Women-Men Dichotomy in the Construction Industry of Region 1

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Abstract

The study attempted to unveil the extent of male domination in the construction industry of Region I. Two classifications of the population were identified; namely, those directly employed and those indirectly employed in the construction industry . On the overall, the findings show that for those directly employed, 12.53% are women civil engineers/architects, 13% are women designers, 36% are women suppliers, and 41% are women managers of construction-related industries. As to their profile, 89% are married, 50.90% are more than 50 years old, most have more than five children, 83% are college graduates, and 69% are more than 10 years already in the business.

For those indirectly employed by the construction industry, 18% are women, 73% are less than 30 years old, 68% are still single, most merely finished high school, and about half of their population have served for 6-10 years already.

The study concluded that those directly employed are older, have higher educational attainment, have served the industry longer, and are mostly married, and with an average of five children. Those indirectly employed are younger, with lower educational attainment, mostly single and with lesser number of years in the industry. On the overall, 18% of the total support group (those indirectly employed) of the industry are women.

In summary, the construction industry of Region I is 18% women, 82% men.

It is, therefore, recommended that the present women organizations already mandated by law (NWCRF, UCS) which are support mechanisms to women should evaluate if male-dominated organizations like the construction industry are adopting programs to attend to the cause of the few women in the organization. All organizations should strive to attain a gender-fair society.

Introduction

Background of the Study

The Gender and Development Act, otherwise known as RA 7192, provides for the recognition of the rights and privileges of women in nation-building. History proves that there were already women who have excelled in their various fields and showed courage and detennination to promote the welfare of humanity. These noted events (in *her story*, to give due respect for women in history) were the premises of the law to recognize that women are men's partners in development. Even before this advocacy for their cause started, women have proven their worth in relation to what men can, and even surpassing male capabilities in some exceptional occasions.

The Construction Industry is composed of several parties: a) those who initiate any infrastructure undertaking (Owners), b) those who lay down the technical drawings and specifications which will define the project properties (Designers being personified by Engineers or Architects), c) those who are licensed to construct what has been conceptualized by owners and designers (Contractors), d) those who supply the needed resources for the material, labor and equipment requirements of infrastructure projects (Suppliers), and e) those who are involved in the regulation and proper implementation of existing local or national ordinances to attain public safety during the construction period and even after project turnover. However, this research delimited its population. It only tried to look into the status of women directly and indirectly employed in the construction industry. Those directly employed are the women engaged as structural and architectural designers (category b), as contractors (category c), and suppliers (category d) as presented earlier. The indirectly employed are those who serve as staff of contractors and suppliers, either in the form of salesladies, accountants, bookkeepers or utility women. There are about 487 technical personnel being employed as designers, 973 are registered contractors, and 819 are suppliers throughout the region. A total of 2,279 comprise the population of those directly employed in the industry. The population of those indirectly employed was not surveyed, but could be roughly estimated basing from the average number of personnel hired per contractor and supplier. For contractors, the average number of office staff is three (3), with at least one lady, setting aside the skilled workers which may range from 15-20 individuals. Suppliers maintain about five to seven staff, with at least 1-3 lady staff, depending upon the size of the lumber or hardware.

It has been a general expectation that the construction industry is a male-dominated sector of the economy. Yet women keep on penetrating every posslbl% venue for employment because of their natural tendency for a strong sense ~ character and initiative. In support to the advocacy for a gender-fair society, there is a need to establish a women data bank in this male-dominated industry to unveil

other amazing facts that women could do, and to really see how masculine this industry really is.

This region–wide census would provide an enrichment to the advocates' existing database about comparative information on women, by province in Region I. Furthermore, this study could initiate the conduct of succeeding related researches to provide gender-related activities that would fully realize the ultimate goal of RA 7192.

Objectives

Specifically, this research work sought answers to the following questions:

1. How many of the technical professionals (category b) directly and basically involved in the construction industry of Region 1 are women?
2. How many among the contractors and suppliers (categories c and d) are women?
3. How many of those indirectly involved in the construction industry are women?
4. What is the status of the women in the Construction Industry, by group, in terms of age, civil status, number of children, educational attainment, and number of years with work?

Review of Related Literature and Studies

According to the US Department of Labor, wonien comprise almost 25% of the labor force in the building trades, and own 26% of all non-farming businesses, with both figures expected to rise throughout the coming decade (http://www.womeninconstruction org/downloads.php -)

An Indian study of four women, in their report entitled "Shramshakti", the National Commission appointed by the Government of India on Self-Employed Women and Women in the Informal Sector noted that all poor women share some important characteristics. These can be summed up as "fewer and poorer opportunities to work; greater impact of unemployment, under-employment, and casual nature of work; greater vulnerability because of lack of skills and education, lesser mobility, heavy responsibilities; a system of social practice of underrating women's work; and lack of access to better technologies, tools and productive assets. Among informal sector workers, women doing construction work are some of the worst victims of such discrimination and deprivation.

The study also found out in their survey of the increasing participation of women in the construction business. In 1978, *52.38%* of the construction workers in India were women. In 1983, the number of women increased to 53.45%, and in 1988, the number of women rose to 63.79%.

Construction work is available on a wide range of projects such as dams, canals, bridges, buildings, docks, roads, railway tracks, etc. Whether in the private sector or public sector, construction work is executed through contracts, sub-contracts, and labor contracts.

Arduous "Unskilled Work"

Working on construction sites is an arduous task. Unlike other industries where women are employed in semi-skilled or sometimes even in skilled jobs, in the building industry they are employed only as unskilled laborers. The job of an unskilled worker is more strenuous in the construction industry than in other manufacturing industries.

Women carry earth, bricks, mortar, water and sand; they also break stones. In masonry, they supply the materials to the masons so that they can work with optimum efficiency. In concreting, women and men form human conveyor belts. In all these, carrying a dozen bricks and climbing ladders or walking on a bed of rods with a mortar on the head and with no support requires skill and stamina, but the women's work is termed as "unskilled" and the women are given the lowest rate of wages in construction.

Discrimination in **Wages**

As casual workers, women not only face insecurity of work but also are paid wages lower than those paid to male laborers doing the same work. Although there are some divisions of work between male and female unskilled workers, it is not possible to grade different tasks as more or less demanding in order to differentiate wages. Usually a man and a woman work as a pair. Men dig the earth, women carry it away in pans on their heads. Men mix the concrete, women carry it to where it is used. Women also carry bricks, stones, or sand. It is not that women are exclusively employed for carrying head loads; men and children are also engaged in carrying building materials. This involves lifting a heavy load and carrying it in pans on their heads up ladders or scaffoldings. This work is equally or in some cases more arduous than some of the tasks men do. And yet, women are discriminated against in the payment of wages. Although wages are not uniform across the country, the all India average urban earnings received by male casual wage laborers in the construction sector was Rs. 19.41 per day in 1987-88 while those for women were Rs. 11.87 per day. This means that women received only

61.2% of what male workers did. Such wage differentials have been recorded by several studies. A survey was conducted in 1983-1984 to 40 public sector projects in different parts of India (11 multi-purpose projects, 9 power projects, and 20 irrigation projects). The survey found that women laborers were paid 8 to 17% lower wages as compared with those paid to men.

These projects together employed 57,772 workers of whom 15,952 (27.6%) were women. Incidentally, in the long list of different categories of workers employed, women appeared only as helpers and unskilled laborers. Another study notes, "Until 1969, the daily wage rate for women unskilled workers used to be lower than that of men unskilled workers. In 1969, this objectionable wage rate distinction was abolished. According to a Delhi Administration notification in 1974, the minimum wage rate for unskilled worker was fixed at Rs. 5.15 per day. However, during the survey, it was found that it was not applicable in the case of women workers who were being paid only at the rate of 4.50 per day. In spite of the fixing of the minimum wage to be paid to workers without making a distinction between men and women, the discrimination against women continued while men got the prescribed minimum wage.

Research Methodology

Research Design. This study made use of the descriptive style of research. It presented the total picture of women in the construction industry in Region 1 according to the different aspects of the study as enumerated earlier.

Data Gathering Technique. In order to elicit the real picture of the subjects under study, a combination of the questionnaire and structured interview methods of data gathering as well as documentation were conducted. The technically-inclined agencies in the region were interviewed; regional, provincial and municipal offices as well as selected construction firms, construction suppliers, lumber and hardware stores - and professional organizations like the Philippine Institute of Civil Engineers (PICE) and the United Architects of the Philippines UAP).

Population and Sampling. Out of the five components which constitute the construction industry, this study tried to look into three groups; namely, designers, contractors, and suppliers. The Slavin Formula ($n = N/(1+Ne^2)$, where n = the number of samples, N = total population, and e = 0.05, was used to determine the sample population from the total identified population within the category. Table 1 provides the breakdown of the segmental population comprising the study.

Table 1. Breakdown of the population, by category

Category	Population		Number of Respondents
1. Directly employed in the Construction Industry			
a. Designers	**Total**	**No. of Women**	**No, of Samples, n**
Ilocos Sur	106	4	2
Ilocos Norte	63	9	4
La Union	63	10	5
Pangasinan	255	40	**18**
Sub-total	487	63	29
B Contractors			
Ilocos Sur	101	10	5
Ilocos Norte	214	39	17
La Union	177	24	11
Pangasinan	481	62	**28**
Sub-total	973	135	61
c. Suppliers			
Ilocos Sur	49	14	6
Ilocos Norte	99	34	15
La Union	102	40	**18**
Pangasinan	569	209	93
Sub-total	819	297	132
Total, Category 1		495	222
2. Indirectly Employed in the Construction Industry-Support Staff of b) and c)			
Province	**Total**	**No. of Women**	**No. of Samples, n**
Ilocos Sur	150	27	**15**
Ilocos Norte	313	57	31
La Union	279	51	**28**
Pangasinan	1050	192	106
Total, Category 2	1792	327	180
Grand Total		657	402

Statistical Tools. This research made use of simple statistical tools - percentage in comparing the number of women with the total population within a certain category and frequency to determine actual head count.

Operational Definition of Terms

To enhance the understanding of the reader, the following tenns are defined as they are being used in this study.

Construction Industry. This **is a** business sector in the Philippine economy dedicated to the putting up of infrastructure projects needed to house commercial transactions. It covers three groups of business-oriented individuals; namely, project owners/initiators, designers, suppliers, and contractors.

Project Owners/Initiators are those who take the first moves in putting up infrastructure projects by employing the necessary people to do the planning and implementation to realize the infrastructure project.

Designer is a technical personnel licensed to make plans and specifications for project owners.

Contractor. This refers to a business-oriented person who is licensed to enter into contract with an individual or entity to put up infrastructure projects which he/she competed for as the lowest responsive proponent in a public bidding.

Supplier is an individual who delivers construction materials and appurtenances to contractors or project owners.

Directly-employed in the Construction Industry. This refers to a type of business-oriented individuals in the construction industry who are directly hired by project owners/initiators to render their needed specialized services as designer, supplier or contractor.

Indirectly-Employed in **the Construction Industry.** These are individuals who are hired by contractors or suppliers to provide assistance to their respective businesses.

Gender. The biological construct which defines the differences between men and women. It further refers to the differentiated social roles, behaviors, capacities, and intellectual, emotional and social characteristics attributed by a given culture to women and men. (Eleanor R. Dionisio, NCRFW-1997).

Status. It refers to several perspectives which could be the following: a) rank-the relative position or standing of somebody or something in a society or other groups; b) prestige - high rank or standing, especially in a community, work force, or organization, c) condition - a condition that is subject to change; and d) law-somebody's standing in terms of the law.

Gender **Fair** Society. A community situation which pertains to avoiding references to masculinity and femininity and their cultural associations and not favoring either **sex**.

Results and Discussion

After each data has been carefully gathered, the questions raised earlier are now being answered to gradually realize the objectives of this study.

Among the 1,050 construction-related industries registered in Region I, 41% have women proprietors/managers.

Throughout Region I, there are 3, 344 registered civil engineers/architects, 12.53% of which are women. Table 2 shows the breakdown of the technical professionals and the percentage of technical women over men by province.

Table 2. Breakdown of technical professionals, by province

Province	Technical Professionals						Total		
	PICE			UAP					
	Total	No. of Women	% of Women CE by Prov	Total	No. of Women	% of Women Archt by Prov	Total	**Na. of Women**	%of Women
Ilocos Sur	535	51	9.53	37	11	29.73	575	62	10.78
Ilocos Norte	536	84	15.67	48	8	16.67	584	92	15.75
La Union	567	95	16.75	75	5	6.67	642	100	15.58
Pangasinan	1277	155	12.14	269	10	3.72	1546	165	10.67
Total	2915	385	13.21	429	34	7.93	3344	419	12.53

"Source: PICE records
+Source: UAP records

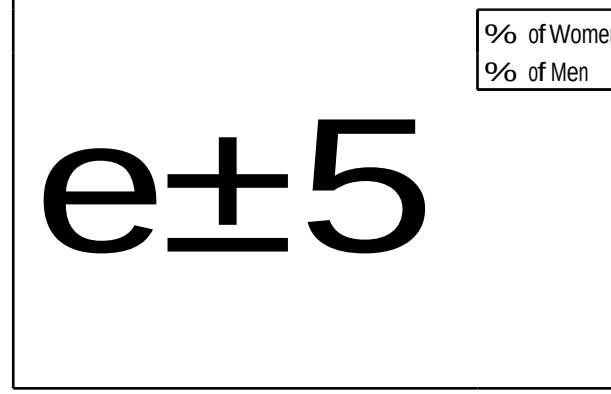
Taken by province, Ilocos Sur and Pangasinan have almost the same percentage of technical women with 11%, while Ilocos Norte and La Union have almost the same, at 16%.

At a regional perspective, 1/8 of the total of technical professional population are women; 7/8 are men. Figure 2 presents the overall picture of this dichotomy.

The survey conducted looked into several parameters of: **a) age,** b) civil status, c) number of children, d) educational attainment, and e) number of years with work.

The following statistics were revealed:

Fig. 1. The Comparative Population Between Women and Men Technical Professional in Region 1



A. Those Directly Employed in the Construction Industry

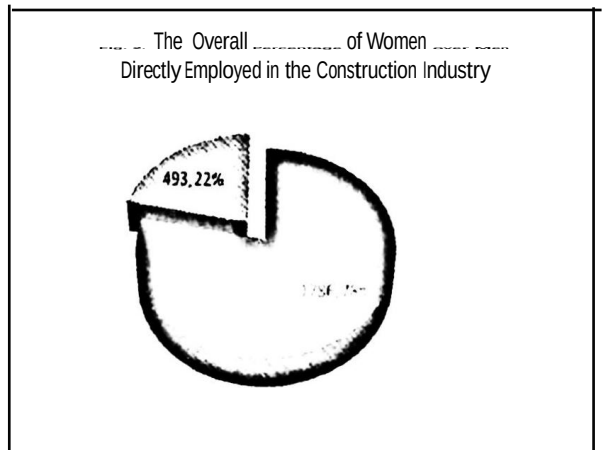
a. Among the 1,050 construction-related industries registered, 431 or 41% have women proprietors/managers.
b. There are 3,344 registered civil engineers/architects, of which 419 or 12.53% are women.
c. Among the 487 registered designers, 63 {13%) are women.
d. 13.87% (135) contractors are women.
e. Among the 819 construction suppliers, 295 or 36% are women.
f. As to age, 104 out of 222 (50.90%) of those directly employed in the construction industry are more than 50 years old.
g. As to civil status, most of them (197 or 89%) are married.
h. As to the number of children, 104 out of 204 have more than five children.
i. As to educational attainment, majority (185 or 83%) are college graduates, and the rest have either finished their master's degrees or still pursuing such.
j. Majority of the women (153 or 69%) are already more than 10 years in the business.

By province, the following are worth considering:

a. In all population categories such as designers, contractors and suppliers, Pangasinan had the most.
b. In all provinces, there were no women designers younger than 30 years old.

c. In llocos Sur, Ilocos Norte, and La Union, most of the women respondents have less than three children, while in Pangasinan, most of the women designers have more than five children.

Figure 2 describes the extent of direct women participation in the construction industry of Region I.



B. Those Indirectly Employed in the Construction Industry

At a Regional Perspective:

a. Among the 1,197 population, 327 (18%) are women.
b. Majority (131 or 73%) of the respondents are less than 30 years old, and only a few are between.41-50 while nobody is older than 50 years old.
c. Majority (123 or 68%) of the respondents are single.
d. As to the number of children, the range of population based on the parameters used had almost similar frequencies; denoting almost the same distribution.
e. Majority (105 out of 180) of the women respondents merely finished high school, only 68 finished college and seven finished elementary.
f. About half (89 out of 180) of the population have served for 6-10 years.
g Most (132) of the respondents are hired salesladies.

By province, the following were noted:

a. All the provinces revealed that most of the population are below 30 years old.
b. The women respondents in all the provinces are single.
c. Among the married women respondents, more (5 out of 9) had less than five children in Ilocos Norte, 13 out of 5 in Ilocos Sur and 4 out of 11 in La Union while majority in Pangasinan (9 out of 21) had more than five children.

Conclusions

In the light of the above-stated findings, the following conclusions are drawn:

1. The women directly employed by the construction industry (as designers, contractors and suppliers), are mostly between 41 to 50 years old, married, had more than five children, baccalaureate degree holders, and highly experienced having served for more than 10 years in the business already.
2. The respondents hired by the contractors and suppliers are mostly single, less than 30 years old, high school graduates and have served from six to ten years.
3. About one-fifth of the region's structural and architectural designers, contractors, and designers are women. The tough job of planning, managing, and implementing construction projects are now assumed by women. This denotes a high level of success for women to penetrate this highly dominated industry.
4. The construction industry support from other segments of the labor force is 18% women (those hired by the contractors and suppliers).
5. In terms of population, the construction industry of Region 1 is 18% women, 82% men.

Recommendations

In view of the above conclusions, the researcher recommends that a study should be conducted to investigate the conditions of women in male-dominated industries like the construction industry particularly the wage policies adopted, promotion scheme, number of hours rendered by both sexes, as well the perfonnance rating of the women employees compared with men. Presently, there are non-government organizations and national movements established to attend to the cause of women. There are also offices mandated to attend to women, like the NCRFW and UCWS. There are also women's desks established in various government offices like those in the Philippine National Police and Department of Social Welfare and Development. However, there are still other sectors in the Philippine industry which have no separate programs to help resolve issues on women, leaving them unattended. Male-dominated industries should adopt their own programs which are women-friendly so that the condition of women would be comfortable. This way, RA 7192 would continuously flourish to improve women's welfare. A gender-fair society should be the thrust of all organizations.

References

RA 7192 Gender and Development Act.

Philippines Institute of Civil Engineers Records

United Architects of the Philippines Records

http://www.womeninconstruction.org/downloads.php.

Dionisio E. R., 1997. National Commission on the Role of Filipino Women.