Underemployment: Is it sacrificing?

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Abstract

This research paper investigates the 2017 Labor Force Survey carried out by the National Statistical

Office in Thailand. It serves as a pilot study to identify underemployment, an issue that has been

hidden deep down at the bottom of the iceberg in the labor market in Thailand. The focus in this

research paper is time-related underemployment. If it exists, this study identifies where it is, who the

underemployed are, and most importantly whether it is because of his/her own self or for others. This

is based on an attempt to investigate the nexus between underemployment and familism. Accordingly,

the notion of 'others' in this study refers to other members of the family, particularly those under 6 years old. To do so, this study relies upon a mixed methods approach along an explanatory design to

come up with two multinomial logit models. The result showed the percentage of time-related

underemployees in Thailand is low (0.54%). Rather than gender, the study finds marital status is

significantly related with time-related underemployment. Divorced or separated persons who live with

a child (RRR = 0.315; p < 0.05) and married persons who live with a child (RRR = 0.3; p < 0.01) are

less likely to be time-related underemployed compared to those single persons. The in-depth

interviews in Bangkok Metropolis and vicinity further reveal that childbearing is an underlying cause

of underemployment, especially time-related underemployment.

Keywords: time-related underemployment, employment, employee, living arrangement, marital

status, Thailand

1. Introduction

When it comes to employment issues, unemployment seems to be one of the topics that are usually

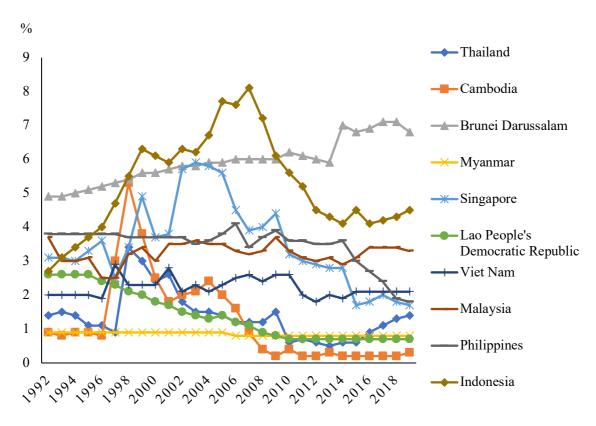
mentioned, as it is an indicator for each country's labour market capability. For Thailand, International

Labour Organization (2018) estimates the country unemployment rate, which is relatively low when

compared with other ASEAN member countries, to be the fourth lowest in 2019 following neighboring

Cambodia, Laos, and Myanmar (Figure 1).

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[Figure 1: unemployment rate of ASEAN member countries]

Source: International Labour Organization, 2018

Having a low unemployment rate might ensure a country of its stable economy. However, when taking labour quality issues into consideration, it is found that Thai labours have been undergoing quality issues for a long time due to their inability to meet the required qualifications. The group that made most impact to the nation level is the undergraduates, who normally spend more time choosing a job than those with uneducated persons or primary school certificates. While those with bachelor's degrees are in the middle of finding the jobs that meet their degrees, it happens that sometimes they decide to accept some offer despite being overqualified (Pholphirul et al., 2014). On the other hand, those who cannot find full-time jobs will have to work part-time and at lower wages (Findeis et al, 2009; Yerger & Julian, 2009). As for highly qualified employees who become informal workers, they have more tendency to endure the limited chance to exercise their ability in a long-term as well as to have more income (Lathapipat & Chucherd, 2013). These situations are defined as underemployment, which is an undercover dilemma hidden unsolved.

Underemployment is the concept that was developed by International Labour Organization in 1964 to drive full employment. Moreover, Labor Utilization Framework (LUF) was also included, dividing the concept into three aspects, including (1) low hours, (2) inadequate skill utilization, and (3) low pay (Clogg, Sullivan & Mutchler, 1986). After that, International Labour Organization developed a

categorization of underemployment into three types; (1) time-related underemployment, (2) skills-related underemployment, and (3) income-related underemployment (Maynard & Feldman, 2011).

This study's objective is to study time-related underemployment in Thailand in the following aspects; where and who in Thailand experience time-related underemployment and whether having household members who are below six years old affect the working hours. The study will be utilized with analysis of skills-related and income-related underemployment to give us a clearer picture of the situation of underemployment in Thailand.

2. Theoretical background

This study relies upon the theories/concepts of human capital, work-life balance approach, and time-related underemployment.

2.1 Human capital

Human capital is the concept that changes human perspective. Humans are originally crucial factors of production, which is worthwhile and profitable. According to Schultz (1961), an economist, makes a statement regarding human capital that humans essentially contribute to nation wealth. Human capital is developed comprising these factors; (1) good health (2) on-the-job training provided by their organizations (3) formal education (4) non-job training and (5) personal or household relocation which leads to more career opportunities (Schultz, 1961). Apart from these factors, a number of children per household also correlates with human capital. Households with fewer children spend more for their education than its counterparts (Becker, 1993). Therefore, human capital is a conceptual framework that explains correlations between all factors that contribute to human capital.

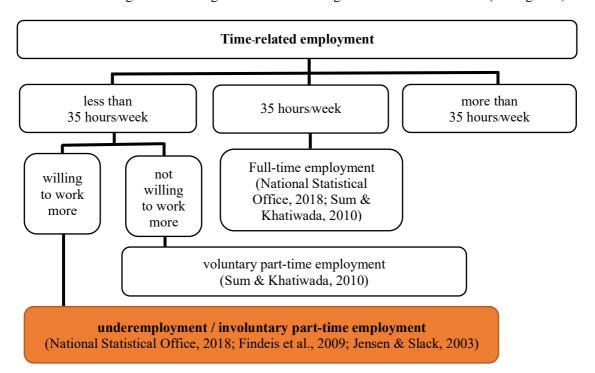
2.2 Work-Life balance approach

The beginning of work-life balance idea is the result of female behavioral change when they started to enter labour market (Goldsmith, 1989; Houston, 2005; Blyton et al., 2006). This change benefits the whole economy, contributing to more household income and lifting up their social status in a way that women are able to pursue their careers as well as man. Nevertheless, the fact that this gender role is starting to change also leads to family conflict as women having to switch roles from being an employee, a wife, and a mother would create more distress (Goldsmith, 1989). Thus, to have work-life balance includes daily time allocation between work and recreation (Blyton et al., 2006) as well as the balance between work and family, in which women do not only take mother and wife roles but also children role where they take care of their dependent parents and grandparents. These various

roles come from population structural change and from different age range of family members. As a result, work-life balance depends on personal, work, and family context which would normally vary.

2.3 Time-related underemployment

When looking at employment from the time-related perspectives, an economy may set the averages of 35 hours/week as full-time employment. In practice, there may be some workforces who work more than the average of 35 hours/week while others work less than that. International Labour Organization (2016) defines those having fewer working hours than the average as the time-related underemployed persons. However, other definitions include whether the worker is willing to work more or not as an additional criteria for the time-related underemployed (Findeis et al., 2009; Jensen & Slack, 2003). The National Statistical Office of Thailand (2018) also specifically defines time-related underemployed persons as individuals who currently work less than 35 hours a week yet desire to work more. When comparing with skills-related underemployment and income-related underemployment, time-related underemployment seems to have the clearest boundary. Following The National Statistical Office of Thailand (2018), this study focuses on time-related underemployed defined as those having fewer working hours than the average and desire to work more (see Figure 2).



[Figure 2: types of time-related employment]

Source: Author's summary from National Statistical Office, 2018; Sum & Khatiwada, 2010; Findeis et al., 2009; Jensen & Slack, 2003

3. Methodology

This study relies upon a mixed methods approach, which involves quantitative and qualitative methods. Data of quantitative research is from the 2017 Labor Force Survey conducted by the National Statistical Office in Thailand. The samples include 49,394 employees, who are government employees, enterprises employees, private employees, or contractors, at ages 15-92, and live in Thailand. This study firstly explores if underemployment exist and to what extent, based on the data from the latest national Labor Force Survey, and then what are the determining factors on the time-related underemployment, where it is, who the underemployed are, and most importantly whether it is because of his/her own self or for others. This is based on an attempt to investigate the nexus between underemployment and familism. Accordingly, the notion of 'others' in this study refers to other members of the family, particularly those under six years old.

A multinomial logit model, which deals with multiple outcomes, is used to analyze the time-related underemployment. It shows an interaction of marital status and living with children who are under six years old as follows:

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Y = \beta_0 + \beta_1marital status + living with a child under 6 + \beta_j X + \epsilon (model 1; basic)

Y = \beta_0 + \beta_1 marital status*living with children + \beta_2marital status + \beta_i X + \epsilon
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(model 2; marital status*living with children)

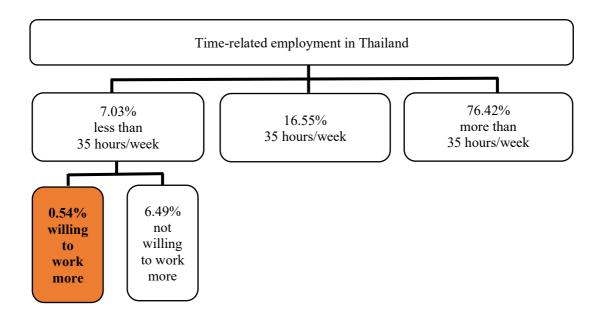
Where Y is the time-related underemployment. X is a vector of other control variables. β_0 is constant and ϵ is the error term.

The qualitative method includes in-depth interviews. This is to come up with a better understanding of the survey results. This is from the perspectives of when, why, and how one becomes a time-related underemployees. It covers two participants living in Bangkok and vicinity who work less than 35 hours/week and are willing to work more.

4. Result

4.1 The overview of time-related employment in Thailand

We found that the majority of employees worked more than 35 hours/week (76.42%) and some of them worked exactly 35 hours/week (16.55%), while the underemployed employees were only accounted for 0.54% (See Figure 3)



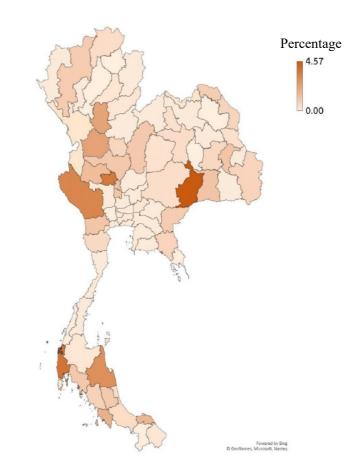
[Figure 3: Percentage of time-related employees in Thailand, 2017]

Source: Author's calculation from the 2017 Labor Force Survey, the National Statistical Office, Thailand

4.2 The overview of time-related underemployment in Thailand

Percentage of time-related underemployees by province

Despite the small extent, underemployment spreads across the country. Considering each province, Buri Ram had the highest percentage of time-related underemployees (4.57%), followed by Phangnga (3.71%) and Chai Nat (3.57%), respectively. When considering each region in comparison, four provinces out of ten in highest ranks were in Southern region. This finding was related to the study conducted by Tirasawat et al. (2003), which focused on time-related underemployment during Tom Yum Kung Crisis in 1997. It was concluded that working hours of employees in Southern region was similar to that of 21 years ago. However, when taking hourly wages of these groups into consideration, it was found that Southern region had a higher hourly wage than other regions (Table 1). Consequently, the time-related underemployment analysis alone is not as conclusive as when skills-related underemployment and income-related underemployment come into play.



[Figure 4: Percentage of time-related underemployees by province, Thailand, 2017]

Source: Author's calculation from the 2017 Labor Force Survey, the National Statistical Office,
Thailand

Note: Percentage of time-related underemployees = time-related underemployees x 100 all employees

No.	Province	Region	%	Average income per hour in Thai Bath (Yen¹)
1	Buri Ram	Northeastern	4.57	44.1 (142.7)
2	Phangnga	Southern	3.71	58.5 (189.3)
3	Chai Nat	Central	3.57	44.2 (143)

 $^{^{1}}$ exchange rate: TB30.6 = \$100

No.	Province	Region	%	Average income per hour in Thai Bath (Yen¹)
4	Kanchanaburi	Central	3.15	36.8
				(119.1)
5	Nakhon Si	Southern	2.83	118.6
	Thammarat	Soumern		(383.8)
6	Kamphaeng Phet	Northern	2.48	33.2
Ü				(107.4)
7	Sukhothai	Northern	2.20	48.8
,				(157.9)
8	Satun	Southern	1.79	99.1
Ü				(320.7)
9	Pattani	Southern	1.61	37.3
j		Soumem	1.01	(120.7)
10	Yasothon	Northeastern	1.44	35.5
10			1.11	(114.9)

[Table 1: Top 10 time-related underemployees by provinces, Thailand, 2017]

Source: Author's calculation from the 2017 Labor Force Survey, the National Statistical Office, Thailand

Characteristics of time-related underemployed employees

Most of time-related underemployed employees were male (56.72%), married (60.82%), belonged to Generation X (52.24%), attained primary education (39.92%), worked in private sectors (57.84%), had occupations under Occupation Tier 1 category² (55.97%), worked in agricultural sectors (60.82%), and lived in rural areas (58.58%).

² Based on the International Standard Classification of Occupation (ISCO 08), occupations can be classified into three groups, including

^{1.} Occupation Tier 1 includes elementary occupations

^{2.} Occupation Tier 2 includes clerical support workers, services and sales workers, plant and machine operators and assemblers, skilled agricultural, forestry and fishery workers, craft and related trades workers, plant and machine operators and assemblers

^{3.} Occupation Tier 3-4 includes managers, professionals, and technicians and associate professionals

Characteristics	%
gender	
male	56.72
female	43.28
marital status	
single	17.54
married	60.82
widow	7.09
divorce and separate	14.55
generation	
Gen Y	33.58
Gen X	52.24
Baby Boomers	13.81
Silent	0.37
education	
none and less than primary	29.48
primary	39.92
secondary	26.87
post-secondary	2.24
bachelor	1.49
working status	
private employees	57.84
contractors	38.81
government employees	3.35
skill level	
level 1	55.97
level 2	41.79
level 3-4	2.24
sector	
agriculture	60.82
manufacture	20.52
service	18.66
area	
rural	58.58
urban	41.42

[Table 2: Characteristics of time-related underemployees, Thailand, 2017]

Source: Author's calculation from the 2017 Labor Force Survey, the National Statistical Office, Thailand

4.3 The relationship between determining variables and time-related underemployment

Model 1, the basic model, shown in the appendix reveals that time-related underemployment is significantly related to marital status and whether living with a child under 6 years old. When we let the marital status interact with the child under 6 years old, those who are married, divorced or separated are significantly related to time-related underemployment. It shows no difference between male and female. Once the marital status is interactive with the living with children variable, model 2 further shows that divorced or separated persons who live with a child (RRR = 0.315; p < 0.05) and married persons who live with a child (RRR = 0.3; p < 0.01) are less likely to be time-related underemployed compared to single persons. Therefore, this study of an in-depth interview with married persons who are living with a child so as to examine the causes and characteristics of their time-related underemployment.

4.4 Empirical findings

Given the limited time, the qualitative study can only explore 2 cases of married persons living in Bangkok and vicinity with a child under 6 years old, and working 8.30 a.m. – 4.30 p.m. at government organizations. This is based on in-depth interviews held from September 28 to October 1 in 2018.

When time-related underemployment started

The study finds that post-maternal leave period plays an important role for a person to become time-related underemployed. The starting time of doing such jobs was varied, depending on individual health. Case A had no health problems while conceiving a child so she started doing time-related underemployed job after maternal leave. On the other hand, case B participant who got sick during the first three months of her pregnancy, so she started doing time-related underemployed job during her pregnancy. Even once she recovered from pregnancy-related sickness, case B had to become time-related underemployed again after giving birth.

Why time-related underemployment started

Both of cases reveal that time-related underemployed is a sacrifice. It's the sacrifice for the very young children, the future human capital of the society. In other words, one needs to sacrifice their own opportunity for job promotion for the better quality of the children. It is not only the employees who sacrifice themselves for the children, but also the employers as well. They have a flexible policy to let their employees taking care of the children without salary cut.

The reasons of time-related underemployment of two female participants greatly depended on their children and health condition. Case A was time-related underemployed since she had to leave an office early to breastfeed her baby. Case B was sick during pregnancy, so she was late at work or even got absence the whole day. After giving birth, she became time-related underemployed again in order to dress up her baby.

How time-related underemployment started

The study reveals that reducing the official working time of participants during pregnancy and postpartum plays an importance role in the comprehensive care and development of the child's health. Case A had to leave the office half an hour early during post-maternal leave so she worked 34.5 hours a week. Case B during pregnancy, she could work only half day and once returning to work after maternal leave, she manages to go to work 1 and half hour. late. Consequently, she worked 17.5 hours a week during pregnancy and 27.5 hours a week after maternal leave. However, the study finds only case A who tries to do her best to satisfy both her employers and her baby. To repay her kind employer who allows her to take care of the baby, she works much harder during her working hours.

"Sometimes I had to **leave the office at 4 p.m. in order to come home early** for breastfeeding my kid who refuses formula feeding. Now my kid is five months old,

I can clearly see the change of my work habits, I have to do everything as planned with the fixed and limited amount of time."

Case A, 34 years old, Bangkok.

"I got sick since the first month until the third month of pregnancy, and that made me **start working at noon or have a day-off.** After 3 months of maternal leave, I have to bath my baby and dress it.

Though my mom gives me her hand but she's too old to bath my baby alone.

So, after finishing the tasks, I can start working at around 10 a.m."

Case B, 29 years old, vicinity.

5. Conclusion

Underemployment reflects the inability to work to the fullest potential. It has three subgroups: (1) time- related underemployment, (2) skills- related underemployment, and (3) income- related

underemployment (Maynard & Feldman, 2011). Though we know that underemployment exists in our society, it is still hard to be measured. Therefore, such problem can be compared to the part of an iceberg that is hidden in the water. Underemployment co-exists with employment, and to differentiate them does require different measurements following the contexts of work and domestic law of each country. Hence, in this paper, we chose to focus on time-related underemployment, which means the working of less than 35 hours a week yet the workers want to work more, as it has relatively much clearer criteria if compared to the other types of underemployment.

By considering the percentage of time-related underemployed workers, we found that Thai people in general work long hours, but time-related underemployment exists and spreads across the country. Factors influencing time-related underemployment in Thailand are marital status and the availability of children, while we found no difference between males and females.

The in-depth interviews of female participants who married and had a child further reveals childrearing as the main cause of time-related underemployment. The degree of time-related underemployment is varied, mainly due to the potential of sickness at time of conceiving, as well as, the level of child's growth that will affect mothers' arrival time at work and the time getting off work since they have to spend time looking after their children, i.e. breastfeeding, bathing, dressing, and even taking care of them intensively in times of sickness. Time-related underemployment is a sacrifice. Not only the workforces who sacrifice their career path for the quality of the children, but the employers also sacrifice. Time-related underemployment may be regarded as part of work-life balance that some workforces and their employers were trying to practice. However, this is only to a very limited extent. This study hopes that in one day Thailand would have a policy and legislative regimes to promote work-life balance, so that both the workforce and the society would be better.

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Appendix

	Relative Risk Ratio				
	Mo	del 1	Model 2		
time-related underemployment	В	asic		marital status*living with children	
	(1)	(2)	(1)	(2)	
marital status*living with children (ref: single	e*living wit	hout childre	n)		
single*living with a child			1.000	1.000	
			(0.000)	(0.000)	
single*living with many children			1.000	1.000	
			(0.000)	(0.000)	
married*living without children			1.000	1.000	
			(0.000)	(0.000)	
married*living with a child			0.300**	0.767	
			(0.117)	(0.118)	
married*living with many children			0.554	0.784	
			(0.376)	(0.230)	
widowed*living without children			1.000	1.000	
			(0.000)	(0.000)	
widowed*living with a child			0.124	0.975	
			(0.136)	(0.285)	
widowed*living with many children			0.000	0.530	
			(0.000)	(0.325)	
divorced/separated*living without children			1.000	1.000	
			(0.000)	(0.000)	
divorced/separated*living with a child			0.315*	0.529*	
			(0.182)	(0.142)	

	Relative Risk Ratio			
	Mod	del 1	Model 2	
time-related underemployment	Ba	sic	marital status*living with children	
	(1)	(2)	(1)	(2)
divorced/separated*living with many			0.998	0.561
children			0.776	0.501
			(0.810)	(0.275)
gender (ref: male)				
female	1.127	1.280***	1.128	1.285***
	(0.149)	(0.054)	(0.150)	(0.054)
marital status (ref: single)				
married	0.828	0.846**	1.094	0.880*
	(0.153)	(0.048)	(0.241)	(0.055)
widowed	1.441	1.143	2.123*	1.162
	(0.455)	(0.124)	(0.716)	(0.136)
divorced/separated	2.122**	0.995	2.571***	1.105
	(0.495)	(0.092)	(0.710)	(0.111)
living with child (ref: living without children)				
living with a child	1.249	1.091	3.486***	1.389*
	(0.198)	(0.058)	(1.190)	(0.198)
living with many children	2.515***	1.341**	4.016*	1.705
	(0.570)	(0.124)	(2.503)	(0.470)
living with elder (ref: living without elder)				
living with an elder	1.195	1.200***	1.199	1.198***
	(0.182)	(0.060)	(0.183)	(0.060)
living with many elders	1.071	1.170*	1.043	1.170*
	(0.226)	(0.077)	(0.221)	(0.077)
generation (ref: Gen Y)				
Gen X	1.101	1.143**	1.099	1.137*
	(0.170)	(0.058)	(0.171)	(0.057)
Baby Boomers	1.029	1.410***	1.022	1.403***
	(0.250)	(0.107)	(0.251)	(0.106)

	Relative Risk Ratio				
	Mo	del 1	Model 2		
time-related underemployment	Basic		marital status*living with children		
	(1)	(2)	(1)	(2)	
Silent	0.871	2.162*	0.875	2.130*	
	(0.922)	(0.702)	(0.928)	(0.693)	
years of schooling	0.942**	0.915***	0.942**	0.915**	
	(0.019)	(0.006)	(0.019)	(0.006)	
income per hour	1.917***	2.275***	1.961***	2.276**	
	(0.291)	(0.102)	(0.299)	(0.102)	
working status (ref: contractors)					
government employees	0.128***	0.520***	0.126***	0.520**	
	(0.055)	(0.054)	(0.055)	(0.054	
enterprises employees	0.000	0.417***	0.000	0.419**	
	(0.000)	(0.087)	(0.000)	(0.087	
private employees	0.317***	0.798**	0.318***	0.799*	
	(0.059)	(0.056)	(0.059)	(0.056	
skill level (ref: level 1)					
level 2	0.546***	0.952	0.548***	0.951	
	(0.080)	(0.049)	(0.081)	(0.049	
level 3-4	0.154***	0.670***	0.153***	0.670**	
	(0.076)	(0.064)	(0.075)	(0.064)	
sector (ref: agriculture)					
manufacture	0.207***	0.120***	0.205***	0.120**	
	(0.037)	(0.007)	(0.037)	(0.007	
service	0.140***	0.138***	0.141***	0.138**	
	(0.027)	(0.008)	(0.028)	(0.008	
area (ref: rural)					
urban	0.897	0.693***	0.904	0.695**	
	(0.117)	(0.030)	(0.118)	(0.030)	

	Relative Risk Ratio				
	Mod	del 1	Model 2		
time-related underemployment	Ва	ısic	marital status*living with children		
	(1)	(2)	(1)	(2)	
region (ref: northeast)					
Bangkok	0.090*	0.373***	0.091*	0.374***	
	(0.092)	(0.060)	(0.093)	(0.060)	
central	0.491***	0.671***	0.487***	0.672***	
	(0.094)	(0.047)	(0.093)	(0.047)	
north	0.499**	1.220**	0.505**	1.220**	
	(0.106)	(0.089)	(0.107)	(0.089)	
south	1.766**	2.541***	1.755**	2.542***	
	(0.359)	(0.171)	(0.357)	(0.171)	
constant	0.014	0.030	0.010	0.029	
Observations	49,394	49,394	49,394	49,394	
Pseudo R2	0.214	0.214	0.214	0.214	

^{***} p<0.001, ** p<0.01, * p<0.05

Note: Base group: working 35 hours/week and over

- (1) = time-related underemployment or working less than 35 hours/week and willing to work more
- (2) = working less than 35 hours/week and not willing to work more