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Abstract

This study tried to look into the intricate relationship between work, gender, health and technology in the micro-organizations and in the context of a globalized economy. The study also showed that technology has intensified work as evident in the results of focus group discussions. The need to cope with the pace of the machines was implicated in the experience and perception of health among workers. The new work arrangements, organizational structure and new technological applications were seen in the study to produce new hazards and new illnesses. The characteristics now of the new workplace are: information technology intensive work, fast pace of work, the need for upskilling, burnout, chronic sleep debt, superspeed communications, new forms of illnesses that could not be differentiated such as new cancers and allergies, ergonomic problems, information overload, coexistence of old and new exposures and risks, epidemic of persistent fatigue, and chronic illnesses. This is based on the 21 focus group discussions among women, and a survey questionnaire of 630 women from a list of 23 establishments in the electronics and garment industries in export zones. The study has shown that with the growing internationalization of work and economies of nation states women's labour and global capital have an impact on gender and class dynamics at work, workplace construction of femininities and masculinities, and social production of ill-ness in technology driven industries.

Keywords: Women Workers, Export Zones, Information technology, Globalized Economy

Introduction

The Philippines is now a site for many multinational corporations whose companies are situated in economic zones. Economic zones are special social and economic enclaves to attract foreign investors by giving them 100 per cent ownership; no duties, taxes or license fees on imports to the zone; the privilege to borrow from Philippine banks; no taxes on exports; no minimum investment requirement; unrestricted repatriation of capital and profits; freedom to sell 30 per cent of the annual output of the EPZ firms in the local market (a means to avoid quota on imports). The export zones are also not required to comply with increase in wages, and other benefits when they lack the capacity to do so. They are given special provisions otherwise unseen in regular industrial establishments outside the zones. by giving them tax exemptions.

In the Philippines, export processing zones date back to the 1970s as an economic strategy of the Marcos regime, then shelved by the Aquino administration, revived by Ramos and continued by Macapagal-Arroyo administration. Today, there are four regular or government-run and operated zones in Bataan, Baguio, Cavite and Mactan; and a total of less than 41 special ecozones (Rowbotham,et.al. 1994: 76-86; NCRFW/ADB, 1995). During the Marcos era, some decrees were implemented to facilitate multinational investment in the

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country. EPZs also prefer female employment as shown below (latest sex segregated data, Table 1):

Table 1 Workforce Composition in Export Processing Zones *

Gender, June 1995

Zone Area	Male		Female		Total	
	No.	%	No.	%	No.	%
Bataan*	4,921.00	30.0	13,334.00	70.0	18,255.00	100.00
Baguio	954.00	29.7	2,242.00	69.8	3,196.00	100.00
Mactan	7,576.00	27.0	20,200.00	73.0	27,776.00	100.00
Cavite	10,836.00	27.0	29,508.00	73.0	40,344.00	100.00
Total	24,287.00	28.6%	65,285.00	71.45	89,571.00	100.00

Source: PEZA. Data for Bataan are for April 1995, since June 1995 data are not sex-aggregated. As of June 1995, total workforce in this zone numbered 18,787.

(Source: Aganon, Ofreneo, 1998:110)

Sex segregated data on labor employment had not been continued after 1995 since it has become allegedly a source of contention for feminist protest.

This research study focused on women in the export zones. It looked into their work and health conditions as a response to the demands of work brought about by globalization. This study can be one of the local data to show how globalized economy has affected women workers. The study included women workers in the garments and electronics industries since these industries have accommodated information technology in their work processes in order to be competitive globally.

The establishment of export processing zones (EPZs) is seen as a subregional response to globalization. Transnational companies that forge merges and strategic alliances are major employers in export zones. In this economic enclave, economic activities are coordinated so as to produce globally competitive commodities. The activities are microregional and cross border strategies for zonal development across the globe. Export zones have been created to cope with the demands of globalization in subregional areas, or to take advantage of investment incentives offered by host Taiwan, Brazil, the Philippines and India in the late 1960s (Crane 1990:8-9; Mittelman,2000:156).

The convergence of global capital, information technology and women's labor is seen in export zones. In the Philippines, EPZs employ more than half a million Filipinos in which majority.are women (representing 75-90% of the labour force). Women are preferred over males since feminine characteristics are perceived by management to fit the requirements of globally defined productivity. Women are docile, thus, less attracted to labor organizing. Women are ambidextrous whose hands and fingers are needed for nimble and detailed work in minute electronic parts. Women are attuned to repetitive tasks characteristic of electronic and garment tasks. Women have flexible time and as such, can be called in any time for work. Women also do not resist overtime work. Generally, women are increasingly taking up work outside the home and make up one-third of the world's labor force, but occupy less than 6% of top management positions. They earn one-half to three quarters of men's wages, and they are generally often not qualified for maternity benefits, health insurance and other benefits. Women also work overwhelmingly in part time jobs, a nod to the last ones hired and first ones fired (Held and Mcgrew, 2000).

Information technology plays an important role now in the production process and the relations between supervisors and workers, and among workers themselves. Information technology comes in the form of microelectronic based equipment, numerically controlled machine tools, computer-aided designs, robotics and programmable controllers have all changed the nature of task, organizational set-up and work conditions of the workers. The use of microelectronic devices in modern machinery has been widely adopted in the various phases of production. The so called "modern" industries like semiconductor and electronics as well as the "traditional" ones like garments and textiles are now faced with new work processes and new forms of work organization as a consequence of these new information technological inputs into work systems. Microelectronics-based equipment,. In the textile industry for instance, the use of circular automatic looms in knitting has necessitated special training for the blue-collar workers (Brady, T., 1989; Acero, 1995). The use of microelectronic control devices has also facilitated the adoption of new forms of management and work organization, such as "semi-autonomous groups", "quality control circles" and "just in time production" (Acero, 1995).

The introduction of information technology in developing countries has also influenced the composition of gender employment and the pattern of female employment. It explains the demand-pull for female labor who are seen to be better at this work (Mitter S., 1995: 94). In the Philippines for instance, women dominate the labour force in export processing zones at 75-90% compared to males (BWC, 1999).

Methodology

This was a cross-sectional study. The sampling frame was taken from a list of 23 establishments in the electronics and garment industries in export zones in Cavite and Laguna. Using the sampling size estimation with level of significance at 90%, the alpha was set at 0.10, and the corresponding sampling size chosen was 630 respondents. The labour force profile of industries in export zones consists of 75-90% women and only 10-25% men. This suits the target population of the study consisting of women workers in electronics and garments industries. This is also related to the objective of the study which is to look into the work and work organization in industries which have accommodated information technology (IT) in their work processes as they impact on the health of the women workers.

There were a total of 21 focus group discussions with workers and supervisors. Focus-Group discussions looked into the perception and experiences of workers on their work and work organization as well as their health. This probed into deeper issues which the questionnaire was not be able to capture. Focus group discussion was done as this holds many advantages as a method of gathering qualitative data. Basch in 1993 noted that group interviews provide a valuable tool for understanding health behaviors and gaining insights into how people think and learn about their health situations. It is also an inexpensive and effective means of interviewing people at the same time. For very sensitive issues, selected interviews were done as this allowed the researcher to capture the "lived experiences" of the women.

The organizational factors were operationalized in this study using the following parameters: nature of task, content of job, hazard exposures, nature of supervision and management styles and job autonomy. Health, on the other hand was taken from the self-assessment of the workers. Health information was taken from the self-assessment of the health status of the workers.

Observation

There were a total of 23 industries taken from the list of semiconductor and garment industries located in Laguna and Cavite export zones. The samples were selected through stratified random sampling. Based on a proportionate sampling, there were a total of 13 electronics industries and 10 garments. For the industry sizes, five small industries, five medium-scale, and13 large-scale industries. The classification is based on the existing DOLE category: small industries are those employing less than 100 workers, medium scale are those employing 100-199 workers and large scale employing 200 and more workers.

For the survey questionnaire given to the women workers, there was a total of 630 respondents whose mean age was 27 years old and most were 24 years old (mode) showing a relatively young and active population. The study consisted mainly of female workers (100%). Majority were single (64.4%) while only 32.1% were married. Forty and nine tenths (40.9%) had a salary range of 6001 to 8000 pesos per month. However, there were 4.92% of the respondents who received only a measly amount of at most P4,000.00. The new technologies and computer-aided facilities used by the sample industries in this study were: computerized decision support systems, computer information systems; computer aided design (CAD), computer aided manufacturing (CAM), computer integrated manufacturing (CIM), computer numerically controlled machining (CNC), mechanized product systems such as conveyor belts or workstations, and robotics.

On the content of the job (Table 2), the women workers reported that the work requires many skills (93.5%), much concentration (82.7%), and that strict visual inspection (59.5%). This again is characteristic of work in electronics and garment factories where information technology has been incorporated and used in the production process.

Table 2: Distribution of women workers by content of job in the workplace

Content of the Job	Number	Percentage
Work requires much knowledge and skills	589	93.5
Works require strict visual inspection	375	59.5
Work requires heavy physical load	170	27.0
Work requires awkward position while working	132	21.0
Work require severe concentration	521	82.7

For hazard exposures, the Figure below shows that workers are exposed to o heat (58.7%), followed by intoxicating odor (43%), noise (33.2%), cold temperature (30.2%) and standing for long hours (25.1%). The work processes in both electronics and garment industries emit these hazardous elements. The very nature of the technology and the process necessitates the emission of these hazards.

Accidents are a common sight in factories (Table 3). The women respondents reported the following accidents in the workplace for the past one-year: eye infection due to dust (either particulate matter or chemical dust) and wounds due to sharp objects. The more severe forms of accidents also abound like falling (14%), electrical accidents (6.3%) and being caught in the machine (17.3%). The latter is the most common form of amputation of any body part especially of the fingers and hands in the workplace.

Table 3: Distribution of women workers by accidents reported

Accidents in the Workplace	Frequency	Percent of the total population
Fainting	50	7.9
Eye infection due to dust	282	44.8
Dust inhalation	196	31.1
Wounds due to sharp objects	275	43.7
Falling accidents	88	14.0
Electrical accidents	40	6.3
Getting caught in the machine parts	109	17.3
Chemical spills	78	12.3
Burns	44	7.0

For illnesses and health problems (Table 4), the most prevalent were headache, coughs and colds. The more work-specific health problems included body aches, eye problems and skin allergy which were reported at 18.7%. This may be due to the handling of chemical irritants like acids and alkalis commonly used both in electronic and garment production. There were 9 abortions and 4 amputations at 1.4% and 0.6%, which is higher than the target of OSHA. Hearing problems is also high with 56 cases and this may be due to high noise levels in the workplace.

Table 4: Distribution of women workers by illnesses reported

Illnesses	Total	Percent of the Total
		%
Headache	483	76.7
Cough and colds	437	69.4
Vaginal infection	31	4.9
UTI	202	32.1
Eye problems	230	36.5
Skin allergy	118	18.7
Cancer	5	0.8
Anemia	23	3.7
Wounds	104	16.5
Amputated	4	0.6
Body ache	463	73.5
Abortion	9	1.4
Hearing problems	56	8.9

Chi-Square Differentiating Male and Female Supervisors

The odds of males, participating in bench marking is 3.11 (211%) more likely compared to female. This means that men tend to partake more in bench marking compared

to female. Based on the odds ratio, the odds of male supervisor's job description as IT literate is 3.43 compared to female. Thus, male supervisors are more IT- based compared to female. Given that the odds ratio in the use of computer aided designs, it shows that females tend to use CAD more likely than male. On the other hand, male supervisors tend to use robotics more likely than female. The odds of female experiencing headaches are 6.75 times compared to males. This means that female supervisors experience headaches more compared to their male counterparts (Table 5).

Table 5. Chi-Square of Gender vs. Some Work Factors

Factors	P-value	Odds Ratio*
Computer Aided Designs	.001 **	18.0
Robotics	.066 S	.2915
Information Technology Literate	.056 *	3.43
Headaches (Females-Yes)	.006 **	6.75

*Significant at 5% level of significance
** Significant at 1% level of significance
S Significant at 10% level of significance

Focus Group Discussion

The FGD, on the other hand, consisted mainly of women workers and female supervisors. They were selected to represent various workstations from the various industries. A total of 7- 10 workers and supervisors were taken in each of the 21 focus group discussions. The sampling frame was still taken from the list of respondents in the questionnaire. Questions were framed to probe deeper into the answers they have for the questionnaires given them earlier. The results of the FGD are shown below:

Work Conditions of Women Workers:

Focus group discussion was used to validate the findings of the survey, and to get a deeper insight into the women's working lives.

A group of women in three garment industries said that they have been affected tremendously by the economic crisis that has hit the industry for almost five years now. The women said:

> "*During times of high quota requirements, we are called in, and then temporarily terminated from work when there is absence or minimal demand of our labour. We have been in and out of work depending on the quota requirements of our buyers, and in between times of no work, it would be difficult to find another job." (translated from local dialect)*

Apprenticeship, which is another form of work accommodation to make cost of production minimum, is commonly practiced in the garment sector too. Apprenticeship is a form of contingent employment where trainees are accommodated in the industry for a maximum of five months to work with only 75% of the minimum wage with no social security and other benefits. Apprenticeship is supposed to train new graduates to acquire the necessary skills needed for a particular task prior to embarking on a more permanent and tenured job. But the women said, "We have been apprenticed in several companies over a

long period of time already." In the electronic industries, all women were paid by daily wage. But they usually have to work overtime, which was conceived by them as "forced overtime". Overtime work is a prerogative of management, not the voluntary decision of the women laborers. There is no practice of apprenticeship in the electronics industry. The women did not complain about their wages. They were very concerned however about their work conditions. The women said:

> *"We work overtime extending an additional four hours over and above the regular eight working hours, notwithstanding the fact that overtime work is a prerogative of management, not of workers. This work scheme is acceptable to us as it augments our measly income. This attempt to increase our income is defeated in the end when management passes on the cost of rejects and poor quality products and damages to the workers. With the present wage scheme, we receive P160.00 as the minimum, and as high as P600 per day as the maximum of per piece rate. We can thinly make ends meet." (translated from local dialect)*

Higher wages are dependent on the quota requirements of the company, and not just their skills in sewing. The main concern of the women is wage. Some complain of not having been given their backwages for holidays and overtime. They mentioned that companies only give their backpay when inspectors from the Department of Labor and Employment order them to do so, otherwise, the companies remain silent on this issue. The payment scheme is rarely discussed and explained to the workers and as such, they do not know how management computes their wages and their benefits.

Hazard Exposures

The primary complaint of the women about the work premises is the extreme heat and the presence of dust that circulates in the ambient air all day long. During very hot seasons, they get very exhausted and could not work efficiently. When they arrive home, they could hardly wash and bathe; others directly go to bed. There are those who even faint at work because of the high temperature. The industrial hygiene measurement done by the researcher got the highest reading of the ambient temperature at 36 degrees centigrade. This is much above the threshold limit value for heat exposure in the workplace set at 28 degrees centigrade.

The walk-through survey also revealed the same problems. The structural design of the work premise is very simple and consists only of one big work area where machines are lined up vertically and horizontally. The work area is not air-conditioned. Ventilation comes from electric fans and through natural ventilation. But the ambient temperature outside and the heat generated by the machines and the bodies of the workers add up to the heat stress of the workers. Two garment factories provided a cooling system, not quite like an air conditioning system, but this only lessened temperature by about five degrees centigrade.

Extremes of temperature were also noted by the workers. Garment factories are exposed to high temperatures. This is also true of electronics assembly other than semiconductor. On the other hand, semiconductor industries are characterized by very cold temperature. In the garment factories, some reported fainting spells especially during the summer season. The lack of ventilation, absence of heat reflector in the ceiling coupled with work overload contributed to the metabolic stress of the workers.

On the other hand, a cold environment can cause manual dexterity problems. The workers aid that, "the odor stinks; we have frequent dizziness after work exposure. The workplace is also characterized by excessive dust from textile and fabric." Dust is a nuisance and irritates our eyes and lungs. They also said:

> *"Dizziness and respiratory problems are frequent because of handling of chemicals like lead, and alcohol. These chemicals also cause eye irritation and skin allergies In fact, there is frequent tearing of the eyes due to the stinking acrid vapor of a particular alkali and acid used in the production process." (translated from local dialect)*

The Pace of Work and the Nature of Supervision.

Women in both industries said that there is so much work demand. The pace and volume have become greater as a consequence of downsizing of the companies. Many workers have been retrenched, or temporally relieved from work, and then called in again when there is high quota production. For the remaining workers, the burden of taking more work becomes inevitable. For instance, in garment manufacture, "instead of the usual 10 pieces of garment per hour, the quota has increased to 15 pieces per hour."

The supervisors in the garment industries were reported to be very strict and constantly monitoring the workers. They go around the plant, inspecting output and quality of production. They make inhumane remarks to women who could not follow instructions or those who could not cope with work production. The Indian and Korean supervisors were perceived to be very strict, inconsiderate and undesirable as supervisors. The Japanese managers and supervisors were generally considered better and more humane in their relationship with their employees.

The use of automated machines was considered to facilitate work and lessen the manual requirements of the job. In workstations that are highly automated through the use of IT, the worker serves only as a machine monitor and not an operator. As one said,

> *"We merely encode the necessary information into the computer. We set up the machine either for automated or manually-assisted operation. When IT is just used to set the specifications of the work production to be performed by manual labor aided by mechanical devices, work becomes fast-paced. We encode into the computer the type of assembly part, the number of pieces to be produced and other specifications, and then the materials are fed into the system. With this set up there is continuity of production process, but those at the receiving end of the automated process have to cope with the pace of these machine." (translated from local dialect)*

Although electronic industries have integrated information and communication technologies in the assembly line production, not all processes are automated. There are workstations that still rely on manual labour with the combined use of conveyor belts and specialized tools.

Occupational Illnesses:

The more prevalent illnesses reported by the women were headaches, urinary tract infection, eye irritation, skin allergies, hearing problems, accidents and injuries, reproductive dysfunction, musculoskeletal disorders and eyestrain. A group of workers said:

> *"Headache occurs because of the demand to produce greater output with minimal errors. The stress manifests in headaches. This is aggravated by the heat at work, noise from the work process, and chemical exposure. Fainting is not uncommon among us especially those exposed to very hot workstations. Skin allergies and eye irritations are also prevalent due to handling of acids and caustic soda. Sometimes the gloves account for the skin allergies here." (translated from local dialect)*

Other Health Problems

New health issues reported by the women were:

1. Chronic sleep debt. The circadian rhythm could not adjust to the changing work arrangements manifesting in physiological imbalances like increased heart beat hypertension, bowel disorders and stress. Among the night shifters, their most common problem is sleepiness and the lack of supervisors who could assist them when problems arise. For companies that have three work shifts, the women complained, "We are unable to readily adjust to the next work shift because the change in schedule occurs in one or two weeks time depending on the prerogative of management and this leads to certain accidents such as cuts and in few occasions, lacerations." (translated)
2. New forms of illnesses that could not be differentiated such as new allergies and new cancers. The "Mystery Disease" which has been affecting women in the semiconductor industry is an example. The disease manifests in signs and symptoms of severe skin allergy, balding, skin discoloration, and eventually disability. It was first discovered among Filipino women working in *Philips* semiconductor in Taiwan. Many of the women in this company eventually died of complications.
3. Persistent fatigue. The workload would sometimes lead to collapse like outright fainting in the workplace, which is a normal reaction of the body when the level of arousal exceeds its ability to meet the demand placed upon it. Work overload usually results from an irregular flow of work that is outside the control of the employee.

Discussion

Technology, Health and Gender (Workplace Construction of Femininities and Masculinities)

The use of technologies generates new processes that subjected women to new forms of hazards and new types of organizational management. For instance, computer-based monitoring was used to regulate performance, computer aided fabrications and designs were used to adopt design patterns laid out by core companies situated in core countries, and technologies were adopted to network globally in the search for least cost, for the most conducive market and for the adoption of new strategies of mergers and subcontracting work.

Although there has been a trend towards post-fordist management style focusing on lean production, more horizontal organizational structure, and strategies directed towards innovation, on-hand involvement of the assembly line workers, and integration of the shop floor workers in the decision making processes of the organization, this was seen more as an exception rather than the prevailing organizational process. In the context of manufacturing in a highly segregated international division labor, the women workers in the back-end processing of soft manufactures are confronted with traditional and modern hazards which are inimical to their health.

Technology has also intensified work as evident in the results of the focus group discussions. The need to cope with the pace of the machines was implicated in the experience and perception of health among workers. Technologies also allow workers to do multiple tasking and to handle various departments and committees simultaneously. All these tended to intensify work, and produced both physical and psychological ill health. The questioning of technology does not necessarily mean a rejection of it, but rather a positive valuation and critique of how to better women's gain in their employment location.

The new work arrangements, organizational structure and new technological applications were seen in the study to produce new hazards and new illnesses. The more common illnesses among women workers in IT-dominated industries were shown in the study. This concern needs to be considered in the formulation of broader policy framework for women workers.

The effect of information technology therefore cannot be isolated from the point of view of the women- that is, how technology affected the general conditions of their working lives and their health. Employment generation is not merely quantitative but a qualitative strategy. The entry of women into the labor force should strengthen both their numerical and locational strength in the larger social structure and in the more micro-experiences of the workplace. Based on this study, this comes as a configuration of a number of tendencies:

1**. Numerical flexibility**. As postulated above, women dominate electronic and garment industries in the export zones. The ideological underpinning of gender dynamics at work relegates women to the lowest position of assembly-line work, and by their close association with the most hazardous jobs, they are susceptible to developing occupationally-related illnesses.

2. Vulnerability. So far, the drive for capital accumulation and appropriation of greater surplus presents a major force in shaping employment relations today. The accommodation of information technology at work is primarily done to boost productivity and efficiency. Its apparent impact on the upskilling of workers and on the reorganization of the workplace to allow participation of workers in the organizational processes is still undergirded by the need to produce efficiently and to compete in the international market. The intensification of work is therefore inevitable which in turn affects the physical and mental health of the workers. The fluctuations in the global market also put the woman in a very precarious form of employment – always with the threat of being laid off, or becoming temporally unemployed. In this study, women said that with this form of employment, their source of income is threatened, and so are their economic and health conditions.

3. Hazardous Technologies. The study showed the importance of information technologies in work production. However, the accommodation of technology by industries has not considered its hazardous contents or the hazardous work processes that ensue from its use. The exposure to a combination of agents like chemicals, heat, radiation and vibration

make women's health vulnerable. Technology is thus both ideological and technical. It is technical by virtue of the means by which it can carry out a specific work and produce output. It is ideological in the sense that it brings with it a set of working practices. For instance, the use of total quality systems necessitates the need to let the workers stand while working. The manufacture of semiconductor circuit and its attachment to other component parts can only be done using intensive technologies. In this study, the technological requirement to ensure the quality of the circuit chips structures the way people work, their motion, their interaction with each other and their clothing. Workers in particular workstations need to wear complete personal protective equipment from head to feet and are not allowed to converse as they might contaminate the chips. In these work chambers, it is strictly not advised for workers to frequent the rest rooms since they have to dress and undress the required special work clothing.

4. Exclusion. There are many forms of exclusion seen in the study. Women were excluded from the higher-skilled use and application of information technologies. Women were not preferentially considered in the decision-making processes. Exclusion also came in the form of being pushed out of core employment and being subjected to contingent work. This is related to the numerical flexibility of women' work in the economic sphere.

5. Individuation. The study also showed that while networking was done, it was mainly in the area of productivity and efficiency. The structures and processes in the organization restricted the social contact of the assembly-line workers to each other. Individuation also came in the form of the weakening of trade unions and collective organizing, or lack of it. The deliberate use of individualizing tendencies by management such as individual monitoring system, individual motivation schemes, and the perpetuation of individualized culture of health and safety were seen to undermine social and class solidarity among workers. Individuation was characteristically seen in the *health and safety culture* of management emphasizing individual approaches to prevent hazard exposures, and the use of personal protective equipment which puts the burden on the individual while taking away the responsibility from management.

Conclusion

Given the micro- and macro- socio-economic changes, the study tried to use a sociological frame of analysis in understanding health and ill health among women workers. Health is not only a medical construct but a social construct that embodies both the "lived experience" and "lived relations" of the women workers in the context of the larger society. As such, this study endorses the perspective of "social production of illness" in explaining the relationship between work, technology and health veering away from the dominant microbiological theory of health and ill health. These 'lived relations' are culled from the way society is organized around the processes of production and the allocation of resources. The effect of information technology therefore cannot be isolated from the point of view of the women- that is, how technology affected the general conditions of their working lives and their health. Employment generation is not merely quantitative but a qualitative strategy. The entry of women into the labor force should strengthen both their numerical and locational strength in the larger social structure and in the more micro-experiences of the workplace.

The politics of health is therefore well elucidated by integrating into the framework of health the influence of organizational structures and processes of work, which in turn are

derived from global formations. It is not enough to be content with the biomedical model of health and illness because the pattern and nature of illnesses are most related to the type of industry that a country engages in. Patterns of illnesses are also related to the strategies that capitalist activities are drawn into in order to reduce their cost of production. The politics of health is played out most specifically in the content and context of development of a particular nation. This study has argued that health is associated with the politics of representation of women in the new international division of labor. Health represents one of the important symbolic frameworks for analyzing the content and context of the new international division of labor fuelled by information technologies.

Modernity is now characterized by greater risks. Modern people now live in "risk societies" due to the processes of modernization and industrialization. This risk, according to Beck, presents a new type of uncertainty because of three reasons- that risk is greater now, that it has shifted from naturally occurring to those risks created by man in the process of industrialization, and that the disadvantaged groups are at a greater exposure to these risks and have lesser ability to regulate them. (Kemshall, 2002, 6) In this study, the women are the most vulnerable group and least able to resist the magnitude and direction of the risk exposures at work by virtue of their gender and class position in the work organization. They also lack negotiating power especially with the regulation of labor unions in export zones. The risks are either unregulated or under-regulated by government whose thrust is the creation of employment in boosting the internal economy, however, short-lived and shortsighted this strategy may seem to be.

When risks to health are created, the logical response is to trace the accountable agencies that regulate these processes and procedures. However, the systems of control in the country sometimes can inadvertently produce the risks that they seek to control. For instance, the approval of apprenticeship as a form of employment in the garment industries disadvantages the women workers as they receive 75% only of the wage of a regular worker and are not given social protection benefits. It is for this reason that advocacy work should also focus on the role of implementing and regulatory agencies on health and safety. The standards for safe and healthy work environment and the promotion of the highest degree of physical and mental health are not problematic in the Philippines because these are culled from the international standards given by the three known agencies: National Institutes of Occupational Safety and Health (NIOSH), Occupational Safety and Health Administration (OSHA) and the American Conference on Governmental Industrial Hygienists (ACGIH). Theoretically, the cross-culture requirements of work are indicated in the Labor Code of the Philippines, but the conditions of work in the local context should be made more specific and not merely borrowed from international standards. The established international standards are crafted for regular employment in regular establishments. These may not be applicable in situations where contingent work is the norm over core employment, and where instability characterizes the internal economy over stability. Standards should be formulated to fit the conditions and terms of work of the third world women workers. At present, life chances for quality life are severely restricted with the existing policy of the government. The Department of Labor and Employment in the Philippines only has 250 labor inspectors covering about half a million registered industries. This shows the lack of manpower to actually investigate and inspect industries as to their compliance to standards of work and employment. The control of labor organizing in export zones doubly deters the "resistance" that women can wield to make their working environment better.

Women need both informal and formal capital to negotiate their positions so that gains in their paid employment are not offset by the cost of ill health and the nemesis of double burden of home and work responsibilities. Formal capital comes in the form of laws and regulation that protect workers. Informal capital can be taken from the existing social capital that is elaborately practiced by women in their exchanges in informal networks. Social inclusion of women in the workplace should be underpinned by the following elements: it should be long–term, and not just quick fix shopping list strategies, it must engage local actors, it must be coupled with political commitments and must truly understand the issues of women's work (Hazel, 2002). This study has shown the various issues of women's work and women's health in the new organization of work. This is one of the major contributions of this study as women themselves defined their work, their grievances, their wants and aspirations, and their struggles and resistance. The study has drawn much from the experience of the women from which policies can be formulated to attain acceptable levels of social and economic benefits , protection of legal and civil rights of women workers and eventually a positive estimation of themselves, their integrity as humans and attainment of an elevated social status of women recognized by the larger society.

The intervention strategies in the health status of workers are dominated by evidence-based disciplines such as psychology and behaviorism. The new techniques of self help, good lifestyle, responsible living and moral accountability in these intervention strategies are rather limited. Management of risks in modern industrial organizations characterized by new information technologies is difficult to carry out individually using mere individual resources. The social responsibility and social responses from corporation and the state to regulate and manage these risks are central in the struggle for a better and healthy work environment in the 21st century. Individuation of responsibility cannot solve the complexities of the global market. The uncertainties of market fluctuation and the fragmentation of social safety nets due to the deregulation of labor markets present real perils that are beyond the control of individual actions. It is in this situation that the state must intervene to regulate the risks and hazards inherent in the present nature of the global market. Where conflicts and disagreements exist between workers and management, the state should be the final arbiter but always towards the inclusion, not exclusion of the least powerful. Within this paradigm shift of true governance, the plight of women workers could be addressed and the 'politics of hope' which is geared towards decentralized power and based on flexible agreements (Leonard, 1997:162) be realized .

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