

## **Effect of Work Intensification and Work Extensification on Women's Health in the Globalised Labour Market**

By Jinky Leilanie Lu<sup>1</sup>

### **Abstract**

This study examined the association between labour intensification due to work intensification and work extensification and ill health in women in certain manufacturing work in the Philippines. Work intensification is defined as more workload for each worker, and work extensification as less deadtime or work rest and more overtime. The sample was 23 establishments-and 630 respondents. Workplace environment monitoring showed exposure to hazards such as noise, chemicals, poor ventilation, and poor illumination. The most prevalent illnesses and health problems were headache and coughs and colds. Results of focus group discussions showed adverse work conditions, hazard exposures among women workers, fast pace of work, close supervision, prevalent occupational illnesses, and management style that do not comply with the national work standards. The results indicate that the health issues of women workers depend on many factors, such as management and supervisory style, job autonomy, nature of task, and hazard exposures. This study resulted in three major analytic observations on the engagement of women workers in the new global labour market, the role of information technologies (IT) in women's work, and occupational illnesses caused by work intensification and work extensification.

*Keywords:* Globalised Labour, women's health, Philippines

### **Introduction**

The present study investigates the impact of intensification and extensification of work on ill health among women workers in the Philippines. The study examined specific work conditions and health issues of women workers as a result of organizational structures and work policies arising from globalized labour market. Work intensification involves more workload for each individual worker and arises from overtime, lesser dead time, or shorter rest period. Labour extensification involves increasing overall effort required by workers over a given shift; examples include paid time between jobs, during machine breakdowns, or while waiting for supplies.

Since the mid 1980s, when the government began to liberalize the economy, globalization has had a major impact in the Philippines. Protective tariffs were reduced by as much as 15% from 1980 to 1986 and restrictions on repatriations of capital were removed. Economic liberalization continued and intensified a decade later as structural reforms in trade and industry, deregulation of goods and services, and privatization of government owned companies were carried out (Tuaño, 2002)

The decline of state ownership of big enterprises and infrastructure was a direct result. Local industries were negatively affected by competition from cheap imports. Foreign-owned companies especially those within special export zones favored labour contractualisation (McGovern, 2007).

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<sup>1</sup> National Institute of Health, University of the Philippines Manila

Export zones are special economic enclaves within the national market economy with special investment benefits given by the national government for foreign investors. Export zones are located in many developing countries such as the Philippines, Malaysia, Indonesia, India, Vietnam, Bangladesh and Latin American nations (Rowbotham, et al., 1994). Some of the benefits given in export zones are exemption from duties, taxes or license fees on imports to the zone; the privilege of borrowing from national banks; reduction of or exemption from export taxes; exemption from minimum investment requirements; unrestricted repatriation of capital and profits; and the freedom to sell 30 percent of the annual output of the export processing zone (EPZ) firms in the local market (a means to avoid quota on imports). The export zones are also not required to comply with wage increases and other benefits when they can prove inability to comply.

In the Philippines, export zones were also covered with presidential decrees that enforced an immediate blanket on strikes and relieved employers of the obligation to pay overtime. Fifty eight percent of industries in export zones are engaged in electronics and garment manufacturing. As such, they prefer female over male labourers as the former are believed to be more adept with meticulous operations, more dexterous, more docile, and less unionized (Chant and McIlwaine, 1995). The labourers in these industries bear the brunt of economic downturns, and the labourers in these industries are overwhelmingly women (90%). In the Philippines, an average of 73% more women than men are employed in export zones as they are preferred by employers (Chant and McIlwaine, 1995).

Worldwide, global competition has induced downsizing in companies and promoted the need for multiskilled workers capable of multitasking. Downsizing was associated with the propensity to intensify work by reducing down the number of personnel or increasing workload for each employee (Malysheva, 2002). Pay has also become increasingly performance-based (Allan et al, 1999) Changes in technology linked to advances in automation and computerisation, the decline of trade unions, increasing job insecurity; and the pressure of unemployment have also contributed to work intensification (Valerye, 2004).

In analysis of three Employment and Skills surveys in Britain conducted in 1992, 1997 and 2001, a decline in the overall level of job satisfaction and an increase in the extent of work strain was seen'. These studies showed that work intensification or pressure from the sheer quantity of work had a considerable negative impact on health and the family relationships of workers. This relationship was equally strong for both genders and for both full and part time workers.

Women form a significant portion of the workforce in today's globalised economies. In the past 20 years alone, 60-90% of women have been working in clothing industries (Onyejekwe, 2004). Worldwide there has been an increase of about 200 million women in the workplace since 2003 (Koh and Wong, 2005). In export processing sectors, women dominate much of the workforce (Glick & Roubard, 2004).

## **Method**

This study involved both quantitative and qualitative methods and employed a cross sectional design. For the quantitative part of the study, the researcher used stratified random sampling of electronics and garment industries to generate a list of 23 establishments, 13 from the electronics and 10 from the garments industry. There was a

total of 5 small scale, 5 medium scale and 133 large scale industries. The study focused on establishments that used information and communication technologies. A random sample of 630 women workers was selected for the survey and was asked to complete a questionnaire.

The interviewer guided questionnaires were given only to women workers in the assembly line. The items in the survey questionnaire were based on the existing form of the Department of Labor and Employment in the Philippines. The randomly selected women workers were requested to fill up the interviewer guided questionnaires. The researcher and researcher assistants were accompanied by a labor inspectorate representative from the Department of Labor and Employment (DOLE). Informed consent was solicited from the respondents. Still, the response rate was 100%. The workers said that they wanted to share to the researchers and the labor inspector their work conditions and their hopes for better work policies. The questionnaire measured socio-demographic factors, work conditions, and health conditions. Additional methods used to complement data on hazards in the workplace that may cause occupational illnesses were:

1. A workplace inspection done by the labor inspector and the researcher to assess workplace hazard exposures and compliance of management to occupational safety and health standards. This was a surprise workplace inspection to objectively assess the actual work condition.
2. A detailed survey of the workplace done by the researcher and labor inspector. This was a comprehensive hazard exposure assessment with the use of industrial hygiene equipment. The instruments used were noise level meter for noise, luxmeter for illumination, velocimeter for wind velocity, thermometer for heat exposure, and sampling filters for dust

To gather qualitative data, 10 focus group discussions (FGD) of women workers and 11 for the two-phased focus groups for supervisors were conducted by the trained research assistants. Each of the 10 focus groups was composed of 6-7 women workers and a labour representative was always present.

The data were encoded using SPSS 13. The quantitative data were analyzed using descriptive and inferential statistics, and the qualitative data were analyzed using analytic constructs.

## **Data Presentation**

### **Results of Workplace Inspection**

The profile of the industries in this study showed that women dominated the labour force in the electronics establishments where they made up 72.3% of the workforce and in the garment establishments where they made up 66.3% of the workforce. Men made up 27.7% of electronics workers and 13.4% of garment workers (Table 1). The dominance of women labourers in these industries was confirmed by the women in the focus group discussions who said that majority of the women are single, young and in their reproductive years. Single women are preferred by employers because

they are more readily available for night shiftwork and less affected by family responsibilities.

**Table 1. Frequency Distribution of Gender Composition in the Labor Force of the 23 Establishments**

Gender	Type of Industry					
	Electronics		Garments		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Male	773	27.7	620	13.4	1393	18.9
Female	2022	72.3	3979	66.3	6001	81.1
Total	2795	100	4599	62.2	7395	100

Forty four and seven tenths (44.7%) used microelectronic equipment, 40.4% used controllable programmers, 36.2% used numerically controlled tools, 40.4% used computer aided design and 30.8% used robotics.

All of the garment establishments (100%) and 58% of the electronics establishments had noise levels above the standard level of 85 decibels A (dBA). This means that over all, there is high level of exposure to noise at the establishments and noise hazard is more prevalent in garments. For ventilation, all garment establishments and 85 % of electronics were below the standard level. Dust which causes allergies and respiratory problems was found to be prevalent in 69% of electronics and 90% of garment establishments. Ambient temperature was also measured. 70% of the garments and 23% of the electronics exceeded the threshold limit value of 28 degrees centigrade for moderate work.

### Results of the Questionnaire

There was a total of 630 respondents, and the respondents' mean age was 27 years. The majority were single comprising of about 26% for both industries, and the women in both industries earned between P6, 000- P8, 000 (150-200 U.S. dollars) per month for both establishments.

Most of the respondents (75.8%) worked overtime. In fact, 33.9% and 33.2% of the workers in the garment establishments and 33.2% of the workers in the electronics establishments said that they were required to do overtime work in order to finish their work, whereas about 27% of workers in each establishment said that that they did it to receive additional pay for the overtime work. Most of the respondents (91.3%) worked 8-12 hours in a day, and 7.5% for more than 12 hours.

Anemia was reported by 3.7% of the women, spontaneous abortion by 1.4%, and amputations by 0.5%. The prevalence of these illnesses is problematic for two reasons: first, the prevalence is higher than the reduction target of Occupational Safety and Health Administration; and second, it points to the work-relatedness of illnesses even among young healthy adult population in the Philippines. Healthy workers are preferred in manufacturing industries, and consequently, workers in the Philippines are given pre-employment physical examinations to qualify as fit to work. This results in a selection of healthy workers relative to the population of applicants for the job, a phenomenon that is also called the 'healthy worker effect'. At the outset, there is an exclusion of workers who have become chronically sick in order for companies to select the most abled

workers and to avoid eventual repatriation of medical costs arising from work-related illnesses. The fact that healthy workers become sick at work or from exposure to work hazards shows the weak state of occupational health and safety in the Philippines, as well as the nature of work conditions in manufacturing industries in the country.

The more severe forms of accidents such as falling (14%), electrical accidents (6.3%) and being caught in a machine (17.3%) are also common. The latter is the most common cause of amputation of the fingers and hands in the workplace based on this study.

The association between organizational factors and health effects was determined using statistical analysis. Certain physical health problems were associated with both poor organizational processes at work and work hazards. For instance, abortion was statistically associated with awkward positions and long hours of standing (Table 2). Hypertension was common among workers who were involved in routine work and were closely being watched by supervisors. Cases of hypertension were less common among workers in small industries. Industries that lacked good health and safety policies and provisions were more likely to have cases of hypertension among workers (Table 3).

**Table 2. Factors associated with spontaneous abortion (n=630)**

<b>Presence of Spontaneous Abortion</b>	<b>Coefficient</b>	<b>Odds Ratio</b>	<b>Standard Error</b>
Awkward position * long hours of standing	0.56	0.57	0.16

\* means interaction between awkward position and long hours of standing

**Table 3. Factors associated with hypertension (n=630)**

<b>Presence of Hypertension</b>	<b>Coefficient</b>	<b>Odds Ratio</b>	<b>Standard Error</b>
Routine work * closely being watched by supervisors	0.96	2.61	0.88
Small industry	-1.20	0.30	0.16
Close monitoring	1.34	1.26	0.06
Health and safety policies and provisions	-2.15	0.12	0.03
constant	2.69		0.56

\* means interaction between routine work and closely being watched by supervisors

On the other hand, cough and colds (Table 4), were common to workers who were exposed to extreme heat in the workplace, those who worked overtime, those who were under pressure, and those who had lacked work orientation. Work orientation is given to each new worker to familiarize him with company policies, work requirements, and the particular job that the worker has to perform.

**Table 4. Factors associated with cough and colds (n=630)**

Cough and Colds	Coefficient	Odds Ratio	Standard Error
Exposure to extreme heat in the workplace	0.96	2.62	0.66
Overtime work	0.83	2.29	0.60
Lack of autonomy in accomplishing work	0.67	1.96	0.25
under pressure	0.59	1.81	0.23
Work orientation	-0.80	0.45	0.06

Overtime was significantly associated with headache (Table 5). Women who had headaches reported work pressure and that they were not given the autonomy to use their own approach to accomplish their work.

**Table 5. Factors associated with headaches (n=630)**

Headache	Coefficient	Odds Ratio	Standard Error
autonomy to use own approach to accomplish work	-0.45	0.57	0.19
Overtime	1.78	5.94	1.39
work pressure	0.60	1.82	0.22

### Results of the Focus Group Discussions

There was a total of 10 focus group discussions (FGDs). The participants were taken from the group of women who participated in the questionnaire survey. The selection was based on the willingness of the women, their availability, and referral by other workers.

### Work Conditions of Women Workers

There is common perception among the women that industries prefer them to men because women are perceived as inherently more dexterous and meticulous with detailed work than men.

Only 10% of the sampled industries were organized by nationally established unions. Most were organized by in-house unions that lacked the autonomy of independent national unions.

The industries in which these women worked used several types of acids (sulfuric, hydrochloric and others), sodium hydroxide, trichloroethylene, and other organic solvents. There was also no name given a chemical on the chemical data sheet. The workers reported that they had no complete knowledge of the hazards posed by these chemicals because the data sheet did not state the generic names of the chemicals.

Workers also complained that there was an inherent discomfort in wearing personal protective equipment. Equipments like the gas masks do not snugly fit. Vapours and dust fibers still get through the respirator (translated).

The workers were also expected to adapt to any novel situation, and must have skills to operate and use the new information technology. But the already lean production

schedule makes it impossible for them to find time for additional training. This leads to work intensification, according to the women.

The study showed a low representation of women in higher levels of management. Large numbers of women were employed as data encoders and electronics assembly line workers.

### **Work Intensification and Work Extensification as Experienced by Women Workers**

The work of women was described to be precarious. A group of women in 3 garment establishments said that they had been affected by the economic crisis that had been going on for almost five years at the time of the FGD. They said: “During times of high quota requirements, we are called in to work, and then temporarily suspended from work when quota is low. We have been in and out of work, and in between times of no work, it would be difficult to find another job” (translated).

Some of the garment establishments adopted 2 work shifts of 12 hours each to cut cost. The working time is 12 hours, with a total of two hours break: 30 minutes each in mid-morning and mid-afternoon, and one hour for lunch break. Forced overtime was common. The women did not get the choice if they could work on the night or day shift.

Compressed workweek was also prevalent among the establishments. The work could be done in 12 hours per day for 4 days a week or 10 hours per day for 5 days a week without Saturday or Sunday work. These compressed workweeks were adopted to save on electricity, caused by warming up and shutting down of equipment, decrease the number of break periods.

The women also said they are a floating workforce that can be recruited for a certain specified period of time when production is intensified.

Women in both industries said that the pace and volume of work have become greater as a consequence of downsizing of companies. For instance, in garment manufacture, “instead of the usual 10 pieces of garment per hour, the quota has increased to 15 pieces per hour.” They were also reassigned in various workgroups and job assignments.

In the study, there was low representation of women in higher levels of management. Large number of women was employed as data encoders and electronics assembly line workers.

Women in both industries said that there was so much work demand. The pace and volume of work have become greater as a consequence of downsizing of the companies.

Most establishments in this study have reduced the number of workers or enforced early retirement schemes for their regular employees to open doors to more contractual workers. The remaining regulars are then forced to take on multiple responsibilities. The extension of work into non working hours is often seen. But there is a different scheme of work extensification in the country. A worker working continuously for 16 hours will not be paid the 30% overtime or the night differential required by law. Instead, the worker will be told not to report the next day to offset the eight hours of overtime (Salamat, 2006). Locally, flexible work schedules reduce the need for overtime pay. In many export processing zones in the Philippines, working for 10-12 hours is normal. Sometimes overtime is forced or compensation is denied to persons unable to meet quotas (Tujan, 1998).

## **Work Related Illnesses**

Reproductive dysfunctions especially spontaneous abortions were also reported by women who work at the soldering workstations at electronic establishments. Trichloroethylene is used in the cleansing and de-acidification of solders, and lead is used as an alloy with tin in the soldering of microchips. These chemicals have been known to cause abortions. The women said:

“We are tired standing the whole day up to 12 hours. I personally handle soldering of chips on the lead frames, and this is what I do the whole day. I have no gas mask, and sometimes I feel dizzy. In fact, there are reports of spontaneous abortions in the past months which others attribute to lead exposure” (translated).

Musculoskeletal stress was described by the women as minute but repetitive, and eventually led to severe pain. The workers cited carpal tunnel syndrome (pain at the wrist), shoulder pain and other musculoskeletal disorders. Persistent fatigue was also reported.

Common complaints among the users of video display terminals were eye fatigue, finger pain, and lack of social interaction.

Accidents also occurred at work. The women told of a worker whose finger was cut off by a machine. Cuts and lacerations were also cited, including burns from chemicals in electronics and steam in garment establishments.

Some of the women also reported respiratory ailments such as asthma. They said these problems were aggravated by dust and the acrid smell of acids and alkalis used in the production process.

The women workers said that the company gives them health updates on heart disease and family planning, emphasizing how to change lifestyle. Little is said about the work-relatedness of these diseases. Management also emphasized the use of personal protective equipment.

In the FGD, women reported about mentally tiring tasks arising from the use of microelectronic equipments in production. The need for upskilling and too much concentration in coping with the pace of the machines, the coordination between worker and the machine, as well as tiring visual strain in inspecting minute chips during the entire workshift produced anxiety related problems. According to the women, mental and psychological ill-health were not uncommon in the workplace.

## **Management Style**

There were concerns among the establishments about the need to prepare scenarios for global managerialism and the need for innovation and efficient production. Upskilling has become mandatory among tenured workers. This was reported by the supervisors during the focus groups.

Management also resorted to either subcontracting or labor-only-contracting (LOC). Some women in the FGD were LOC workers.

The supervisors also reported new business strategies of merger, acquisitions, downsizing, and privatization to cope with new the demands of the market. These mergers lead to retrenchment of many redundant workers.

The supervisors also noted that re-engineering had been introduced in the workplace, which led to lean production, relying heavily on ITs and machineries and fewer skilled workers. Some supervisors also reported that they came to work too early and went home much later than the usual work time to show to their bosses their commitment to work. In the focus groups, they said that they feared that they might be laid off despite coming early or staying late without additional compensation.

Although there were existing health and safety committees, these were mainly for first aid and emergency responses, healthy lifestyles, family planning and the prevention of general illnesses such as hypertension, cardio-vascular disease, and infectious diseases. Although these committees were helpful, they did not target the more specific occupational illnesses that are commonly found in garment and electronic establishments such as low back pain, visual strain, spontaneous abortion, byssinosis, and hearing problems.

### **Analysis of Data**

The data generated show that the health issues of women workers depend on many factors, including management policies, nature of supervision, job autonomy, nature of task, content of job, and hazard exposures. This study has resulted in three major analytic observations.

#### **1. Engagement of women workers in the new global labour market**

A historical turning point in women's issues in the Philippines came in the 1970. It was prompted by degradation, student movements, and uprisings of people in many oppressed third world nations. Development was to be pursued with the involvement of women in the economic sphere, and the inclusion of housework and reproductive roles in economic productivity (Nelson, 1979 in Ng, 1987:10).

The accommodation of women into the labour force in the new industrial organization, however, has arguably been insufficient to establish a better position for women in Philippine society (Palmer, 1977). For instance, as shown in this study, women in the Philippines were relegated to assembly line work, preferentially employed in electronic and garment manufacture, rarely tenured, and frequently used as a floating reserve of labour when quota requirements were good.

In this study, women represented 66 to 73% of the total labor force. The new developments in the labour market led to an increase in the number of women in the labour force in the Philippines (Nelson, 1979 in Ng, 1987), but the impact on their quality of life and decision making processes has yet to be felt (Palmer, 1977).

There is also a common belief that men are more technologically skilled. Men tended to occupy the higher levels of management compared to women. Besides a male bias in IT-related jobs, the gendered educational structure produces a dominance of men graduating from computing and engineering courses.

Across industries, there is gender segregation of the type of work that can be done by women and by men. Men were believed to be more adept at work that involves heavy lifting and challenging work. Women, on the other hand, were perceived to be better at docile, repetitive and boring work; less prone to unionizing; and more dexterous and therefore better to handle meticulous handwork such as electronic assembly and garment sewing.

The economic vulnerability of women who are the sole support of themselves and of their children should also be a concern. Their vulnerability covers a broad range of issues including teenage unemployment, unpaid housework, low compensation for subcontracting and informal work, lack of benefits for part-time employment, contractualization and flexibilization of labor, loss of economic support when widowed or divorced, and poverty among assembly-line workers.

With the changing occupational and economic structure in developing countries, women do not remain as traditional housekeepers, but participate in employment at a very alarming rate. The employment of women in soft manufacturing raises new issues such as health hazards related to new technology and to the new production processes. The hazards affect men and women, women are affected in greater numbers.

## **2. The Role of Information Technology in Women's Work**

Developments in information technology (IT) created commerce and business without geographical borders, and continue to fuel the demand for newer and better technology to capture market, clients, buyers and suppliers in the most efficient manner. The amount of information and the pace at which it is provided by IT is becoming greater.

The implications of IT in the industrial organization included a shift to newer activities with higher added value, upgrading of the technological level of existing industries and production processes, and the phasing out of those products and processes that have lost their competitive advantage in an increasingly labor- scarce economy.

Many work organizations have 'streamlined, downsized or right sized' (Sutherland, et.al., 2000) in order to meet the demands of a competitive market. Re-engineering, lean production, less reliance on workers, and more on ITs were adopted. This created a dual form of employment. On one hand, there are workers who are overworked, and on the other hand, there are workers who have no job tenure.

In the electronics and semiconductor industry in the Philippines, labor-only-contracting (LOC) is prevalent. The Philippine law defines LOC as the deployment of warm bodies to a principal where the contractor does not have sufficient capital for job tenure of workers. It is the leasing of surplus power. Contractual workers receive minimum wage, or even 70% of minimum wage, have no social benefits or separation pay, and are not eligible for tenure in their work. To cut down surplus cost spending, manufacturing industries now prefer LOC workers.

Subcontracting is different from LOC because it is service that the subcontractor provides or sells to the companies (not pool of laborers) through the form of consignment (piece rate). However, the subcontractor hires casual workers to work for him. Subcontracting is common in export zones, especially in footwear, garments, fabric, furniture and leather goods (DOLE, 1998). Both LOC and subcontracting were documented in this study.

The trajectory for the future in many manufacturing industries in the world is that corporations will employ and retain only a small core of full time, permanent employees who will work from a conventional office. The remaining workers will work on a contractual basis in the form of part-time work, working from home, teleworking and other flexible types of work (Sutherland, et.al., 2000). The woman's position in this new work structure is central as women fit the new features and requirements for labour.

### **3. Occupational Illnesses Due to Work Intensification and Work Extensification**

The unique challenges that the new workplace pose to the workers are intensified by the introduction of new information technology. While the old traditional hazards still exist at work, new processes generate new hazards that cause more chronic illnesses.

This study documented varied illnesses experienced by women workers as a result of work intensification and work extensification. Work intensification and extensification arise as a result of globalization of economies, the introduction of new technologies, the 24-hour economy, the increased speed and pace of communication, and growing time pressure. The new developments in the production process brought new hazards and risks; new substances and materials; new energies, such as radiofrequency waves, indoor air problems; new types of physical stress; new accidents risks and violence; and the problems of feminized workforce.

The problem of mental and psychological stress is also overlooked in workplace health programs. Historically, the mental health of workers has been characterized 'as a complex interaction between labor regulation, penal regulation and the development of medical practices to discipline population (Foucault 1965), and key interactions in the modernization process (Sutherland, 2000), showing a connection among mental ill health, psychological stress, and organizational factors.

Although researches have shown a relationship between psychological and physical illnesses (Taylor & Barling, 2004), stress in personal injury claims is either non-compensable or recognized as an occupational illness. It must manifest in a certain kind of physiologic illness such as nervous breakdown, eating disorder or irritable bowel syndrome. It is still difficult to isolate the problem from other stress-causing factors such as personal and family problems, difficult relationships outside work, or problems in trying to balance home and work life. The various systems within and outside work are not yet well equipped in dealing with mental stress or mental ill health.

Given the structural changes in the macro and micro work environment, the understanding of health requires new investigation and paradigm shift (Moon and Gillespie, 1995). It cannot be explained anymore by the medical model wherein health is defined as a biological phenomenon composed of signs and symptoms related to the illness. The social production of illness model should be used instead, as in this model, ill health is viewed as a social construct and is generated not only by specific agents (viruses or hazards), but by the structural conditions of work, and the structures of economy and politics.

There are limits, too, to the diagnostic capability of medical science. There are cases of *brown lung (byssinosis)* that go unrecorded because they are not correctly diagnosed by occupational doctors, or that are wrongly diagnosed as emphysema. Studies show that brown lung is common in garment industries due to the high concentration of dust and particles (such as cotton dust). In fact, in the United States, inhalation of various fibers (such as cotton dust) affects about 85,000 U.S textile workers, 35,000 of whom are disabled by brown lung and other respiratory problems (Guarasci, 1987; Freund and McGuire, 1991).

The use of personal protective equipment (PPE) is another issue that reinforces the dominant culture of management. PPE places responsibility of protecting health on the workers themselves so that any ill health or injury is due to the failure of the workers

to comply with protective provisions. Conversely, engineering control measures such as changing hazardous processes to less hazardous ones, using exhaust ventilation systems and anti-pollution devices place the responsibility of occupational health promotion on management. To insist on personal precaution on PPE is to reinforce the belief that individuals are responsible for their own health and safety, thereby masking the more important notion of corporate responsibility. The individualistic approach has been internalized by the workers themselves. In the interviews, they said that the best way to deal with workplace hazards is to wear personal protective equipments, and that nothing else could be done about the hazards.

Even the emphasis on acute rather than chronic illness shows the bias in current health hazard assessment approach adopted by industries. Many of the health problems at work are chronic in nature and develop after prolonged exposure to hazards such as to chemicals.

Contrary to the theory of individualism, the social theory of health postulates that illness should be investigated within the broader rubric of social processes since health and the severity and peculiarity of illness are influenced by the method of production in the workplace, terms and conditions of work, organizational management and scientific development.

The findings of this study imply that strategies aimed at curbing occupational illnesses must focus on regulating organizational factors such as work overload, the need for upskilling, nature of work, and the impact of IT on women workers.

## **Conclusion**

This study focused on the position of the woman in electronics and garment establishments that are operating under the context of the global market. While opportunities are available to women in the economic sphere, there are risks that affect women's health. The study has shown that the global megatrends of work life, such as globalization of economies, introduction of new technologies, 24-hour economy, increased speed and pace of communication, growing time pressure affect the conditions of work and the health status of the workers. This study examined the health and actual health conditions of a particular group of people, in this case, women workers, as influenced by the dynamics of global market production. The paper has shown how demands in the global market can lead to work intensification and work extensification. The study has shown the following:

1. Merger of companies to survive in the global market led to retrenchment of many redundant workers, and the need for adoption IT in the manufacturing processes to make production cost-effective.
2. Re-engineering has been introduced in the workplace leading to lean production, heavy reliance on ITs and machineries, and the employment of fewer skilled workers. This created dual employment- the tenured skilled workers, and the unskilled contractals.
3. Organizational processes such as lean production, re-engineering, and introduction of new IT necessitated certain organizational restructuring internally. These processes produced stress, new forms of hazards, and a mix of both traditional and emergent illnesses. This study looked into

work conditions, job autonomy, nature of supervision, nature of hazard exposures, as they all affect health of the women workers.

4. Since women are believed to be more adept in minute and detailed work required in electronic manufacturing, they now dominate the labour market in this sphere. In the garment sector, women are also sought after as labourers. This study has shown that women comprised majority (about 63-77%) of the labour in electronics and garments establishments in the Philippines.

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