

Underemployment Conditions in Terms of Working Hours and Income at Badung Regency

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Abstract: Hauser (1975) states that there are 3 types of underemployment in terms of working hours, income, and mismatch (mismatch between qualification/education and work owned). High unemployment may also reflect the poverty conditions of the community, therefore to solve underemployment is as important as to solve open unemployment. The purpose of this study are to analyze 1). The condition of underemployment rate in terms of working hours and income in agriculture, industry and services sector in Badung Regency 2). The condition of the underemployment rate in terms of working hours and income at low, middle, and tertiary education level 3). The condition of underemployment rate in terms of working hours and income in formal and informal sector 4). The condition of underemployment rate in terms of working hours and income for male and female workers in Badung Regency; 5) the difference of income between underemployed and fully employed workers according to sectors, education, employment status, and sex in Badung regency. This research will be conducted in Badung Regency by taking 90 samples of research that will be distributed each of 30 samples in agriculture, industry, and services sector. Sources of data used there are 2 primary sources/primary data and secondary sources / secondary data. Samples will be distributed in all sub-districts in Badung Regency according to the proportion of workers working in all three sectors. The sampling technique used was accidental sampling for respondents and purposive sampling for informants. Methods of data collection used there are 3, observation, interview, and in-depth interview. Data analysis techniques used are descriptive statistics such as mean, median, mode, and inferential statistic ie Analysis of Varian (ANOVA). The results showed that 1). The highest rate of underemployment both in terms of working hours and income is in the agricultural sector, and the lowest in the industrial sector; 2). The highest rate of underemployment both in terms of working hours and income is found in the respondents who are poorly educated, even for higher education, none are classified as unemployed in terms of working hours; 3). The rate of underemployment is higher in the informal sector than in the formal sector, either by income or working hours; 4). Women are categorized as underemployed both in terms of working hours and higher incomes than men; (5) The difference in income significantly occurred in the respondents who were classified as underemployed with full employed worker on all the characteristics. Suggestions is education is the most important variable in reducing the percentage of respondents who are classified as underemployed both in terms of working hours and income. Thus the provision of motivation to the community should continue to be improved and the provision of scholarships into programs that can be done to achieve these goals.

Keywords: underemployment, working hours, income, education

1. Introduction

1.1 Background

Underemployment is an employment condition in which those who work or have a job opportunity but not full. In developing countries including Indonesia are experiencing this problem of underemployment. Many workforce work or have job opportunities, but they work under normal working hours. They are forced to work with low working hours because of lack of job opportunities, they can not survive long in a condition of not working because of poor, so they are forced to work with short working hours to survive. On the other hand there are also those who work with low working hours because of their desires, of course if they work with full working hours then their economic prosperity will be higher. Thus the income they earn by working with under employment or less than normal working hours will be lower than if they are working with normal working hours, which of course will affect the welfare that they can achieve. Conditions like these are common in developing countries including Indonesia, which would require a more comprehensive study so that it can be known that there are many underemployed, and what factors cause them to occur. The low open unemployment rate is around 1.90 percent in the Province of Bali in 2014, and for Denpasar about 3.69 percent in the same year (BPS, 2015). Bakir and Manning (1984) stated that the much larger group of underemployed than the open unemployment rate affects the welfare of the

workers. Unemployment is currently one of the significant problems of each country (Celik and Tatar, 2011).

Thus the open unemployment rate does not reflect the actual employment problem so the study of the condition of underemployment is very important to do. Philip Hauser in 1975 introduced a new approach to look at labor conditions in an area with due regard to the conditions of underemployment. The approach used is called the Labor Utilization Approach. With this approach the population will be classified as fully utilized and underutilized (Mantra, 2003). The underemployed workforce is not only visible in terms of low in working hours, but can also be seen from low income or productivity, and there is a discrepancy between the work held and the level and qualifications of education (mismatch) called invisible unemployment. The subtle under employment is more difficult to measure than the obvious unemployment. Someone who has a certain education or qualification if working in accordance with their own qualifications and expertise, then they are expected to produce high productivity to be provided at the place where they work. Vice versa if there is a mismatch occurs, it will be difficult for the person to produce high productivity. In this study will be studied under employment by working hours to be able to see existing job opportunities, as well as underemployment in terms of income, to see the assessment of work productivity. In this study has not been studied about under employment due to mismatch between qualifications/education owned with jobs owned by workers.

1.2 The purpose of the study

Based on the formulation of the problems that have been previously submitted, it can be submitted research objectives as follows.

- 1) To analyze the condition of the underemployment rate in terms of working hours and income in agriculture, industry and services sector in Badung Regency
- 2) To analyze the condition of the underemployment rate in terms of working hours and income at low, medium and high education level in Badung regency
- 3) To analyze the condition of the underemployment rate in terms of working hours and income in the formal sector and informal sector in Badung regency
- 4) To analyze the condition of the underemployment rate in terms of working hours and income for male and female workers in Badung regency
- 5) To analyze the difference of income between underemployed and full employed workers according to sectors, education, employment status, and sex in Badung regency.

1.3 Urgency research

Underemployment can be seen from 3 aspects, namely in terms of working hours, income / productivity, and in terms of mismatch between expertise/education and work owned (mismatch). One of the indications that emerged was the push down mechanism, for example, in a recruitment the applicant's often use their lower diploma than the diploma that they have because of the limited educated employment opportunities, so that emerge the people who did not work in accordance with their education (Dwiyanto, et al., 1996). These people are actually people who have not been fully utilized by the work environment, so what he should receive from his education is not obtained because he entered a job opportunity that is not in accordance with the education owned. Similarly, underemployment due to mismatch between education / expertise and the work owned, reflects workers who can not work optimally in their jobs because they are not supported by the necessary skills or education. Brown and Pintaldi, 2006, called it a misallocation of the labour resources in particular the mismatch of occupation and education. They call the condition a misallocation of resources between work and education. This condition will reflect the results obtained by the worker is not maximal, as can be done if the person occupying the position / job is the right person. Thus these three types of underemployment will inhibit the increase in income that can be achieved by workers who ultimately slow the increase in the welfare of the community. Until now information on underemployment conditions is inadequate, and from secondary data only average hours are available to obtain information on underemployment in terms of working hours, while information for underemployment of the second and third criteria is not yet available so the review becomes very important to do. Given these conditions, this study will emphasize the subtle underemployment caused by lack of working hours, and the not subtle underemployment caused by lack of income/productivity. With this research will be able to make underemployment map in terms of working hours and income based on certain characteristics of respondents.

2. Literature Review

Employment development in Indonesia is intended to increase labor productivity so that welfare can be improved. In the process of implementing economic development, one of the problems faced by this nation is the various problems in the field of manpower. Some of the employment problems faced in the economic development of the Indonesian Nation are among others unemployment, underemployment, low productivity of workers, partly due to low average qualifications and education, and inadequate workers protection. Attention has been rising towards the widespread and growing unemployment problem in third world countries (Todaro, 1983). These employment issues are trying to be addressed by the government so that prosperity as the nation's development goal is expected to be more quickly achieved.

In the discussion of employment in the center of attention is the labor force, because they are part of the working age population who enter the labor market. Those who belong to the workforce are mostly already employed as workers, and some are looking for jobs that are often called unemployment. This working labor force can be classified according to sectors, occupation, employment status, sex, residence, and education. The working force may experience underemployment in terms of hours of work, income / productivity, and mismatch (occupational discrepancies / qualifications held with employment). In this study under employment will be focused on 2 classifications that is according to working hours and income /productivity owned. The third under employment in the third classification of mismatch will be examined on other occasions because it is not possible or very difficult to combine in this study as the assessment requires very thorough analysis because there is no unemployment study due to mismatch which can be used as reference for discussion. Employment issues are in the labor force, both unemployment, under employment, wages, and employment relationships, and workers' protection. The high rate of unemployment is closely related to poverty. In general, most of those who do not have permanent or part-time employment tend to be in the poor, whereas those who work full-time and have permanent employment in the government and private sector tend not to be included in the poor.

So it can be implicitly argued that employment development is intended to provide employment and field work with adequate remuneration intended to provide decent employment and livelihoods for humanity in accordance with the 1945 Constitution article 27, paragraph 2 (Marhaeni, and Manuati, 2004). Employment development is thus directed at increasing the competence and independence of workers, increasing wages, welfare, labor protection and freedom of association (Subandi, 2011). All of the employment development programs are to be able to alleviate poverty and achieve the nation's prosperity in accordance with national development objectives. Smith (1776) states there is no prosperous society if the majority of the population is in poverty and misery (Nehen, 2012).

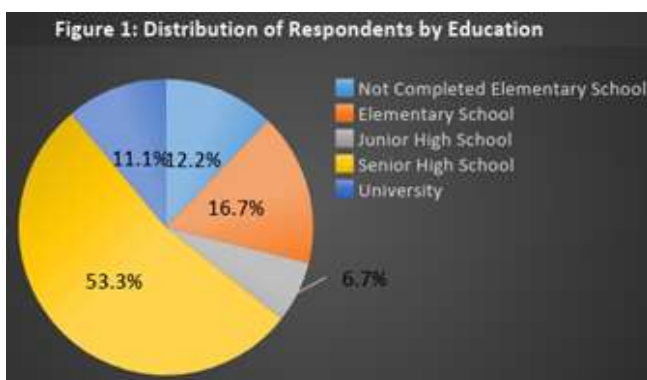
3. Research Methods

The study will be conducted in Badung regency, with the reason there is no information about the underemployment in the criteria based on primary data which can be studied according to some worker characteristics, so there are available under employment maps in this city. Population is a generalization region consisting of subjects or objects that have certain qualities and characteristics set by the researcher to be studied and then drawn conclusions (Sugiono, 2012). The sample is part of the population to be studied and then drawn the conclusions from the sample. The population in this study are workers classified into 3 sectors namely agriculture, industry, and services in Badung regency. Considering the analysis will be done in each sector regarding under employment that occurs, then taking into account the available resources the number of samples is set as many as 90 workers will be distributed evenly each 30 people in each sector, thus less attention to the proportion of the population in each respectively. Sampling method or sampling technique used is accidental sampling combined with snowball sampling (non probability sampling) with respect to the number of samples in each sub-district calculated in accordance with the proportion of sector. Methods of data collection used are methods of observation, interview and in-depth interviews. Statistical analysis method used to answer the purpose of research there are 2 namely: 1) Descriptive statistics, which aims to describe the data obtained before further analysis. Descriptive statistics to be used include mean values, median values, and mode values of primary data collected. 2). Inferential statistics, using either the average 2nd test or the Anova Test with 3 lines.

4. Data and Discussion

4.1 Characteristics of The Respondents

There are two characteristics of respondents discussed in this research. First relates the education of respondents and the second concerns to the type of work of the respondents. education is seen as a very important variable that determines worker's productivity that ultimately affects their income. Distribution of respondents by education is presented as follows.

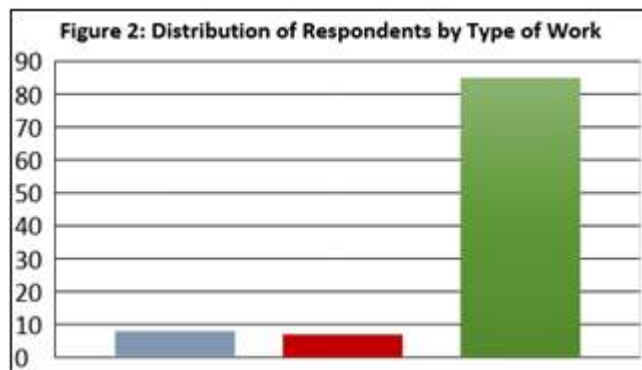


Sources: Primary Data

The data show that the most of respondents has middle education (Senior high school), and the least of the

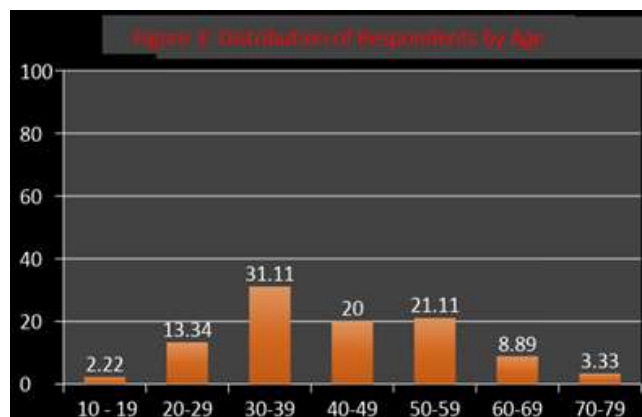
respondent only about 11 percents has higher education (university). This condition reflect that the education of the respondents especially or people in generally must be improved continuously.

In addition to education, the type of work of the respondents is also presented in this study. The data show that about 85 percents of respondents has type of work that called as farming/hard labor. The type of work are professional/managerial and sales/services has percentration that almost same. Condition of the type of work like that can describe about the income of the respondents that tend low. The type of work of the respondents has relation with education of the respondents.



Sources: Primary Data

Age is also one of the variables that affect the productivity of workers and can affect their income. In general pattern of influence of age on income is initially positive till a certain peak, after that there is negative effect of age on income. Data in figure 3 show that the pattern of age of the respondents has normal distribution, and most of the respondents is including productive population groups.



Sources: Primary Data

4.2 Underemployment conditions in terms of working hours and income

The data of the research shows that most of the respondents are classified as full working in terms of working hours. Only about 5.6 percent of respondents are classified as working underemployed in terms of working hours and the remaining 94.4 percent are fully employed. The data of the research shows that quite a lot of respondents are at the level of underemployment by using the minimum wage size of Badung regency in 2015 worth Rp. 1.905.0000. By using

these standards can be seen the percentage of respondents who are classified as underemployment on income.

The data in Table 4.1 shows that by using the district minimum wage standard (UMK) in 2015 of Rp.1.905.000, - per month it appears that about 34 percent of respondents in this study were underemployed in terms of income. So they can be said to be more concerned about work than the income earned, meaning that important they work even though their income is less than UMK. So quite a lot of respondents whose work is not remunerative, or does not provide adequate income security. If seen this data respondents who are underemployed in terms of income, amount and percentage is much more than the respondents who are underemployed in terms of working hours. This condition reflects employment available but not remunerative.

Table 4.1: Distribution of Respondents by Income Per Month

No	Income (Idr)	Amount (person)	Percentage
1	< 1.905.000	31	34,4
2	1.905.000 +	59	65,6
3	Total	90	100,0

Source: Primary Data, 2015

4.3 Underemployment According to Respondent's characteristic

(1) The condition of underemployment in terms of income and working hours by sector

A more in-depth analysis is conducted to see how the distribution of respondents who are underemployed both in terms of working hours and income by sector. Findings gained so far that the agricultural sector is said to be synonymous with poverty, low productivity, and low welfare. Many factors that support the condition include the area of land that is generally narrow so often referred to as farmers Gurem. Education tends to be also low so the income earned is also relatively low. With relatively low incomes, it is also likely that those who work in agriculture also tend to be underemployed in terms of income. The following are presented under the conditions of underemployment in terms of income by sector.

Table 4.2: Distribution of Respondents by Income and Sector

No	Income (Idr)	Sectors		
		Agriculture	Industry	Services
		N %	N %	N %
1	< 1.905.000	17 56,7	5 16,7	9 30,0
2	= 1.905.000 +	13 43,3	25 83,3	21 70,0
3	Total	30 100,0	30 100,0	30 100,0

Source: Primary Data, 2015

The data in Table 4.2 shows that workers in the agricultural sector has the highest underemployment in terms of income. Nearly 57 percent of workers in the agricultural sector are classified as underemployed in terms of income. The industrial sector has the lowest percentage of underemployed in terms of income. The service sector is between the two sectors, where the service sector and the industry sector have underemployed in terms of income less than a third, while in the agricultural sector the condition of

underemployed in terms of income more from 50 percent, a very high percentage, for the condition of underemployed. Distribution of respondents who are classified underemployed in terms of working hours can also be seen by sector.

Table 4.3: Distribution of Respondents Working Hours and Field Work

No	Working Hours	Sectors		
		Agriculture	Industry	Services
		N %	N %	N %
1	< 40 hours	3 10,0	1 3,3	1 3,3
2	= 40 hours +	27 90,0	29 96,7	29 96,7
3	Total	30 100,0	30 100,0	30 100,0

Source: Primary Data, 2015

Data Table 4.3 also shows that in the agricultural sector, the underemployment rate is also the highest (10 percent) compared to the other two sectors higher than the total underemployment rate (5.6 percent), while in the industrial and service sectors about 3 percent was considered underemployed in terms of working hours lower than the total underemployment rate (5.6 percent). These results also support that the agricultural sector is a sector where there is a high underemployment rate both in terms of working hours and in terms of income. This condition shows that agriculture sector is the most vulnerable sector where its work is in poverty condition.

Different with respondents who are classified as full-time employment, respondents who are classified as underemployed, there is no significant difference in the average income they earn. So whether they work in the agricultural, industrial, or service sectors on average their income is almost the same, but in those who work fully employed, their income is determined by the sectors where they work.

Table 4.4: Average Income of full and underemployed worker According to The Sectors

No	Sectors	Average income (Idr)		Level of significance of the difference
		Underemployed	Fully employed	
1	Agriculture	1.458.824	3.384.615	0,000
2	Industry	1.510.000	3.480.000	0,001
3	Services	1.488.889	4.480.952	0,000
4	Significance	0,989	0,005	-

Source: Primary Data, 2015

Thus there is a distinct pattern about the role of employment to their income between full-time and non-employed full-time or full-time respondents. In respondents who work full pattern is clearly visible, while the respondents who are classified as underemployed relative homogeneous, so there is no role of any characteristics against the average of their income is classified as underemployed. The data explains that in all sectors there is a significant income difference between underemployed and fully employed workers. This condition is supported by The Theory of Labor Market Segmentation, where there is segmentation into Primary and Secondary Markets or segments (Reich et al,1973; Grammare, 2007).

(2) Underemployment in terms of income and hours according to education

Underemployed both in terms of working hours and income can also be seen according to the education of the workers concerned. From various study results so far seen patterns or relationships where education tends to have a positive effect on workers' income, which is in accordance with the theory of human capital. The higher the education of a person or worker then the income tends to be higher, and vice versa, so that the phenomenon is seen that the higher the education of a person, then there is a tendency they will be more prosperous, because income and knowledge owned about various things. With their education they can choose jobs that will provide a promising income for their future. The following is presented under the condition of underemployment of income by education.

Table 4.5: Distribution of Respondents by Income and Education Level

No	Income (Idr)	Education level		
		Low	Medium	High
		N %	N %	N %
1	< 1.905.000	17 65,4	12 22,2	2 20,0
2	= 1.905.000 +	9 34,6	42 77,8	8 80,0
3	Total	26 100,0	54 100,0	10 100,0

Source: Primary Data, 2015

Description: Low (SD to below), Medium (SLTP and SLTA), High (University)

The data in Table 4.5 reflects that there is a clear pattern between the education of the respondent and the income earned. The data also shows there is a positive relationship between education and income earned, as well as related to the condition of underemployment in terms of education. The lower the education of the respondents, the higher the percentage of those who experience underemployment in terms of income. On the contrary, the higher the education of the respondents, the lower the percentage who experience half the unemployment in terms of income. If seen by those who work full in terms of income also shows a positive pattern, where the higher the education of respondents the higher the percentage of those who work full in terms of income. This condition supports the Human Capital Theory where human capital has been associated with economic growth (Wheeler, 2006; Zhang and Zhang, 2004). Similarly, the lower the education of respondents, the lower the percentage of those who are classified as fully employed in terms of income. Here it is seen that the quality of human resources (HR) becomes a very important thing in increasing their income so that it is positively correlated with the welfare that they may achieve in life.

As discussed earlier, education can also affect the employment opportunities they have, which in this case is reflected by working hours per week. The condition of the relationship between working hours and education can be seen in Table 4.6.

Table 4.6: Distribution of Respondent by Hours and Education Level

No	Working Hours	Education Level		
		Low	Medium	High
		N %	N %	N %
1	< 40 hours	4 15,4	1 1,9	0 0,0
2	= 40 hours +	22 84,6	53 98,1	10 100,0
3	Total	26 100,0	54 100,0	10 100,0

Source: Primary Data, 2015

Description: Low (SD to below), Medium (SLTP and SLTA), High (University)

The data in Table 4.6 also has a similar pattern to the underemployed in terms of income as previously stated. The data indicate that the educational level also has a relationship with underemployment in terms of working hours. In this case it also appears that the lower the education, the higher the percentage of underemployment. On the contrary, the higher the education, the higher the percentage of respondents who work fully in terms of working hours, so here seen there is a positive relationship between education with the percentage of respondents who work in full in terms of working hours. It also means that the higher the education the greater the employment opportunities that can be owned or created by them, so that the highly educated respondents tend to have extensive employment opportunities that are reflected by longer hours of work, and vice versa. Below is the average income of respondents who are classified underemployed and fully employed, when viewed from the education that they have.

Table 4.7: Average Revenue of full and underemployed worker According to Education Level

No	Education Level	Average income (Idr)		Level of significance of the difference
		Underemployed worker	Fully employed worker	
1	Low education	1.523.529	3.100.000	0,000
2	Medium education	1.337.500	3.766.667	0,000
3	High education	1.900.000	4.875.000	0,000
4	significance	0,752	0,007	-

Source: Primary Data, 2015

Data in Table 4.7 shows that at all levels of education there is a significant average income between the respondents who are working fully employed with those who are classified as underemployed. Those who are underemployed have a lower average number than those who work full-time at all levels of education. In fully-employed respondents it is clear that the higher the level of education, then the higher their income, and the number is significant with a significance of 0.007. It also shows that the respondents are fully employed, education has a significant positive effect on their income. Human capital theory predicts a positive relationship between earnings and investments in human capital via educational attainment (Becker, 1964; Mincer, 1974 in Rubb, 2006; Pose and Tselios, 2009). Education and training to increase the labor productivity is so important to reduce unemployment (Mouhammed, 2011). Vocational training, professional skills upgrading, consulting unemployed and employers can ensure work places in the future to decrease unemployment (Sakiene, 2010)

(3) Underemployment in terms of income and working hours by Status of employment

The status of the employment can be divided into formal and informal working status. The formal category consists of those who work with permanent workers and laborers, while the informal category consists of those who are self-employed without the help of others, working with the help of household members / casual workers, and family workers (BPS, 1996). With the classification can be seen the distribution of respondents by income and employment status as in Table 4.8.

Table 4.8: Distribution of Respondents by Income and Status of Employment

No	Income (Idr)	Status of employment	
		Formal	Informal
		N %	N %
1	< 1.905.000	14 24,6	17 51,5
2	= 1.905.000 +	43 75,4	16 48,5
3	Total	57 100,0	33 100,0

Source: Primary Data, 2015

The data in Table 4.8 clearly shows that there is a difference in underemployment in terms of income for respondents working in formal and informal employment status. The data in Table 4.8 shows that respondents who work on informal employment status percentage of more than 50 percent is exactly 51.5 percent who are classified underemployed in terms of income, whereas respondents who have formal employment status only about one quarter or about 25 percent classified as underemployed in terms of income. So here it appears that respondents who are classified as working in the formal sector are much less likely to experience underemployment in terms of income, which also means that respondents who have formal sector have higher average incomes compared to those who work in the informal sector. As a result, those who work in the informal sector are more percentages who are classified as underemployed in terms of income. In these circumstances the role of government and other parties becomes very important to help businesses in informal categories to be formal.

Table 4.9: Distribution of Respondents by Hours of Work and Employment Status

No	Working hours	Status of employment	
		Formal	Informal
		N %	N %
1	< 40 hours	1 1,8	4 12,1
2	= 40 hours +	56 98,2	29 87,9
3	Total	57 100,0	33 100,0

Source: Primary Data, 2015

Similarly, when viewed in terms of underemployment from working hours the condition is equal to underemployed in terms of income. This means that the percentage of respondents who are classified as underemployed in terms of working hours are also more on respondents who have informal employment status compared with respondents who have formal working relationship status. This condition also shows that those who work in the informal sector are more likely to be short of job opportunities that are reflected by

underemployment in terms of working hours than those working in the formal sector.

Table 4.10: Average of income of under employed and full employed worker according to Status of employment

No	Status of employment	Average of income (Idr)		Level of significance of the difference
		Under employed	Full employed	
1	Formal	1.628.571	3.821.429	0,000
2	Informal	1.350.000	3.809.677	0,000
3	significance	0,561	0,971	-

Source: Primary Data, 2015

The data in Table 4.10 also shows that informal jobs have lower average incomes compared to formal jobs. However, when seen from the level of significance it turns out there is no significant difference in the income they earn between the formal status and informal both on those who are classified as underemployed or who are fully working. Significant differences in their income only occur among respondents who are classified as underemployed and who are fully employed. Thus, how to keep them from being underemployed, but being full-time is one way to increase their income

(4) Under employed in terms of income and working hours by sex

The data in Table 4.11 can be seen in the conditions between male and female workers viewed from the average income they earn each month. In the data it is clear that women workers are underemployed in terms of income much higher than male workers. In contrast, male workers have a relatively high percentage of earnings in terms of earnings compared to female workers. Such conditions can be caused by the quality of women who tend to be lower than men so that they get jobs with wages that tend to be lower than those of male workers. Thus there will be higher women who experience underemployment in terms of income compared with men.

Table 4.11: Distribution of respondent according to income and sex

No	Income (Idr)	Sex	
		Male	Female
		N %	N %
1	< 1.905.000	20 29,4	11 50,0
2	= 1.905.000 +	48 70,6	11 50,0
3	Total	68 100,0	22 100,0

Source: Primary Data, 2015

In addition to income levels, and other variables, underemployment can also be seen by sex and hours. The following Table 4.12 reflects the underemployment rate in terms of working hours, and sex. Data Table 4.12 reflects underemployment conditions for both men and women. This data also reflects that female respondents are much more percentage that is classified as underemployed in terms of income compared with male respondents. Women the percentage who experienced underemployment in terms of income more than men.

It also reflects that the work held by male respondents has enough job opportunities so that the average working hours will be longer than the female respondents. This condition is

supported by a reality in the community that men are still seen as the head of the family who is the backbone of the family in the welfare of all family members, so it needs to work longer than women. Thus half the unemployed in terms of working hours will tend to occur more in female workers than with male workers.

Table 4.12: Distribution of respondent according to working hours and sex

No	Working hours	Sex	
		Male N %	Female N %
1	< 40 hours	4 5,9	2 9,1
2	= 40 hours +	64 94,1	20 90,9
3	Total	68 100,0	22 100,0

Source: Primary Data, 2015

If seen from Table 4.11 and Table 4.12 can be seen that both in terms of working hours and income, female workers in this study experienced a higher underemployment rate percentage compared with male workers. This situation is closely related to the social and cultural conditions of the people who still see that the main job of women is to take care of the household, while earning a living is an additional job. Men in the opposite position, as the main breadwinner in living the family, so to achieve that goal men will work longer and harder than women. This condition supported by Dhanani (2004) that said the female open unemployment rate was higher than for males.

The data in Table 4.13 shows that there are significant differences in the earnings of male and female workers in those who are considered underemployed and full-time employment. The data also show that there is a very large difference in the average income of both male and female workers between those who work full-time with those who are underemployed. The data also shows that there is no significant difference of male and female income both in the respondents who are classified as underemployed or who are fully working, this can be seen from the level of significance that exists. Thus it can be concluded that sex does not affect the income obtained by respondents. Both men and women on average earn no statistically different, even in absolute terms the average female income is slightly higher than the average male earnings. This condition also implicitly indicates that women have been able to enter employment with the same quality of work as men which causes female workers to earn the same income as male workers. Educated women have better labor market opportunities, and higher earnings (Mitra and Singh, 2007).

Table 4.13: Average of income of under employed and full employed worker according to sex

No	Sex	Average of income (Idr)		Level of significance of the difference
		Under employed worker	Fully Employed worker	
1	Male	1.465.000	3.804.167	0,000
2	Female	1.495.455	3.863.636	0,000
3	significance	0,913	0,884	-

Source: Primary Data, 2015

5. Conclusions and Suggestions

5.1 Conclusion

- 1) The highest level of underemployment by income and working hours is in agriculture, which means the highest percentage of workers in agriculture sector which is underemployed compared to other sectors (the lowest is in industrial sector).
- 2) The highest level of underemployment by income and working hours is the lowest percentage of respondents who are lowly educated, and those with the highest level of education are the lowest percentage who are considered underemployed.
- 3) The rate of underemployment in terms of income is highest among respondents working in the informal sector. This means that respondents who work in the informal sector most of the income under the UMK Badung regency. Similarly, when viewed half of the employment hours, it is also seen that respondents who work with the highest informal status percentage who work half jobless in terms of working hours.
- 4) The highest level of underemployment by income is highest among female workers compared to men. This means men tend to work full while women tend to work half unemployed. This is closely related to socio-economic conditions of the community. Similarly, in terms of working hours, female respondents who have a higher unemployment rate than men.
- 5) The difference in income significantly occurred in the respondents who were classified as underemployed with full-time respondents on all the characteristics.

5.2 Suggestions

- 1) Education becomes a very important variable in increasing the income of workers, therefore preparing workers who will enter the labor market with higher education through various scholarship programs that can be increased the number and percentage from time to time. Through the improvement of education, the variation of work can be obtained, so that expected working hours and income will be improved.
- 2) Efforts to reduce underemployment both in terms of working hours and income through increased investment and increased worker productivity can be a priority to do.

References

- [1] Badan Pusat Statistik. 1996. *Penduduk Provinsi Bali, Hasil Survei Penduduk Antar Sensus 1995*, Seri S2.14. Jakarta: BPS
- [2] Badan Pusat Statistik. 2015. *Bali Dalam Angka 2014*. Denpasar: BPS
- [3] Bakir, Z dan Manning Chris. 1987. *Angkatan Kerja di Indonesia, Partisipasi, Kesempatan, dan Pengangguran*. Jakarta: Penerbit CV Rajawali
- [4] Brown, G and Federica Pintaldi. 2006. A multidimensional approach in the measurement of underemployment. *Statistical Journal of the United Nations ECE* 23 (2006) 43–56
- [5] Celik, M and Tatar, M. 2011. *Employment-Unemployment Issues And Solution Suggestions*

- Adiyaman Example. *Interdisciplinary Journal of Contemporary Research In Business*. Vol 3, No. 2, p. 186-195
- [6] Dhanani, S. 2004. *Unemployment and Underemployment in Indonesia, 1976-2000: Paradoxes and Issues*. Geneva: International Labour Office,
- [7] Dwiyanto A, Faturochman, Marcelinus Molo, dan Irwan Abdullah. 1996. *Penduduk dan Pembangunan*. Yogyakarta: Aditya Media
- [8] Grammare ,Magali Jaoul. 2007. The labour market segmentation: empirical analysis of Cain's theory (1976). *Applied Economics Letters*, 2007, 14, 337–341
- [9] Mantra, IB. 2003. *Demografi Umum*. Yogyakarta: Pustaka Pelajar
- [10] Marhaeni dan Manuati. 2004. *Ekonomi Sumber Daya Manusia*. Buku Ajar. Denpasar: FEB Unud
- [11] Mitra, Aparna; Singh, Pooja. 2007. Human Capital Attainment and Gender Empowerment: The Kerala Paradox. *Social Science Quarterly*, Volume 88, Number 5. Pp. 1227-12242.
- [12] Mouhammed, Adil H. 2011. Veblen's Theory of Unemployment and Public Policies. *International Research Journal of Finance and Economics*, Issue 70, pp. 217-226
- [13] Nehen, Ketut. 2012. *Perekonomian Indonesia*. Denpasar: Udayana University Press
- [14] Pose, Andres R; Tselios, V. 2009. Education And Income Inequality In The Regions Of The European Union. *Journal of Regional Science*, Vol. 49, No. 3, Pp. 411–437
- [15] Reich, Michael; Gordon, David M.; and Edwards, Richard C.,1973. "Dual Labor Markets: A Theory of Labor Market Segmentation". *American Economic Review* Vol.63, No.2, pp. 359-365.
- [16] Rubb, Stephen. 2006. Educational Mismatches and Earnings: Extensions of Occupational Mobility Theory and Evidence of Human Capital Depreciation. *Education Economics* Vol. 14, No. 2, pp.135–154
- [17] Sakiene, Henrika. 2010. Analysis of Unemployment Regulation Tools In Lithuania. *Ekonomika Ir Vadyba*.Vol. 15, Pp 219-225
- [18] Subandi. 2011. *Ekonomi Pembangunan*. Bandung: Penerbit Alfabeta
- [19] Sugiyono. 2012. *Metode Penelitian Bisnis*. Bandung: Penerbit Alfabeta
- [20] Todaro, M. P. 1983. *Pembangunan Ekonomi Di Dunia Ketiga*. Jakarta: Ghalia Indonesia
- [21] Wheeler, C. H. 2006. Human Capital Growth in a Cross Section of U.S. Metropolitan Areas. *Federal Reserve Bank of St. Louis Review*, March/April 2006, 88(2), pp. 113-32.
- [22] Zhang, Jie.; Zhang, Junsen. 2004. How does social security affect economic growth? Evidence from cross-country data. *Journal of Population Economic*. Vol 17, pp. 473–500