

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/332039624>

# Analysis of Productivity and Distribution of Female Workers in FB's Industries

Article · March 2019

DOI: 10.15722/jds.17.3.201903.31

---

CITATIONS

9

---

READS

351

2 authors, including:



**Aditya Halim Perdana Kusuma**

Universitas Muslim Indonesia

82 PUBLICATIONS 297 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Books of Information System [View project](#)



Pengaruh Karakteristik Toko dan Produk Bagi Konsumen di Indonesia Terhadap Pembelian Impulsif [View project](#)

Print ISSN: 1738-3110 / Online ISSN 2093-7717  
http://dx.doi.org/10.15722/jds.17.03.201903.31

## Analysis of Productivity and Distribution of Female Workers in FB's Industries

Aryati Arfah\*, Aditya Halim Perdana Kusuma Putra\*\*

Received: January 06, 2019. Revised: January 25, 2019. Accepted: March 05, 2019.

### Abstract

**Purpose** - This study aims to investigate and analyze the factors that affect women's work productivity based on ethnic in the food and beverage industry. Also, it is also to determine whether there are differences in the productivity of female workers based on these ethnic groups.

**Research design, data, and Methodology** - The approach of this research is quantitative by using multiple linear regression analysis and analysis of different tests using SPSS and tested on 114 samples of female workers in various small-scale, medium-sized food and beverage industry categories and large in Makassar City, Indonesia. Determination of samples based on proportional stratified sampling. Industry sampling criteria based on some workers, assets and wealth.

**Results and Conclusions** - The results of this study state that health, years of service, work ethic, age, wages, and work environment have a significant effect on work productivity. While the level of education, the number of dependents does not have a considerable impact, the fact that there is a difference in the productivity index of female workers in a significant sector is compared to small and medium scale enterprises, including the variables of government policies related to pension insurance, work accident insurance and health insurance.

**Keywords:** Distribution Management, Food and Beverage Industry, Productivity.

**JEL Classifications:** J10, J20, J30, L20, M20.

### 1. Introduction

Workers are one of the essential elements for industrial companies (Drucker, 1999). Due to this crucial nature workers are frequently subjected to inhuman utilization since companies regularly consider and make decisions which benefit the companies only (Hutchens, 1989). Industry sector has a high level of workforce absorption. Also, the number of female workers absorbed in this sector is relatively high (Babin & Boles, 1998), (Huse, Nielsen, & Hagen, 2009), yet they have low productivity. This low productivity level of female workers is caused, among other things, by their low education level and this can be seen in the number of working times used. 50.27% of female workers work for < 35 hours per week and 49.73% of them work for > 35 hours per week. It is therefore highly expected that people

will share the same awareness that female workers need to receive their rights to play their roles as women, by continuing to give them the chance to represent their productive part to continue to work. Women play double roles, i.e., as workers and homemakers at the same time, resulting in higher demand placed on them. The main problem many working women encounter is how to manage their time or to balance between their job and family demands (Munandar & Gandadiputra, 1983). It is this process of managing time which sometimes makes female workers indisciplined and decreased productivity as a result of their absenteeism (Li, Chow, Zhu, & Lin, 2016). In its course of development, industries have rules which require its internals to comply with any applicable regulation (Ramlawati & Putra, 2018). The presence of female workers in this environment is due to their wish to have even better family finance. They think it is necessary for them to help their husbands who also work in this sector to allow the fulfillment of their household needs. The employers are expected to give a reasonable salary for their workers, which means it will enable workers to have better family finance. Low wage is also a result of low education level, and this makes their chance of getting a decent job for consumption purpose low. Nutrition deficiency can general

\* First Author, Associate Professor, Faculty of Economics and Business, Universitas Muslim Indonesia, Jalan Urip Sumohardjo, Makassar, Indonesia.

\*\* Corresponding Author, Lecturer, Faculty of Economics and Business Universitas Muslim Indonesia, Jalan Urip Sumohardjo, Makassar, Indonesia. Tel : +62-822-9222-2243. E-mail : adityatrojhan@gmail.com

leads to low health level, and it might influence productivity (Widiastuti & Widiastuti, 2011). Women commonly have a lower salary than men, because female workers generally have low education levels. Nevertheless, worker's productivity is not only influenced by the salary rate, but rather other factors also have some contribution, including health, years of service, education, work environment and government policy which protects worker's rights (Ranis, Stewart, & Ramirez, 2000).

The unbalanced composition of female and male workers is a structural issue in the field of the workforce in the industry sector (Jhabvala & Sinha, 2002). The unbalanced composition is because the education level will influence productivity. So that needs immediate attention, particularly for industries with their sight be set at the global market. From the supply side, this increase is due to the higher education level of female workers on average, and this has been following by the greater social acceptance of women working beyond their household (Huse et al., 2009). From the demand side, the economic development (regarding production) which requires female workers such as textile and garment, food and beverage as well as other industries which need meticulousness have attracted female workers to get into the job market (Huse et al., 2009). Female workers' contribution is highly required as can be seen from the significant number of women recruited as workers in many companies in the manufacturing industry and many other majors, medium, and small-scale companies. The cliché reason for many companies to be interested in recruiting female workers is that women can minimize the risk the company will have compared to male workers (Adisu & Jehani, 2006).

On the other hand, the low productivity in nearly all sectors are experienced not only by Indonesia but instead, and it also happens in other developing countries. Meanwhile, the factors influencing productivity are education level, skills, discipline, work attitude and ethics, motivation, nutrition and health, income rate, social security, work environment and climate, industrial relationship, technology, production facilities, management, job opportunity, and achievement opportunity. Concerning their characteristics, female workers working in industry sector are generally demanded to work hard, persistently, strongly with high work ethos to generate optimal work productivity (Sutisna, 2008). Results of some studies indicate that worker's health affects productivity and economic return they receive (Bloom, Canning, & Sevilla, 2001), and (Schultz, 2002). Healthier individuals are more likely to be physically and mentally more energetic and robust, and thus they are less likely to encounter some things which may prevent them from working correctly (Bloom et al., 2001).

Griffin and Llewellyn in 2004 suggest that years of service have no significant influence on work productivity. On the other hand, Elia in 2016 and Wijayanti et al., 2016 find that years of service has a positive impact on work

productivity. It is possible that this difference in their findings is due to their different time and object. Also, also found is the fact that the increase in productivity of female workers in the industry sector is influenced directly and indirectly by the worker's demographic condition (Angelova, 2016). Most women working in the industry sector use those female workers of varied ages. Besides, they generally have dependants and share their family burden since they live in a region with high life demands.

The demographic condition of Makassar city, Indonesia has the possibility of influencing female workers' job activities in improving their work productivity. These demographic factors include age and number of dependants who are also the variables with some influence on productivity improvement. There has been an assumption that age is inversely proportional to absenteeism. However, for forced desertion such as health issue, older workers have higher absenteeism rate. Additionally, the older the workers, the lower their needs would be. Female workers aged 20 years and more former are more likely to work part-time than men (Widiastuti & Widiastuti, 2011). The understandable considering that at those ages they generally come to marriage age; thus their domestic activities will lower the time they can spend to work outside their house. Typically, during the elderly, the muscle ability to work degrades, particularly for heavy workers.

These factors constitute the concrete facts frequently found in many female workers in the industry sector in Makassar, Indonesia which will influence their attempt of improving their work productivity. Objectively, this research investigate the influence of individual characteristics (health, years of service, work ethos), demographic factors (age, number of dependants), socio-economic factors (education, salary), work environment and government policy on the productivity of female workers and analyze the different productivity level of female workers from 3 (three) significant ethnicities in South Sulawesi Province, namely: Makassar, Toraja and Bugis.

## 2. Literature Review

### 2.1. Definition of Work Productivity, Work Ethos and Measurement of Work Productivity

Every company in carrying out its work activities expects each employee to show work productivity (Park & Hawang, 2015). Work productivity in question is the result of work achieved by someone. Park and Hawang state that works productivity is the result of work performed by someone in carrying out the tasks assigned to him based on the actualization of work every day following the primary responsibilities and functions. Furthermore, it stated that work productivity is the result of work achieved by someone in carrying out the tasks and duties given to him according

to established criteria (Murdifin et al., 2018). These criteria are quantity, quality, efficiency, and effectiveness. (Jung, 2017), state that works productivity is an individual as a human resource who has the opportunity to develop work capacity to the highest level.

Based on the description, the development of hypotheses is as follows:

**H1:** Work Ethos has a significant effect on the productivity of female workers

Productivity measurements that often used are a). Productivity measurement with engineering models, this method refers more to the physical environment. b). Productivity measurement with the accounting model, this method relates more to the market environment. These two productivity measurement models can be used in various dimensions, namely: (1) the political aspect, commonly called macro-level productivity measurement, (2) industrial sizes, often called industrial-level productivity measurements, and (3) organizational dimensions, (Chong & Rundus, 2004). Productivity measurement is known as two measurement models, namely: productivity measurement model based on the ratio of output/input ratio and productivity measurement model based on the index number approach. Adam Jr., Flores, and Macias in 2001 stated that seven factors affect work productivity, namely: changes in work ethics, development of scientific management, development of human relations, growth labor, advanced technology, changes in government regulations, and shareholders.

## 2.2. Definition and Prior Research Related Health Status, Year of Service, Age, Number of Dependants, Education Levels, Work Ethos, Salary, and Government Policy

Health includes two aspects, namely: aspects of well-being and aspects of human resource development (Benson & Dundis, 2003). Like-wise nutrition, on the one hand, has health aspects and on the other hand, has points of educating human life. Therefore, the problem of improving and improving nutrition has a fundamental meaning to nourish, to teach and enhance work productivity (Akerboom & Maes, 2006). Human physical quality affects work efficiency and productivity in carrying out an activity. For workers in Indonesia, on average, it takes 42 hours a week to work or approximately 8-10 hours a day. Thus it can be said that health is the core of welfare. Health is a prerequisite for increasing productivity. Therefore health can be seen as a vital component of growth and development as an input to the production function. (Schultz, 2002) and (Bloom et al., 2001) have shown that workers' health affects productivity.

Based on the description, the development of hypotheses is as follows:

**H2:** Health status has a significant effect on the productivity of female workers

Ehrenberg in 2003 said that in a job, earnings would be influenced by the length of working hours and work experience. Women also have a tiny possibility to receive promotions because women have a primary role in parenting. Work experience will lead to an increase in skills possessed by someone who will ultimately increase productivity. (Ngo, Lau, & Foley, 2008) In their research using human capital, theory says that work experience is an essential investment in increasing productivity. Periodic increase in salaries of workers based on the work experience of workers. The results showed that if workers worked for 15 years, an accumulative rise in wages of 21.6% and for workers who worked for 30 years would have accumulated accumulative payments of 56.2%. Shah, Irani, and Sharif in 2017 who analyzed the wage structure and wage distribution for men and women indicated that there was an increase in income differences in both genders. The wage structure for men and women was found to have evolved in different ways. The coefficient for education level is found to be statistically significant and positive which indicates that income in the form of wages from education is higher for workers who have a higher level of education (Adamchik, Hyclak, & King, 2003).

Based on the description, the development of hypotheses is as follows:

**H3:** Salary has a significant effect on the productivity of female workers

**H4:** Year of service Salary has a significant impact on the productivity of female workers

Relationship between age and performance is an issue which is increasingly vital for at least 3 reasons, namely: (1) There is widespread belief that production decreases with increasing age; (2) The reality is that the workforce is aging; (3) Most workers today no longer have to retire at the age of 70 (Robinson, 2001). The older a person is, the less likely it will be to quit work. There is an attempt to assume that age is also inversely related to absenteeism. Generally, old employees have an avoidable absenteeism rate lower than young employees. How is it related to productivity. There is a widespread belief that productivity is declining with someone's age. Often assumed individual skills, especially speed, ability, strength and coordination decrease with time. Holtzman in 1999 which shows that generation has a significant and adverse effect on productivity which means that the older the productivity will decline, but the results of other studies proposed by Budhyani and Sila in

2008 indicate that there is a relationship positive and significant between age and productivity means that the older a person is, productivity will increase.

Based on the description, the development of hypotheses is as follows:

**H5:** Age has a significant effect on the productivity of female workers

Grzywacz et al. in 2005 stated that a worker feels burdened by the number of dependents. The number of dependents the more demanded to work hard in increasing work productivity, meaning that the burden will increase if the number of dependents is funded a lot and the amount of charge decreases if the number of dependents decreases. Indriyani in 2016 states that if a person has a large number of dependents, the level of productivity will be sought as high as possible because the various forms of rewards will be obtained.

Based on the description, the development of hypotheses is as follows:

**H6:** Number of Dependants has a significant effect on the productivity of female workers

Meaning that is more than investment in human capital (Becker, 1993) because education allows individuals to learn and getting skills that will have a fundamental effect on their behavior, beliefs, and roles in society. The school has been recognizing as the primary way for a developing country to increase the productivity of its workers, improve the health status of its people, encourage the application of new technology and education as well as being an agent for social unity. An educational theory states that the higher the knowledge of the community, the higher the productivity. Training can affect people's ability to be more responsive to the information that develops in society.

Based on the description, the development of hypotheses is as follows:

**H7:** Education has a significant effect on the productivity of female workers

Policies are directing to the distribution, distribution, and utilization of labor more both through improving information and fostering and improving skills. Also, procedures in the field of labor protection are shown to improve wages, work conditions, work conditions and employment relations, work safety, social security in the context of overall welfare improvement. The form of government policy contains several aspects such as wage protection, social security (Fleisher & Chen, 1997).

Based on the description, the development of hypotheses is as follows:

**H8:** Education has a significant effect on the productivity of female workers

This research is a development of the results of previous research, some of the proposed models are models developed by Ehrenberg in 2003 which examine things that are essential in the labor market.

### 3. Research Method

#### 3.1. Research Design and Measurement

The research data are collected using three methods : interviewing respondents and observing their characteristics, demography, socio-economic status, work environment and government policies related to the productivity of female workers and distributing questionnaire. The data collected using questionnaire are measured using Likert scale 1-5 (Strongly disagree – Strongly agree). After the distributed surveys obtained, the data are then coded based on the perceived answers of Likert scale 1-5 in the Microsoft Excel program, then the mean value of each variable is calculated. Then exported to SPSS for several testing stages, including Validity, reliability, determination coefficient, F test, T-test, Normality test, Heteroscedasticity, multicollinearity and final stage testing in the form of regression coefficient equation. The following formula illustrates the regression equation in this research:

$$Y = \beta_0 + \beta_1 sk + \beta_2 mk + \beta_3 ek + \beta_4 um + \beta_5 jt + \beta_6 pd + \beta_7 up + \beta_8 lk + \beta_9 kp + e$$

Info:

Y = Productivity,  $\beta$  = Regression coefficient, e = error, SK = Health status, MK = Years of service, EK = Work ethos, UM = Age, JT = Number of dependants, PD = Education Level, UP = Weekly salary and KP = Government policy

The measurement of health status (SK) variable based on the number of ill days in day unit in one month, i.e., < 1 – 4 days. Years of service (MK) is calculated based on the number of years, i.e., < 1 year – more than six years. Age (UM) is from < 20 years old up to older than 60 years old. Some dependants (JT) are < 2 persons up to more than five persons. The education level (PD) is measured based on: failed at elementary school, elementary school, junior high school, senior high school, and Graduate. The salary rate (UP) is measured based on income categories, ranging from < 500 thousand Rupiah to more than 1.5 million Rupiah per week. Productivity (Y) is estimated based on Industrial productivity index, ranging from < 0.7% to more than 1%. Work ethos (EK) is measured based on the measurement instrument of Likert scale 1-5: working hard,

trying to get a job, wanting to be appreciated, not care, responsible, disappointed with failure, courage, perseverance, obedient to leaders, and punctual finished. Work environment (LK) is measured based on the measurement instrument of Likert scale 1-5: Work condition, work relationship with leaders, work relationship with fellow workers, and work facilities. Government policy (KP) is measured using the research instrument of Likert scale 1-5: regular minimum salary, overtime, leave time, according to salary provision, work safety insurance, health insurance, pension insurance, and death insurance.

This research conducted in small, medium, and major food and beverage industries in Makassar, Indonesia. Its samples are 114 female workers. The criteria used for the inclusion of small enterprises are: owning maximum assets of 200 million Rupiah worth and employing between 5 and 19 workers. The rules used for the composition of medium industries are: holding assets ranging between 200 million to 1 billion Rupiah worth and employing between 20 and 99 workers, including the owner. Finally, the criteria used for the inclusion of major industries are: owning assets of more than 1 billion Rupiah worth and employing more 100 workers. Meanwhile, the number of samples by ethnicities is as follows: 41 female workers from Bugis ethnic, 42 from Makassar ethnic, and 31 from Toraja ethnic.

Therefore the research framework formed in this study to achieve the research goals and objectives is as follows in figure 1:

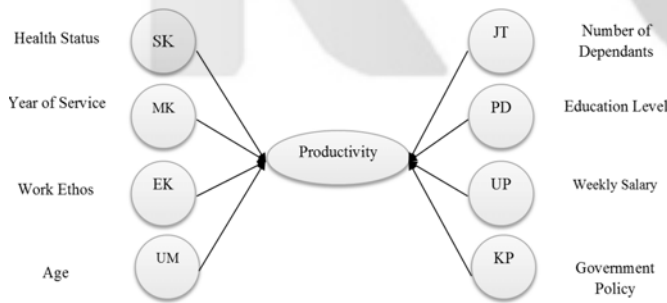


Figure 1: Conceptual Research

## 4. Result and Discussion

### 4.1. Result of Analysis

Based on Table 2 regarding data analysis for data validity test it can be concluded that all variable measurement dimensions are valid at significance rate of 0.000 < 0.01. Furthermore, the reliability test value suggests the following values for such variables as Work ethos (EK) = 0.788, work environment (LK) = 8.876, and government policy (KP) = 0.727. In The table 3. Shown the R<sup>2</sup> value between all independent variables against the dependent variable is

0.734, F test = 35.669 (sig. 0.000 < 0.01). The normality test indicates the value of Asymp. Sig = 0.054 > 0.05. The multicollinearity and heteroscedasticity tests show the entire value of VIF of test variables < 10.

Table 1: Data of Respondent

Number of illness	Bugis	Makassar	Toraja
< 1 day	26	32	25
2 days	6	4	2
3 days	7	4	4
4 days	2	2	0
Year of service	Bugis	Makassar	Toraja
< 1 Year	5	8	2
1-2 Years	21	24	23
3-4 years	6	7	2
5-6 Years	0	0	1
> 6 Years	9	3	3
Age	Bugis	Makassar	Toraja
< 20	7	2	2
20-29	20	20	18
30-39	8	14	10
40-49	4	4	1
50-59	1	1	0
>60	1	1	0
Number of dependants	Bugis	Makassar	Toraja
< 2 Persons	28	29	28
3 Persons	2	3	0
4 Persons	6	2	0
>5 Persons	5	8	3
Education Level	Bugis	Makassar	Toraja
Not completed in primary school	1	0	0
Primary School	10	20	7
Junior High School	22	17	15
Senior High School	6	5	8
Graduate	2	0	1
Salary Rate	Bugis	Makassar	Toraja
< 500 thousand	1	1	0
500 – 749 thousand	29	30	19
750 – 999 thousand	3	5	10
1 Juta – 1,2 million	6	2	1
1,2 – 1,5 million	0	1	1
>1,5 million	2	3	0
Productivity in Index	Bugis	Makassar	Toraja
< 0.7	16	1	4
0.7 – 0.84	8	6	10
0.85 – 0.99	0	9	6
>1	17	26	11

**Table 2:** The Goodness of Fit data

Normality test (Kolmogorov-Smirnov) = 0.07 > 0.05. (the test results state normal / parametric)							
Multicollinearity test by VIF measurement = 1.2 < 10 (the test results state that there is no multicollinearity)							
Reliability test = Mean rate is reliable at 0.57							
Cronbach alpha = 0.886(The test results state that the reliability of the variables is in the high category)							
Work Ethos (EK)	Small Industries Level		Middle Industries Level		Large Industries Level		Info
	Correlation	Sig. level	Correlation	Sig. level	Correlation	Sig. level	
Working hard	0.369	< 0.01	0.412	< 0.01	0.529	< 0.01	Valid
Trying to get a job	0.316		0.317		0.451		
Want to be appreciated	0.528		0.515		0.553		
Not careless	0.621		0.609		0.587		
To be responsible	0.572		0.554		0.654		
Disappointed with errors	0.690		0.681		0.389		
Dare to be accountable	0.539		0.526		0.326		
Feel loss if the task is not completed	0.525		0.501		0.339		
Obey the leader	0.372		0.369		0.554		
The work is completed on time	0.440		0.428		0.619		
Work Environment (LK)	Small Industries Level		Middle Industries Level		Large Industries Level		Info
	Correlation	Sig. level	Correlation	Sig. level	Correlation	Sig. level	
Working conditions	0.717	< 0.01	0.695	< 0.01	0.674	< 0.01	Valid
Work relations with leaders	0.741		0.770		0.739		
Working relationship with colleagues	0.467		0.646		0.495		
Working facilities	0.388		0.556		0.439		
Government Policy (KP)	Small Industries Level		Middle Industries Level		Large Industries Level		Info
	Correlation	Sig. level	Correlation	Sig. level	Correlation	Sig. level	
Minimum wage	0.813	< 0.01	0.721	< 0.01	0.648	< 0.01	Valid
When working late	0.882		0.780		0.771		
Leave time	0.651		0.671		0.566		
By wage provisions	0.698		0.592		0.596		
Work accident insurance	0.631		0.527		0.584		
Health Insurance	0.699		0.700		0.722		

Pension insurance	0.822	0.784	0.740
Death insurance	0.888	0.791	0.800

**Table 3:** Multiply Regression Test

Variables	β	Std. error	t	Sig.level	Result
Number of illness (SK)	-0.003	0.177	2,174	0.032	Support
Years of service (MK)	0.001	0.011	-3.195	0.002	Support
Work Ethos (EK)	0.090	0.001	2.475	0.015	Support
Age (UM)	0.004	0.031	2.532	0.004	Support
Number of Dependants (JT)	0.013	0.002	2,367	0.020	Support
Education Level (PD)	0.010	0.012	1.128	0.203	Not Support
Weekly Salary (UD)	2,266	0.004	2.320	0.022	Support
Work Environment (LK)	0.055	0.025	5.546	0.000	Support
Government Policy (KP)	0.048	0.022	1.185	0.031	Support

Source: Researchers Own Data Processing

Based on table 3 in the multiple regression test, it can be concluded that the SK, EK, UM, JT, PD, LK, and KP variables have positive, significant influences on the productivity of female workers in small, medium, and major-scale industries. Meanwhile, the MK variable has a negative, considerable impact on the productivity of female workers, or it concluded that the years of service (MK) variable has an indirect influence on the productivity of female workers. Based on table 3. Hypothesis result stated only hypothesis six (H6) it's not supported. Meanwhile, the Education (PD) variable does not influence the productivity level of female workers. Furthermore, to test the comparison of productivity difference of female workers based on the three ethnicities through the comparative test, the results as shown in table 4 below are obtained:

**Table 4:** Paired t-Test

	Sum of squares	Mean square	F
Between Groups	0,285	0,142	6,844
Within Groups	7,033	0,021	
Total	7,318		

Source: Researchers Own Data Processing

#### 4.2. Discussion

Overall, in small industries 73.4% of female workers' productivity variable is determined by health, years of service, work ethos, age, number of dependants, education level, salary, work environment, and government policy variables. These variables in medium industries have 72.1% influence on their productivity. And for major industries,

these variables have a 74.8% influence. Additionally, the number of absenteeism affected by illness undoubtedly has some effect on the productivity of female workers. The findings in the field also indicate that female workers have weaker physical qualities than male workers. These physical qualities will influence their work efficiency and productivity. This result finding confirms the research conducted by the Pindus (2000) who find that health influences productivity, meaning that the healthier the worker, the higher their productivity would be.

On the other hand, when workers' health decline, then their productivity will decrease. Besides, the low productivity of workers in developing countries is the result of weak physical health of workers which stems from their low income. Furthermore, years of service or the length of time female workers spend to work, workers' age, salary, work environment, education level, and work ethos give a positive effect on their work productivity. The big number of dependants and government policies do not influence their work productivity. This finding is different from (Lee & Wilbur, 1985) who argues that the existence of many dependants will burden a worker. This difference can be seen from the differences in salary rate variable. The salary rate in small industries is lower than that in medium and major industries. Has something to do in the difference in skills and abilities owned by female workers. In medium and major industries, workers receive job training to equip them with the right skills and method to use work tools. That matter is because training complements workers' education which is usually general while training is specific and operational. Another difference is in the implementation of government policies regarding salary protection for female workers and the provision of social security for workers. In small industries, female workers have not been registered with social security program which constitutes a program the government organizes to provide the basic protection for workers in order to maintain their dignity as a human being in dealing with the risks arising out of their work relationship and social risks which may affect their continuance to receive income. In medium and major industries, female workers have been registering with a social security program.

The differences which influence the work productivity between each ethnicity in female workers also explain that female workers of Makassar ethnic have work productivity which results from their principle of upholding their pride and female workers of Bugis ethnic have their high work discipline as the reason for their work productivity. Meanwhile, female workers of Toraja ethnic has their work productivity from their traditional view of life as a hard worker.

Implication: With these findings, entrepreneurs in the industrial sector can make decisions in the development and recruitment of workers in general and female workers in particular while paying attention to matters relating to their nature as women and the culture adopted by the local community. In small industries, to increase the productivity of

women workers, improvements in the wage system are needed. Gradual wage policies need to adjust to the level of living costs. For this reason, entrepreneurs that provide wages are no longer based on minimum physical needs but are based on minimum living needs so that minimum nutritional needs can be met to improve the health of workers. Whereas for relevant agencies such as the Department of Labor, the Department of Industry, the Health Insurance Party, and other relevant agencies, it should provide understanding to employers how important workers are included in the social security of workers through intensive socialization, because it is imperative for companies to provide protection, maintenance, and improvement of welfare for workers in the form of social security. Whereas for relevant agencies such as the Manpower Office, the Department of Industry, the Health Insurance Party, and other relevant agencies, it should provide understanding to employers how important workers are included in the social security of workers through intensive socialization, because it is imperative for companies to provide protection, maintenance, and improvement of welfare for workers in the form of social security.

Limitation: In this study, the respondents were only limited to married female workers, not including unmarried female workers and male workers, and the generalization of this study was limited only to the productivity of workers based on ethnicity in the scope of the food and beverage industry alone did not cover other types of industries

#### 4. Conclusion

Hypothesis result stated only hypothesis six it's not supported some dependants and government policies have insignificant influence on the productive workers in major-scale industries, yet they have some impact on small-scale industries. Besides, the fact that there is a difference in the productivity index of female workers in important sectors. As compared to small and medium-scale enterprises which are influenced, among other things, by the different salary received in each scale industry should be taken by small and medium-scale industries into consideration regarding the pay they give, including the variable of government policies related to pension insurance, work accident insurance and health insurance. In principle, female workers tend to have different productivity level from male workers. The fulfillment of female workers' need tends to result in a better allocation of time for working and not working. Thus, this undoubtedly will have some effect on their productivity for the company in the future.



## References

- Adam Jr, E. E., Flores, B. E., & Maclas, A. (2001). Quality improvement practices and the effect on manufacturing firm performance: Evidence from Mexico and the USA. *International Journal of Production Research*, 39(1), 43-63.
- Adamchik, V., Hyclak, T., & King, A. (2003). The wage structure and wage distribution in Poland, 1994-2001. *International Journal of Manpower*, 24(8), 916-946.
- Adams, J. S. (1963). Towards an understanding of inequity. *The Journal of Abnormal and Social Psychology*, 67(5), 422.
- Adisu, E., & Jehani, L. (2006). Hak-Hak Pekerja Perempuan. *Tangerang: Visimedia*.
- Akerboom, S., & Maes, S. (2006). Beyond demand and control: The contribution of organizational risk factors in assessing the psychological well-being of health care employees. *Work & Stress*, 20(1), 21-36.
- Angelova, N. V. (2016). Locus of Control and Its Relationship With Some Social-Demographic Factors. *Psychological Thought*, 9(2), 248-258. <https://doi.org/10.5964/psyct.v9i2.179>
- Babin, B. J., & Boles, J. S. (1998). Employee behavior in a service environment: A model and test of potential differences between men and women. *The Journal of Marketing*, 77-91.
- Becker, G. S. (1993). Nobel lecture: The economic way of looking at behavior. *Journal of Political Economy*, 101(3), 385-409.
- Benson, S. G., & Dundis, S. P. (2003). Understanding and motivating health care employees: Integrating Maslow's hierarchy of needs, training and technology. *Journal of Nursing Management*, 11(5), 315-320.
- Bloom, D. E., Canning, D., & Sevilla, J. (2001). *Economic growth and the demographic transition*. National Bureau of Economic Research.
- Budhyani, I., & Sila, I. N. (2008). Potensi Perajin Wanita Dalam Pengembangan Kerajinan Uang Kepeng Di Kawasan Pariwisata Ubud Bali. *Jurnal Penelitian Dan Pengembangan Sains Dan Humaniora (Online)*, 2(1).
- Chong, V. K., & Rundus, M. J. (2004). Total quality management, market competition and organizational performance. *The British Accounting Review*, 36(2), 155-172. <https://doi.org/https://doi.org/10.1016/j.bar.2003.10.006>
- Devarajan, S., Swaroop, V., & Zou, H. (1996). The composition of public expenditure and economic growth. *Journal of Monetary Economics*, 37(2), 313-344.
- Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California Management Review*, 41(2), 79-94.
- Ehrenberg, R. G. (2003). Studying Ourselves: The Academic Labor Market: Presidential Address to the Society of Labor Economists, Baltimore, May 3, 2002. *Journal of Labor Economics*, 21(2), 267-287.
- Elia, K. P. (2016). Hubungan antara Kelelahan Kerja dan Masa Kerja dengan Produktivitas Kerja pada Tenaga Kerja Bongkar Muat di Pelabuhan Bitung Tahun 2015. *PHARMACON*, 5(2).
- Fleisher, B. M., & Chen, J. (1997). The coast-noncoast income gap, productivity, and regional economic policy in China. *Journal of Comparative Economics*, 25(2), 220-236.
- Griffin, P. M., Griffin, S. O., & Llewellyn, D. C. (2004). The impact of group size and project duration on capstone design. *Journal of Engineering Education*, 93(3), 185-193.
- Grzywacz, J. G., Rao, P., Woods, C. R., Preisser, J. S., Gesler, W. M., & Arcury, T. A. (2005). Children's health and workers' productivity: an examination of family interference with work in rural America. *Journal of Occupational Health Psychology*, 10(4), 382.
- Holtzman, J. (1999). Households, Gender and Age Sets: Domestic Processes and Socioeconomic Organization Among the Samburu of Northern Kenya. *At the Interface: The Household and Beyond*, (15), 41.
- Houthakker, H. S. (1959). Education and income. *The Review of Economics and Statistics*, 24-28.
- Hutchens, R. M. (1989). Seniority, wages and productivity: A turbulent decade. *Journal of Economic Perspectives*, 3(4), 49-64.
- Indriyani, S. (2016). Pengaruh Pelatihan Kerja Dan Disiplin Kerja Terhadap Produktivitas Kerja Karyawan Pada PT. Paradise Island Furniture. *Jurnal Manajemen Bisnis Indonesia (JMBI)*, 5(1), 50-61.
- Jhabvala, R., & Sinha, S. (2002). Liberalisation and the woman worker. *Economic and Political Weekly*, 2037-2044.
- Jung, M.-H. (2017). The Effect of Psychological Well-Being on Life Satisfaction for Employees. *International Journal of Industrial Distribution & Business*, 8(5), 35-42. <https://doi.org/10.13106/ijidb.2017.vol8.no5.35>
- Knack, S., & Keefer, P. (1997). Does social capital have an economic payoff? A cross-country investigation. *The Quarterly Journal of Economics*, 112(4), 1251-1288.
- Lee, R., & Wilbur, E. R. (1985). Age, education, job tenure, salary, job characteristics, and job satisfaction: A multivariate analysis. *Human Relations*, 38(8), 781-791.
- Li, X., Chow, K. H., Zhu, Y., & Lin, Y. (2016). Evaluating the impacts of high-temperature outdoor working environments on construction labor productivity in China: A case study of rebar workers. *Building and Environment*, 95, 42-52.
- Murdifin, I., Pelu, M. F. A., Putra, A. A. H. P. K., Arumbarkah, A. M., Muslim, M., & Rahmah, A. (2018). Environmental Disclosure as Corporate Social Responsibility: Evidence from the Biggest Nickel Mining in Indonesia. *International Journal of Energy Economics and Policy*, 9(1), 115-122.
- Ngo, H., Lau, C., & Foley, S. (2008). Strategic human

- resource management, firm performance, and employee relations climate in China. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in Alliance with the Society of Human Resources Management*, 47(1), 73-90.
- Park, S.-Y., & Hawang, M.-Y. (2015). Effects of Executive Compassion and Forgiving Behavior on Organizational Activities and Performance. *Journal of Distribution Science*, 13(6), 105-118. <https://doi.org/10.15722/jds.13.6.201506.105>
- Prasetyo, E., & Wahyuddin, M. (2003). Pengaruh kepuasan dan motivasi kerja terhadap produktivitas kerja karyawan Riyadi Palace Hotel di Surakarta. Retrieved April, 2, 2016.
- Ramlawati, R., & Putra, A. H. P. K. (2018). Total Quality Management as the Key of the Company to Gain the Competitiveness, Performance Achievement and Consumer Satisfaction. *International Review of Management and Marketing*, 8(5), 60-69.
- Ranis, G., Stewart, F., & Ramirez, A. (2000). Economic growth and human development. *World Development*, 28(2), 197-219.
- Robinson, J. C. (2001). Theory and practice in the design of physician payment incentives. *The Milbank Quarterly*, 79(2), 149-177.
- Saltzstein, A. L., Ting, Y., & Saltzstein, G. H. (2001). Work-family balance and job satisfaction: The impact of family-friendly policies on attitudes of federal government employees. *Public Administration Review*, 61(4), 452-467.
- Schultz, P. W. (2002). Inclusion with nature: The psychology of human-nature relations. In *Psychology of sustainable development* (pp. 61-78). Springer.
- Shah, N., Irani, Z., & Sharif, A. M. (2017). Big data in an HR context: Exploring organizational change readiness, employee attitudes and behaviors. *Journal of Business Research*, 70, 366-378.
- Sutisna, H. (2008). Analisis Hubungan Motivasi Kerja Dengan Etos Kerja Karyawan (*Studi Kasus Karyawan Fakultas Pertanian IPB*). Retrieved from <http://www.pdf4free.com>
- Tsang, M. C. (1987). The impact of underutilization of education on productivity: A case study of the US Bell companies. *Economics of Education Review*, 6(3), 239-254.
- Widiastuti, S., & Widiastuti, S. (2011). Faktor Determinan Produktivitas Kerja pada Pekerja Wanita. Diponegoro University.
- Wijayanti, R., & Meftahudin, M. (2016). Pengaruh Kepemimpinan islami, Motivasi dan Kepuasan kerja terhadap Kinerja Karyawan dengan Lama Kerja sebagai Variabel Moderating. *Jurnal Penelitian Dan Pengabdian Kepada Masyarakat UNSIQ*, 3(3), 12-15.

KCS I