


“Urbanization – changes in employment and incomes of people in Vietnam”

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URBANIZATION – CHANGES IN EMPLOYMENT AND INCOMES OF PEOPLE IN VIETNAM

Abstract

This study aimed to analyze the impact of urbanization on the income and employment of people in Vietnam. To collect data for the study, 515 people participated in the survey, representing 515 households living in major cities in Vietnam. The OLS regression method and the T-test are applied to analyze the research objectives and examine the differences in the income and employment of people before and after urbanization. Research findings show that urbanization has both positive and negative effects on people's income and employment in Vietnam. The income of people increased by about 12.5779 million VND/year compared to the pre-urbanization period. After urbanization, new jobs will increase, with employment disparities before and after urbanization in each family averaging about 1.734 jobs. The survey findings also show that household investments have the most significant influence on household income (standardized coefficients = 0.465). Compensation also has a positive and relatively substantial impact on household income with standardized coefficients = 0.195. However, the undesirable consequences of urbanization affected the employment of a part of the population, the number of unemployed leads to a decrease in the household's income (standardized coefficients = -0.13).

Keywords

households, compensation, invest, livelihood, livelihood strategy

JEL Classification

O12, D10, J22, D13

INTRODUCTION

Urbanization is an inevitable process taking place in countries around the world, the development models of smart cities, sustainable urban development have been successfully built and developed in countries around the world. The creation of cities is an inevitable trend to promote socio-economic development in countries and regions within each country. Learning from the experiences of developed countries in the world, Vietnam is also building and gradually developing urban areas towards sustainability and smart cities to create the most favorable conditions for the overall socio-economic development of the country.

According to MOC (2020), as of June 2020, Vietnam has 853 urban areas, including two special-class cities under the direct central rule; 20 cities of class I, 31 of class II, 43 of class III, 85 of class IV, and 672 of type V with a total urban population of 38,146,090 people. Vietnam's cities show strong growth in urban development, which shows that the country's urbanization is taking place relatively quickly. In the North, urbanization and industrialization took place mainly in three major areas of socioeconomic development (Hanoi Capital, Quang Ninh City, Hai Phong City), the Central region (Da Nang City, Nha Trang City, Quy Nhon City), and the Southern region (Ho Chi Minh City, Binh Duong City, Vung Tau City).



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The process of urbanization in Vietnam had a positive impact on the socioeconomic development of the country, as evidenced by the fact that the rate of economic restructuring, the proportion of industry, and construction are growing. The face of urban areas has undergone dramatic changes: it is civilized, modern and green, cleaner and more beautiful. Urbanization has opened up many job opportunities, increased incomes, and improved people's material and spiritual life, create the effect of promoting socioeconomic development in the province, regions, and the whole country. Many new urban areas and old urban areas have been renovated and upgraded infrastructural facilities: roads, electricity and water, educational facilities, health care, and environmental sanitation. According to GSO (2020), the structure of Vietnam's economy has changed: the proportion of agriculture, forestry, and fisheries decreased (from 20.58% in 2010 to 14.05% in 2020) and the rate of services, industry, and construction increased. Economic growth in urban areas averages 12-15%, 2-2.5% higher than the national average. At the same time, in Vietnam, the income from the economic activities of urban areas accounts for a high proportion of the country's GDP structure. Total budget revenue in urban centers accounts for over 70% of total national budget revenue (GSO, 2020).

However, besides the results achieved by urbanization, economic and social problems have also arisen. Nguyen's study (2018) has shown that in Vietnam, an average of 73 thousand hectares of agricultural land is acquired each year for urbanization and industrialization, which affects about 2.5 million people, and on average 10 jobs were lost for every hectare of land acquired; this has negatively affected and changed people's livelihood strategies.

Urbanization brings about socioeconomic impacts on a national scale, but on a micro-scale, when considering each participant in the economy, urbanization has also caused significant impacts. Therefore, the aim of this study was to examine the impact of urbanization in Vietnam on people living in urban areas of Vietnam by analyzing changes in employment and incomes of people in these areas before and after urbanization.

1. LITERATURE REVIEW

Urbanization is an inevitable trend in countries that has both positive and negative socioeconomic impacts on nations (Thuo, 2013; Potts, 2013; Cui et al., 2019; Abdissa & Degefa, 2011). Urbanization also brings benefits expressed through the winners and has disadvantages reflected through the group of losers in this process (Potts, 2013). These studies have also analyzed the influence of urbanization on people in different countries ranging from Kenya, Africa, and Mongolia.

Studies have agreed that urbanization influences people's livelihoods. In the study of Cui et al (2019), the urbanization process in Mongolia is taking place rapidly; however, the livelihoods of the people here have not been improved concurrently in a constant state of flux. The authors use a distributed lag model to assess data and carry out research. The author's research findings show that urbanization has a profound impact on people's livelihood requirements, in particular, public services and labor wages have a lag of 3 years compared to the

development requirements of urbanization, while health care has a lag of 2 years. Meantime, Abdissa and Degefa (2011) pointed out that urbanization has caused negative impacts on the livelihoods of local people, especially for women and young people. A requirement of urbanization that all studies agree upon is the need to ensure that people's livelihoods can be adequately converted, to limit the damage caused by urbanization.

The effects of urbanization and industrialization have also been studied in the direction of the factors affecting the livelihood of the people. These studies are carried out by collecting data from surveys of households in urban areas in different countries, all of whom are affected by the urbanization process (Jansen et al., 2006; Bryceson, 1996). Some factors have been identified that affect people's income during urbanization and industrialization, such as the gender of a household head, labor size per family, education level, area of land acquired during urbanization and industrialization, etc. (Benayas et al., 2007; Le, 2007).

The effects of urbanization on people's livelihoods have been studied primarily in the cases of those whose agricultural land has been acquired and thus incurs livelihood injury due to urbanization. People will now face new challenges due to the loss of means of production (Thuong, 2013; Abdissa & Degefa, 2011; Tran, 2013). They will receive compensation money when their land is acquired, if they use this compensation money effectively, they will have new livelihood strategies and their livelihoods will be better, and vice versa (Nguyen & Bui, 2011). However, Nguyen and Nguyen (2020) and Ramcharan (2017) showed, when people's agricultural land is acquired, they will face the loss of their old jobs and need to find new jobs that are suitable to their abilities and condition their reality. These are significant problems in the process of urbanization that all countries face. People facing hardships suffer from the impacts of urbanization, which requires the government to adopt supportive policies and propose new livelihood strategies to help them overcome those problems (Saumik & Sarma, 2013; Nguyen et al., 2018).

Industrial parks in urban areas are built as an indispensable part of the development process of urban regions when industrialization and urbanization always develop together. Some studies aimed to examine the effects of industrial park development on the income or livelihood of people living nearby industrial parks (Dai et al., 2013; Bury, 2004). In addition, in the study of Bui et al. (2013) and Bury (2004), they focus on the target group of people who are affected by industrial park development but have agricultural land acquired; however, there is another group of people who are also affected by industrial park development but agricultural land is not acquired, which has not been mentioned in these studies. In addition, the influence of industrial parks includes either direct or indirect impacts, positive influences, and negative influences (Cu & Nguyen, 2021; Liang et al., 2018). Therefore, inheriting the above research is necessary for the research team to develop and carry out this study on a broader scale. The authors mention research directions on the impact of industrial park development on the socioeconomic development of countries, utilizing relatively homogenized data, based on a direct survey of the subjects directly affected by industrial park devel-

opment. Typical of these are studies by Susur et al. (2019) and Hyeong et al. (2016). They show that industrial park development has socioeconomic influences; however, in the long term, Nguyen et al. (2017) and Melnyk et al. (2014) state that the development of industrial parks should be carried out in the direction of green and sustainable industrial parks. Moreover, Milan et al. (2013), Blomstrom and Ari (2002), and Ramona (2008) mentioned this view in their articles.

The impact of urbanization on people's lives was demonstrated in previous studies, including both positive and negative effects. However, in Vietnam, there seem to be few studies analyzing the impact of urbanization on both groups of subjects (those whose agricultural land is recovered and those whose agricultural land is not recovered in the process of urbanization). Both of these target groups are directly affected by urbanization, and both live and work in urban areas of Vietnam.

In addition, the change in employment and incomes of people when the urbanization process in Vietnam takes place needs to be answered to measure the impact of urbanization on people's livelihoods.

Inheriting previous studies, this study will continue to develop previous studies while analyzing the influence of factors on people's income in the context of urbanization in Vietnam (Each person surveyed will represent one household). Moreover, the study will analyze the difference between the income and employment of the surveyed people before and after urbanization in those areas. Data for the study were collected through household surveys in typical Vietnamese cities.

Based on this, the following research hypotheses are proposed:

- H1: *The number of employed workers, investment, and compensation have a positive impact on household income during urbanization.*
- H2: *Unemployed persons of households in the process of urbanization will negatively affect household income.*
- H3: *There is a difference in household income and employment before and after urbanization.*

2. RESEARCH METHODOLOGY

2.1. Data collection methods

The data for this study was collected by surveying households in the most developed cities in Vietnam to date. In particular, based on MOC's urbanization statistics (2020), Vietnamese cities with a high urbanization rate were selected to ensure the representatives of the survey sample as follows:

In the Northern region: The survey in the Hanoi capital – the urban representative of urban areas with the highest urbanization rate of the Northern region of Vietnam.

In the Central region: The survey in the Da Nang City, which is known as the smartest and most livable city in Vietnam.

In the South region: The survey in the Binh Duong City, which is the fastest-growing urban area in terms of industrial parks in Vietnam.

To survey households in urban areas, the study used a survey form designed from the GSO's household living standard survey (2006). The survey form included two items, first, information about survey subjects, and second, an assessment of the impact of urbanizations on the income and employment of the surveyed households.

Regarding the sample size of the survey, the minimum number of observations needed to perform statistical operations, according to Nguyen (2014), is 100. Therefore, the minimum number of observations that the study needs is 100. For the three cities that the research team has surveyed, 200 survey questionnaires were distributed for each urban area, the total number of survey questionnaires was 600. After distributing those 600 questionnaires, the research team collected 546 questionnaires.

For the 546 collected questionnaires, the research team entered data and removed the survey forms that did not meet the requirements due to lack of information during the survey. Out of 546 surveys, 515 questionnaires met the requirements, accounting for about 94.32% of the votes collected.

With 515 questionnaires, it met the minimum number of observations required to perform statistical operations.

Survey period: From June to October 2020.

2.2. Data analysis method

To study the effect of urbanization on people's income, the variables are selected as follows:

2.2.1. Dependent variable

Household income (Y): The income of surveyed households is inherited from Cu and Nguyen (2021), Tran (2013), and Le et al. (2020), assuming that household income is the amount of money earned each year from family members. This income is measured in units of millions of VND/year. The scale was also used by Nguyen and Bui (2011), Tran and Vu (2014), and Abdissa and Degefa (2011).

2.2.2. Independent variables

DFID's research framework (1999) was used as a basis of the study; it is also used for studies when selecting independent variables.

Age (Age): This is a scale used to measure how the respondent's age affects the household's income. For this study, respondents are usually heads of households (Nguyen & Bui, 2011; Cu & Nguyen, 2021; Siegel, 2005; Huynh & Mai, 2011). With this variable, it is expected that the direction of the impact on the dependent variable will have a positive relationship.

Number of household jobs during urbanization (Labor_A): This variable is measured by the total number of workers that each household has when urbanization takes place. The study expects that the relationship between these dependent and independent variables will have a positive relationship based on the studies by Le (2007), Le et al. (2020), and Abdissa and Degefa (2011).

Number of unemployed workers (Unemp): The labor size of each unemployed family when urbanization occurs is measured by this scale; these unemployed workers do not adapt to changes caused by urbanization (Le, 2007; Tran & Vu, 2014; Le et

al., 2020). This variable is predicted to have a negative relationship with the dependent variable.

Cost of living's households (Cost): According to Tran and Vu (2014) and Tran (2013), this is a scale to measure total costs that the household uses to spend in a year and is measured in units of millions of VND/year. According to Nguyen and Bui (2011) and Siegel (2005), if the cost of living of the whole household increases, the income of the household will increase. The relationship between the cost of living and income is expected to be positive.

Household investment (Invest): According to Bui (2011), Huynh and Mai (2011), and Cu and Nguyen (2021), this scale is used to measure the amount of investment currently made by a household, the unit of measurement is million dong. The relationship between the dependent variable and the independent variable is expected to be positive.

Compensation expenses of households (Compensation): This is the money that households receive due to the recovery of assets and production costs to serve the process of urbanization. According to Nguyen (2009), and Nguyen et al. (2006), receiving this amount will increase the income of a household. However, if this money is not reinvested and used properly, the income of households is likely to decrease in the future, as they can no longer adapt to the new situation.

Participation in social organizations and policy outreach (AP): This is the dummy variable used in the study, if the household participates in social organizations and has access to supportive policies from state management agencies or organizations and firms, it will be encoded as 1, and 0 otherwise (Inheriting research of Nguyen and Bui (2011), and Cu and Nguyen (2021)). Participation in social organizations and access to policies will have a positive impact on household income.

3. RESULTS

Using the collected data, the study analyzes the influence of the factors on household income in the context of urbanization. Then, the study will use a T-test to examine the difference in employ-

ment and incomes of households before and after urbanization. Table 1 provides statistical results and variables used.

Table 1. Descriptive statistics

Items	Mean	Max	Min	Standard Deviation
Labor_A	2.8	8.0	0.0	1.4
Unemploy	.9	3.0	0.0	.9
AP	.3	1.0	0.0	.5
Invest	41.49475	635.000	0.000	100.24785
Cost	71.1	206.0	12.0	31.9
Compensation	84.4	690.0	0.0	108.9
Y_A	133.1	794.0	19.0	101.2

Employed labor after the urbanization process takes place (Labor_A) has an average value of about 2.8 employees, in which there are families after urbanization, the number of members with employment is 0, there are also families who live for many generations, the number of employed workers is 8. This number of employed workers may be self-employed, self-employed by households, some households change jobs due to changes in the environment, they find new jobs to replace the jobs that are no longer available after urbanization.

The average number of unemployed due to urbanization (Unemploy) is about 0.9, with the most unemployed families having about 3 employees and the smallest 0 employees. Because the number of unemployed in households is largely unable to adapt to changing environmental conditions when urbanization occurs. When urban areas develop, enterprises and industrial parks appear, which will also require qualified and skilled workers, if they do not meet the job requirements, this will cause unemployment among workers in that household.

Investment of households (Invest) has an average value of 41.49475 million VND/year; this is a household's investment, in addition to the income they receive from their jobs. This investment will help improve the income of households.

Cost of living of households after urbanization occurs (Cost): This cost is relatively high compared to what it was before urbanization, as an average cost of living is about 71.1 million VND/year.

The income of households after urbanization (Y_A) is the average income of the family, which is about 133.1 million VND/year; household income in urban areas in Vietnam is relatively much higher than in city areas, although this level of income is not high compared to other cities in the world.

OLS regression is performed to analyze the influence of the factors on household income after urbanization.

First, the study examines the appropriateness of the selected regression model; the independent margin explains about 77.5% of the dependent variable; coefficient Sig = 0.000; F = 249,338, so the selected research model is appropriate.

Table 2a. Model summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.880 ^a	.775	.772	48.3318

Note: a. Predictors: (Constant), Compensation, Age, AP, Invest, Labor_A, Unemploy, Cost.

Table 2b. ANOVA^a

Model	Sum of squares	df	Mean square	F	Sig.
1 Regression	4077100.629	7	582442.947	249.338	.000 ^b
Residual	1184332.171	507	2335.961		
Total	5261432.800	514			

Note: a. Dependent Variable: Y_A. b. Predictors: (Constant), Compensation, Age, AP, Invest, Labor_A, Unemploy, Cost.

After testing the fit of the regression model, the model was estimated (Table 3).

Table 3. Coefficients^a

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-16.254	10.081		-1.612	.107		
Age	.375	.146	.062	2.565	.011	.761	1.314
Labor_A	7.104	1.694	.099	4.194	.000	.792	1.263
Unemploy	-14.047	3.225	-.130	-4.356	.000	.498	2.007
AP	9.206	4.830	.042	1.906	.057	.935	1.070
Invest	.469	.023	.465	20.338	.000	.851	1.176
Cost	1.158	.095	.366	12.162	.000	.491	2.036
Compensation	.181	.022	.195	8.168	.000	.780	1.282

Note: a. Dependent Variable: Y_A.

The variable of Age of a household head (Age) has a positive relationship with the income of a household after urbanization; this variable is statistically significant with the coefficient Sig = 0.011, standardized coefficients = 0.062; the age of a household head larger and guaranteed in working age has a positive impact on household income. This is consistent with the fact that when workers need more experience, their income will be higher, and vice versa; when the household head is old, they have work experience and have stable jobs to have a stable income for the family. The data analysis results show that the results are in line with expectations and support the view of Cu and Nguyen (2021), Huynh and Mai (2011), and others.

The variable of the number of jobs of households after urbanization (Labor_A): This variable is statistically significant with the coefficient Sig = 0.000 < 0.05; standardized coefficients = 0.099, indicating that as more workers in the household are employed, their income will increase. The coefficient estimated from the data obtained shows that, for every additional job a worker has, the household's income will increase by 0.099 units. Indeed, when urbanization takes place, people's lives in these areas also change, they change their livelihood strategies and change jobs due to changes in means of production. Some households no longer have traditional means of production due to the acquisition of cultivated agricultural land, can find new jobs at factories, enterprises or start their own business from home, creating jobs for themselves and their family members. Workers who meet the requirements for expertise and skills have priority for recruitment according to policy commitments

of local governments and businesses. Therefore, when there are stable jobs, people's incomes will increase. Research results support Le (2007), Le et al., (2020), and Abdissa and Degefa (2011).

However, in addition to people who gained more jobs because they adapted to the changes in the urbanization process, some employees lost their jobs because they do not meet the skills and qualifications required for new jobs. Meanwhile, the old means of production have disappeared due to changes in the process of urbanization. The number of unemployed in the process of urbanization in Vietnam is not small. Unemployment has pushed workers into a situation where there is no stable income, meaning their income is going down. The research outcomes are completely consistent with the reality and the results of previous related studies; the standardized coefficients of this variable are about -.130 when each household member is unemployed, income will be reduced by 0.13 units. This variable is also statistically significant with the coefficient Sig = 0.000 < 0.05. Research results support Nguyen (2009) and Cu and Nguyen (2021).

Through participation in social organizations and access to government and local government policies during the process of Vietnamese urbanization, troubled localities have received support and have had difficulties resolved. Vietnamese authorities and the government have adopted policies to support vocational training, especially for those affected by urbanization due to the acquisition of their agricultural land. In addition, policies on loan support to transform livelihood strategies have also been implemented. The Standardized Coefficients of this variable is .042 when access to good policies will increase household income, and vice versa. Research results support the views of Nguyen and Bui (2011), Tran (2013), Tran and Vu (2014), Siegel (2005), and Huynh and Mai (2011).

Households' investments have significantly improved their income; the investment variable (Invest) is statistically significant with the coefficient Sig = 0.00 < 0.05; Standardized Coefficients of this variable is 0.465, the rational use of investment funds has brought positive impacts on household income. Investment theories also show a positive correlation between in-

vestment and incomes, not only from the micro but also from the macro perspective. Based on the author's findings, households, when receiving compensation due to the ground clearance process for the construction of factories and works for the process of urbanization, will use that money to carry out investment activities such as financial investment, construction investment in accommodation projects, business, etc. These investments have contributed to profits and great benefits for people, thereby contributing to an increase in income for households. Research findings support the research hypothesis and previous studies by Cu and Nguyen (2021) and Tran (2013).

Household cost of living (Cost) is statistically significant with the coefficient Sig = 0.000 < 0.05 and Standardized Coefficients = 0.366, as the cost of living increases, the income of households also raises, the cost of living of urban households is higher than the cost of housing in rural areas in Vietnam. In addition to increasing the income of people, urbanization also increases their living costs. People's earnings and cost of living have a positive relationship. Research results support the views of Nguyen and Bui (2011) and Cu and Nguyen (2021).

Compensation money (Compensation) is the amount of money that households receive due to the recovery of assets and production costs to serve the process of urbanization. There have been two uses for this item, first, for households who use this money to invest, they will have long-term benefits, their income will grow. However, there is a second group, that is, households use this money to buy livelihood assets such as televisions, houses, household appliances, at first, their income will increase due to the compensation received, but in the long run, when there is no suitable livelihood strategy, they will have no source of income and their income will decrease. Research results show that the use of compensation money of surveyed households is relatively reasonable, Standardized Coefficients = 0.195, the relationship of the two variables is in the same direction, this variable has statistical significance with Sig coefficient = 0.000 < 0.05. The findings support the views of Cu and Nguyen (2021), Siegel (2005), and Nguyen and Bui (2011).

Table 4. Paired sample test

Items	Paired differences						t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
Pair 1 Labor_A - Labor_B	1.7340	1.4459	.0637	1.6088	1.8592	27.215	514	.000	
Pair 2 Y_A - Y_B	12.5779	17.1028	.7536	11.0973	14.0585	16.689	514	.000	

For the employment of households before and after urbanization, there is a relatively noticeable difference. *T*-test was used to check that.

For household jobs, pre-urbanization and post-urbanization are different: during urbanization, the number of jobs created is higher than before urbanization, by an average of 1.734 jobs. This additional employment can be attributed to the following sources: Self-employment of each household; finding jobs at enterprises; industrial parks are built; work at other manufacturing facilities.

By creating more jobs, people's income will also increase. The survey results show that post-urbanization income increased by about 12.5779 million VND/year compared to pre-urbanization income.

4. DISCUSSION

Urbanization has had both positive and negative effects on household income and employment in urban areas of Vietnam. To minimize negative effects and stimulate positive impacts, some solutions are suggested.

First, for households specifically, it comes from the fact that the respondents selected for the survey need to be proactive in equipping themselves with the knowledge, skills, and conditions necessary to

adapt to changes in a changing context. When the process of urbanization took place, households had their labor documents withdrawn, and then, jobs from old labor documents disappeared, forcing them to change to new livelihood strategies; new jobs needed to be found to be able to ensure income to households and maintain their livelihoods. If they can meet the requirements of employers, they will have jobs, guaranteed income, and vice versa.

Second, it is necessary to actively participate in social organizations. Currently in Vietnam, support programs for the population are implemented mainly through social organizations for members of these organizations; non-participation in organizations will cause disadvantages for people in terms of access to policies and support from the government, state management agencies.

Third, it is necessary to have plans to effectively use the family's financial resources, thereby creating a variety of income sources for the household, so that in the event of changes in the life context, the family can still adapt and respond.

Fourth, local governments, as well as city governments, need to develop programs to support those who are in difficulties and those who are vulnerable due to urbanization.

CONCLUSION

This study was designed to analyze changes in people's income and employment as a result of urbanization in Vietnam. Conclusions are made on the basis of the proposed research hypothesis.

The increase in the number of jobs after urbanization, as well as investment items, had a positive effect on people's income in Vietnam. The research results show that the standardized coefficients of the investment variable have a coefficient that affects people's income of about 0.465. The positive effects of employment and investment will be the basis for proposing recommendations to increase earnings for people during urbanization in Vietnam.

However, besides the benefits of urbanization for people's income and employment, there was unemployment among some people, which had a negative effect on people's income. The basis for generating practical proposals for limiting the adverse effect of urbanization on people's lives needs to be derived from analytical data.

In addition, the results also show that before and after urbanization, household incomes increased, and the number of jobs created also increased. This shows that the trend of urban development and the urbanization process in Vietnam has a positive impact from a micro perspective when studying households living and working in urban areas of Vietnam.

AUTHOR CONTRIBUTIONS

Conceptualization: Thanh Thuy Cu.

Data curation: Thanh Thuy Cu.

Funding acquisition: Thanh Thuy Cu.

Methodology: Thanh Thuy Cu.

Resources: Thanh Thuy Cu.

Software: Thanh Thuy Cu.

Writing – original draft: Thanh Thuy Cu.

Writing – review & editing: Thanh Thuy Cu.

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