGHT

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I hereby declare that this research is the result of my own investigation, except where otherwise stated. Other sources acknowledged by footnotes giving explicit references and bibliography are appended.

Signature
Date : 21 January 2010

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ABSTRACT

Mobile phone, which was introduced slightly more than a decade ago, is an item which is carried by practically anyone these days. The phone is no longer just a tool for voice communication. Producers of mobile phones are competing for the market not just on the prices but features or function as well. New models come into the market with new features at unbelievable frequencies. How do customers decide what brand or what kind of mobile phone to purchase? How much of the applications available on their mobile phone do they use? In this cross-sectional study of mobile phone users in Sibu Town, a sample size of 300 was set and the sample selection was through a convenient sampling method. A total of 246 respondents took part. Interviews using questionnaires were employed. Fifty six and half (56.5%) percent and 43.5% were female and male respectively. The most popular provider was Celcom (37%), followed by Digi (28.9%) and Maxis (11%). The most popular brand was Nokia (51%), Sony Ericsson (27 or 11%), and Samsung (17 or 6.9%). Based on this scoring system the most popular application was Short Messaging Service (SMS). This was followed by the use of Camera (47%), Reminder (45%), Bluetooth (37%), MP3 (36%), Games (32%), MMS (22%), Downloading (21%), Infrared (19%), Radio (18%), Subscription (15%), Fun Voice (15%), Mobile TV (13%), Surfing Internet (13%), Emailing (11%), Navigation (11%), 3G (9%), WiFi (7%) and Reading PDF File (5%). The users in Sibu seem to have positive attitude towards this technology. It is quiet obvious that they found this technology useful in their life. This study concludes, among others, that the Mobile phone is no longer a sign of wealth or status symbol. It is a gadget which is important in daily lives of everyone.
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Chapter 1
Introduction

1.1 Introduction

Not so long ago if we want to communicate over long distance we either used the ordinary fixed line telephone or we wrote letter. But now we have so many communication tools to choose from. We have internet, mobile phone as well as the old fashion fixed line telephone. Mobile phone has been introduced to Malaysia sometime in the early 1990’s when not many people could afford to own one in those days. Those who used mobile phone during the early days were high income professionals and well to do people. Nowadays mobile phone is so affordable to almost everyone. Even those with no employment are mobile phone users. The use of mobile phones among students is very extensive but there is no data available at present. It is no longer a status symbol as it was in the early days but a way of life for most people.

There are more service providers to choose from. Each of these service providers has their own strength as well as weakness. The most important issue regarding the service providers is coverage. This may be one of the factors that influence the choice of providers by the users. There are so many brands of phone too. Apart from the well established brands that produce new models a few times a year there are new brands coming into the market quiet regularly.

The main reason for having the phone is quite obvious. It is a convenient tool for communication and so easy to obtain too. One does not need to have an address to have one unlike the fixed line system. One can bring it anywhere. It is cheap to use too. The monthly bills for its use are quiet affordable to most people. With pre-paid system users do not have to worry about clearing the bill at the end of the month. With a minimum reload card of RM10 one can use the phone even at that small investment. This is one of the reasons why people opt for mobile phones.

But who are the users of the mobile phone in our country? What do they use the phone for apart from making phone call? How much do they spend every month on phone bill?

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1 Also called a wireless, cellular phone, cell phone, cell phone or hand phone is a long range, portable electronic device invented by Andrew Folsom to engage in wireless mobile talking. (http://www.en.wikipedia.org)
These are some of the questions that need to be answered. This research which was carried out from Feb – March 2007 in Sibu town would answer these and other questions.

1.2 Study area

Sibu town is the headquarters of Sibu division which consists of three districts, namely Sibu, Kanowit and Selangau district. It is located at the confluence of Batang Rajang River and its tributary, Batang Igan. With a population of 255000 consisting of the various ethnic groups such as Chinese, Malay, Melanau, Iban and other ethnics, Sibu town is the second biggest town after Kuching, in Sarawak. It has well developed physical infrastructure such as roads, public facilities and commercial facilities. Telecommunication infrastructure of this town is well developed. All the major national telecommunication companies provide service her.

1.3 Background Study

The adoption of mobile phone applications are getting better response from the public as it does contribute towards a wider scope of communication. The usage of the mobile phone is not restricted for talking as communication but for other forms of communications as well such as email, SMS, MMS and many other functions. Nowadays, mobile phones are more sophisticated and equipped with more functions and can be used as PDA. However, many factors influence the utilisation of mobile phones. One of the most important factors is the quality of services of the network provider.

The developed countries are more advance in the usage of the mobile phone applications compared to Asian countries but India and China are trying to catch-up with the advance technology. In Malaysia, most of the mobile phone applications are restricted according to the area and type of network provider. This research was conducted against the background mentioned above.

1.4 Problem statement

When mobile phone was introduced to Malaysia about 15 years ago it was mainly used as a telephone as it was designed for that purpose. Not many people could afford to own it as the price was very high. The choice of brand was also limited. Nowadays the mobile phone is no longer just for the rich or just for talking only. The mobile phone is growing more sophisticated everyday and the price is also getting lower and lower. There are so many brands in the market now offering all sorts of features or applications. The manufacturer has to do aggressive marketing in order to compete for customers. Every new brand seems to offer many new things at competitive price. How do customers decide what brand or what kind of mobile phone to purchase? How much of the
applications available on their mobile phone do they use? What application, apart from the telephone function, do they use most often? Then there is the choice of service providers. Currently there are 3 major providers in the country. All these providers offer all sort of special “packages” to woo customers. Which provider is the most popular? How much do customers spend on phone bill per month? At present no such data is available regarding mobile phone users in Sibu town. Though the data on national surveys is available it may not be reflective of the users in Sibu. These are among many questions which this research will try to answer.

1.5 Objectives

The overall goal of this research is to identify the characteristics of mobile phone customers or users in Sibu. The specific objectives are as follows:

(a) To describe the demographic profile of the mobile phone users.
(b) To determine the choice of brands
(c) To determine the pattern of use of the phone applications.
(d) To see whether there is any association or correlation between some of the demographic variable and the use of the application.
(e) To determine the attitude of customers towards mobile phones.
(f) To determine general expectation or wish of the users.

1.6 Hypothesis

The adoption of mobile phone technology has been so successful in this country. People use it for many purposes and for different reason. This study was carried out to establish the following hypothesis:

(a) The use of various mobile phone applications are influenced by some demographic variables such as gender, age, education and income.
(b) The adoption of mobile phone by the users must have been influenced by their strong attitude towards this technology.
(c) Cost is the most important consideration among the users followed by coverage provided by the service providers.

1.7 Theoretical framework

There is no single factor that can explain why people adopt technologies. Many studies have been done to explain this. This study has been carried out based on technology acceptance model or TAM (Davis, 1989). According to this model the adoption of technology is determined by attitude of a person and his/her perceived ease of use. If the technology is useful as well as easy to use it can attract people to use it. Yuandong, Zhan
and Lai (2006) showed that individual difference such as gender may have an influence on the relationship between perceptions and technology use. This study will look into the differences among the users by looking at the demographic variables such as gender, age, education and income.

1.8 Scope of the study

This study was limited to the working adults of Sibu town. Apart from collecting the basic demographic variables this study will look into the use of the various applications, the general attitude towards mobile phone as well as the expectation.

1.9 Significance and limitations of the study

This study has some significance to users of mobile phone as well as to the service providers, traders and manufacturers of mobile phone. Knowing the characteristics and behaviour of the consumers or users can enable consumer groups or association to plan what kind of consumer education is needed. To the traders this study can be used by them to plan their market strategy. Knowing the demographic profiles of the users is an important step in marketing. The service providers would find the result of this study useful as the feedback from the users can help them improve the quality of their services. The manufacturers of mobile phone need to assess the users need. They need to know the kind of mobile phone and the kind of applications which are useful to the users or customers. With this study it is hoped that the manufacturers can develop mobile phone which satisfy the needs of the majority of the customers.

This study suffers from several limitations. One limitation is that the method of sampling is non-probability which certainly has high risk of biasness. Secondly, limiting the study only to working adults in Sibu, for convenience, may not give representative picture of mobile phone users in Sibu. Thirdly, the use of self-administered questionnaires may lead to different interpretation of the questions among the respondents especially among those who don’t understand English that well. Lastly, the sample size may not be big enough for us to draw any significant conclusion from this study.
Chapter 2

Literature Review

2.1 Consumer Attitude.

Based on Jackson & Hisrich (1996), attitude consists of three components, which are affective (feelings & emotional reactions), cognitive (information & knowledge possessed) and behavioural (how people tend to react). All three components will shape up the attitude of an individual. Attitude predisposes people to think and act in a particular fashion that will guide an individual’s reaction to a given object, idea, person or activity and it could be thought of as pre-establishing the boundaries of a person’s reaction to something. Schiffman & Kanuk (1991) also agreed in this as they pointed out that attitude is a learned predisposition to behave in a consistently favourable or unfavourable way with respect to a given object.

According to Kanuk & Bednall (1997), consumer behaviour can be defined as the behaviour display in seeking, purchasing, using, evaluating and disposing of products and services that they expect will satisfy their needs. This will include both mental decisions and the physical actions that resulted from their decision to spend the available resources (money, time & effort) on consumption-related items. However, Doole, Lancaster & Lowe (2005) mentioned that there are three (3) stages of consumer decision-making that will form a comprehensive model of behaviour. It is because the external factors such as marketing strategy & consumer’s environment & culture that will influence the decision-making process, which leads to purchase & post-purchase behaviour.

Laudon & Traver (2001) pointed out that consumer behaviour is a social science discipline (psychology, sociology & economics) that attempts to model and understand the behaviour of humans in a marketplace. The consumer behaviour models seek to predict the wide range of decisions that consumer make on basis of background demographic factors such as cultural, social & psychological and on a set of intervening, more immediate variables that shape the consumer’s ultimate decisions. Meanwhile, Widing et al (2003) defined consumer behaviour as the mental & physical activities undertaken by household and business customers that result in decisions & actions to pay for purchase and the use of the products & services. Solomon, Bamossy & Askegaard (1999) agreed that consumer behaviour is the study of the process involved when individual & groups select, purchase, use or dispose of products, services, ideas or experiences to satisfy needs and desires. Apart of that, Lawson et al (1996) believed that consumer behaviour is the decision process and physical activity individuals engage in when evaluating, acquiring, using or disposing the goods & services.

Assael (1992) highlighted on the implications of the consumer behaviour that will influence the development of successful marketing strategies & determine the economic viability of the firm. The simple model of consumer behaviour is emphasizing the interaction between the marketer and the consumer. The consumer’ decision-making is
affected by individual consumer (brand choice), environmental influences (culture, social class, face-to-face groups and situational determinant) and applications of the consumer behaviour to marketing strategies (product, price, advertising and distribution). Consumer behaviour is a discipline dealing with how & why customers purchase or do not purchase the products & services as argued by Neal, Quester & Hawkins (2004) with multiple influences. The five factors influences the understanding of consumer behaviour are purchase & use behaviour; demographics & household structure; needs, emotion, values emotion; group influences; and information processing & decision making. These factors will affect the regulatory policy to protect the consumers & marketing strategy to satisfy the target consumer needs. Stokes (2002) cited that customer behaviour is a reaction of uncontrollable elements (social, technological, economic & political) and controllable elements (product, price, promotion & place) together with the social & other individual influence that will impact on the buying decision on the product, brand, supplier/vendor, quantity & timing.

On the other hand, Craig-Lees, Joy & Browne (1995) revealed that consumer's psychological set & situational factors are affecting the consumer behaviour. The psychological set is comprised of the external influences such as culture, religion, social class & family and the internal influences (genetic factors) such as talents, physical, motivation, intelligence & personality. Kotler & Armstrong (2004) viewed consumer behaviour as the behaviour of final consumers that affected by four major factors, which are cultural (culture, subculture & social class); social (reference groups, family, roles & status); personal (age, life-cycle stage, occupation, economic situation, lifestyle, personality & self-concept); and psychological (motivation, perception, learning, beliefs & attitude).

Turban & King (2003) pointed out that consumer behaviour will affect the decision making process, which influence by five (5) major factors. These factors are personal characteristics (age, gender, ethnicity, education, lifestyle, knowledge, values, personality & psychological); environment characteristics (social, culture, legal, government regulations & institutional); the decision of the buyer (what to buy, where, when, how much to spend & repeat purchases); stimuli (marketing strategy on product, quality, price and promotion & other stimuli like economical, political, technological & cultural); and vendors' controlled system (logistic support on payment & delivery, technical support in web design and customer service in email, FAQ & call centers).

Oliver (1980) agreed with other researchers that satisfaction is an attitude or evaluation, which is formed by the customer comparing their pre-purchase expectations of what they would receive from the product to their subjective perceptions of the performance they actually did receive. Therefore the importance of these evaluations comes from the impact that satisfaction is posited to have on consumer behaviour such as loyalty. Gremler & Brown (1996) believed that the literature of construct of loyalty is divided into its behavioural, cognitive and affective elements. Behavioural loyalty is the purchase behaviour actually displayed by the customer while cognitive loyalty relates to the intentions of future behaviour expressed by the customer and affective loyalty defines the attitude of the customer.
Heskett et al. (1994) proposed that customer satisfaction is an indicator of service quality and value, which expected to drive customer loyalty and profitability in line with the service-profit chain. This supported by Hallowell & Schlesinger (2000) that these causes and consequences of customer satisfaction have received strong support in both inductive research in case studies and deductive research in operations, human resources, strategy and organizational behaviour. Dessler (2001) brought up that attitude is a predisposition to respond to objects, people or events in either positive or negative way that may affect their behaviour & performance.

2.2 Electronic commerce (E-commerce).

Laudon & Traver (2002) cited that e-commerce is the use of the Internet & the Web to transact business as it digitally enabled commercial transactions between and among organizations and individuals including all the transactions mediated by digital technology & exchange of value in return of products and services. Based on Kalakota & Whinston (1996), e-commerce is the modern business methodology that addresses the needs of organizations, merchants & consumers to cut costs while improving the quality of goods & services and increasing the speed of service delivery. This also applies to the use of computer networks to search & retrieve information in support of human & corporate decision-making.

Farhoomand & Lovelock (2001) pointed out that the explosion of e-commerce has led to the surfacing of a new business ecosystem, where connections are conducted with a rising measure of speed, openness and transparency as the achievement of companies in the future will depend on their capability to leverage the accessible technological infrastructure to find new ways of collaboration with their partners to offer customers a wide range of value-added products and services. For Beynon-Davies (2004), he stated that e-commerce is focuses on the use of ICT to enable the external activities and relationships of the business with individuals, groups and other businesses.

2.3 Mobile Commerce (M-commerce).

Laudon & Traver (2002) phrased out that m-commerce is referring to the use of wireless digital devices to enable transactions on the web as it utilizes the wireless networks to connect cell phones and handheld devices to the web with unconstrained access to anyone, anytime & anywhere using the wireless devices. However, Zheng & Ni (2006) highlighted on the inter-relation between e-commerce and wireless web as they define m-commerce or wireless commerce is a set of services & applications operating in mobile wireless networks that allow consumer-oriented transactions & business transactions to be performed via mobile devices that rely on the underlying converging wireless infrastructure to deliver information to enable interaction with high reliability & security. Hence, m-commerce is the ability to conduct commerce using mobile device such as mobile phone, PDA and smart phone while on the move.
Andersson, et.al. (2006) line-up seven mobile applications, which are voice; SMS (Short Message Service); MMS (Multimedia Message Service); ringtones & logos; mobile Internet; mobile email; and mobile music & TV. (Please refer the details in Table 1 as below). The key factors of strong mobile applications are easy access, design principles (e.g. login, discovery, speed & ease of use), capitalizing on wireless connectivity (e.g. connections, configuration & access when roaming) & wireless design considerations (e.g. quality of service and connections, latency & mobile conditions). Therefore, m-commerce is recognized as a unique business opportunity with its own unique characteristics and functions and not just an extension of an organization’s Internet based e-commerce channel. The main use in current time is for the sale of the mobile phone ringtones, games and wallpapers although 3G & UMTS service has increasingly used to enable payment for location-based services for map, video and audio content that include the full length music tracks & also the demanded information like the football score via SMS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Mobile applications</th>
<th>Function</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Voice</td>
<td>Ability for people to talk to each other.</td>
<td>Talking</td>
</tr>
<tr>
<td>2.</td>
<td>SMS</td>
<td>For messaging to interact with person, TV &amp; radio program.</td>
<td>Receive news &amp; sports alert, donation, book cinema ticket, pay car parking &amp; enter competition</td>
</tr>
<tr>
<td>3.</td>
<td>MMS</td>
<td>Send picture, text, audio &amp; video between hand phones.</td>
<td>Capture events.</td>
</tr>
<tr>
<td>4.</td>
<td>Ringtones &amp; logos</td>
<td>As symbol for the individual.</td>
<td>Personalization by each individual.</td>
</tr>
<tr>
<td>5.</td>
<td>Mobile Internet</td>
<td>Access web wirelessly.</td>
<td>WiFi, GPRS &amp; WAP.</td>
</tr>
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Fenech (2002) revealed that m-commerce is any type of Internet or interactive commerce conducted via a hand held device such as PDA or mobile phone and established four (4) advantages of m-commerce, which are ubiquity (portable & capable anywhere), personalization (suited to individual), flexibility (as an independent device) & dissemination (broadcasting at specific location).
Chapter 3
Methodology

3.1 Study design

This is a cross-sectional study which is more descriptive in design though data collected could be subjected to complex analysis. Survey methods are applied in this study to collect primary data form the community (study population). Sampling technique was employed to select the respondents.

3.2 Study population and sample size

The study population consisted of the working adult of Sibu town. These study subjects are employed by the various sectors in Sibu, public and private. Like the population of Sibu the study population consisted of people of various ethnic groups, age and education. The exact number of people employed by the various sectors in Sibu is not available. However based on the reported mid-year population of Sibu town the approximate size of the study population is 67000. The sample size was determined to be 300. For this purpose 400 sets of questionnaires were sent out through the volunteers but only 246 were returned.

3.3 Sampling method

Sample obtained in this study was a non-probability one. Sample unit or respondents were selected through convenience sampling method. This means that they were selected based on their willingness to participate in the study as well those who were known to the volunteers who distributed the questionnaires.

3.4 Data collection

Data was collected through self-administered questionnaires (Appendix). The questionnaire, which was written in English, was divided into FOUR parts to collect relevant variables.

- Part A
  - Age
  - Gender
  - Income
  - Highest education
  - Monthly bills
o Brands  
o Subscription to service providers

• Part B  
o Data on the use of various application

• Part C  
o Data on attitude

• Part D  
o Data on expectation of users on the service

The questionnaires were distributed to prospective respondents through friends and volunteers. Participation in this study was purely voluntary. Though target date was given for them to submit the completed questionnaires most of them took time to complete and send back the questionnaires.

3.5 Analysis

After all the questionnaires were received they were checked for mistakes. After the data cleaning was done the data was coded before it was keyed-in. The analysis was performed using SPSS® software. The following statistical analysis was performed.

3.5.1 Descriptive analysis

Frequency analysis and cross-tabulation was carried out. Inferential statistics to test the correlation between two variables were carried using non-parametric test.

3.5.2 Reliability analysis

Reliability tests were carried on the scale used for Part B1, B2 and B3 which relates to practice, attitude and expectation respectively. Cronbach’s Alpha obtained by the reliability analysis for Parts B1, B2 and B3 were 0.939, 0.844 and 0.905 respectively. The scale of the Cronbach’s Alpha varies between zero (0) to one (1). The closer the reliability coefficient gets to one (1), the better. Reliabilities less than 0.60 are considered to be poor, those in the 0.70 range are acceptable & those over 0.80 are good. The result for Parts B, C and D all fall within this range. Therefore, all the scale used has good internal consistency.

Table A: Statistics on reliability analysis

<table>
<thead>
<tr>
<th>Parts</th>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>.939</td>
<td>.939</td>
<td>20</td>
</tr>
<tr>
<td>C</td>
<td>.844</td>
<td>.851</td>
<td>20</td>
</tr>
<tr>
<td>D</td>
<td>.905</td>
<td>.908</td>
<td>13</td>
</tr>
</tbody>
</table>
3.5.3 Factor analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) is a measure of whether the distribution of values is adequate for conducting factor analysis. The KMO measure of sampling for Part B1, B2 and B3 were 0.939, 0.858 and 0.939 respectively, value greater than 0.6 (Table B). Value of less than 0.5 would have meant that this study was not suitable for factor analysis. KMO of 0.90 is considered marvelous, 0.80 is meritorious, 0.70 is middling, 0.60 mediocre, 0.50 is miserable and for value less than 0.50 is considered unacceptable. Therefore the result Part B1 and Part B3 part were marvelous and meritorious for Part B2 part. Bartlett test of spherically is to measure the multivariate normality of the set of distributions and test the correlation matrix if it is an identity matrix as factor analysis would be meaningless with an identity matrix. The significant value for Parts B1, B2 and B3 were

<table>
<thead>
<tr>
<th>Parts</th>
<th>KMO</th>
<th>Chi Square</th>
<th>Degree of freedom</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>.939</td>
<td>3012.576</td>
<td>190</td>
<td>.000</td>
</tr>
<tr>
<td>C</td>
<td>.858</td>
<td>1371.983</td>
<td>190</td>
<td>.000</td>
</tr>
<tr>
<td>D</td>
<td>.939</td>
<td>3012.576</td>
<td>190</td>
<td>.000</td>
</tr>
</tbody>
</table>
Chapter 4

Findings and discussions

4.1 Findings

4.1.1 Demographics

A total of 246 respondents participated in the survey. This comprised 136 (56.5%) female and 107 (43.5%) male (Fig 1). The majority (99 or 40.2%) of the respondents for both male and female consisted of those within the 26-35 age groups. The distributions by age by gender were almost similar except that there were no female respondents below the age of 18. Only 3 respondents, all male, were under age of 18 (1.2%). There were 27 respondents who were within the 51 to 65 years age group.

Fig 1: Distribution by gender and age

The majority of the respondents (35.4%) were secondary school leavers (Table 1). The next largest group consisted of those with "undergraduate degree" (73/246) or about 29 percent. Those with diplomas accounted for 15 percent (39/246) and about 10 percent (24/246) possessed postgraduate degree. The smallest group was those with certificates.
By gender there were more female than male in the entire highest education grouping except for the basic degree group where there were relatively more male.

Table 1: Education by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Secondary School (%)</th>
<th>Certificate (%)</th>
<th>Diploma (%)</th>
<th>Undergraduate degree (%)</th>
<th>Postgraduate degree (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>58 (66.7)</td>
<td>18 (78.3)</td>
<td>25 (64.1)</td>
<td>25 (34.2)</td>
<td>13 (54.2)</td>
<td>139</td>
</tr>
<tr>
<td>Male</td>
<td>29 (33.3)</td>
<td>5 (21.7)</td>
<td>14 (35.9)</td>
<td>48 (65.8)</td>
<td>11 (45.8)</td>
<td>107</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>23</td>
<td>39</td>
<td>73</td>
<td>24</td>
<td>246</td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.01 level (2-tailed).

The majority (56.9%) has annual income of RM19999 and below, followed by those earning between RM20, 000 - 39,999 which accounted for 31.7 percent of the total (Table 2). Only 7.7 percent and 2 percent earned between RM40, 000 - 59,999 and RM60, 000 - 79,999 respectively. One (.4%) and 3 (1.2%) earned between RM80, 000 - 99,999 and RM100, 000 and above respectively. Those with school certificate accounted for 23 percent of those with annual income of RM19999 and below. Only those with basic degree and post-graduate degree earned more than RM80000 annually. The correlation between gender and education in this study is significant (p<0.05).

Table 2: Education by annual income

<table>
<thead>
<tr>
<th>Annual income (RM)</th>
<th>Secondary School</th>
<th>Certificate</th>
<th>Diploma</th>
<th>Undergraduate degree</th>
<th>Postgraduate degree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>19,999 &amp; below</td>
<td>57</td>
<td>18</td>
<td>17</td>
<td>41</td>
<td>7</td>
<td>140</td>
</tr>
<tr>
<td>20,000 - 39,999</td>
<td>23</td>
<td>4</td>
<td>19</td>
<td>21</td>
<td>11</td>
<td>78</td>
</tr>
<tr>
<td>40,000 - 59,999</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>60,000 - 79,999</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>80,000 - 99,999</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>100,000 &amp; above</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>23</td>
<td>39</td>
<td>73</td>
<td>24</td>
<td>246</td>
</tr>
</tbody>
</table>

Spearman Correlation 0.226
Correlation is significant at the 0.01 level (2-tailed).

More than 50 percent of the respondents earned only RM19999 and below per year. Sixty four percent (90/139) of the female earned RM19999 and below compared to only about less than 50