

A STUDY ON THE SUCCESS FACTORS OF WOMEN IN CONSTRUCTION
INDUSTRY IN KOTA BHARU, KELANTAN

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Report submitted in partial fulfillment of the requirements for the award of the degree of
Bachelor of Project Management with Honour

FACULTY OF INDUSTRIAL MANAGEMENT

UNIVERSITI MALAYSIA PAHANG

JANUARY 2016

SUPERVISOR'S DECLARATION

I hereby declare that I have checked this project and in my opinion, this project is adequate in term of scope and quality for the award of the degree of Bachelor in Project Management with Honors.

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STUDENT'S DECLARATION

I hereby declare that the work in this project is my own except for quotations and summaries which have been duly acknowledged. The project has not been accepted for any degree and is not concurrently submitted for award of other degree.

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DEDICATED TO

My Mother;

Jamilah Binti Daud

Brothers and sisters;

Noor Maziana Binti Abdull Manaf

Mohd Mazran Bin Abdull Manaf

Noor Farihan Binti Abdull Manaf

Mohd Faizul Hafizy Bin Abdull Manaf

and

Mohd Afiq Bin Abdull Manaf

ACKNOWLEDGEMENT

Firstly, I want to thank to Allah for giving me the strength to finishing my Final Year Project. Without Him, I was not able to finish this project.

I would like thanks to Madam Fadzida Binti Ismail, my previous supervisor and to Mr Senthil Kumar T that for the continuous support and guided me in all time of research and writing this thesis. The effective and efficient techniques that use and explained to me really help us. I would also like to thank him for showing me some examples and providing me with valuable information as guidance that are related to the topic.

And of course to my beloved mama, Puan Jamilah Binti Daud, sisters and brother that give motivation to me to finish my degree's life.

My sincere thanks also to my classmate, roommate and all Project Management students that work together to complete our degree.

Thank you.

ABSTRACT

The construction industry is one of the industries listed as a major contributor to the economic development of the country. The importance of the construction industry can be seen clearly through the involvement of industry and construction in various diverse fields to make Malaysia a developed nation. If viewed from then until now, the involvement of men in this industry has never diminished even more people interested in entering this field. But, there are also women show their excellence in the industry when given a chance to involved to be more competitive and to fight for women's empowerment and to be more active and productive in the construction industry in the country. The women nowadays are large groups that contribute to the national economy. Therefore, this research aimed to study the success factors of women in the construction industry and identify the challenges faced by women in construction industry. Using the Statistical Package for the Social Science (SPSS), the data set was analyzed to get the result and finding. Result shows that, many factor that contribute them to achieve goals and performance in the organization such as, reward, work environment and so on. Also the challenges that need to faced in this industry.

ABSTRAK

Industri binaan merupakan salah sebuah industri yang disenaraikan sebagai penyumbang utama kepada pembangunan ekonomi negara. Kepentingan industri binaan ini dapat dilihat dengan jelas melalui penglibatan pembinaan dalam pelbagai industri serta meliputi pelbagai bidang untuk menjadikan Malaysia sebuah negara maju. Jika dilihat dari dahulu hingga kini, penglibatan lelaki dalam industri ini tidak pernah berkurang malahan semakin ramai berminat untuk menceburi bidang ini. Tetapi, golongan wanita tidak kurang juga menunjukkan kecemerlangan mereka dalam industri ini apabila diberi peluang dalam menceburkan diri untuk lebih berdaya saing dan menuju untuk memperkasa dan memperjuangkan wanita agar lebih aktif dan produktif dalam industri binaan di negara ini. Golongan wanita pada masa kini merupakan kumpulan besar yang menyumbang kepada ekonomi negara. Oleh hal yang demikian, kajian ini bertujuan untuk mengenalpasti faktor-faktor kejayaan wanita di dalam industri pembinaan ini dan mengenalpasti cabaran yang dihadapi mereka dalam industri ini. Untuk menganalisis data, Pakej Statistik untuk Sains Sosial (SPSS) digunakan untuk mendapatkan keputusan analisis. Hasil kajian mendapati, banyak faktor yang menyumbang kepada kejayaan dalam mencapai matlamat dan prestasi dalam organisasi seperti ganjaran, persekitaran kerja dan lain- lain lagi, juga halangan yang terpaksa ditempuh dalam industri pembinaan ini.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Construction industry is one of industries that contribute to the economic development of the country. Malaysia is a developing country that is growing becoming a developed country. Therefore, to achieve progress towards the construction industry plays as an important role in the construction process, especially construct of infrastructure, housing and so on. In the first quarter of 2013, recorded 14.7 percent compared with the overall rate of 4.1 per cent of the country's economy. With its transformation program Malaysia Plan 11th could be the largest contributor to the national economy. Nowadays, the involvement of women in the construction industry is still low if compared with men. Recorded only 38 per cent of the total workforce in the country involved women. However, there are some parties that provide opportunities for women to participate in the construction field. Even, some of them were given great confidence to lead in high positions in the organization, examples such as senior engineer and others.

Dato Seri Najib Tun Razak presenting the budget 2015 last year that to do a “Program Director of Women” to achieve 30% the involvement of women in decision-making group. Government planning to train the future women directors to fill the position as board of directors for government or private company.

So, the aim of this study is to know the success factor of women in construction industry and the challenges that faced by women in construction industry. According by researcher from University of California, women get many advantages than men when the best managerial skill comes. Morrison (1992) stated that many organizations try to implement to give support and developed the managerial and professional for women.

1.2 BACKGROUND OF STUDY

In this study, it focuses on the women in construction industry. From this study, we can identify the success factor of women in construction industry and also the challenges that women need to face in construction industry. This is because, many women that success in this industry and they are given the opportunity to get the professional position in the company. Therefore, women can be equal position with men in the company. Through this study, we can identify the challenges that faced by them when they are in construction industry.

1.3 PROBLEM STATEMENT

The construction's industry has been arising with the government objective of making Malaysia a developed country in 2020. Generally, the involvement of men in the construction industry very high because of high energy requirements with the heavy work requires them as an important resource in a project. No doubt, the participation of women is very small when compared with the men. But, this time, the involvement of women in various industries, especially in the construction industry is no longer doubted by some parties and this issue is not a new issue in Malaysia. What can be seen now, women nowadays seen improve their capability to challenge themselves to be at a same level or higher than men. In fact, there are a few of them can compete with the men. When more women are terrific get involved in the construction industry, women are being entrusted by their organizations to get a high position in the construction industry. The involvement of women in construction industry is seen as something positive for the construction industry especially to the organization itself. It is because the company should not expect men only. But, organizations needs to showing more women are great in developing their organization. When many women are involve in this industry, the dignity of women will increase and men worker cannot look down on

women. Many women will take the opportunity to be involved in the construction industry. Hence, this study, aim to know the challenges that faced by women in construction industry in Kota Bharu, Kelantan. Also, to study the success factor of women in construction industry in Kota Bharu, Kelantan.

1.4 RESEARCH OBJECTIVES

Research objectives for this study are:

1. To study the success factors of women in construction industry
2. To identify the challenges faced by women in construction industry

1.5 RESEARCH QUESTION

1. What are the success factors of women in construction industry?
2. What are the challenges that faced by women in construction industry?

1.6 RESEARCH FRAMEWORK

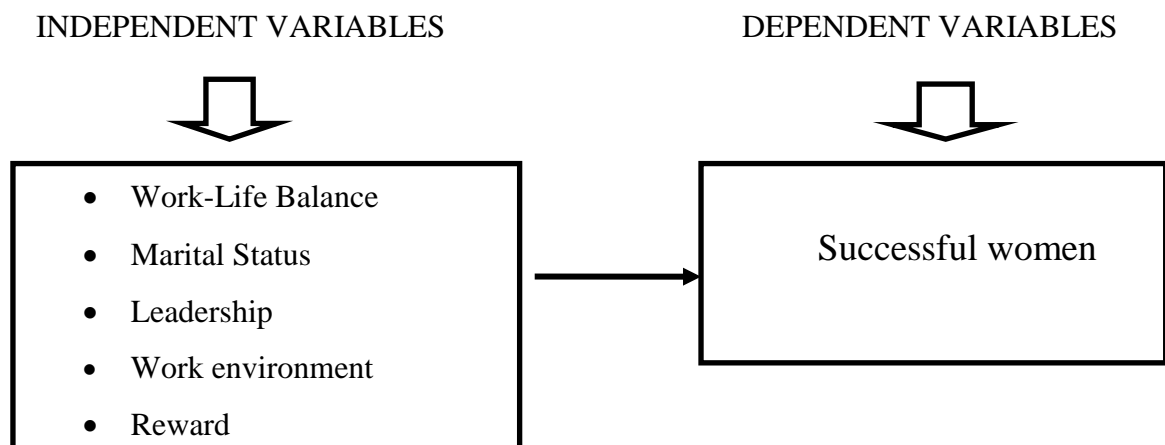


Figure 1.1: Research Framework

1.7 SCOPE OF STUDY

This study focuses on the success factors of women and the challenges that women faced in construction industry. This study will be conducted among the women like project managers, contractors, engineer, quantity surveyor, and architect in the construction industry. This study will conducted in construction companies in Kota Bharu, Kelantan.

1.8 SIGNIFICANCE OF STUDY

To researcher, this study actually allows me to understand and learn more about the success factor of women and challenges faced by women in the construction industry. It gives motivation to be like them that success in construction industry. Not many women are willing and brave to involve in this industry because a lot of resistance that need to faced. And also, this research can be a reference to another student in future. To university, this study is important and can give spirit to student because it can motivated student, especially females student to involve in construction industry because only a few student are interested to join this industry. It can produce more managers who are succeeding in the future. To industry, in the industry, especially construction industry, when many women are join, the parties that involved in this industry need to more focused on the obstacles faced by women and sensitive about the any problem. Not only concerned for men workers only but must be fair between them. To government, when we know the success factor of women and challenges faced by women in the construction industry, it can attract more women to involve. At the same time, it provides a high profit to the country because more workers who will carry out many project.

1.9 OPERATIONAL DEFINITION

Construction – the process to construct the housing, road, and so on.

Success factor – The element that needed by company or person to achieve the success in their mission and vision.

Women – the adult female.

1.10 EXPECTED RESULT

Through this study, researchers have identified the success factor of women in construction industry in Kota Bharu, Kelantan. The first factor is work – life balance. Work life balance is, able to control our self until can enjoy the live with optimum and get the quality of life and also can reduce the stress. So, it one of the success factor to the workers. Another factor is leadership. A good leader is a role model to their workers. A good leader should know to lead/handle the workers. Not many women workers be the one of the top management but when they are in that position, the women strictly to manage their organization. Besides that, the work environment also the success factors to women in construction industry. A good woman is give serenity to the workers to do their work. A good work environment likes good relationships with other employee, condition of work and so on. Another factor is rewards and marital status.

The expected challenges to be faced by women in construction industry are glass ceiling is any way that could prevent women achieving success as men. It is something the dreaded by women because it is one of discrimination against them because obstructing them to advance themselves in their organization. Next, stress is a biggest challenge that needs women workers faced is manage the organization and their family especially as a housewife. Women workers was too much stress because too workload and don't have time to themselves also other people. Other than that, sexual harassment has occurred is due to an attempt to show their power and influence in the workplace. Sexual harassment is usually done by top management. Also, work- family conflict and safety and health.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This section is about the literature reviews that have been done based on the previous study. This can be a guideline to conduct this study. There are many journals that can be a guideline for this research. Based on the previous research, we can know what their way to conduct this research.

In Malaysia, almost half of the total populations are women and their role is very important and is increasing drastically at the national level. According by Khalili et al. (2012) women's role is to carry out a variety of responsibilities, particularly in the role of family, community and become one of contributing to national development and prosperity.

2.2 OVERVIEW ABOUT THE CONSTRUCTION INDUSTRY

Construction industry is one of the economy sectors that responsibility to plan, design, construct, maintains of the building or any construction work. The important thing about the construction is the role to build the physical facilities as an important play in developed of the country.

According by Debrah and Ofori (2006) construction industry is a economy sector that change the many resources into the construct the physical economy and social infrastructure that necessity to the socio-economic development. The example of construction activities such as housing, road, skyscrapers. The construction industry also involved with the metal and electrical engineering.

According by Kenny (2007) construction industry is one of the support to the economic development for the country. Role of construction industry in developed of economic cannot be denied. This can be evidenced by the development of this industry over the years as the world's oldest identity in the construction, process engineering and many more.

2.3 SUCCESS FACTOR

According by Cooke-Davies (2002) the success factor is a management system that leads by leader indirect or directly towards the success of project or business. Some of the project manager act according their conscience and informal in determining factor in the success of their own.

According by Duy Nguyen et al. (2004) a success factor refers as any information, skill, attitude or any personal characteristic that are important to perform in work and can different the low performance towards high performance in the job.

2.4 PERFORMANCE MEASURE

Based on the Takim et al. (2003) performance measure is a effective way to know and evaluate about the project or person performance that based by judging the input, output and outcome in the last project. The performance measure can also used in the financial and non-financial measure.

According by the Cooke-Davies (2001) the performance of project manager is based on the ability of them to control all the process to making the project ongoing with smoothly. Based on the research by Quek (2005), the performance of the project manager can be measure by the success in the time (not delay) , within cost, and quality of project.

2.5 SUCCESS FACTOR OF WOMEN

2.5.1 Work – Life Balance

Balancing work – life means that, able to control our self until can enjoy the live with optimum and get the quality of life. Work- life balance is a tool to help the women employees because it can reduce the stress for them. The example policies or program that implement, aim to introduce and help them to manage the work- life, family effectively which is give the personal leaves to workers, provide the kindergarten to the staff's children, childcare centers, work – family training and so on (Johnson, 1995). With this program, women are can give the breastfeeding to their children and this program can make women as mother no need to thinking more about the children if the children was far from them.

With the work – life balance program, it can be supported to the women especially because most of the work in home, the woman can do and they also need to balance between work in home and office. And this, can make the women are success in their career life. Woman can manage between other work at home and work to get the achieve successful is can manage the work flexibility (Coyle-Shapiro and Shore, 2007)

2.5.2 Marital Status

Marital status seems giving positive impact on women manager since they received active support from their partner (Hall and Bright, 1994). In the other hand, nearly all of women in senior level of management who manage to the top positions were found single or not married (Moone and Lightfoot, 2009) and this giving indication to unmarried women to remain single for the sake to achieve top positions.

The situation might similar in Millar (2008), when most women in top positions are unmarried. Before this, woman who later married labeled as 'unsold' but perception has changed. Today, many women are choosing to marry later, because on external factors and internal. Late married was more support by financial stability; where it gives the freedom to the women to support themselves without rely on the

other people. Issue about the ‘unsold’, not suitable for them. This is because women are working to contribute to the economy development of the country.

2.5.3 Leadership

Leadership is a process of influencing a group or individual to achieve the goals especially in the organization. In achieving a success in the project, in addition to the emphasis on technical skills, emphasis should also be given to the management itself, especially from the aspect of leadership among the project manager / contractor or any woman who is directly involved in the construction industry (Neuhauser, 2007)

According by Maylor (2003) women must have effective leadership to ensure that projects can run smoothly without any problems. The characteristics that essential to be successful leaders are extraversion, self-confidence, intelligence, responsible for leading the work force in the process of planning, scheduling and controlling all budgets and others.

A leadership skill is critical to create a more effective management consistent with the increase in organizations that are increasingly significantly in the industry, (Sumner et al., 2006). In the construction industry, women must have a good leadership because they need to lead many workers especially men workers. So, she must have a good leadership to show to everyone that women workers also can manage all workers without any problem.

According by Piha (2006), the certain characteristic of leadership among the women workers are style in communication, multitasking and working in group effectively. This characteristics are very effective to the workers, it is because good communication can reduce the conflict between the workers when they expresses their opinions and exchange the ideas, so, they can work peacefully without any problem or of envy.

According by Budhwar and Katou (2005), a few success factor of women in Malaysia as a manager are :-

1. Can do a variety of jobs at the same time. (Multiple task).
2. Fully commitment to their organizations.
3. Ready to share the information and experience to the other workers. (Interactive leadership style)

4. Ability to handle the critical issue or problem in the organization.

2.5.4 Work Environment

According to the research by Abdul Razak et al. (2009), basically have several factors that influence the overall performance of project manager, which is:

- 1) Factor that related with individual and personal characteristic
- 2) Factor that related with work condition
- 3) Factor that related with characteristics of project
- 4) Factor that related with environment
- 5) Organization factor

Work environment covering the resources that which can be obtained in workplace to do a work like work condition, the physical structure of the workplace and suitability or equipment in the workplace (Kearney and Smith, 1994). Graham et al. (1998), there is relationship between the enjoyment and satisfaction towards the environment that able to influence behavior the workers in organization in create the impact towards the social relation and cooperation between the employee and their superior.

Organization factor is about the effort that implemented by the organization to influence the career of individual. This is because, the organization is a place that individual work and effort by organization to provide the training and the initiative to the successful workers can influence the successful their career in the organization (Linehan et al., 2001).

2.5.5 Rewards

According to the Lawler III (1990), reward systems have a direct relationship with the successful factor career in organization. Besides that, researcher by Kalleberg (1977), reward is a gift or payment that employees received from their organization because a good contribution in the workplace. Rewards may come as allowances, salaries, holidays, promotion. Generally, the project manager, contractor or anyone that involve in the construction industry, they got a project that millions and most of them

consist of a high position in the organization. Basically, the senior person in the organization has too much experience they already have than a young worker before becoming a successful person in the organization. Of course, they got the more rewards because their contribution in the company.

Refer to the researcher, by Valenzi (1994) has been conduct the study towards to the industry workers of European country that shows, the incentive of financial like pay and bonus is the first factor that motivated the workers to work hard.

In accordance by Gordon (1991), the increasing of salary depends on the working period and it can improve the performance of worker. It can attribute with the motivation theory that salary as a high level of influence. He added, most of the organizations use the interest or incentives as an extra to the pay. This is because can motivated to the workers, attract them to join the organization, reduce the turnover and can maintain the image of the organization. Of course, it reason of success factor of women in construction.

The research by Schultz (1990) say, salary and money is an intrinsic reward that is main aspects that worker need because salary can meet the basic needs like foods, house and other desire in their life. So, if the workers get the extrinsic that offered by their organizations, the workers can show the work hard to make sure will enjoying the rewards as had been promised.

2.6 CHALLENGES FOR WOMEN

2.6.1 Introduction

The women who work also had to face many challenges and obstacles in the work that they are doing well. These challenges include the physical and mental aspects that require a high level of patience. Women also had to compete with men for job opportunities offered in the market. But nowadays women workers have given confidence to the position high in the organization. However there are many challenges that must be passed by the women to earn their positions. The challenges to be faced by

women in construction industry which is problems related to glass ceiling, sexual harassment in the workplace, stress, and work- family conflict and safety and health.

2.6.2 “Glass ceiling” - barrier to advancement in a profession

A glass ceiling barriers faced by women, especially, are an obstacle to one's individual success but cannot be seen by them. According by researcher, Napikoski (2013) the glass ceiling is any way that could prevent women achieving success as men. It is something the dreaded by women because it is one of discrimination against them because obstructing them to advance themselves in their organization.

The glass ceiling is a concept where women often face in which they want to achieve the highest position in the organization and also a very good salary. In the construction industry, the glass ceiling is still a problem. It is a true fact, where it is a major problem for women who want to start working in the construction industry as a professional (Claudi et al., 2010)

According study by Ishaya et al. (2011), a few challenges is:-

1. Family problem and work conflict.
2. Limited time to do a work and household problem.
3. Looking to women that not able to be a good profession.
4. Refused to travel
5. Imbalance between challenges in workplace and home.

2.6.3 Sexual Harassment

According to Sinclair (1994), sexual harassment refers as a form of discrimination that involves humiliation, abuse and threatening behavior by a person involved parties or a group of people because of their sexual desires to be fulfilled, while (Backhouse and Cohen, 1981), say that, repeatedly trying to avoid by women. This behavior includes views, suggestions or physical assistance by force or without consent, should be denied or perceived to be defended because it causes people feel uncomfortable in the workplace.

Sexual harassments towards the women in the workplace are not the new phenomena but it's already many reports that received. According by Fitzgerald (1993), one of two women will be the sexual harassment victim. When mention about the sexual harassment in the workplace, the women workers that most likely to be the victims and the culprit is the male workers. This can be proved by Dato Lee Lam Thye in the Dewan Budaya (1999), stated that in before this, 110 cases of sexual harassment were reported that involve top management which is men workers as a culprit in the office.

According by (Sabhita, 2001), between 42 percent to 70 percent of women workers in Malaysia have suffered the sexual harassment in their organization. Sexual harassment has occurred is due to an attempt to show their power and influence in the workplace. Sexual harassment is usually done by top management or who are have power and influence within the organization. Male employee who was appointed as chairman or manager, sometimes abusing power to take advantage of women employees by threatening to take action to stop work, blocking promotion or give bad ratings if it refuses to comply with and according to their needs. In the construction industry, of course women need to work with the many male workers. If that women work as a quantity surveyor or anything, she must follow the project managers go to the site together. So, the project manager will do a something unwelcome behavior likes kissing, hugging or any bad behavior.

2.6.4 Stress

Stress is a term that encompasses pressure, load, conflict, fatigue, tension, panic, nervousness, anxiety, depression and loss of power. Stress comes from the Greek word "stringer" which means "tight" or "stiff". According by Kawakami et al. (2000) stress in Japan among employees every five years increased from 51% in 1982 to about 2/3 of Japan's population. Some stress can be good and some time can be bad. The psychologists see this pressure from various angles and aspects. A number of researchers define stress in different words; such as challenge in one's physical and mental state in other words disturbance or imbalance from normal state.

The workers that faced with the high level of stress will be a less motivation to work, always skipped the work, refuses to cooperate, it is difficult to adjust to other people and have the negative attitude and lastly, the performance of individual will

decreases. Thus, the productivity of the industry also will decrease and big loss for the industry. The researcher, (Budhwar et al., 2006) in their study, the biggest challenge that need women workers faced is manage the organization and their family especially as a housewife.

Women workers was too much stress because too workload and don't have time to themselves also other people. They work harder to prove their ability especially for male workers. The women worker that involved with professional work is necessary to spend time and energy to the responsibilities in the office. So, she had to sacrifice the responsibilities as a wife and mother to the family.

2.6.5 Work – Family Conflict

Review by O'Neal et al. (2008), career women nowadays are closely related to personal life. Work - family conflicts refer as a problem that inconsistent of the individual about the problem in office and in home. In other words, work - family conflict exist when the expectation that related with the role that cannot fulfill the requirement of the other roles, (Greenhaus et al., 2006).

Therefore, it can be said that, the work-family conflict cause by the each roles and it have a dynamic relation each other. Family responsibilities are a variety of activities related to the child, to provide a variety of goods needs of the family. (Amaratunga et al., 2007), Conflict between works - family is very bad to the construction of professional women who have a lot of experience in this industry. Family responsibilities is essential for its professionals, especially in construction work because it requires more time when being at the project site and the need for women to balance between family and career, which require a heavy responsibility.

(Drago et al., 2002) said, women workers have a big responsibility in the household, would have more interruption from family to work than men. The women worker that involved with professional work is necessary to spend time and energy to the responsibilities in the office. So, she had to sacrifice the responsibilities as a wife and mother to the family. (Byron, 2005) said so hard to balance the work - family conflicts in the adults' life because each person have their right and truth by each person. The roles of traditional gender is no longer limited to care about the children purely, but all the work need to do together although the increasing in dual-career.

Through the research by Lingard and Lin (2004), that show are women in the construction that practicing whether or approach to work and family. The high possibility perception of women to make a choice between the work-family. If the women choose the family, the work-family conflict not give the bad negative to the organization, but, if women choose to give commitment to the work-family, maybe will have the significant different.

2.6.6 Safety and Health

According study by OSHA (1999) (Occupational Safety and Health Administration), most of women workers complaint about the tool that use in the site. Most of them revealed the tools, equipment and the clothing that not suitable for them. This is because, that entire thing are created is suitable for man workers like ill-fitting personal protective clothing (PPC) and personal protective equipment (PPE) which not suitable with their size. Women who wear size discrepancy can cause serious safety and health risks to them. For example, the safety boots that the project manager needs to wear when visit the site, generally the shoes used by male workers. Therefore, it becomes an obstacle to female employees to get suitable shoes. Therefore, appropriate clothing is very important to women workers in the construction industry. This is caused by the absence of a manufacturer who may be less experienced and knowledge to create equipment and clothing suitable for the structure of the female body.

Besides that, the sanitary facilities also one of the challenges to the women workers in the construction industry, especially when go to the site. Generally the temporary of facilities that use for unisex, anyone can use without privacy and usually the condition of the sanitary not very well maintained. Due to the ineffective of sanitary, women are avoiding use the drinking water on the site. The women workers in construction industry don't get the enough information, where they exposed to the reproductive hazards in the workplace, (Olsson et al., 2004). A reproductive hazard refers to the agent that can damage the reproductive system or bad effect to the fetuses. If the women workers too exposed to the environment that contain the chemical, she can potential harm to herself. Therefore, the manager give the advise to women workers that and pregnant workers, who are risks to getting this infection to stop their work for

the unborn child and herself. So, this will affects to their economy because lack of jobs opportunities.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The method that is used to conduct the research will be discussing in this chapter. Research methodology is a way to know the outcome or solution to a problem or matter that also referred as a research problem. In methodology, researcher can use a several method that has difference criteria to solve the research problem. The questionnaire method is that uses by the researcher to collect data. This chapter shows the research methodology that used to study the success factor of women in the construction industry in Kota Bharu, Kelantan. This study also identified the challenges that faced by women in construction industry in Kota Bharu, Kelantan.

The method that will used to get the information is using a questionnaire. This method are used because easier and more efficient to get information for a better result. This method also is cost saving and save time. A survey was conducted by distributing the questionnaire to the companies that involved based on the scope of study.

3.2 RESEARCH APPROACH AND DESIGN

The quantitative approach is being used to collect the data. Quantitative approach are the data represent counts or measurement (can be counted or measured), are numerical in nature and can be ordered or ranked. For the research approach, researcher uses the descriptive research. Descriptive research is a used to describe characteristic of a population or phenomenon. Descriptive research was selected because it more accuracy than others to get the information about the opinion, abilities and so on. In questionnaire, there have three (3) main sections which are Section A, Section B and Section C that need to answer by respondent.

3.3 POPULATION AND SAMPLING

Population is a large collection of measurement, outcomes, individual to the study. While, sampling is a subset of the population that is observed. This research will focus on the success factor of women in construction industry. The population of the study in the Kelantan while sample in the Kota Bharu. The population size of the study is 75, where, the sample size is 63. The population and sample takes based on use Krejcie Morgan theory. The data will get from The Institution Of Engineer Malaysia (IEM), Royal Institution of Surveyors Malaysia and Construction Industry Development Board (CIDB). This research is about the success women in the construction industry. Participates that involves in this research are women that success in construction industry. From all the respondents, researcher can know and understand more about the contribution factors behind a women success in construction industry in Kota Bharu, Kelantan. Besides that, the researcher also can discuss about the obstacles and hardship that they had to overcome to reach the level they right now.

TABLE 1
Table for Determining Sample Size from a Given Population

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361

Table 3.1: Determine the sample size from a given population

Sources: Krejcie Morgan Theory

3.4 DATA COLLECTION TECHNIQUE

For data collection technique, researcher will use the non-probability data. The basic method for obtaining the sample is use the convenience samples because is an easy sample. Convenience sampling is the researcher can get the respondent that available to answer the question.

The construction company in Kota Bharu, Kelantan has been chosen and the selected women are given the questionnaire. The respondent needs to answer all questions in order to collect the data. The questions were distributed at an earlier time; it is because the respondent was given more time to answer the question according their knowledge and experience in construction industry existing before. This information then can be obtained accurately and clearly. The researcher uses the questionnaires in the English language have been utilized in this study. There have three (3) main sections which are Section A, Section B and Section C that need to answer by respondent. The section A, respondent must answer the demographics questions that include age, position in company, experience in the construction industry, marital status and so on. The section B is about the success factor of women in their career especially in construction industry. The section C is focus about the challenges and hardship that faced by women in construction industry. The information is measured by ticking on the every column that provide. The questionnaire will be use the scale from 1 to 4 which is:-

- 1) Strongly Disagree
- 2) Disagree
- 3) Agree
- 4) Strongly Agree

3.5 PILOT STUDY

The reliability test will be conducted by pilot study to test the reliability and validity of the instrument before being distributed to the respondents. Reliability and validity is an important element of the questionnaire design. The effectiveness of questionnaire can get the good reaction (Suskie, 1996). Validity is used to measure the factors under the study. In this study, the researcher can distribute the same set of questionnaire to the all different respondent. In order to get the data to distribute questionnaires, the sample size required for the pilot study is about is not that great as it is only meant to start a discussion. In order to successful early results of this questionnaire, successful women leaders such as project managers, contractors and others involved in this pilot study. According to the decision that the receipt of this pilot study, it was concluded that the questionnaire can be reliable and acceptable for further data collection.

3.6 DATA ANALYSIS

After finish collects the data from respondent, the next process is analysis the data. Data analysis will be done using the Statistical Package for Social Science Software (SPSS) to create demographic of respondents as well as descriptive statistics that will look at the usage of mean, median, and mode which are the most commonly used measures to measure central tendency. Besides doing frequency and demographic analysis, reliability analysis will also be conducted to determine whether the data obtained from respondents using the questionnaire are reliable before continuing to other analysis matter.

3.7 SUMMARY

Methodology is an important chapter to conduct the study. This chapter describes and explains the method that will be used for this research. All the explanation will help to understand more about the method and this will help when conduct the research. Each item that contained in this chapter will be based on the objectives of the study.

CHAPTER 4

RESULTS AND DISCUSSIONS

4.1 INTRODUCTION

In this chapter it shows the result that conducted by the survey. It showed the respondent profile through descriptive statistic. The reliability test, t-test analysis, frequency test are using the SPSS software.

4.2 RESPONDENT PROFILE

The descriptive analysis was used to identify the respondent profile. The mean, mode and standard deviation was analyzed in the descriptive analysis. In the descriptive analyze, it will show the frequency and percentage for several question.

4.2.1 AGE

N	Valid	63
	Missing	0
Mean		1.8730
Median		2.0000
Mode		2.00
Std. Deviation		.77235

Table 4.1 Statistic of age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 21-30	22	34.9	34.9	34.9
31-40	28	44.4	44.4	79.4
41-50	12	19.0	19.0	98.4
>50	1	1.6	1.6	100.0
Total	63	100.0	100.0	

Table 4.2 Frequency and percentage of age

Table 4.1 and 4.2, shows the result for frequencies and statistic of age among the respondents. In this research, questionnaires were distributed to respondents from the age 21 – 30, 31 – 40, 41 – 50 and 50 and above. From the histogram, the age a standard deviation is 0.772. The highest respondent that involve in construction industry between 31 – 40 years old with 44.4 % and followed the respondent 21 – 30 years old with 34.9 %.

Below is the figure of pie chart and histogram for the age of respondents among the women in construction industry in Kota Bharu, Kelantan.

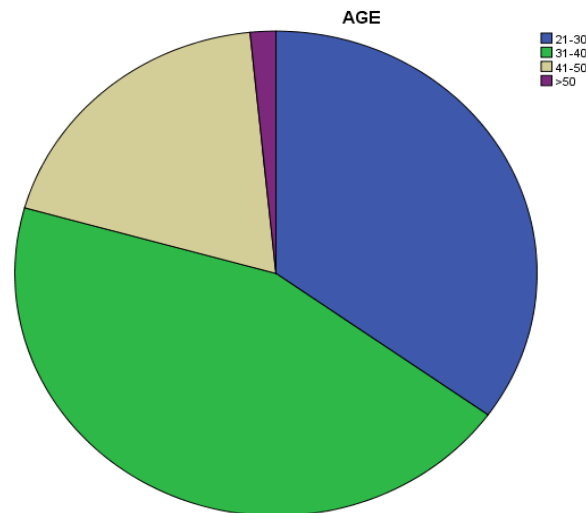


Figure 4.1: Age

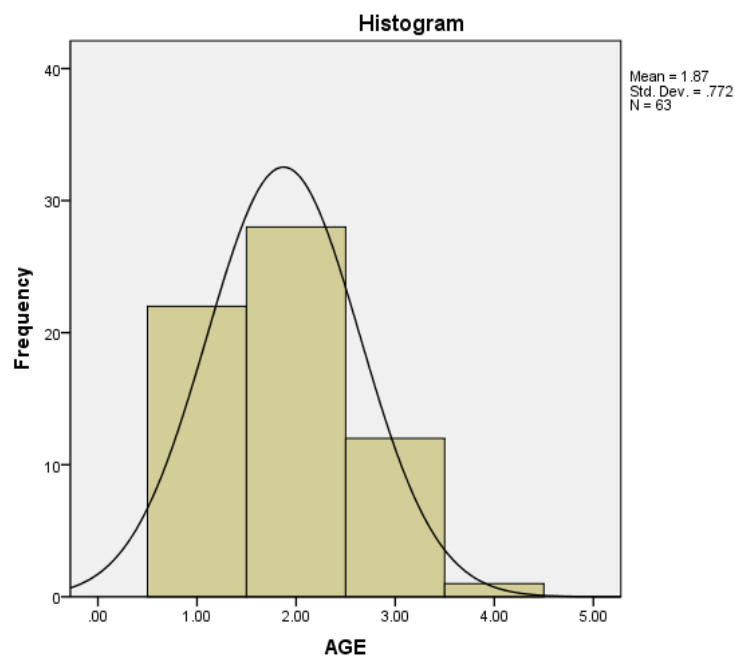


Figure 4.2: Age

4.2.2 STATUS

N	Valid	63
	Missing	0
Mean		1.2063
Median		1.0000
Mode		1.00
Std. Deviation		.40793

Table 4.3: Statistic of status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	50	79.4	79.4	79.4
	Single	13	20.6	20.6	100.0
	Total	63	100.0	100.0	

Table 4.4: Frequency and percentage of status

Table 4.3 and 4.4, shows the result for frequencies and statistic of status among the respondents. In this research, questionnaires were distributed to respondents that already married and single. The married status are answering the questionnaire is 50 people with 79.4 %, while, the single status are answering the questionnaire is 13 people with 20.6%. This means that, the involvement of woman who married in construction in Kota Bharu is dominated than single status. From the histogram, the status a standard deviation is 0.407.

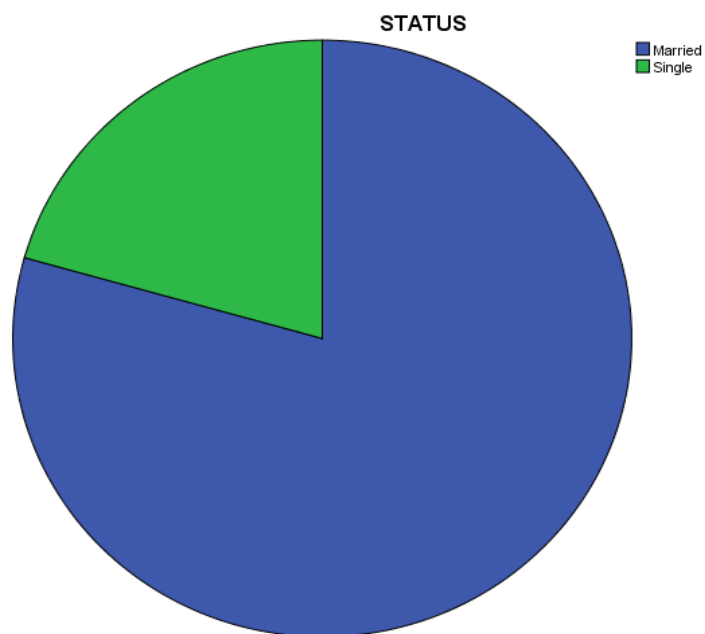


Figure 4.3: Status

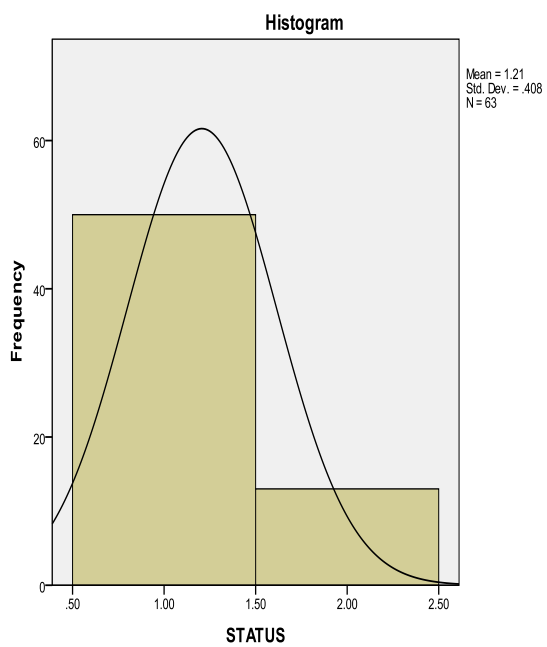


Figure 4.4: Status

4.2.3 RACE

N	Valid	63
	Missing	0
Mean		1.0317
Median		1.0000
Mode		1.00
Std. Deviation		.17673

Table 4.5: Statistic of race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	61	96.8	96.8	96.8
	Chinese	2	3.2	3.2	100.0
	Total	63	100.0	100.0	

Table 4.6: Frequency and percentage of race

Table 4.5 and 4.6 shows the result for frequencies and statistic of status among the respondents. In this research, the questionnaire answered by the Malay and Chinese only. This shows India and any race of women are not involved in the construction industry. But, only two Chinese women professional are involve in this industry. From the histogram, the status a standard deviation is 0.177

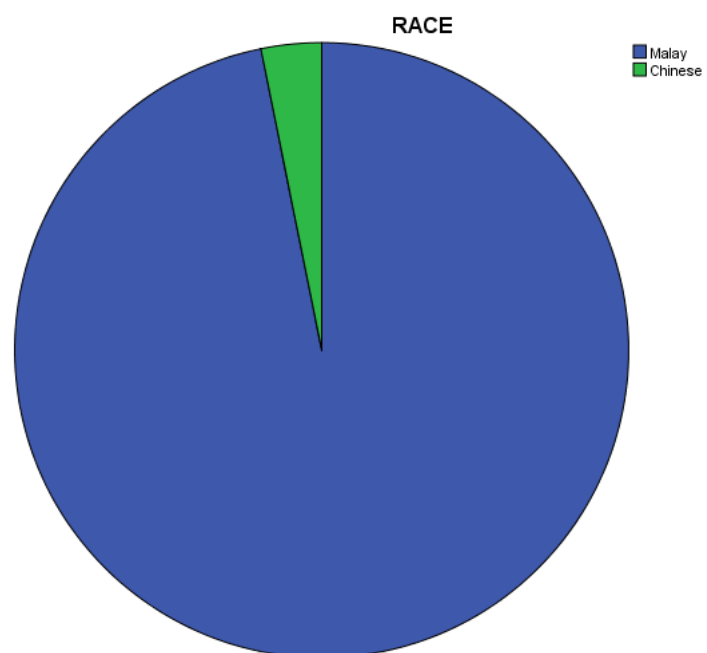


Figure 4.5: Race

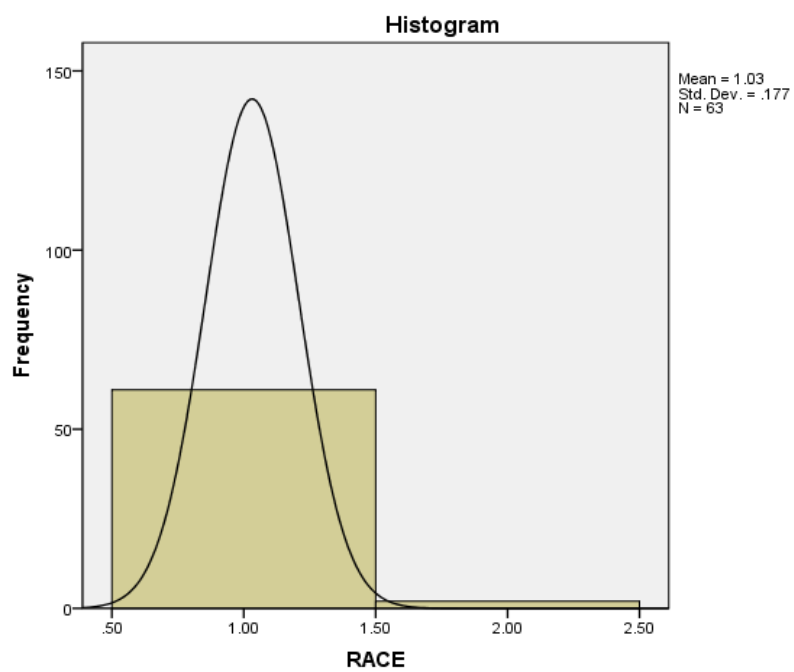


Figure 4.6: Race

4.2.4 POSITION IN COMPANY

N	Valid	63
	Missing	0
Mean		3.2540
Median		4.0000
Mode		4.00
Std. Deviation		1.04678

Table 4.7: Statistic of position in company

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid project manager	5	7.9	7.9	7.9
engineer	13	20.6	20.6	28.6
contractor	6	9.5	9.5	38.1
others	39	61.9	61.9	100.0
Total	63	100.0	100.0	

Table 4.8: Frequency and percentage of position in company

Table 4.7 and 4.8 shows the result for frequencies and statistic of position in company among the respondents. In this research, the questionnaire was distributed to the respondents from project manager, engineer, contractor, and other (professional workers). It can see that others professional workers are most respondents that involve in construction industry. Other than that, the standard deviation is 1.047. The total number of project manager that involve in this industry is 5 with a percentage of 7.9% followed by engineer, 13 respondents with 20.6%, contractor, 6 respondents with a percentage 9.5% and others workers 39 respondents with 61.9%.

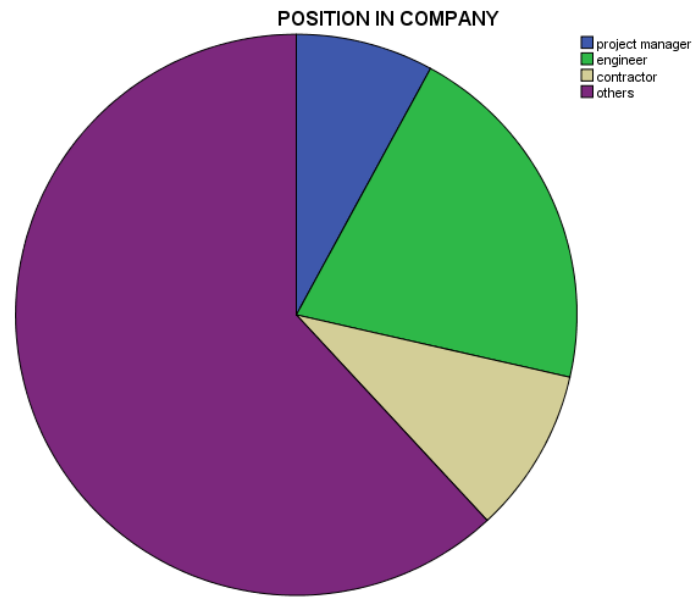


Figure 4.7: Position of company

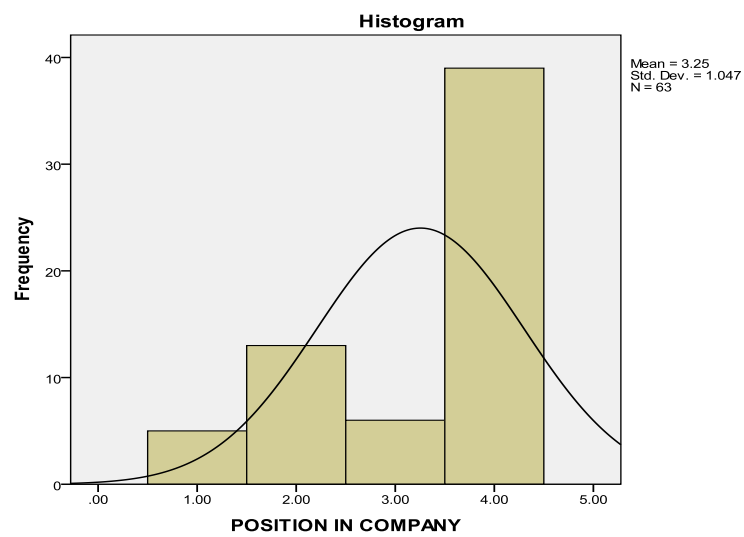


Figure 4.8 Position of company

4.2.5 EXPERIENCE IN CONSTRUCTION INDUSTRY

N	Valid	63
	Missing	0
Mean		1.9841
Median		2.0000
Mode		2.00
Std. Deviation		.95870

Table 4.9: Statistic of experience in construction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	under 5 years	23	36.5	36.5	36.5
	6-10 years	24	38.1	38.1	74.6
	11-15 years	10	15.9	15.9	90.5
	above 16 years	6	9.5	9.5	100.0
	Total	63	100.0	100.0	

Table 4.10: Frequency and percentage

Table 4.9 and 4.10 shows the result for frequencies and statistic for experience in construction industry. In this research, most of the respondents that have many experience from 6 to 10 years. The total number of respondent that have experience between 6 to 10 years is 24 respondents with 38.1% followed by respondent under 5 years is 23 respondents with 36.5%. Other than that, the total number of respondents between 11 to 15 years is 10 respondents with percentage 15.9% followed by the respondents that have experience 16 years and above is 6 respondents with 9.5%.

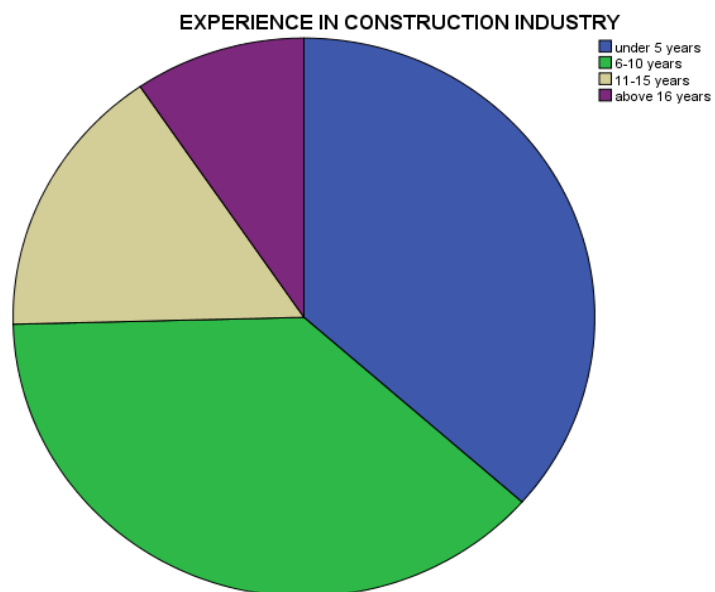


Figure 4.9: Experience in construction industry

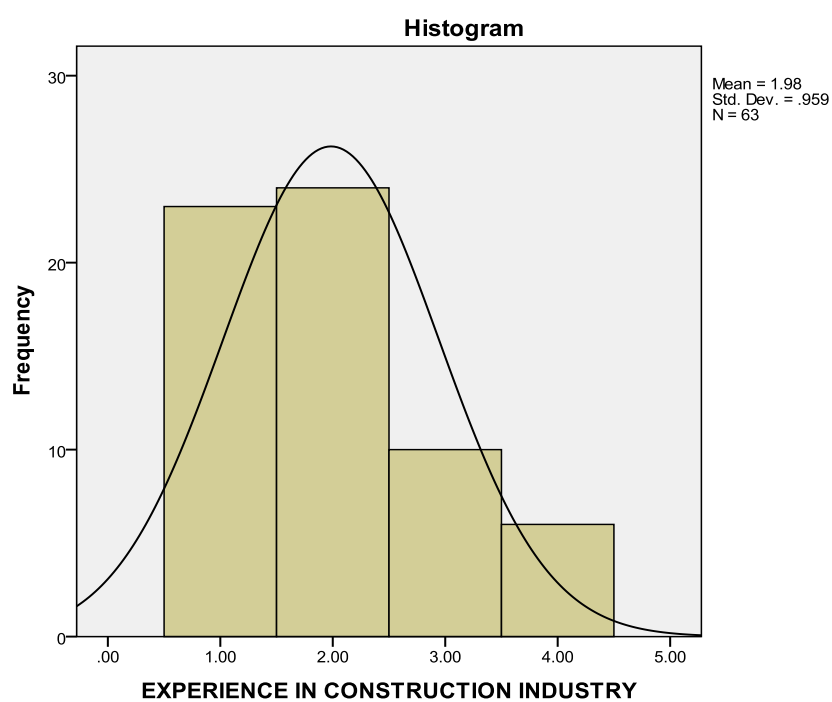


Figure 4.10: Experience in construction industry

4.3 RELIABILITY OF MEASUREMENT

Cronbach's Alpha is used to measure the internal consistency. It is commonly used when the questionnaire has the multiple Likert scale that is used to measure the people's attitudes about something. Generally, under 0.60, it is considered poor, 0.70 is accepted and 0.80 and above is good. According to (Ueno and Sekaran, 1992), the minimum acceptance of reliability coefficient level is 0.60.

From the analysis, the researcher gets the result for each variable in the range 0.610 until 0.773. In the table below, all the variables are accepted because they are greater than 0.60.

From the result, the highest Cronbach's Alpha is marital status with Cronbach's Alpha of 0.773, followed by stress with 0.762, work-life conflict and safety and health with 0.731, sexual harassment 0.722, glass ceiling 0.718, work environment 0.681, leadership 0.663, work-life balance 0.647 and the lower Cronbach's Alpha is reward with 0.610.

Variable	Cronbach's Alpha	No of Questions	Question No.	Cronbach's Alpha if item Deleted
Work-Life Balance	0.647	4	B1	0.512
			B2	0.520
			B3	0.455
			B4	0.751
Marital Status	0.773	3	B5	0.715
			B6	0.681
			B7	0.681
Work Environment	0.681	3	B8	0.438
			B9	0.678
			B10	0.627
Leadership	0.663	3	B11	0.615
			B12	0.601
			B13	0.462
Reward	0.610	3	B14	0.533
			B15	0.453
			B16	0.530
“Glass Ceiling”	0.718	4	C1	0.772
			C2	0.584
			C3	0.604
			C4	0.616
Sexual Harassment	0.722	3	C5	0.525
			C6	0.717
			C7	0.650
Stress	0.762	3	C8	0.650
			C9	0.759
			C10	0.630
Work-Life Conflict	0.731	3	C11	0.819
			C12	0.686
			C13	0.619
Safety and Health	0.731	3	C14	0.652
			C15	0.590
			C16	0.684

Table 4.11: Reliability and value of Cronbach's Alpha

4.4 t-TEST ANALYSIS

	N	Mean	Std. Deviation	Std. Error Mean
GLASSCEILING	63	2.6151	.50964	.06421
SEXUALHARASSMENT	63	2.6138	.60821	.07663
STRESS	63	2.5185	.55124	.06945
WORKFAMILYCONFLICT	63	2.4762	.56070	.07064
SAFETYANDHEALTH	63	2.5661	.55402	.06980

Table 4.12: One-Sample Statistics

Test Value = 2.5						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
GLASSCEILING	1.792	62	0.078	.11508	-.0133	.2434
SEXUAL HARASSMENT	1.485	62	0.143	.11376	-.0394	.2669
STRESS	.267	62	0.791	.01852	-.1203	.1573
WORKFAMILY CONFLICT	-.337	62	0.737	-.02381	-.1650	.1174
SAFETYAND HEALTH	.948	62	0.347	.06614	-.0734	.2057

Table of 4.13: One-Sample Test

The tables show that the t-test analysis, the researcher using the t-test analysis to determine the most challenges that faced by women in construction industry. The t-test analysis are use to compare the mean in each variables. The highest mean of glass ceiling is 2.6151, followed by sexual harassment is 2.6138, next, safety and health is 2.5661, stress is 2.5185 and the last challenges is work family conflict with 2.4762.

In the significant, the “glass ceiling” is 0.078. Means that, the sign value is statically and not significantly. It also same with sexual harassment with 0.143, the sign value is statically and not significantly. For the stress, 0.791 works family conflict 0.737, and safety and health, and significant is 0.347. All the significant is statically and not significantly because it more than 0.05.

Based on the result, researcher know the most challenges that faced by women in construction industry is glass ceiling. It often persecuted in many things in the office, for example promotion, women cannot to be in line or more with male workers. The less challenges that faced by women in construction is work-family conflict. It maybe because women in this industry can manage and spend their time in office and home.

4.5 FREQUENCY TEST

N		WORK- LIFE BALANCE	MARITAL STATUS	WORK ENVIRONMENT	LEADER SHIP	REWARD
		63	63	63	63	63
	Valid	63	63	63	63	63
	Missing	0	0	0	0	0
	Mean	3.0794	2.8201	3.2328	3.0847	3.2487
	Median	3.0000	3.0000	3.0000	3.0000	3.3333
	Mode	3.00	3.00	3.00	3.00	3.67
	Std. Deviation	.36152	.61296	.44655	.36890	.51140
	Variance	.131	.376	.199	.136	.262
	Range	1.75	2.33	1.33	1.67	2.00
	Minimum	2.25	1.67	2.67	2.33	2.00
	Maximum	4.00	4.00	4.00	4.00	4.00
Percentiles	25	3.0000	2.3333	3.0000	3.0000	2.6667
	50	3.0000	3.0000	3.0000	3.0000	3.3333
	75	3.2500	3.3333	3.6667	3.3333	3.6667

Table 4.14: Frequency Test

The table shows the frequency test that involves an independent factor which is work life balance, marital status, work environment, leadership and reward. The mean for work life balance is, 3.079, marital status 2.820, work environment 3.2328, leadership 3.085, and reward is 3.249.

The highest mean is reward factor. This is because, anyone in the organization especially woman, are interested and this is motivated them to performance well in the organization. While, the marital status is lower mean. This is because the perception of woman about their status is not a problem for them to involve in this industry.

4.6 SUMMARY

In this chapter, the researcher gets the finding and result by using the SPSS to analyze the data. The reliability in measurement is used to find the Cronbach's Alpha t – test analysis and frequency test to get the overall data.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

In this chapter, it can discussing about the finding and result that researcher get using the SPSS. The conclusion of the results will discuss, and also limitation of study before, during and after collects the data. Other than that, the recommendation for further research will suggest in this chapter.

5.2 CONCLUSIONS

As a conclusion, the women are person is capable to undertake any challenges that given, because of that, the involvement of women in any sector very encouraging. The involvement of women in construction industry is seen as something positive for the construction industry especially for the organization itself because women can show their skill, talent that before this only man can show their self. Therefore, the industry would produce professional workers and can help the organization achieve the goals. At the same time, many women can take this opportunity to involve in this industry. So, this study, aim to study the success factor of women in construction industry and to identify the challenges faced by women in construction industry.

For the first objective which is to study the success factor of women in construction industry, it can see the highest mean which is reward with 3.2487. This is because, reward is very important things and it encourages the woman to performance in organization. As we know, in the construction industry, the project is worth thousands,

even millions. So, it gives benefit to the woman and any person that handled and also to the whole organization.

For the objective two, to identify the challenges faced by women in construction industry. It also can see the highest mean in t-test analysis. The highest is “glass ceiling” which is the barrier to advancement in a profession with the highest mean, 2.6151. The “glass ceiling” was difficult to the woman because they cannot be in a higher position or equal level with men. There are those who are not satisfied if the woman is in a high position.

5.3 LIMITATION OF STUDY

There are some limitations of study that arise when running this research. First, the respondent not gives the full cooperation during collect the data. Most of them are not free and give the excuse when the research distributes the questionnaire. This is because, the respondent that comprised among the professional people like project manager, engineer, contractor and so on are very busy in their work. At the same time, it seems to bother them in the organization. But, after the researcher negotiation with respondent, they are agreeing to answer the questionnaire.

Besides than, the limitation of study is geographical disperse. In this study, the researcher only focuses in the Kota Bharu area. This is because involvement of women among the professionals is limited compared to other states likes Kuala Lumpur, Selangor and Johor. So, this led the researchers were unable to collect a lot of data from the respondent. Moreover, most of the women do not want to get involved in constructions industry than other industry.

Other than that, the limitation of study to the researcher is time constraint. The duration for doing this research was limited. It is because, the researcher only gets around 2 month to collect the data and analyze the data. The researcher don't have many time to complete all this because busy with another task.

5.4 RECOMMENDATIONS

Managerial Practices

There are some recommendations to the company especially in construction industry. As is well known the involvement of women in the construction industry is still new especially in the states that less carry out the construction likes scope of area, Kota Bharu. The management should be the opportunity for the women in the helm the organization. Besides that, the management should not underestimate the achievements of women only because in the past the construction industry is dominated by men. It is caused by a lack of trust that given by the management to appoint women same level with male workers. When open the career to women does not mean affect the chance of man, Men should not be afraid because the participation of women in public and private sector will be give the benefit to the country. Management should be more aware and encourage more women to come forward and contribute their talents and skills to economic growth, with taking steps to ensure pro-active women, who constitute half of the population of this country, given the status and recognition it deserves. With more open space and career opportunities men does not mean self-denial and affect the status quo of men. The presence of more women in careers in the public and private sectors will benefit the country and all parties. The presence of women will provide diversity in perspectives and the dynamism which is needed to enhance competition in the global economy. Gender equality does not mean women are taking over. It means that women and men work together to jointly develop themselves, their families, communities and countries.

Future Research

Due to the small population on the East Coast, especially in Kota Bharu, Kelantan, researcher are recommend to the next researcher to expand their scope of study, especially in Kuala Lumpur, Selangor and Johor. In this three states, many construction companies are famous in this area, for example, Muhibbah Engineering, Gamuda, MASS Rapid Transit Corporation Sdn Bhd (MRT Corp) and so on. This is because, the involvement of women in the construction industry in this area is very high. So, this

really helps researchers to complete their research and also can help researchers get a better result and finding with a clearly and broader.

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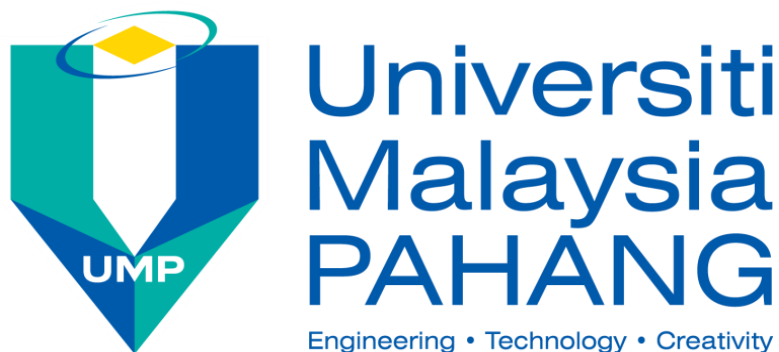
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APPENDICES



Questionnaire: A Study on the Success Factors of Women in Construction Industry in

Kota Bharu, Kelantan

The objectives for this study are:

1. To study the success factors of women in construction industry.
2. To identify the challenges faced by women in construction industry.

This questionnaire is confidential and will be used for academic purpose only.

Your cooperation is highly appreciated.

Researcher : Noor Amalina Binti Abdull Manaf

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amalieyna353535@gmail.com)

Section A : Demography

Please tick (✓) one answer for the following questions.

1. Age

() 21-30

() 31- 40

() 41 - 50

() > 50

2. Status

() Married

() Single

Others: _____

3. Race

() Malay

() Chinese

() Indian

Other:_____

4. Position in company

() Project manager

() Engineer

() Contractor

Others:_____

5. Experience in construction industry

() Under 5 years

() 6 – 10 years

() 11-15 years

() Above 16 years

Section B: The success factors of women in construction industry

Please tick (✓) your level of agreement or disagreement on the following statements.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Strongly Disagree	Disagree	Agree	Strongly Agree

Statement

1 2 3 4

Is your company having Work-Life Balance Program?

If yes, please answers sections B1. If not, please skip to B2

B1. Work – Life Balance				
a) My company provides a work-life balance program	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
b) I am comfortable with the amount of time I spent at work	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
c) I am satisfied in managing my work and life routine everyday	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
d) The work life balance policy must be applied by all organization	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>

B2. Marital Status				
a) Regardless of my marital status, I feel free to do any work at any time	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
b) There are no barriers or restrictions for me to make any decision in works	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
c) I can focus better at job because I do not have to need to think about my spouse	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>

B3. Work Environment

a) I enjoy and satisfy with the organization	1	2	3	4
b) A good work environment gives the good impact to my performance	1	2	3	4
c) I feel comfortable around the people and environment of my office	1	2	3	4

B4. Leadership

a) I am able to handle the critical situation	1	2	3	4
b) I am capable of making critical leadership decisions.	1	2	3	4
c) I feel brave to face office problems directly	1	2	3	4

B5. Reward

a) The remuneration that I get is reasonable with the job that I perform	1	2	3	4
b) Because I am a woman, the management pays more for me because I have potential based on my qualification and experience	1	2	3	4
c) Women are more motivated to compete against men in order to get rewards such as promotions	1	2	3	4

Section C: The challenges that faced by women in construction industry

Please tick (✓) your level of agreement or disagreement on the following statements.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Strongly Disagree	Disagree	Agree	Strongly Agree

Statement

1 2 3 4

C1. “Glass Ceiling” - Barrier to advancement in a profession				
a) Women are treated equally with men in organization	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
b) The management often compares men and women workers	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
c) Once a woman assumes a top management position, the powers of that position often get lose.	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
d) I feel persecuted especially in my job because I am a woman	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>

C2. Sexual Harassment				
a) Most female workers are prone to be harassed sexually in my company	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
b) I feel uncomfortable with someone who usually shows sexual signals	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
c) My male co-workers produce non-verbal sex cues (e.g. looking someone up and down in a sexual way)	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>

C3. Stress				
a) I feel difficult to get along with male coworkers in handling a job where there is under-utilization of skills, and physical constraints.	1	2	3	4
b) The female workers usually have a poor relationship with higher management	1	2	3	4
c) Women have a great pressure to work hard to prove themselves in the workplace	1	2	3	4

C4. Work-Family Conflict				
a) A lot of work can disturb family life (e.g. quarrel at home)	1	2	3	4
b) My relationship with my spouse suffers because of my work.	1	2	3	4
c) Women are always perceived as being more emotional and family-oriented than work-oriented	1	2	3	4

C5. Safety and Health				
a) I am suffering from some illness or injury during working which affect my reproductive system or fetuses.	1	2	3	4
b) I am easily exposed to the danger, such as working at height because my physical weak than men.	1	2	3	4
c) I am vulnerable to injury because of mismatches of equipment such as safety shoes, safety goggles, hard hats that are too big for women.	1	2	3	4

End of questionnaire. Thank you

