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# LANGUAGE EDUCATION THROUGH MOBILE LEARNING

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## **Abstract**

Mobile devices are used for many purposes such as communication, face to face talks, messaging, chatting, web surfing, multimedia and translation. Therefore, the demand for them increase day by day. Also they are easy to use and acquire. As a result many higher education institutions tries to integrate mobile learning in education to provide effective teaching programs. Mobile devices almost take place main books due to their effectiveness in collecting information for classroom tasks. On the other hand there are many educational institutions that ban the usage of mobile devices during lectures. As mobile devices are portable, it is expected that next generation of learning will be everywhere and students can learn more using multiple devices. (Ally & Prieto-Blázquez, 2014). There are also some disadvantages of mobile learning such as spending long hours for chatting with friends over social media sites, online games, and surfing irrelevant websites affects students' academic performance. Due to the rapid changes of mobile technologies, it is a field that demands ongoing researches. In this research we discuss the usage of mobile learning in education with advantages and disadvantages.

**Keywords:** *Mobile learning, Language education, Advantages and disadvantages of mobile*

## **1. Introduction**

Mobile learning is a new term that refers to the use of portable devices in favor of the education. The first form of mobile learning was CALL (computer assisted language learning) and distance education. Distance education, which is a way of learning both learners live geographically far away to attend a class and not able to have regular face-to-face contact with a teacher in the classroom. Mobile learning focuses on the use of available technology with wireless communications to deliver information inside and outside of the classroom.

One of the best part of mobile learning is promoting collaborative learning. Actually, it comprises some features of certain educational theories; especially, constructivism and behaviorism (Aliende Povedano and Oro Martínez, 2009). In the constactivism theory learning is an activity process in which learners build up new ideas or concepts depending on their current and previous knowledge (Bruner 1966). Teacher has the main role in the constructivist approach even though the learners stay

on the center of learning system. Instead of conveying the information to the students directly, teachers lead and aid learners to achieve the information.

## **2. Advantages of Using Mobile Learning**

One of the biggest advantage of mobile learning is that learning takes place regardless of place and time. Students may bring their devices to the shop, museum, park, bus or anywhere they want. Under favor of these devices learners may communicate with the teachers, ask questions, get answers, and exchange the information to other learners. There are also some other advantages such as;

### **a) Lifelong learning**

The fact that information has a very large volume and changing rapidly in quantity has increased the importance of the term lifelong learning. It is difficult for human mind to record all these changing and updating information. On the other hand, even if this recording is done, the information that people need also in continuous and rapid changes. At this stage, the solution is to bring new technology into education to make learning easy way with the help of flexible, fast and practical tools.

### **b) Unconscious learning**

The biggest handicap of continuous learning is overwhelming the students to learn constantly. Concept unconscious learning is one of the solution to this problem. The individual learns the necessary information without being aware of the boring conditions of a formal learning environment by delivering the necessary messages to the person as if they were part of life. The emerging mobile technologies are highly satisfactory in meeting the demands of modern people for these different learning needs. Mobile technologies are highly satisfactory in meeting the demands of modern people for different learning needs.

### **c) Just in time learning**

When it is not needed we ignore some information normally. Afterwards it is not very easy to learn them. However, if this information is reached at the time of need, both the benefits are higher and the information is easier to learn and more permanent.

### **d) Ubiquitous learning**

It is possible to fully provide to independent learning not depending time and place with mobile devices and wireless access technologies. Students may interact with each other and with the teacher inside and outside of the classroom. As Behera (2013) states m-learning can be used at any time and in any place.

### **e) Learning by Conditions**

Information we may need at any time of the day or in a particular season may differ from one to the other. Likewise, we may need different information on the same subject depends on place. For example, if we have a special interest in history, or if we are studying history lesson, while we are in the historical places, information about this region may appear on our mobile device.

Additionally, according to seasonal or daily conditions, for example, a warning about hot or cold air and how to protect them from a lesson that can be followed. Because it is an information we need at the moment, it is easier to learn and stay in the long-term memory.

### **f) Promote collaborative learning**

M-learning promotes collaborative work between students to students that they can e-mail, copy or paste text, and share through the device around a group (Nassuora, 2012). Some people believe that learning with wireless/handheld devices will never take place traditional learning or any other

electronic learning methods. (Liaw et al., 2010). On the other hand, Motiwalla (2007) states that mobile technology can promote and enhance the significance of determined learning models such as conversation theory (Pask, 1975) and the social constructive theory (Brown & Campione, 1996). Likewise, m-learning may support common adoption of models of online collaborative learning (Paris, 2005).

#### **g) Promotes self-learning**

Every learner has different types of learning format. Students learn in ways that are categorically idiosyncratic. Students are able to learn in their own way, at their own pace with the help of mobile learning. In the classroom probably some learners don't understand the subject clearly but hesitate to inquire for explanation again. By the way of mobile learning you have chance to listen lecture once again and nobody knows how many times you visit the course over and over again. Learner has freedom to do it until they understand it all. Due to learners have the option to choose learning content depending on their preference, m-learning can make learning completely personalised and makes the learning process student-centered. (Narayanasamy & Mohamed, 2013)

#### **h) Internet facilities**

Students have chance to search for and get required information about any topic with the help of internet. YouTube provides an opportunity to the students to watch and listen videos that are related to learned subject. Online dictionaries and numerous other tools are used widely by students for language learning purpose. Besides, exploiting social media networking websites in favour of students may have a positive effect for sharing information and ideas on different subjects. Some students who are shy in a classroom may be more successful in a social network group.

#### **i) Address all skills**

Mobile learning might be integrated different learning styles in order to teach reading, listening, writing, speaking, grammar, vocabulary etc. Regardless of the implementation level of mobile learning it offers a wide range of learning opportunities that can be integrate the use of old and new technologies to develop specific language skills in learning a foreign language. (Mosavi Miangah and Nezarat, 2012). Majority of the vocabulary activities are applied based on posting messages or mobile applications related to the subject that learnt during the lecture. Many applications were designed for lexical areas that can be used to improve vocabulary (Reinders, 2010).

## **2. Disadvantages of Using Mobile devices**

#### **a) Qualification and Compatibility**

Unfortunately most mobile phones are not designed or intended for educational purposes. Mobile learning can be difficult without standardization of equipments. It could be extremely challenging for teachers to keep their students on the same level due to smartphones and tablets have varied operating systems and hardware. Sometimes students may not be able to access in online conversations or the coursework. That's why teachers should be careful to chose or adapt resources compatible to all devices.

#### **b) Distractions**

Accessing dictionaries and other online information for learning during class time is acceptable but watching videos that are not related to the lesson, playing online games, and using social networks for just chatting with friends are inappropriate uses of the device and may lead to class disruptions.

Additionally, student doing other tasks on the mobile device may also distract lecturer. This action conduct causes problems for classroom management in general. (Tindell & Bohlander, 2012).

Kuznekoff, J., and Titsworth, S. (2013) state that the potential distraction caused by students playing games, text messages, checking Facebook or surfing the internet has become a concern for many lecturers.

#### **c) Cost**

Mobile devices should be capable of doing necessary activities easily. Depending on evolving technological innovations continuously mobile devices are being updated as well. Therefore, it is difficult to follow and acquire such devices for some learners. There are some expensive devices which are required to perform special duties.

#### **d) Size**

Looking at a small mobile device hours and hours is not advisable for an excellent learning experience. Eye strain is a common problem as it continuous to look at mobile screens for a long time in mobile learning. Due to the small screen size of mobile devices the information provided may also be incomplete. Theoretically mobile devices are excellent for watching videos or visuals, but in reality the screen is too small to watch a film, streaming or an event. Moreover playing games, taking notes, preparing everyday tasks and texting can be tiring or annoying.

#### **e) Battery life**

When you start to install and use applications, battery life of mobiles are being tragically reduced. If anyone wants to watch movies and listen to music from mobile devices, the battery life is about 8 to 10 hours based on the type of device.

#### **f) Usability**

Using mobile devices is not always easy due to the small size of the problem, especially for young and older people to write the text. You can get external apparatus, but at that time it comes out of the concept of mobile. It also brings an additional cost.

#### **g) Addiction**

Although the aim is using mobile devices in a positive way, it should be considered that these devices are highly addictive among students due to the developed games and applications. Particularly, it is a common problem for students to access lots of negative contents due to internet connection.

#### **h) Cheating**

Using mobiles for dictionaries or searhing during exam is a real academic scandal and should be taken care of it. According to news media report that a number of students using mobile phones to cheat on entrance exams in Japan (Fackler, 2011). Additionally, they are easy to get lost or stolen. It's useful to have all your contacts, photos, videos, and other notes in one device, but if you ever break or lose that device, you may face with real troubles.

#### **i) Health problem**

As a result of some researches, the electromagnetic radiation of mobile phones may be harmful to human health. It is estimated that long-term telephone usage may lead to brain cancer. However, it should be noted that there are no exact findings at the level of damage caused by mobile phones. On the other hand, eye strain is a common problem since looking at mobile screens for hours.

#### **Conclusion**

There are some advantages and disadvantages to use mobile devices in a language classroom. In this article it was highlighted certain problems that students, teachers and coordinators might face before

using mobile learning in the language classroom. Mobile devices are so technologically developed that they can offer language learners and teachers a wide range of possibilities from ready-made content to producing original materials.

In order to integrate technology to education and to get successful results several suggestions can be listed;

- The infrastructure and the technical equipment of the school should be rearranged and regulated.
- Financial support will be needed to acquire necessary equipments and to set up infrastructure.
- It is very important to develop students technology skills' to perform their projects. Information technology course should be taken and the curricula of these courses should be placed in the very early years of the school.
- Providing professional development of teachers is the key factor to implementation of educational technologies. Because the teacher combines pedagogical knowledge with educational technology in order to provide alternative learning activities and materials to the students. For this purpose, Educational Technologies and Material Development course should be taken in the faculties of education and all prospective teachers should take this course as applied. Teachers who does not taken these courses must be supported for professional development. Technological advances during the last century have made it compulsory for the lecturers to utilize technology as a tool to help in the process of teaching and learning.
- It is important to raise awareness among parents, to inform parents about the project, to promote their self-learning and to provide support outside the school.

Regardless of the educational characteristics of mobile device technology, teachers may fail if they are not trained how to use technology to integrate teaching activities (Vota, 2011).

Language teachers should be trained about effectiveness of technology to implement in mobile learning classrooms. In educational technology, almost all initiatives failure is due to the additional burden placed on the teacher and their workload can be minimized by using technology. (Weinberger, 2011)

Even though mobile devices have a couple of disadvantages of they would be used an important tool for EFL students to learn English due to their availability of free language learning software programs, portability, and visual features.

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## **VOICES FROM WITHIN: ACADEMICS' EXPERIENCES OF TEACHING THROUGH ENGLISH**

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### **Abstract**

The number of undergraduate programmes which have adopted English Medium Instruction (EMI) has steadily grown in recent years. Many Turkish universities started to offer English as a medium of instruction at some of their departments. This study examines the EMI practice through the perspectives of academics in a Turkish university. The sample consisted of academics from the Engineering Faculty. In order to gather in-depth data a qualitative approach was used, therefore, a questionnaire survey which included four open-ended questions was undertaken with 21 academics on their experience of teaching through English. On the whole, the results from the questionnaire reveal a positive attitude towards EMI.

The majority of the academics believe that the presence of more international students in their classes is contributing to the effectiveness of EMI. On the other hand, the academics express some challenges regarding the implementation of EMI. The study also provides implications for implementation of EMI at higher education institutions.

**Keywords:** *English Medium Instruction, Turkey, Undergraduate Programme, Academics*

## **CREATING AND MAINTAINING MEMORABLE TOURISM EXPERIENCES: A NEW TOURISM POLICY PERSPECTIVE**

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### **Abstract**

Memorable tourism experience has been a recent focus of tourism academicians. There have been various studies that have focused on the antecedents & dimensions of memorable tourism experiences as well as its relationship with behavioral intentions of the in various settings. The present study focuses on the relationship of memorable tourism experience with tourist satisfaction, specifically the various dimensions of MTE scale (Kim, Ritchie, & McCormick, 2012) were re-examined. Structure survey with Houseboat tourists in Kerala, India suggests the importance of memorable tourism experience dimensions in predicting the future behavioral intentions of the tourists. The study proposes for the focus of tourism organizations to incorporate creation and maintenance of memorable experiences at the policy level for longevity of the tourism destination.

**Keywords:** *Memorable tourism experiences, satisfaction, Houseboat tourism*

# THE MEDIATING ROLE OF INNOVATIVE ORGANIZATION IN THE RELATIONSHIP BETWEEN ENTREPRENEURIAL COMPETENCIES AND BUSINESS GROWTH

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## Abstract

**Purpose** - The objectives of this study are: 1) To examine the mediating role of the innovative organization in the relationship between the entrepreneurial competencies and the business growth 2) To examine the correlations among the entrepreneurial competencies, the innovative organization and the business growth

**Design/Methodology**- A questionnaire-based survey of entrepreneurs in Thailand was conducted. A set of questionnaire consisted of entrepreneurial competencies, innovative organization and business growth compiled from previous theoretical and empirical framework. Prior to the distribution of the questionnaire and collecting data, the instrument was tested and reviewed in advance by pre-test and discussions with experts. Total 300 questionnaires were sent to the respondents and 188 of them completed giving a response rate 62.66. The author used the Pearson correlation analysis to analyze the correlation degree of two variables and bootstrapping method to test hypotheses.

**Findings**- The findings of the study revealed that entrepreneurial competencies significantly affected innovative organization and furthermore the innovative organization also significantly affected business growth. The result indicated that mediating effect of the innovative organization in the relationship between the entrepreneurial competencies and the business growth was supported. The study also discussed the implications of the findings along with potential practical application.

**Keywords:** *Entrepreneurial competencies, innovative organization, business growth*

## 1. Introduction

Thailand 4.0 is a policy to change the economic structure to the economy with the innovation. The entrepreneurial competencies have attracted a special attention to drive innovative organization from traditional SMEs to smart SMEs. The entrepreneurial competencies refer to the knowledge, skills and behaviors that lead to SMEs. Hayton and Kelly (2006) proposed four types of competencies: innovating, brokering, championing and sponsoring. Given the circumstances today,

innovative organization is highly important for business growth. Innovation acts as a determining element for organization. In general, innovation has received more attention from researcher in three forms: new products, new services and new business systems. Innovative organization involves innovation in product and processes that can lead to the new goods or processes; therefore, it can be used for achieving higher organization efficiency. One way to achieve this is by encourage entrepreneurs to have special attention to express ideas and innovate toward innovative organization.

In 2015, David and Jonathan found 94 per cent of 500 corporate leaders agreed that innovation was the key to organizational success, but only 14 per cent of them embarked on new venture creation and employees development to innovate. Thus, it is useful at the broadest level to examine the relationship among the entrepreneurial competencies, the innovative organization and the business growth.

To improve understanding, this study describes an exploratory study of the mediating role of the innovative organization in the relationship between the entrepreneurial competencies and the business growth; furthermore, it examines the correlations among the entrepreneurial competencies, the innovative organization and the business growth.

## 2. Literature review

Based on the work of Bird (1995), entrepreneurial competencies were mechanism that business growth could be improved. Consistent with this view, Drucker (1998) pointed out that innovation was the heart of entrepreneurial activity. Moreover, Noor, Ramayah and Liz (2010) found that entrepreneurial competencies were strong predictors of business success in SMEs in Malasia. Another researcher (Wingwon, 2012) discovered the influence of entrepreneurial competencies and innovative organization on competitiveness of SMEs in Thailand. Similarly, Ursula, Andreas and Alexandra (2013) found innovation behavior enhanced financial performance and the effect of innovativeness on financial performance was mediated by innovation behavior. In agreement with this view, Reza, Nazanin and Mohammad (2016) showed that there was a positive and significant relationship between entrepreneurial competencies and innovation. In addition, the competent personnel and innovation affected positively business-growth expectations (María, María, & Miguel, 2016).

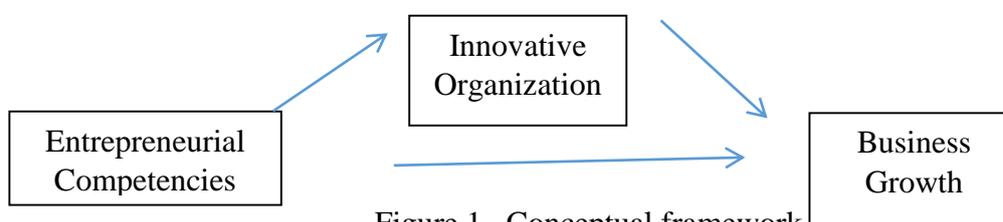


Figure 1. Conceptual framework

## 3. Theoretical framework

Theoretical framework (Figure 1) describes the variables in the conceptual model. The model suggests entrepreneurial competencies as dependent variable and innovative organization as independent variable. In addition, it is anticipated that the relationship between entrepreneurial competencies and business growth will be mediated by innovative organization. These relations are based on review of the literature that tend to support this conceptual model.

## 4. Methodology

### 4.1 Sample

The business must be a stand-alone SME, not a franchise or part of a larger organization, those operating in wholesale and retail trade in four lower-northern provinces in Thailand. The final sample of respondents in this study included 188 founders –owners.

### 4.2 Measurement

All questions items in the survey questionnaire were measured on a five-point Likert scale (1= strongly disagree; 5= strongly agree).The measure for entrepreneurial competencies based on the measures developed by Wingwon (2012), comprised 8 items. The measure for innovative organization based on the measures developed by Wingwon (2012) comprised 4 items. The measure for business growth based on the measures developed by Chen, Tsou and Huang (2009) comprised 4 items. The reliability value for each subscale, respectively, was as follows: 0.85, 0.83 and 0.78. Above 0.7, the construct was reliable (Nunnaly & Bernstein, 1994)

### 4.3 Statistical methods

Descriptive statistics which include frequencies, percentage, means standard deviations are used to present the main characteristics of the sample. In addition, Pearson product-moment correlation and bootstrapping method were used for data analysis.

According to Preacher and Hayes, 2004, three regression models were conducted and significance of the coefficient was examined at each step.

Step1.To conduct a simple regression analysis with independent variable(x) predicting the dependent variable (y) to test for path c alone (Figure 2, Panel A)

Step 2 .To conduct a simple regression analysis with the independent variable (x) predicting the mediator (m) to test for path a (Figure 2, Panel B)

Step 3. To conduct a multiple analysis with the independent variable (x) and the mediator (m) predicting the dependent variable (y) to test for part b and C' (Figure2, Panel B)

Panel A

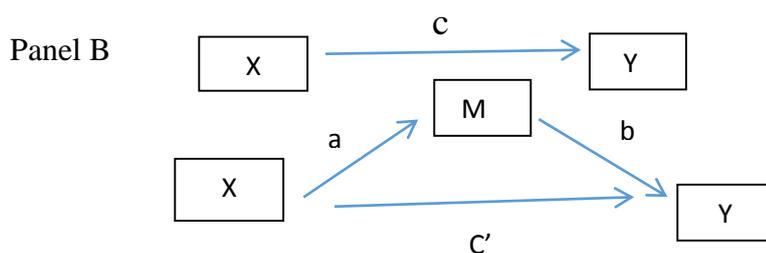


Figure 2. Illustration of direct effect and a mediation design

From Figure 2, Panel A: Illustration of a direct effect, Panel B: Illustration of a mediation design affects Y indirectly through M. Path a and Path b are called direct effects. The mediating effect, in which X leads to Y through M, is called the indirect effect. The indirect effect represents the portion of the relationship between X and Y that is mediated by M.

## 5. Results

Table 1. Correlations of Variables

Variables	Mean	SD	Business Growth	Entrepreneurial Competencies	Innovative Organization
Business Growth	3.88	.51	-	.84**	.39**
Entrepreneurial Competencies	3.81	.87		-	.18**
Innovative Organization	3.96	.71			-

\*\* Correlation is significant at the 0.01 level

Table 1 gives mean, standard deviation; moreover, it shows a matrix of correlations of the variable used in this study. Correlation coefficient analysis shows that entrepreneurial competencies significantly correlate with innovative organization and business growth.

5.1 Test the mediation role of innovative organization in the relationship between entrepreneurial competencies and business growth

Table 2. The mediating effect of innovative organization in the relationship between entrepreneurial competencies and business growth

Step 1:  $X \rightarrow Y$  (EC  $\rightarrow$  BG)

Independent variable =X, Dependent variable=Y

Variable (X)	Coefficient	S.E.	t	p
EC (c)	.114	.032	3.523	.000

Step 2:  $X \rightarrow M$  (EC  $\rightarrow$  IO)

Independent variable =X, Dependent variable=M

Variable (X)	Coefficient	S.E.	t	p
EC (a)	.697	.023	30.024	.000

Step 3:  $X, M \rightarrow Y$  (EC, IO  $\rightarrow$  BG)

Independent variable =X, M, Dependent variable=Y

Variable (X)	Coefficient	S.E.	t	p
IO (b)	.627	.066	9.409	.000
EX (C')	-.322	.054	-5.898	.000

Table 3. Indirect effect of entrepreneurial competencies on business growth was mediated by innovative organization

Variable (X)	Data	Bootstrap	S.E.	Confidence Interval 95%	
				Lower	Upper
EC	.437	.439	.058	.332	.564

As can be seen in Table 3, the bootstrapped estimate of the indirect effect was .0439, similar to the point estimate computed from the conventional regression analysis of the raw data, that was .437, and the true indirect effect was estimated to lie between .332 and .564 with 95% confidence. Because zero was not in 95% confidence interval, it could be concluded that the indirect effect was indeed significantly different from zero at  $p = 0.05$ . As shown in the table 2, step 3, the regression result was shown that the direct effect in this relation was  $-.322$  ( $p < .01$ ) in path C'. Therefore, innovative organization partially mediated the relationship between entrepreneurial competencies and business growth. The result pointed out the way entrepreneurial competencies lead to innovative organization which in turn, lead to business growth, as figure 3 shows the simplified results of the proposed model.

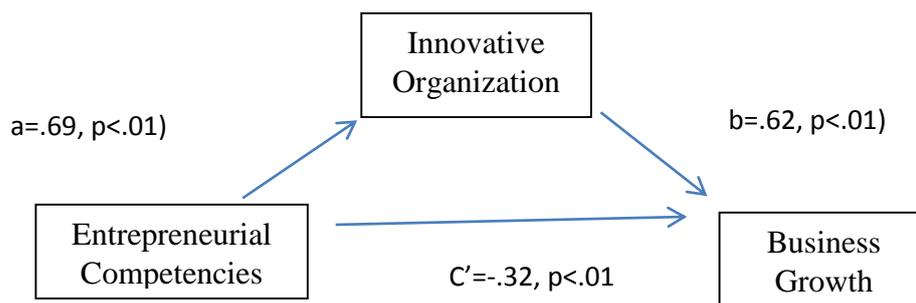


Figure 3. Simplified Results of the Proposed Model

## 6. Conclusions and discussion

This study proves that Entrepreneurial competencies significantly affect innovative organization, and the innovative organization also significantly affects business growth, furthermore, entrepreneurial competencies lead to innovative organization which in turn, lead to business growth. This result is in line with previous studies. In order to improve their innovative organization, firms should pay attention and hold entrepreneurial competencies. Thus, the firm is expected to have a business growth. However, entrepreneurs need to understand the context of Thai society in terms of EF (Executive Functions) skills. In 2017, the report from EF symposium, the conference on the human brain, fundamental human capital for the future, showed nearly 30 per cent of Thai children with EF skills less than average. Executive functions are the cornerstone of administrative behaviour. When these children enter the working society and become entrepreneur, it is very important to assess the ability and develop them to be able to create innovative organization that lead to business growth.

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## TEHRAN HOUSING PRICE ANALYSIS: SYSTEM DYNAMICS APPROACH

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### Abstract

This paper aims to analyze the dynamics of housing price in Tehran using system dynamics approach. To this aim, determinants on housing price in construction industry are derived from literature, which are mainly macro-economic variables such as inflation, supply, demand and population. Consequently, a dynamic model consist of more than 50 nesting learning cycles with more than 35 different variables developed. In the following, the housing price trend for 20-year period investigated through a simulation process. Findings depicted that price trend will increase mutually with inflation through the studied period to extend that the average price will overcome 15 million Iranian Rials which is about 3 times more than current price for each square meter. Furthermore, the model investigates the demand and supply behavior of the housing industry. Ultimately, some governmental policies on construction industry such as financial support and lower building administrative cost mentioned as boundary test to model validation. Results state that the current supporting policies are not effective.

**Keywords:** *Housing price, Inflation, System Dynamics, Tehran.*

### I. Introduction

Humans have long considered housing as a shelter. Housing along with food and clothing are the main human needs in all human societies. In addition, the role of housing in the country's economy is significant, so that more than a quarter of the household's expenditure is spent on housing costs [1]–[2]. In most of the countries, construction is one of the largest economic sectors whereas in developing countries, it is ranked after the agricultural sector and in industrialized countries; it is ranked after industry sector [3]. Housing includes for about 20 to 50 percent of capital and 2 to 10 percent of gross domestic product in different countries of the world. The interaction of economic growth and the growth of construction activities, especially for developing countries, which are in the first stages of economic development, is of great importance. In the early stages of development, construction activity adds to the country growth rate, and in the following stages, construction itself influenced by economic growth [4]-[5]. Moreover, the business cycle of the housing sector in most advanced industrial countries extends up to 20 years, while in developing countries is often much shorter, because of lower technology and maintenance costs, rapid population growth, widespread migration and the rise of living standards [6]-[7]. Since that housing is one of the human basic needs,

it becomes an incentive for investing at all levels of the economy [8]. Some people may not intend to invest in economic enterprises; therefore, they save and invest on housing which stimulates a non-productive type of investment [9]. Increasing employment is also another economic benefit of realizing the social goal of housing. The building sector is one of the major sources of unskilled human resource recruiting [11]-[12]. Boosting housing sector will lead to an increase in employment, both in the raw materials industries and the construction industry, which decrease the unemployment. Despite all the benefits of the housing sector in an economy, considering the production cost, housing purchase and maintenance, the inaccurate housing policy can lead to economic failure [13]. Tehran's housing market, as the most populous city and capital of Iran in the past 20 years, has been one of the most vibrant sectors of the Iranian economy. The impact of macroeconomic factors on housing prices as well as its impact on economic has led to numerous problems for the Iranians, which lead to dissatisfaction and declined quality of life of Tehran's citizens [14]-[15]. The vital role of housing sector and its influence on the economy and quality of life resulted in the present paper, which aims to model the Tehran's housing price and its economical determinants in a systematic approach in order to boost proper policymaking. The proposed model, predicts housing supply, demand and price and its interaction with the other macroeconomic variables in exchange for adopted policies. Ultimately, since it is based on economic theory of supply and demand, the simulated model can be applied to the other countries. In the following, the affecting factors on housing price is considered in section 2 and housing price dynamic model is developed within section 3 while research findings and conclusion are discussed in section 4 and 5 respectively.

## II. Literature review

In order to analyze the housing price and the process of its fluctuations, it is necessary to identify its effective factors [12]-[16]. According to market theory, two major factors, whose interaction regulates the housing price, are supply and demand. Though these two factors themselves follow the price; in addition, they are heavily influenced by other macroeconomic factors. In this way, the primary theoretical model of housing price use these two main concepts. In the following, macroeconomic variables related to the housing supply and demand are discussed [17]-[18]-[19].

### A. Major macroeconomic variables on housing prices

**Growth of liquidity and inflation:** From a theoretical point of view, the growth of money supply and liquidity while increasing the price index will lead to higher housing prices as part of the consumer basket, which could be due to higher cost of construction materials on one side and higher wage increases on the other [20]. The production of housing for consumption or investing, on the theoretical view of increasing the money volume and rising prices will increase prices in this section [10].

**Household income per capita:** From a theoretical view while the other conditions are constant, housing demand will increase by rising income because the relative power of purchasing housing increases [16].

**Stock market index:** The stock market as an alternate option is facing housing investors. In theory, housing price negatively related to the stock market index [20].

**Infrastructure area of construction:** The Infrastructure area buildings represents the housing supply in each period. According to the theory of economics, with constant conditions, rising supply will lead

to price reductions. Therefore, it is clear that the infrastructure area of construction and the housing price index would be negatively correlated [21].

## B. Factors Affecting Housing Supply

There are several factors influencing housing supply as follows:

**House price:** Some scholars stated that increase of price encourage the housing supply. The rise in housing prices, which affects supply in the long run, is also accompanied by a reduction in the number of vacant homes in the short term [22]-[23]-[24].

**Construction supports to manufacturers:** According to Beltratti and Claudio (2010), giving construction loans to the private sector will increase housing supply [25]. By comparing the growth of construction loans and investment in its production, it is clear that although there is a trend of alignment but credits has always effects on investment with one or two time period lags. In other words, for each unit of change in investment, the construction credit needs to change significantly, which ensures construction low sensitivity to construction credit. Some researcher believes the interest rates effects on housing supply [22]. Interest rate is the cost of using capital by the builders. Increasing real interest rates will reduce housing construction. In other words, hard credit conditions lead to a lack of willingness to demand such loans [18]-[26].

**GDP:** Housing has a large share of macroeconomics. Leung (2004) states that the rate of GDP growth influences housing prices and then its supply [3].

**Government expenditure on housing:** Under conditions where household income growth is negligible or even zero, the government should provide housing for these households. Since these schemes need financing, the government must handles the final value of the projects. In the recession, the emphasis of public policy should be on building units of smaller size to accommodate more households [22]. Therefore, construction costs of the government have a significant effect on housing supply [27].

**Construction inputs price index:** Borowiecki (2009) stated that housing prices are affected by construction inputs [28]. Similarly, researches stated that housing prices positively correlated with higher construction input costs [7]-[29].

**Legal and Municipal Constraints:** Local conditions, such as land limitations, may affect new residential units [30]. Chen (2012) stated that the policy of preventing the development of the city effect on the price of land, but homebuilders do not always respond to higher-priced land. In other words, they compensate for the shortage of land by increasing the density of residential units [31]. However, Hongyu (2005) and Oikarinen (2007) concluded that the allocation of suburban land to residential units would increase housing supply [1]-[15].

## C. Factors Affecting Housing Demand

Housing is one of the major household issues. The most important factors that have led to increasing demand for housing include population growth, the new households, migration to cities, and so on. Although in housing, demand is defined like the other commodities, some properties of housing make it different from other consumer goods and services. Housing is an immobile commodity that needs to a change in the place of consumption. Payne (2012) considered the factors influencing housing demand to be wealth, housing prices and other commodity prices [17]. Nevertheless, Combes (2008)

consider housing demand influencing factors such as population, housing prices, interest rates, prices of other commodities and household consumption expenditures [13], Beltratti and Claudio (2010) considers housing demand as a function of household income, household size, population, interest rates, price and other commodity prices [25]. There are several influencing factors on housing demand as follows:

**Housing prices:** The prices and revenues are important in determining the long-term demand of a home. Therefore, housing prices are a major component of demand and housing supply [14].

**Population:** Population has a large impact on housing demand due to its size, its traditional composition and its displacement in different regions. In other words, population growth will generally increase housing demand. Consequently, increase in the young population and in marriage, rates or population density will increase housing demand [24]-[26].

**Per capita income:** People those have saving, try to buy, and those who have low savings, try to rent a house, which means increasing in housing demand [24]-[22]. Therefore, through income increasing the housing demand will be boost.

**Purchasing loans:** Demand in the first stage is a function of the price of goods and income. Normally, paying a loan increases the financial strength of individuals. Therefore, the loan rate or interest rate is considered as one of the most influential variables on demand. Generally, house purchase requires substantial credit. Housing prices are affected by macroeconomic variables, such as credit rates [8]. Loan Facilities will increase demand and raise housing prices and the inability of these households to buy housing [14].

**Tax:** One of the factors affecting housing demand is the net cost of keeping a house. In some cases, the objective of the adoption of heavy taxes on housing is to prevent the shadow demand [8]-[27]. Fewer taxes make people's savings move from non-residential property to residential [15]. Some researchers also believe that tax has to set on housing. Of course, preferential taxes should differ according to the index of economics, population structure, degree of economic and financial development and the political system [32]-[33].

**Rent:** Rent reflects the price of the housing alternative. Each household has ownership of a private house or must rent a house [34]-[35]. According to Kim (2004), rent has a significant impact on the housing market [8]. The risk of renting is price fluctuation. Ownership will relief the rent risk [7].

#### *D. Research history*

Borowiecki (2009), in an analytic study titled "House price constructors: an experimental Study of the Swiss housing economy", introduced variables such as wealth, bank factors, demographic characteristics, as well as regional characteristics as affecting factors on housing prices [28]. In addition, examining the long-run relationship between the regional housing prices in the form of an empirical analysis of the United States shows that there is feedback effect on the regional markets and the long-term convergence of regional housing prices [16]. Chen (2012) confessed that the determinants of housing prices across different regions are such as economic characteristics, and demographics such as urban economic growth, industrial structure, and demographic changes [31]. Moreover, Wang et al. (2017) analyzed power of the relationship between housing prices and its

potential determinants in China by “Identify the price determinants of housing in China, using spatial regression and geo-detector techniques”[37].

### E. Tehran housing market

The population of Tehran at the end of 2017 is estimated about 8,693,706 people and has a total of three million and three hundred thousand residential units. About 12,000 real estate companies operate in the city and, according to statistics, more than 18.9 percent of the real estate in Tehran is empty (Iran's Statistics Center). As it is clear, the multiplicity of real estate consultants and the high percentage of vacant homes indicate the motivation for rising prices and hoarding in the industry. Fig I. depicts the seasonal trend of housing prices from 2011 to 2017 in Tehran.

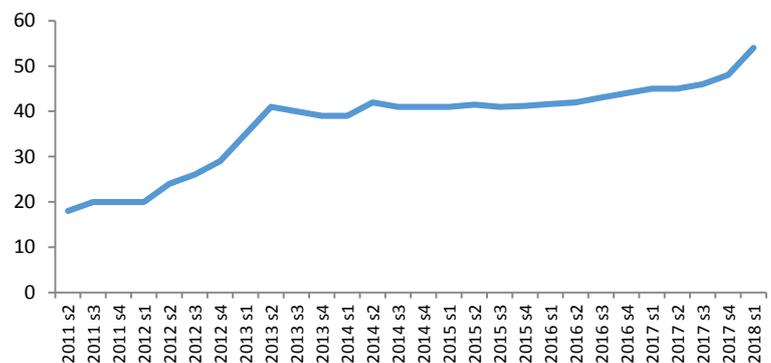


Fig I. Tehran-housing price per square meter

However, the price of one square meter of residential unit has increased since the March 2016, and this trend has continued as late as 2017. In the winter 2017, the price of one square meter of residential unit in Tehran increased about 19.9 percent, in comparison with the same period in last year increased by 11.4 percent, and reached on 54 million Rials. Comparing the growth rate of housing prices with inflation indicates that the growth rate of housing prices from the winter of 2013 is always lower than the general inflation rate. In the winter of 2017, the growth rate of housing prices exceeded the general inflation and in comparison with the same period last year was 19 and 9 percent respectively (Fig II).

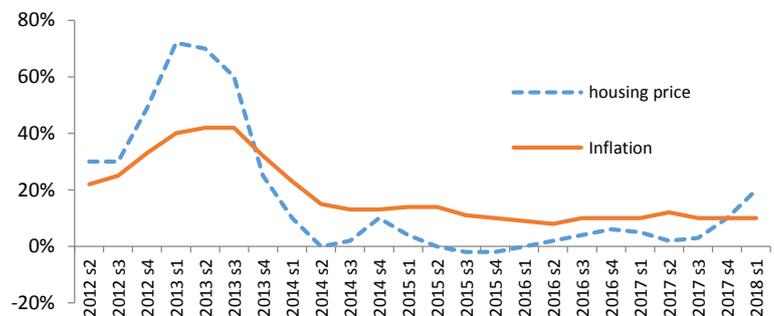


Fig II. Housing price/inflation growth rate (Tehran)

### III. Housing price Dynamic Model

As mentioned, this study investigates the affecting factors on housing price in the literature, which are mostly macro economical. It also concluded from literature that the best mechanism for determining the housing price is supply and demand balance. Therefore, this dynamic hypothesize is employed to design the model. In other words, the price of housing in the system is determined on basis of supply and demand while the affecting factors on supply regarded as a feedback cycle, as well as the demand cycle while the other macroeconomic factors such as investment rate, inflation, population and government support and policies are considered effective on housing supply and demand. Table I presents the influencing factors on housing supply.

Table I. Affecting on Factors Housing Supply

Factor	Effect	How
House price	Positive	With the rise of prices, housing supply will rise with a short delay
Manufacturer loans	Positive	With the increase of government support, housing supply will increase.
GDP	Positive	By increasing the gross domestic product, the more per capita income and the encouragement of investment, housing supply will increase.
Construction cost	Negative	With the rise in the construction inputs costs, the tendency to supply housing will reduce.

Dynamic hypothesis of housing demand is also investigated as it is depicted in table II.

Table II. Affecting on Factors Housing Demand

Factor	Effect	How
House price	Negative	When housing prices increase, demand will decrease
Population	Positive	Population growth has a direct impact on the increase in housing demand.
Per capita income	Positive	With the increase in per capita income, Consumer and investing demand will increase
Loan	Positive	By providing more financial support to housing applicants, purchasing power will increase which leads to more demand

In addition to above mentioned factors, considering the share of housing in household expenses and its significant impact on inflation, the following are also considered in the model.

- **Inflation:** It has a direct impact on housing price while the relationship is mutual. Meanwhile, the more housing price increase the more inflation increase and vice versa.
- **Stock market index:** This index reflects the orientation of the country's investment. With a flourished stock market, less capital will transfer to the housing sector with the aim of investing. However, the high risk in stock market, investments transfer to other economic sectors, including housing, which causes non-consuming demand in the housing sector.
- **Construction cost index:** With the rise in the price of construction inputs, the willingness to invest in this sector will reduce since that the investor feels a higher risk in this sector.

Regarding the above-mentioned factors, Fig III illuminates the positive and negative cycle model of housing price dynamics. In this model, the housing price have a positive relation with inflation, which means Housing price leads to inflation and vice versa. Moreover, with the rise in housing price, supply will increase while demand will decrease. Supply and demand with housing price plays goal-seeking behavior, which means by price increasing, the supply will increase, and this leads to lower price, while increasing in price also lowers the demand, which make the price lower. Ultimately, interaction of these three variables can create a balance in housing prices. The stock and flow diagram of the model, which is actually expansion of conceptual model is developed as follows. Fig IV

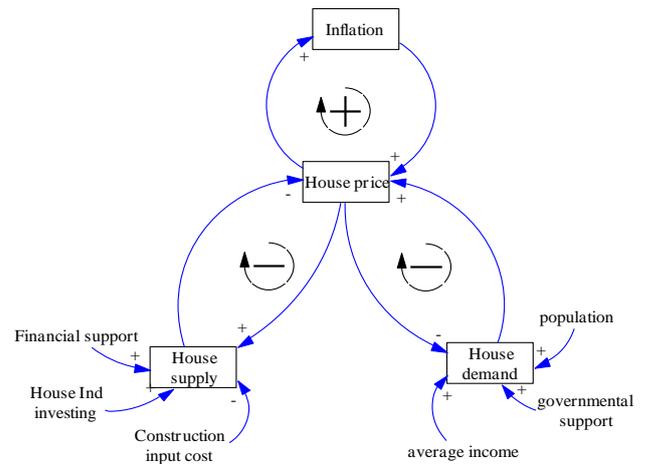


Fig III. Conceptual Model of Housing Price

draws stock and flow model for housing prices in Tehran. This Loop model is designed to show the effective factors and their relationships. It should be noted that many variables used in this model are mediator type and have been developed to apply the desired relationships. The developed dynamic model in this study has more than 50 nesting learning loops and more than 35 variables, including rate, auxiliary and state variables. Amount of state support are considered in the form of construction loans about 20 percent of the construction costs. Different loan types to stimulate demand side is also considered about 20 percent of the price as it is planned in real word. Moreover, the initial supply of housing according to the available data based on the number of issued licenses is equal to 26000 units and for demand side according to the population and household size are about 40000 units.

Fig IV. Stock and flow model for housing prices

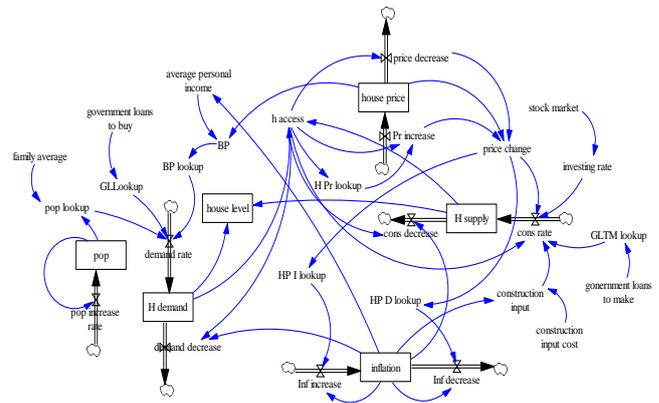


Fig IV. Stock and flow model

### A. Validation of the model

Validation process helps to trust the existing model and its results, and aims to achieve a deeper understanding. Dynamic system modelers have implemented a wide range of tests to Remedy deficiencies and improve the model. For example, Structure assessment, Parameter assessment, Sensitivity analysis, Surprise behavior, Behavior Anomaly, Integration error, Extreme condition analysis, System improvement test [14]-[10]. It is fruitful to declare that in order validate this study, model boundaries validated by experts. Therefore, dimensional compatibility, parameters evaluation confirmed according to the experts' opinions. Moreover, Behavior Anomaly, Integration error and extreme conditions analysis were also considered in simulation implementation for validity. Findings section, explains validity and findings in the followings.

### IV. Findings

After Model description, simulation for a time of 20 years with one-year periods is done. Since the housing market is highly variable and influenced by many macro and microeconomic factors, simulation duration is determined with respect to the relative stability of exogenous variables. Since the main objective of the simulation model is to investigate the trend and changes in the price of housing for the next 20 years in Tehran, Fig 5 depict it at first. Tehran's housing price is determined as an initial value of 54,000,000 Iranian Rials on average per square meter according to available statistics. Fig V depicts the housing price trend according to simulation results. It indicates that housing prices will rise in the coming years to extend that exceed 150,000,000 Rials per square meter.



Fig V. Price trend in the next 20 years

According to simulation results, this growth is rooted from low demand and relatively strong decline in supply, as illustrated in Fig VI. As it is clear due to the increase in housing price, the demand rate decrease within the first four years while, by population growth and necessity of housing, demand rate became fix after the fourth year. Supply of housing due to the general increase in prices, raw materials costs and the low level of government support in supplying housing, will require higher investment, which will eventually lead to a reduction in housing supply. Therefore, in the coming years, the situation of the recession in Tehran's housing is inevitable. Simulation results show that price increase in the fourth year leads to construction rate increase, while this growth does not satisfy the demand, on the other hand, the rate of buildings destruction decreased dramatically, which indicates the demand tendency to older constructions and longer life expectancy, especially in worn out districts. According to the official statistics of Iran's national Statistics Center, about 58 percent

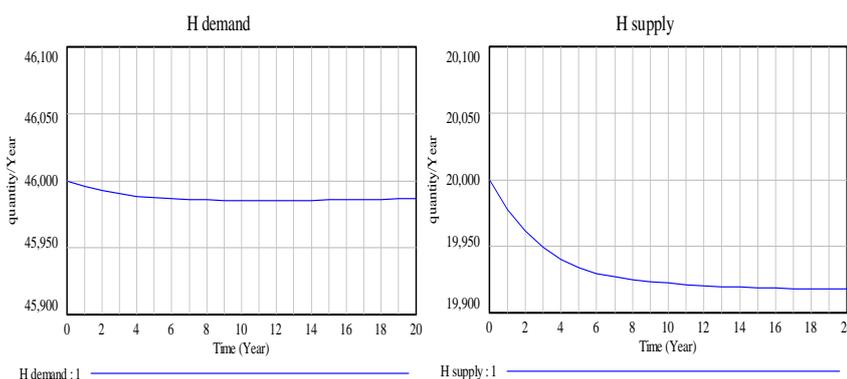


Fig VI. Tehran housing Supply and demand in the next 20 years

of Tehran's constructions are of durable types. Accordingly, these changes could be dangerous and harmful to Tehran's sustainability and its vulnerability to earthquakes. Price increase replaces reconstruction instead of making worn-out texture. Simulation results depict no sign of surprise behavior. In addition, the system behavior in extreme condition analysis investigated

and the result proved the model sustainability in extreme situations. It is done by changing the simulation duration from twenty years to one hundred years. Fig VII illuminates simulation results in an extreme condition. It is obvious that demand behavior is stable and supply increases slightly after a sudden decreasing rate. Supply fluctuation is due to the rising in prices and time-consuming process of construction. Therefore, no sudden behavior or unusual fluctuations in system results is can be pointed.

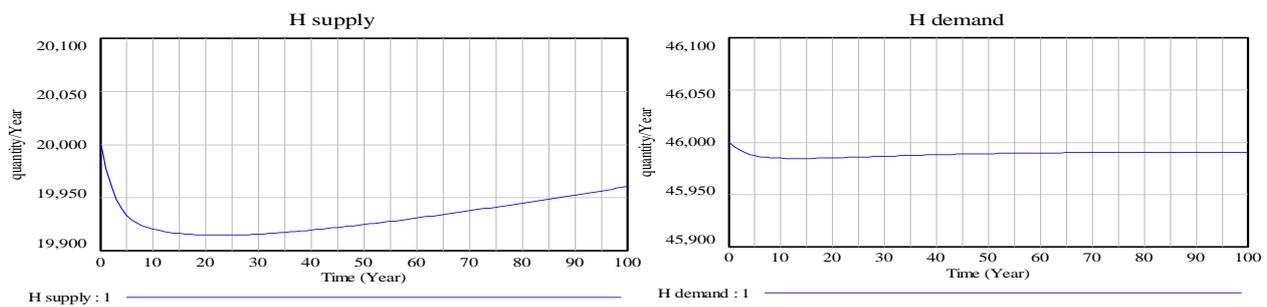


Fig VII. Extreme condition results

## V. CONCLUSION

This study aimed to forecast the future of housing industry in Tehran, which is the capital and the most important crowded city of Iran with more than 8.6 million inhabitants. Day population of Tehran exceeds 11 million within workdays. Unfortunately, Tehran suffers from a shortage of developed strategies to provide citizens with housing. These shortages accompanying American sanctions on Iran's economy leads to severe problems for Tehran's families. Therefore, this study tries to explain the nature of nowadays Tehran's Public and Housing Inflation applying dynamic simulation approach. To this aim the cornerstone of simulation rooted from the supply and demand of citizens, which determined by the economic factors as well as price, governmental supports and the estimated population. The model was validated by qualitative in addition to quantitative methods. According to simulation results, apart from the economic sanctions, Tehran will suffer from a heavy inflation in mutual to housing price resulting from supply shortages as it is depicted in Fig VIII. The inflation exponential growth within the 6 following years is inevitable which will lead to a constant growth up to 200% in a studied period. More over the model results debated that governmental support to housing industry will not be effective while they are not accompanied with the other solutions. According to the model results, the government should concentrate on housing supply strategies in addition to Enhancing housing supply by property owners through the creation of capital taxes and decreasing demand by decentralizing through creating a competitive environment in other cities of the country.

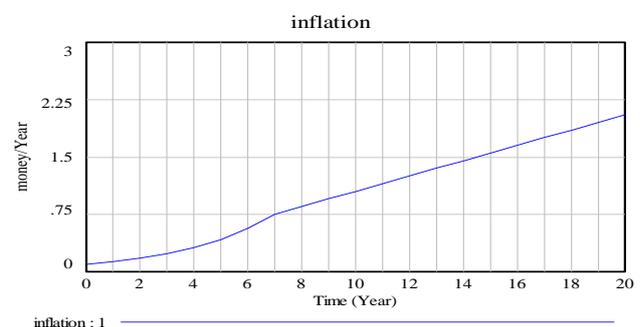


Fig VIII. Anticipated inflation of Tehran

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## DETERMINANT OF NON PERFORMING FINANCING IN ISLAMIC BANK IN INDONESIA

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### Abstract

Non Performing Financing (NPF) is one of the indicators used to measure the level of health of a banking institution. The aim of the research is to identify the macroeconomic and bank specific factors affecting the rate of NPF in Islamic Banks in Indonesia. The method used in this research is panel data analysis with quarterly data from the first quarter of 2014 to the fourth quarter of 2017. The results show that LNASET and FDR have positive effects on NPF, while GDPG, INFL, FR, CAR, and ROA have negative effects on NPF. On the other hand, UNMPT and GCG have no significant effect on the level of NPF. Based on the findings, various recommendations were made. First, Islamic Banks need to monitor the level of FR, LNASET, CAR, FDR, and ROA. Second, Islamic Banks should be more sensitive to macroeconomic conditions. In addition, government as a regulator has to control the macroeconomic variable, particularly the inflation rate and improve the GDP growth in order to enhance the ability of society to pay their debt repayment.

**Keywords:** *Islamic banks, non performing financing, balanced panel data*

### I. Introduction

Islamic finance is among the fastest growing segments in global finance system. According to Islamic Financial Services Industry Stability (IFSI) Report 2017, published by Islamic Financial Services Board (IFSB) the total assets in the three main sectors (banking, capital markets, and takāful) are recorded at USD 1.893 trillion. Global Islamic banking assets are recorded at USD 1.493 trillion and the sector continues to dominate the total assets in Islamic Finance. Based on Table 1, we can draw the conclusion that the total assets in Islamic Finance are dominated by the Islamic banking sector.

**Table 1**  
**Breakdown of IFSI by Sector and by Region (USD billion, 2016)**

Region	Islamic Banking	Şukūk Outstanding	Islamic Funds Assets	Takāful Contributions	Total
Asia	218.6	182.7	19.8	4.4	425.5
Gulf Cooperation Council (GCC)	650.8	115.2	23.4	11.7	801.1
Middle East and North Africa (MENA) ex-GCC	540.5	16.6	0.2	8.4	565.7
Africa ex North Africa	26.6	1.9	1.5	0.6	30.6
Others	56.9	2.1	11.2	0.0	70.2
<b>Total</b>	<b>1,493.40</b>	<b>318.5</b>	<b>56.1</b>	<b>25.1</b>	<b>1,893.10</b>

Source: Financial Services Industry Stability Report, IFSB 2017

The banking sector has an important role in the economy of a country. One of its role is becoming the intermediary institution which functions as a connector for those who have surplus funds with the parties that need funds. Banks have three main functions, which are to accept the deposits, to lend money, and to provide money transfer services. As the executive function of the recipient of money, banks raise funds from the public in the form of time deposits, demand deposits, and saving deposits. Islamic and conventional banks are in the same banking competitive industry. Islamic banks do not utilize the interest as a profit but it use rental fees, margin fees etc. based on the involved contracts. Islamic Banks are always faced with risks. One of them is the financing risk which is known as Non Performing Financing (NPF) or in conventional bank Non Performing Loan (NPL). NPL or NPF simply means that the loan which cannot be repaid back by the borrower. This variable should be maintained in such level to ensure financial intermediation works. Failure to do so would negatively affect to the economy.

There are two types of banks in Indonesia: Conventional and Islamic Bank. Islamic Bank has existed in Indonesia since 1992. According to the Financial Services Authority of the Republic of Indonesia on June 2018, it is stated that the development of Islamic Banking in Indonesia indicates rapid growth within the latest year, especially on Islamic Commercial Banks (BUS) and the Islamic Business Unit (UUS) dominated the assets of Islamic Banking. It is revealed from the data of Financial Services Authority of the Republic of Indonesia (Otoritas Jasa Keuangan Indonesia) in 2017 increase to IDR 424.181 billion from IDR 356.504 billion on 2016. One of the activities carried out by the bank to manage the financial resources is financing. Financing is a form of distribution of funds given to the people that had been collected by Islamic banks. Islamic bank's financing consists of several kinds of transactions, such as *Mudharaba*, *Musharaka*, *Murabaha*, *Salam*, *Istisna'*, *Ijarah*, and *Qardh*. Financing in Islamic Banks have increased along with the increasing number of

investments in deposits or third party funds. The total amount of financing carried by Sharia Commercial Bank (BUS) and Sharia Business Unit (UUS) during the last five years has increased.

**Table 2**  
**Composition of Financing of Sharia Commercial Bank (BUS) and Sharia Business Unit (UUS) based on the contract (billions rupiahs)**

<b>Akad</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<i>Mudharaba</i>	13.625	14.354	14.820	15.292	17.090
<i>Musharaka</i>	39.874	49.387	60.713	78.421	101.561
<i>Murabaha</i>	110.565	117.371	122.111	139.536	150.276
<i>Salam</i>	0	0	0	0	0
<i>Istishna`</i>	582	633	770	878	1.189
<i>Ijarah</i>	10.481	11.620	10.631	9.150	9.230
<i>Qardh</i>	8.995	5.965	3.951	4.731	6.349
<b>Total</b>	<b>184.122</b>	<b>199.330</b>	<b>212.996</b>	<b>248.007</b>	<b>285.695</b>

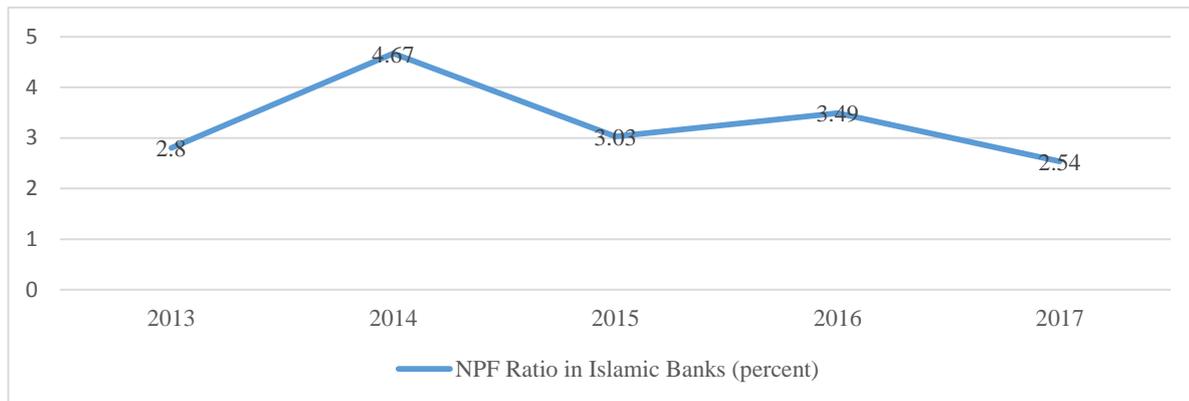
Source: Islamic Banking Statistics, FSA 2017

Based on Table 2, the total amount of financing carried by Sharia Commercial Bank (BUS) and Sharia Business Unit (UUS) during the last five years has increased. The total of financing increased from IDR 184.122 billion in 2013 to IDR 285.695 billion in 2017. The average of financing was increased by 25.46% per year. This condition became a chance for Islamic Banks to continue to expand in the banking industry in Indonesia. On the other hand, rolled financing may contain financing risk with the occurrence of problem loans. Problem loans are caused by the failure of the debtor to fulfil its obligations in paying instalments.

However, this strong growth is followed by the increasing of credit risk as reflected by NPF ratio. Ascarya and Yumanita (2009) stated that the instability of a financial system was characterized by the occurrence of three things and one of them was the failure of banking where banks suffered huge losses due to deteriorating of NPL or NPF. The low ratio of NPF indicates a low level of problem loans, while the high ratio of NPF indicates a high level of problem loans. The increase of the financing of Islamic Bank based on deposits is not followed by the decrease in the level of problem loans. Problem loans in Islamic Banks which are portrayed through the ratio of NPF are fluctuated every year. The fluctuations in these risky conditions will certainly have an impact to banks and customers because Islamic Banks operate on the principle of Profit And Loss Sharing (PLS). In Islamic Bank, profit and loss sharing means that banks share profits and risks with the customer as a result of the investment made by the customer in accordance with an agreed percentage. Although

the principle of the PLS is a cornerstone in Islamic banking, but the risk is something that both of the banks and customers would want to avoid (Ilmi, 2015).

**Figure 2**  
**NPF Growth on Sharia Commercial Banks (BUS) and Sharia Business Unit (UUS) in Indonesia 2013-2017 (percent)**



Source: Islamic Banking Statistics, FSA 2017

Based on Figure 2, the value of NPF in Islamic Banks are always fluctuated. In 2014, the NPF of Islamic banks has gradually increased and getting close to 5% which is the maximum standard from the Central Bank of Indonesia. The rising number of NPF urges the bank to increase provision for loan losses which may result to the capital deterioration. NPF is a variable needed to be put in attention in the context of money flow to the real sector. It is the inability of the borrower to repay back the loan. This situation is not expected since the bank will face difficulty and in the worst case scenario the depositors will run away from those unperforming banks. Notice that, the funds given to the borrower is coming from the depositors. The bank has to ensure that the borrower will pay back the loan, otherwise depositors will withdraw their funds since the bank is not able to pay the interest. In macro level, if this situation occurs, the overall economy will be affected. Given the importance of NPF, this paper attempts to seek the determinants of NPF. Goeltom (2007) has stated that the banking sector remain an important sector for the Indonesian economy. Firms and businesses are preferring bank rather than issuing stock or bonds to raise funds for their expansions. Capital market is still yet to be chosen as the main source to develop the economy.

## II. OBJECTIVITE

Based on the problem formulated above, this research objective is to analyze the determinant of non performing financing in Islamic Banks in Indonesia.

## III. RESEARCH METHOD

### 3.1 Types and Sources of Data

The data used in this research is secondary data derived from the financial statements of Islamic Commercial Banks (BUS), Central Bank of Indonesia, Financial Services Authority of the Republic

of Indonesia, CPM, and reports of GCG Islamic Commercial Banks (BUS) from the first quarter of 2014 until the third quarter of 2017. The population in this study were all Islamic Commercial Bank (BUS) registered by Financial Services of Authority of Republic of Indonesia until 2017. Islamic Banks which became the object of this research are Bank Muamalat Indonesia, Bank Syariah Mega Indonesia, Bank Syariah BRI, Bank Victoria Syariah, BNI Syariah, Bank Syariah Mandiri, Bank Panin Syariah, Bank Syariah Bukopin, BCA Syariah, BPD Islamic Banten West Java, and Maybank Syariah. The data used in this study is the rate of Non Performing Financing (NPF), the total assets, the rate of Capital Adequacy Ratio (CAR), the rate of Financing to Deposit Ratio (FDR), the Financing Rate (FR), and the rate of Return on Asset (ROA) were derived from BUS financial statements. The data of Gross Domestic Product (GDP) and inflation derived from Central Bank of Indonesia (BI), and unemployment rate data were derived from Statistic Indonesia (BPS), while the composite score of Good Corporate Governance (GCG) data was derived from the annual corporate governance report of Islamic Banks (BUS).

### 3.2 Method and Data Analysis

The data used in this study were analyzed by quantitative analysis using static panel data analysis method. The analytical tool is used for analyzing variables such as GDP growth, inflation, unemployment, financing rate, composite score of GCG, total assets, CAR, FDR, and ROA to the NPF. Quantitative analysis was conducted by using Microsoft Excel 2013 and EVIEWS 9. Panel data is useful to improve information on both time series and cross section as well as providing more number of observations, increasing the degree of freedom and reduce collinearity in the explanatory variable (Baltagi, 2005). Gujarati (2012) also stated that the panel data increases empirical analysis and provide better flexibility for modelling the behavior of the unit cross sectional time series analysis. Data panels provide advantages in identifying and measuring the data which cannot be overcome across individual alone or only time series data.

### 3.3 Research Model

Looking at the results of earlier empirical studies and considering the assumptions that the panel data model refers to, the variables that are expected to affect NPF at Islamic Commercial Banks are internal banking variables including financing policies and external variables. The model in this study can be written as follows:

$$NPF_{it} = a_{it} + b_1GDPG_t + b_2INFL_t + b_3UNMPT_t + b_4FR_t + b_5GCG_{it} + b_6LNASET_{it} + b_7CAR_{it} + b_8FDR_{it} + b_9ROA_{it} + \varepsilon_{it}$$

Notes:

$NPF_t$	: Non performing financing (percent)
$GDPG_t$	: GDP growth (percent)
$INFL_t$	: Inflation (percent)
$UNPMT_t$	: Unemployment rate (percent)
$FR_t$	: Financing rate (percent)

$GCG_{it}$	: Composite value of GCG (score)
$LNASET_{it}$	: Total asset (million rupiahs)
$FDR_{it}$	: Financing to deposit ratio (percent)
$CAR_{it}$	: Capital adequacy ratio (percent)
$ROA_{it}$	: Return on asset (percent)
$\varepsilon_{it}$	: Error term
$i$	: Banks 1-11
$t$	: Year 2014-2017

### 3.4 Research Hypotheses

In this section the researcher developed testable hypotheses to examine the relationship between NPF ratio and the selected variables. Based on the above reviewed literature, the following null hypotheses were formulated:

#### 1. Impact of GDP growth on NPF

H<sub>1</sub>: GDP growth has a negative relationship with NPF

#### 2. Impact of Inflation on NPF

H<sub>2</sub>: Inflation has a positive relationship with NPF

#### 3. Impact of Unemployment rate on NPF

H<sub>3</sub>: Unemployment has a positive relationship with NPF

#### 4. Impact of Financing Rate on NPF

H<sub>4</sub>: Financing rate has a positive relationship with NPF

#### 5. Impact of composite value of GCG on NPF

H<sub>5</sub>: Composite value of GCG has a positive relationship with NPF

#### 6. Impact of Total Asset on NPF

H<sub>6</sub>: Total Asset has a negative relationship with NPF

#### 7. Impact of Financing to Deposit Ratio on NPF

H<sub>7</sub>: Financing to Deposit Ratio has a positive relationship with NPF

#### 8. Impact of Capital adequacy ratio on NPF

H<sub>8</sub>: CAR has a negative relationship with NPF

#### 9. Impact of Return on Asset on NPF

H<sub>9</sub>: ROA has a negative relationship with NPF

## IV. RESULTS AND DISCUSSION

The panel data method presents three estimation methods, namely Pooled Least Square (PLS), Fixed Effect Model (FEM), and Random Effect Model (REM). The three models are used to find the best estimation results. Determination of the best method that will be used in research go through several stages of testing. First, the Chow Test to determine whether to use PLS or FEM. Second, the Hausman Test to determine whether to use FEM or REM. And the last is the Breusch-Pagan Lagrange Multiplier test to select between PLS or REM. The evaluation of this estimation model based on economic criteria by comparing the suitability of the sign and value estimator with economic theory

and compliance with logic. The test results showed that the Random Effects Model (REM) is the best model in this study.

#### 4.1 The Determinant of Non Performing Financing

The results of studies using Random Effect models show that only growth in GDP, inflation rate, financing rate, LNASET, CAR, FDR, and ROA which significantly affect the NPF on Islamic Banks. On the other hand, the unemployment rate and the composite value of GCG do not have a significant effect on the NPF on Islamic Banks.

**Table 3**  
**Estimation of Random Effect Model**

Variable	Coefficient	Prob.
GDPG	-0.030781*	0.0826
INFL	-0.437809**	0.0041
UNMPT	0.356971	0.3104
FR	-0.660989**	0.0018
GCG	0.267139	0.1470
LNASET	0.256439**	0.0134
CAR	-0.532009**	0.0154
FDR	1.415305***	0.0001
ROA	-0.109092***	0.0000

\*\*\* Correlation is significant at the 0.01 level

\*\* Correlation is significant at the 0.05 level

\* Correlation is significant at the 0.1 level

##### 4.1.1 GDP Growth

According to McEachern (2000) GDP measures the market value of final goods and services produced by resources that are within a country during a certain period, usually in one year. GDP can also be used to study the economy from time to time, or to compare several economies at a time.

Based on the estimations, it is known that the GDP growth variable has a negative and significant effect on the NPF. The value of the coefficient on GDPG is -0.030781, which means that the 1% increase in GDP growth will decrease the level of NPF by 0.030781% with the assumption that other variables are considered constant. The results of this study are in accordance with the initial hypothesis and in line with the results of research (Ilmi, 2015) which states that GDP growth has a significant negative effect on NPF in Islamic Banks. GDP growth rate is considered to negatively correlate with higher NPF because NPF tend to be lower during economic boom and are higher during recessionary periods. If the economic conditions are good, with increasing GDP it will affect people's income. In this condition, the ability of community to pay their debts will increase because the real income has also increased.

##### 4.1.2 Inflation

Inflation is defined as the percentage increases of a reference index, the Consumer Price Index (CPI), which is a representative of a common basket of goods and services (Mercurio, 2004). When price level rises, each unit of currency buys fewer goods and services. Consequently, inflation results

into a reduction in the purchasing power per unit of money, a loss of real value in the medium of exchange and unit of account within the economy (Boyd and Champ, 2004).

Based on the estimations, it is known that the inflation variable has a negative and significant effect on the NPF. The value of the coefficient on INFL is  $-0.437809$ , which means that the 1% increase in inflation will decrease the level of NPF by 0.437809% with the assumption that other variables are considered constant. The results of this study are not in accordance with the initial hypothesis but in line with the results of research Efendi et al (2017) which states that inflation has a significant negative effect on NPF in Islamic Banks. This finding is contradictory with the theory that increasing the price of goods and services indicate the higher cost that people should spend. It means the high inflation effect is decreasing the people's purchasing power. The lower purchasing power can decrease the ability of people to payback their obligation to the bank, thus it raises NPF ratio. Based on Nkusu (2011), the reason behind this contradiction is because higher inflation can make debt servicing easier either by reducing the real value of outstanding loans or simply because it is associated with low unemployment as the Phillips' curve suggest. Another reason is the high inflation rate will make the community face financial difficulties so the amount of financing borrowed by the community will decrease because they are afraid of not being able to pay their debts. And in the end the financing amount will decrease and finally will reduce amount of financing problems.

#### 4.1.3 Financing Rate

Financing is the most important service that commercial banks do to render their customers, in other word banks grant advances and financing to individuals, government and business organization. Financing rate is the rate at which the bank portion that must be paid by the borrower to the bank for the use of money that they borrow from the lender. Financing rates are normally expressed as a percentage rate over the period of one year. The increasing financing rate will lead to more expensive loans, which in return they will have less payment capabilities.

Based on the estimations, it is known that the financing rate variable has a negative and significant effect on the NPF. The value of the coefficient on FR is  $-0.660989$ , which means that the 1% increase in FR will decrease the level of NPF by 0.660989% with the assumption that other variables are considered constant. The results of this study are not in accordance with the initial hypothesis but in line with the results of research Efendi et al (2017) which states that financing rate has a significant negative effect on NPF in Islamic banks. It indicates the commitment and seriousness of the bank in preventing the occurrence of a moral hazard and adverse selection.

#### 4.1.4 Total Asset

The total asset of a bank can be described as the amount of financing which can be channeled. Banks with big assets are able to produce more large profits by channeling more financing with optimal control and supervision to minimize risk in financing.

Based on the estimations, it is known that the Total Asset variable has a positive and significant effect on the NPF. The value of the coefficient on LNASET is  $0.256439$ , which means that the 1% increase in total asset will increase the level of NPF by 0.256439% with the assumption that other variables are considered constant. The results of this study are not in accordance with the initial hypothesis but in line with the results of research Barus and Erick (2016) which states that total asset has a significant positive effect on NPF in Islamic Banks. The reason behind this contradiction is because if the Islamic Banks has a large total assets, the volume of financing will increase. The greater the volume of financing, the greater the probability of financing problems.

#### 4.1.5 Capital Adequacy Ratio

Capital Adequacy Ratio (CAR) is the ratio of a bank's capital in relation to its risk weighted assets and current liabilities. The core capital of the bank is supposed to absorb the potential losses due to the risk of the banking activities. Under Basel III, the minimum CAR that the banks must maintain is 8%.

Based on the estimations, it is known that the CAR variable has a negative and significant effect on the NPF. The value of the coefficient on CAR is -0.532009, which means that the 1% increase in CAR will decrease the level of NPF by 0.532009% with the assumption that other variables are considered constant. The results of this study are in accordance with the initial hypothesis and in line with the research results of Efendi et al (2017) which states that the higher the CAR value indicates that the bank's capital increases, thus reducing the NPF. This indicates that with the increased level of capital adequacy, banks will manage the risks of problem financing more easily, which can decrease the value of NPF.

#### 4.1.6 Financing to Deposit Ratio

Financing to Deposit Ratio (FDR) is the composition of the amount of financing disbursed compared to the amount of funds collected and the capital used. The high level of FDR indicates a high level of financing provided by banks, but if there is no good management, the opportunity of financing problem will increase and in the end the NPF level will also increase

Based on the estimations, it is known that the FDR variable has a positive and significant effect on the NPF. The value of the coefficient on FDR is 1.415305, which means that the 1% increase in FDR will increase the level of NPF by 1.415305% with the assumption that other variables are considered constant. The results of this study are in accordance with the initial hypothesis and in line with the results of research Aryani (2015) which states that FDR has a significant positive effect on NPF in Islamic banks. A positive relationship between FDR and NPF occurs because the higher the amount of funds disbursed by the bank will cause a comparable financing risk.

#### 4.1.7. Return on Asset (ROA)

Return on Assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives an idea on how efficient a management is at using its assets to generate earning. The greater the ROA is, the better the company's performance, because of the greater return. With the increased in profits obtained by the banks, it will be easier to overcome the risks, so the risk of NPF will decrease (Efendi et al, 2017).

Based on the estimations, it is known that the ROA variable has a negative and significant effect on the NPF. The value of the coefficient on ROA is -0.109092, which means that the 1% increase in ROA will decrease the level of NPF by 0.109092% with the assumption that other variables are considered constant. The results of this study are in accordance with the initial hypothesis and in line with the results of research (Ilmi, 2015) which states that ROA growth has a significant negative effect on NPF in Islamic Banks. The increase in ROA will reduce the level of NPF because the profit

which the bank received is an overview of the performance of a bank that is able to reduce the likelihood of risk (Ilmi, 2015).

## V. CONCLUSION

This study aimed to get empirical evidence of the effects of macroeconomic and specific banking factors on NPF in Islamic Banks in Indonesia. NPF ratio compares the total non performing financing to total financing channeled in percentages. NPF can be used as an indicator of financing risk, where the lower the level of the NPF ratio, the lower the level of financing will occur which means also the better the condition of the bank and vice versa if the higher level of NPF ratio, the greater the financing risk borne by the bank. The high NPF is one indicator of a bank's failure to manage financing. This study is a quantitative research using panel data regression analysis with the study period from 2014 to 2017. The samples used were 11 Islamic Banks in Indonesia from 2014-2017. The estimation model used is panel data models Random Effects Model (REM). The results show that there are correlation between macroeconomic variables, specific banking factors, and the NPF ratio. Through the research findings and the results it has been concluded that specific banking factors that affect NPF are LNASET and FDR which positively affect NPF, while FR, CAR, and ROA had a negative effect on the NPF. In addition, the macroeconomic variables that affect NPF are GDP growth and inflation had a negative effect on the level of NPF. Islamic commercial banks must further increase control over bank in specific factors such as total assets, FDR, FR, CAR, and ROA because based on the analysis specific factors have a significant effect on the level of NPF.

Macroeconomic variables based on analysis have a significant effect on the level of NPF. Therefore, banks must be more sensitive to changes in the magnitude of macroeconomic variables. The effect of macroeconomic variables that have significant influence on banking NPF ratios in Indonesia, a follow up must be taken by various relevant stakeholders in order to maintain the ratio of NPF level. The government should issue policies that pay attention to the impact on the change of macroeconomic variables, especially those related to GDP and inflation. The government must be able to stimulate the increase in GDP, because the increased GDP can reduce the level of banking NPF that occurred. Furthermore, the government feels it is necessary to maintain price level at a relatively low and stable level. Therefore, the government must work together with Central Bank to make the macroeconomic condition able to decrease the NPF level of Islamic Banking in Indonesia.

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## **A RESEARCH ON CATEGORIES OF LEED CERTIFICATION SYSTEM: CASE STUDY OF DOCKSIDE GREEN**

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### **Abstract**

Nowadays, certification systems have evolved due to increased energy consumption and limited resources. These certification systems provide to be sustainable by creating greener, sustainable, healthy and livable environment with the categories reformed in various headings. In this study, the most applied and preferred LEED (Leadership in Energy and Environmental Design) certification system will be researched. There are eight categories for the LEED certification system: Sustainable sites, water efficiency energy and atmosphere, materials and resources, indoor environmental quality, innovation, location and transportation and regional priority. In this study as a sample case study Dockside Green, which is located in Victoria, British Columbia will be reviewed. Dockside Green is the first community ever to target LEED Platinum certification for buildings developed in a master planned community. Project will also be reviewed on the basis of the main categories that constituent the LEED certification system.

**Keywords:** *LEED, Green Building, Certification System, DockSide Green*

### **1. INTRODUCTION**

In this study, LEED (Leadership in Energy and Environmental Design), which is the most applied and preferred green certification system in the world, was researched. The aim of this study is to reveal viewpoints and control systems under LEED categories. The latest version “LEED v.4 for building design and construction” was taken into account. There are eight categories for this version of LEED certification system: sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation, location and transportation and regional priority.

## 2. CATEGORIES OF LEED CERTIFICATION SYSTEM

LEED is a green building certification system which stands for leadership in energy and environmental design. LEED is a leading edge system for certifying high performance buildings and sustainable neighbourhoods. LEED was developed by USGBC (U.S. Green Building Council), and the LEED Green Building Rating System is the USGBC's primary vehicle for promoting sustainable design and construction. The LEED standard was created through volunteer committees. From 1994 to 2018, LEED grew from one standard for new construction to a comprehensive system of interrelated standards covering all aspects of the development and construction process [1]. The evaluation categories of LEED certification system is contextualized by the following.

### 2.1. Location and Transportation [1]

Creating sustainable buildings starts with selecting a proper location. The location of a building effects a wide range of environmental factors including energy use, land use and preservation, erosion and rainwater management, access to public transportation, and many others.

### 2.2. Sustainable Sites [1]

#### Site Assessment

A site assessment assesses site conditions before design to evaluate sustainable options and inform related decisions about site design. A site assessment is part of the integrative process that helps to incorporate the assets of the site and its historical contexts. Project teams look at the site features and take those features into the design considerations and how the site conditions influence the project design.

#### Site Design

The whole building design practice of site planning considers both the site and the function of the building to determine the site's ability to support the building while minimizing environmental impacts. The project team must take into account the whole development footprint. The development footprint is more than just the building, but all areas that will be affected by the project's activity. It includes the building, access roads, parking lots, sidewalks, other hardscapes, and any other type of building like a storage shed, etc. Make the site development dense means that project teams should try to keep the building footprint to a minimum and should maximize open space.

#### Rainwater Management

The goals of green building can be reached by restoring natural areas. Sustainable site design includes responsible stewardship of water runoff, vegetation, wildlife, and climate.

#### Heat Island Effect

Heat islands are temperature differences between developed and undeveloped areas. The heat island effect is created when developed areas have higher temperatures than surrounding rural areas. An urban heat island effect is caused by the sunlight heating up dark colored surfaces such as roads and rooftops. Urban heat islands effects can also be created by narrow streets and tall buildings reducing the air flow through the city, as well as vehicle exhaust. Huge quantities of heat are generated in buildings that have dark rooftops and absorb heat rather than reflect it.

#### Site Management

Property management is very influential; there are more existing buildings than buildings under construction. Proper building management can make a significant difference on the ongoing sustainability of a site.

### **2.3. Water Efficiency [1]**

Seventy percent of the Earth's surface is covered by water, but less than 1% of that water is fresh water. Only 1% of that 1% is accessible for human use. According to the United Nations Environment Program, if our present patterns continue, two out of every three people will live in water stressed conditions by the year 2025. Each day roughly 340 billion gallons of fresh water are withdrawn from rivers, streams, and reservoirs. 65% of the water consumed is discharged back into the water supplies after use. Water efficiency helps protect our aquifers and the supply of renewable fresh water. The goals of the water efficiency credits are to:

- Reduce the quantity of water needed for a buildings and landscaping
- Reduce municipal water use
- Reduce the need for treatment of waste water

Potable water, which is water that is suitable for drinking, is one of the resources LEED is trying to conserve. Potable water comes from wells or municipal water systems. Non potable water is not suitable for human consumption. Water conservation strategies are typically no more expensive than traditional building methods. Buildings that use water efficiently can reduce operating costs through lower water use and sewage fees. For those strategies where the cost may be higher, the payback is usually quick. For both energy efficiency and water efficiency LEED requires an efficiency first approach. After efficiency, other ways should be looked for to reduce use.

### **2.4. Energy and Atmosphere [1]**

In all of the different LEED rating systems, the energy and atmosphere category contains the most points available because of the importance of energy conservation. The reason is the importance of energy conservation. Increased energy use and the burning of fossil fuels are linked to global warming and air pollution. This category specifically looks at the energy use in a building in terms of using less energy and supporting the use of more environmentally friendly energy sources. The whole building approach to building design not only saves energy over time, but the size of the equipment needed for heating and cooling is also reduced. The use of smaller pieces of equipment saves money up front and lowers any added costs that may occur from other sustainability choices that are implemented. It's easier to save energy by reducing the demand and the loads, than to buy expensive high efficiency equipment. The energy and atmosphere category seeks to reduce the energy use of buildings and homes, use renewable energy sources, and reduce greenhouse gas emissions.

### **2.5. Materials and Resources [1]**

Sustainable materials are materials that reduce demands on ecosystems during their life cycle. This includes the materials' processing – such as harvesting and production – and the entire product life cycle through use and disposal. Conventional building construction and operation consumes large quantities of wood, water, metals, and energy from fossil fuels. Sustainable buildings impact the triple bottom line through the use of materials in the following primary ways:

- Reducing waste

- Building with environmentally preferable materials
- Creating a sustainable purchasing program

## **2.6. Indoor Environmental Quality [1]**

Indoor environmental quality (IEQ) refers to the quality of the air and environment inside buildings, based on pollutant concentrations and conditions that can affect the health, comfort, and performance of occupants. Indoor air can be two to five times more polluted than outdoor air. The variables that affect the indoor environment include temperature, humidity, lighting, acoustics, air quality, control systems.

IEQ problems can lead to liability issues, poor occupant health, missed work days, and expensive repairs to remedy problems. All aspects of the building process are involved when it comes to good IEQ: design construction practices, materials selection, housekeeping, operations and maintenance, staff training, occupant habits, etc. All of these factors impact the indoor environment and regular building occupants. Regular building occupants for residences include everyone who lives in the residence, but for commercial buildings it is a person who works 10 or more hours per week in the building. This can also apply to students who spend many hours in educational facilities each week. All aspects of managing a building can be consolidated into the concept of risk management. There are a lot of risks about employing and having occupants in the building. This is why there are liability policies for buildings in case one falls down the steps. There's also a risk management process if a chemical spill occurs within the building.

## **2.7. Innovation [1]**

Innovation is a flexible category used to award points for performance and creativity. This category is flexible because the points in this section are not necessarily earmarked for specific items completed or designed. Prerequisites cannot earn points for this category. Innovation in design points can be awarded for:

- Exemplary performance which is exceeding the credit requirements
- Innovative performance which is demonstrating a quantifiable environmental benefit using an approach not found in the LEED Rating System
- Having one LEED AP participant on the project team

## **2.8. Regional Priority [1]**

Regional priority a great example of how the USGBC is able to listen to its members and stakeholders in the real estate industry. Regional priority acknowledges that different regions in the world have different needs and has selected existing credits in the rating systems that should be a priority. The intent of the regional priority credits and points is to encourage teams to attempt LEED credits that address specific environmental priorities in the project's region.

## **3. EVALUATION OF LEED CERTIFICATION SYSTEM CATEGORIES IN DOCKSIDE GREEN**

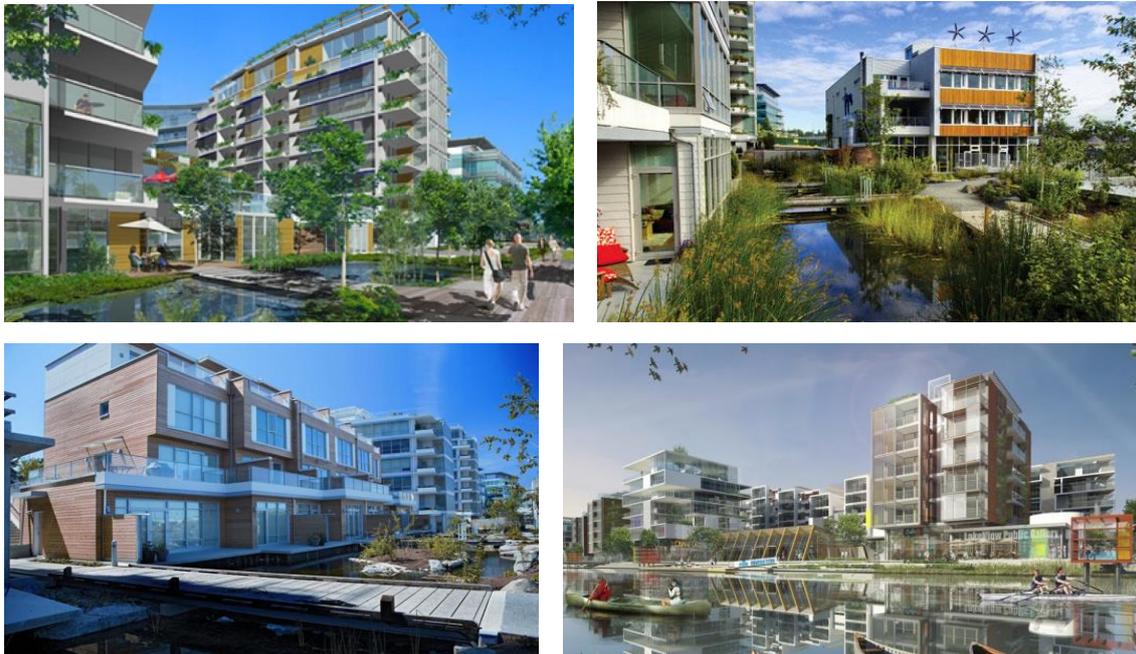
Dockside Green is the first community ever to target LEED Platinum certification for buildings developed in a master planned community. It includes 26 buildings totalling 1.3 million square feet, and be home to about 2,500 people in three neighbourhoods Dockside Wharf to start, followed by Dockside Commons and Dockside Village. Dockside Green was a pilot project effectively setting the

benchmark for the “LEED for Neighbourhood Development” rating system. Located in Victoria, British Columbia, Canada on 15 acres of former industrial land on the city’s inner harbor, Dockside Green is the largest redevelopment of city land in Victoria’s history [3, 7, and 10].

A model for holistic and closed loop design, Dockside Green functions as a total environmental system. Form, structure, materials, mechanical and electrical systems are interrelated and interdependent in Dock Side Green. Thereby, Dock Side Green is a sustainable and largely self-sufficient community, where waste from one area provides fuel for another. In Dockside Green, a dynamic environment where residents, employees, neighbouring businesses and the broader community will interact in a healthy and safe environment reclaimed from disuse and contamination, can be found [2, 3, and 9]. The evaluation of Dockside Green in the context of LEED categories is contextualized in Table 1. Some photos of Dockside Green is illustrated in Figure 1 and 2.



**Figure 1.** Views from Dockside Green neighbourhood [2, 9]



**Figure 2.** Views from Docks Green Building [2, 9]

**Table 1.** Evaluation of Docks Green in the context of LEED Categories

LEED Categories		Green Implementations in Docks Green
Location and Transportation [3, 9]	Site Selection	A history of industrial use left the Docks Green site with significant contamination of its surface soils, currently covered with pavement, gravel and some minor vegetation. Through a variety of innovative remediation techniques, the project will transform this former brownfield into an internationally recognized sustainable community, full of green space and green architecture. Docks Green's site remediation involved the removal of hazardous waste (mostly contaminated surface soil resulting from the site's long history of industrial use) and risk assessment of other contaminants. The hazardous waste material was treated offsite so the soil can be used elsewhere.
	Alternative Transportation	Docks Green has committed to several steps that will make lower automobile use a reality; <ul style="list-style-type: none"> <li>•Pedestrian •Mixed Use •Bicycle •Mini Transit •Harbour Ferry •Car Share Program •BC Transit</li> <li>•Preservation and/or Enhancement of the Galloping Goose Trail</li> </ul>
Sustainable Sites [4, 8]	Site Restoration	The existing shoreline along Point Ellice Park will be cleared of invasive shrub and rubbish and replaced with indigenous plantings and natural rock settings that will allow pedestrians direct access to the shoreline.
	Light Pollution Reduction	In accordance with the Royal Astronomical Society of Canada light abatement recommendations, all site lighting will be full cut off and designed to eliminate night-time light pollution. The project uses fixtures that provide downward lighting to enhance safety and save energy while retaining the natural beauty of the night sky.
Water Efficiency [2, 4, 9]	Reduce Potable Water Use	Docks Green has made a significant commitment to reduce water use, to reuse water, and to prevent water from leaving the site. Docks Green's potable water use in residential and commercial/office buildings will be approximately 60% to 65% lower than conventional developments, achieved largely through the use of reclaimed water for toilets and low flow fixtures such as dual flush toilets, 1.5gpm showerheads, 0.9gpm sinks, 0.5gpm lavatories and waterless urinals. The amount of water saved for the entire development is equivalent to the annual water use of 580 homes.

LEED Categories		Green Implementations in Dockside Green
	Water Treatment	The development will treat 100% of its sewage on site and use the treated water for flushing toilets, landscape irrigation and water features. Residual treated water will recharge the naturalized waterway that flows across the site and collects rainwater as it flows towards the inner harbor. It is estimated that over 38 million gallons of potable water will be saved by treating and reusing the water on site. The city will not bill residents for the sewage component charge of the water bill nor for the use of treated water.
	Metering	Monitors in each suite will not only show temperatures, but also show how much water has been used.
	Storm Water Treatment	Storm water will be treated through green roofs and flow via a series of connected naturalized creeks and waterways to achieve LEED requirements and create a delightful, lush and 'living' urban environment.
Energy and Atmosphere [3, 6, 8, 9]	Energy Performance Designed to Save	The buildings at Dockside Green are designed to use 45-55% less energy than the Canadian Model National Energy Code. This save residents money while reducing harmful, greenhouse gas emissions.
	Energy Efficient Appliances	Investment in Energy Star efficient appliances resulted in an average 47% energy saving over the Canadian Model National Energy Code base energy rating for appliances. The high end, energy efficient, front loading washers and condensing dryers not only save energy but operated quietly and protect clothes from the damage of over drying.
	Energy Efficient Lighting	The project uses compact fluorescent lighting, LED lighting in corridors, occupancy sensors and some solar lighting in landscape areas to reduce electrical costs from lighting. The design allows for an abundance of daylight into each building.
	Metering	Meters are provided in each suite to measure: • Domestic hot and cold water use • Heating bills • Electricity usage The meters provide real time information to residents on their energy usage allowing them to make personal adjustments to save money.
	Measurement and Verification	Dockside Green will provide environmental reports that measure actual results against projected targets, outline accomplishments and identify areas for improvement.
	Commissioning	There are numerous studies that show non-commissioned buildings are generally 5 to 15% less energy efficient because systems were not fine-tuned and/or parts were incorrectly installed or not working properly. The project will retain the services of an independent commissioning agent to verify that mechanical systems are designed and working properly upon construction completion. The commissioning agent will revisit the building within a year of occupancy to recommission the mechanical systems to ensure they are working properly.
	Biomass Heat Generation	Rather than burning wood waste, the project will use a thermochemical gasification process to create a synthetic gas that will be burned to produce heat. The input "chemicals" for thermochemical gasification wood, water and air are heated in a low air environment until the wood undergoes gaseous decomposition. The resulting gaseous products are then scrubbed and cleaned and burned to produce heat for a heating water boiler. The boiler will supply the majority of Dockside heating requirements with some peak load supplied by the backup/peaking gas boilers.
	Greenhouse Gas Neutral	Though not required for LEED Dockside Green is attempting to become Greenhouse Gas Neutral, or having no net emissions from a building energy perspective. The main contributor to this goal is the use of the biomass heat generation process.
	Renewable Energy	Besides the biomass heat generation, the project will also incorporate other renewable energy sources within the community, such as solar water heating and photovoltaic power, with a strong emphasis on working with local and Canadian based suppliers.
Materials and Resources [3, 8]	Use of Local Products (Regional Materials)	Local products will be used on site for construction activities, site utilities, and demonstration projects, as well as being made available for purchase on site. Showcasing local products will increase exposure for local businesses and establish Dockside Green as an excellent development resource a great example of what can be done with locally produced, ecologically responsible products. Decision to use locally produced goods not only benefits local businesses, it has the added environmental benefit of reducing CO <sub>2</sub> emissions from transport.
	Environmentally Preferable Materials	Dockside Green is committed to utilizing recycled content, sustainably harvested materials, and rapidly renewable resources; while at the same time minimizing construction and household waste.
Indoor	Fresh Air Ventilation	Dockside Green's buildings provide 100% fresh air through either a central or individual heat recovery ventilators. The system utilizes heat recovery from the exhaust system and preheats incoming air, saving energy costs while providing fresh air.

LEED Categories		Green Implementations in Dockside Green
	Low VOC Products/ No Formaldehyde	The project uses low or no volatile organic compounds (VOC's) paints, sealants and adhesives as well as avoids the use of urea formaldehyde composite wood products. The project also includes low emitting carpets. Additionally, the children's play area will be built with nontoxic and natural materials to safeguard children from any potential long term health risks.
	Green Cleaning	To improve indoor air quality and encourage optimal functioning of Dockside Green's water treatment system, the project team will encourage maintenance staff and community members to use green cleaning products exclusively, providing each residential, commercial and industrial unit with an initial, complimentary six month supply.
<b>Innovation</b> [4,8]	Example of innovative in Dockside Green is Integrated Resource Recovery (IRR) in an urban setting – for example, Victoria residents currently pay sewage fees to both the City of Victoria and the Capital Regional District (CRD). An agreement was reached between the developer and the City to exempt Dockside Green residents from municipal sewage fees.	

#### 4. CONCLUSION

Dockside Green is a 15-acre sustainable harbor side community located in Victoria, British Columbia. This development is a master planned waterfront community that is designed to reflect a more responsible approach to planning with the environment in mind. It includes a total of 1.3 million square feet of residential, office, retail and commercial space. Dockside Green is the first community ever to target LEED Platinum certification for buildings developed in a master planned community.

Dockside Green adopted an integrated approach to design, tailoring it specifically to the Dockside lands and the Victoria West community by recognizing the need to apply integrated design principles to the whole site – not just individual components and characteristics. A holistic, closed-loop design approach is the only way to enhance synergies and achieve the sustainability goals. Dockside Green strives to move the concept of whole-system costing beyond building design to include site and community infrastructure costs. For example, a sound green building strategy like ecological rainwater management will reduce infrastructure costs while reducing the emission of greenhouse gases and heat-island effects, thus creating natural habitat and improving human health. The ability to exploit whole-system thinking will be critical to success ecologically, socially and financially. For a more sustainable future, denser urban living requires alternatives to automobile use along with innovative and efficient ways in order to produce energy and reduce waste. Therefore, it's clear that Dockside Green shows a bold precedent with lessons that can be applied to subsequent projects in communities.

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## **THE CREATED VALUE BY THE FACT OF SUSTAINABLE REAL ESTATE DEVELOPMENT ON URBAN SPACES, CERTIFIED GREEN BUILDING CASE IN TURKEY**

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### **Abstract**

The real estate is both consumer of natural resources and a producer. Increasing the producing by sustainability, may add value to the nature and the build environment which is mostly by the Anthropocene point of view, created on the urban space. The construction industry is shaping the urban space again by the occupying of agricultural land, spreading through rural areas and re-shaping the current urban land by demolitions. Throughout these processes, sustainable real estate should take into account the inputs of the highest and best use, energy efficiency, resource consumer, environmental compliance, health, socio-cultural dimensions and technical quality of the outputs as value / gain / value. The certification of buildings and global way of investments may add great benefits to develop the urban space with strategic plans on real estate sector to keep up the future in sustainable manner.

**Keywords:** *Sustainable real estate, value, valuation, certified green buildings*

### **Introduction**

The main objective of urbanization in XX<sup>th</sup> century, *zoning and land value capture*, is a source of income in terms of tax on behalf of local governments and a source of prosperity for local people. If

*sustainability value capture*<sup>1</sup> is ensured that the value increase of sustainable real estate development (SRED) is started to be discussed in this context, the importance of conservation of natural resources and constructed environment may become more noticeable for the future. So, the conceptual approach of this study includes the SRED design of valuation process which strategic planning, architectural design, economic and monetary (financial) feasibility as in the context of the circular economy are planned to be discussed both in terms of inputs and outputs. The capital and the value created by these interdisciplinary arguments are planned to have a viewpoint to generate a sustainable outline with its detailed features of SRED.

The concept of sustainability includes the existence and absence of consumption (Table 1) with its socio-cultural and economic richness within the natural and built environment. The real estate, as a property that has its own constituent elements (usus, fructus, and abusus – usage, benefits of and savings) in most civil codes of nations, is a very time-consuming investment in addition to other manufactured (constructed) products. Even though in XXI<sup>st</sup> century has high-tech instruments with the knowledge of history and education within reminded ethics; the earth: *big blue marble* just discovered in 1968 while the scene of a lonely planet from the spaceship Apollo 8.

*Table 1. Environmental Impacts of Building Construction [2]*

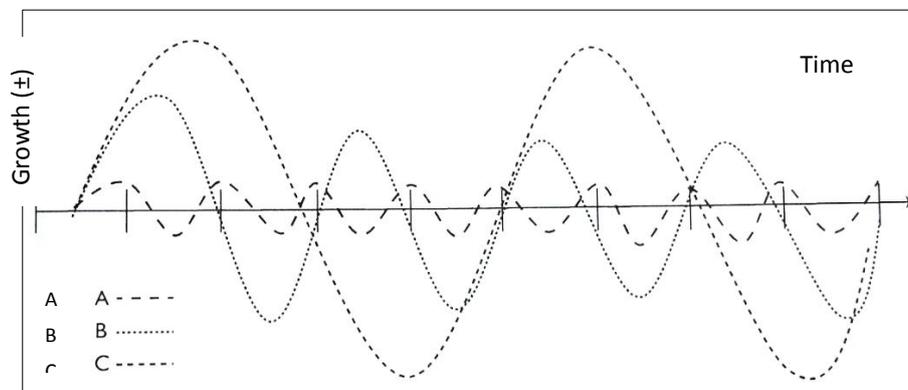
ISSUE	BRIEF RATIONALE
Environmentally friendly construction materials	As much as 50% of all materials extracted from the earth's crust are transformed into construction materials and products. Including energy in use, when installed in a building, they account for as much as 40% of all energy use. Moreover, these same materials when they enter the waste stream, account for some 50% of all waste generated prior to recovery.
Energy efficiency in buildings	The construction, operation and subsequent demolition of built facilities accounts for about 40% of all energy end use and a similar percentage of greenhouse gas emissions. Moreover, the potential for reducing greenhouse gas emissions in existing and new buildings is greater than that of any other sector and consequently represents the most significant target for reducing emissions in order to reach the targets laid down in the Kyoto Protocol.
Construction and demolition waste management	Construction and demolition waste constitutes the largest waste stream by weight in the European Union. Disposing of these waste materials is presenting increased difficulties in many parts of Europe. Increased emphasis needs to be placed on waste minimization and recycling.

The real estate sector (Figure 1) includes owner/user/renter, developer, financier, facilitator and renovator within its structure both in macro and micro economies under the authority. Also, the nature of real estate investments holds some characteristics such as durability, heterogeneity, high transaction costs, long time delays, immobility and both an investment good and a consumption good [3]. In addition to all this scope, the real estate market has to be balanced with supply and demand of the general market, urban and spatial economics and even though researches and survey, to have a sustainable structure to get rid of the main theme: reducing risk. Sustainable real estate investment has some remarked advantages [2]:

<sup>1</sup> Although the “value”, “sustainability” and “capturing value” are stated in other studies [1], this is the first time that “sustainability value capture” term is used as mimicking the “land value capture” semantically.

- enhance the quality of life and offer customer satisfaction,
- offer flexibility and the potential to cater for user changes in the future,
- provide and support desirable natural and social environments,
- increase investment in people and equipment for a competitive economy,
- achieve higher growth whilst reducing pollution and maximizing the efficient use of resources,
- share the benefits of growth more widely and more fairly,
- improve our towns and protecting the quality of the countryside,
- contribute to sustainable development internationally.

Comparing timeline of a real estate investment in a sustainable (triple bottom line) manner actors within; as growing economies has to pay attention to developed markets and vice versa. As in Paris Agreement (2015), decisions need to be signed with all nations as earth citizens. Reducing risk in sustainable patera is based on a clear long-term vision by transparent data shared.



<sup>A</sup> Approximately 4 years, <sup>B</sup> Approximately 12 years, <sup>C</sup> Approximately 56 years

**Figure 1.** Multiple cycles of Real Estate Market (singular market approach [3])

Investment capital in the construction sector is important to keep its necessary subclasses in balance in order to avoid the profitable options defined only in the economy without transforming the demands as sustainability value captured called “worth” with formed environmental, socio-cultural and economic (**Table 2**).

**Table 2.** Strategic planning models [5] based on scales

Scales	Models
Economy	Economic Models
Socio-cultural	Agency Models
Legal	Structural Models
Technology/Time/Historic heritage	Event sequence Models
	System Models <sup>a</sup>

<sup>a</sup> 4 models’ integrated approach.

The real estate sector is mostly the driving sector for any market around the world. Since the building lifecycle process is made up integrated design/build, systems installation, commissioning, ongoing monitoring, analysis, strategy, benchmarking and finally portfolio construction, risk management, client reporting and assessment [5]; financing and its volatility becomes a very important key. In

Turkey, Capital Markets Board (CMB, Law no. 6362-1982) is the regulator and the Borsa İstanbul A.Ş. (BIST-2012, IMKB-1986) brings together all the exchanges operating the securities in the Turkish Capital Markets as a self-regulatory entity [7]. In this structure, the real estate investment trust (originally forced as companies) in Financial Institutions category, especially open public and “are required to invest in real estate, rights supported by real estate and real estate projects at a minimum rate of 51% of their portfolio values...” [8].

This structure allows relatively to invest by individuals to larger scaled projects with so much liquid, diversified, transparent which provides better dividend with attractive performances. Also, to support any amount of investment, capital boards prefer mostly tax-free dividends. Such investments; for sustainability arrangements, incentives, and targets for close future, are expressed as more efficient around the world. Some targets [9], by 2020 are;

- 100% of all new buildings are nearly net zero by the European Union,
- 40% of CO2 reduction per GDP below 2005 levels by China,
- 5 stars Green Star rating required for new government buildings and 4 stars for existing buildings by Australia,
- For buildings of the central government and public-sector undertakings with Green Rating for Integrated Habitat Assessment as mandatory compliance by China.

#### Real estate effectiveness' value variables

Property management is seen as the result of three main activities: (i) the development of legal and institutional systems enabling the real estate acquisition of individuals; (ii) the development of building stock; and (iii) financial debts are required to provide financial income obligations. Additionally, there are two main expectations have the priority is preferred for investors of the real estate *properties*. These are; return on investment compared to the timeline (recovery rate of the main currency – (e.1)) and return on investment (reduction, discount, risk or rate of return) **Error! Reference source not found.**, [10], [11]. The economic life of real estates is limited by almost 50 years besides the 20 years or less of effective operational life in the same function. So, the architecture of sustainable design must include the flexible (elastic) and modular type system approaches with inner courts (atriums), and principles for space requirements [12], [13] as conservative, efficient use of the sources and healthy spaces and strategic planning matrix in project management [14].

$$Value\ of\ Asset^a = \sum_{t=1}^{t=N} \frac{\Sigma(Cash\ Flow_t)}{(1+r)^t} \quad [11] \quad \begin{array}{l} N: \text{Asset life} \\ r : \text{discounted rate (inc. risks of the cash flows} \\ \text{and financing mix used to acquire)} \\ Asset^a : \text{Real Estate} \end{array} \quad (e.1)$$

The savings that sustainability provides of real estate for a lifetime can be compared to that crops of a fruit garden every year. The achievement levels of certification systems also may be considered in this manner. Besides the economic savings, the spatial benefits are also meant to be important such as; increase productivity and worker satisfaction in buildings of commercial, health, education etc., and better health standards in any type of buildings [12].

#### Sustainable real estate development on urban space case in Turkey

Since 1924 to 2014, from the Village Law to Regulation on The Certification of Sustainable Green Buildings and Sustainable Settlements, many sustainable features are regulated by Turkish Law.

Compare to oldest green building associations (BRE-1921/BREEAM-1990, USGB-1993/LEED-2000), The Environment Friendly Green Buildings Association (Turkish Green Building Association / Turkish Green Building Council / Cevre Dostu Yesil Binalar Dernegi - CEDBIK) was established in 2007 [15].

The sectors also evaluated by the job creation quantity in facts. The construction sector with real estate sector has almost 15-20% job creation capacity itself (**Table 3**). It is reported that annually 185,250 hours/year which equals to \$96,6 million are saved against the investment of \$18,6 million Sustainable Energy Unit in 2015 by Washington D.C. during the lifecycle.

From 2019 until today, there has been a total of 993 green activities in Turkey.

Quantitative and/or qualitative data is the most valuable subject to configure the precious future. But, unfortunately, even the green building data (The Green Building Information Gateway-GBIG), which is a much younger initiative, is unable to use a common language. GBIG is said regularly feedbacked by USGBC daily and by others some iterative time periods; but still there are some conflicts between different data collection pages within (**Figure 2** and **Figure 3**).

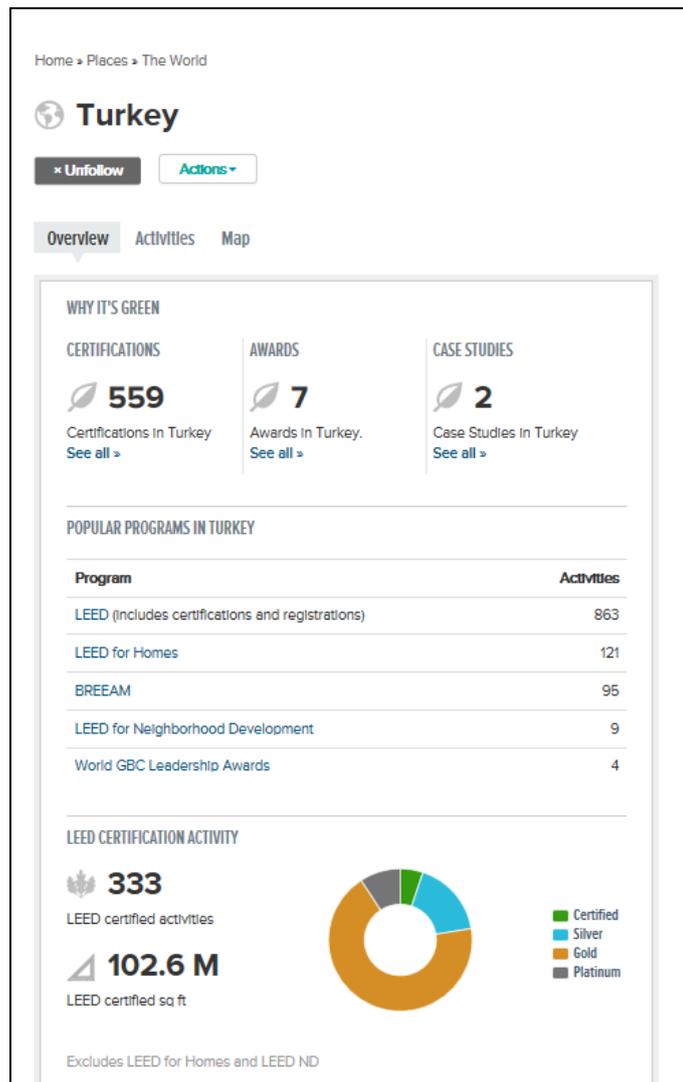


Figure 2. General Data of Turkey in GBIG (Dec. 12<sup>th</sup> 2018)

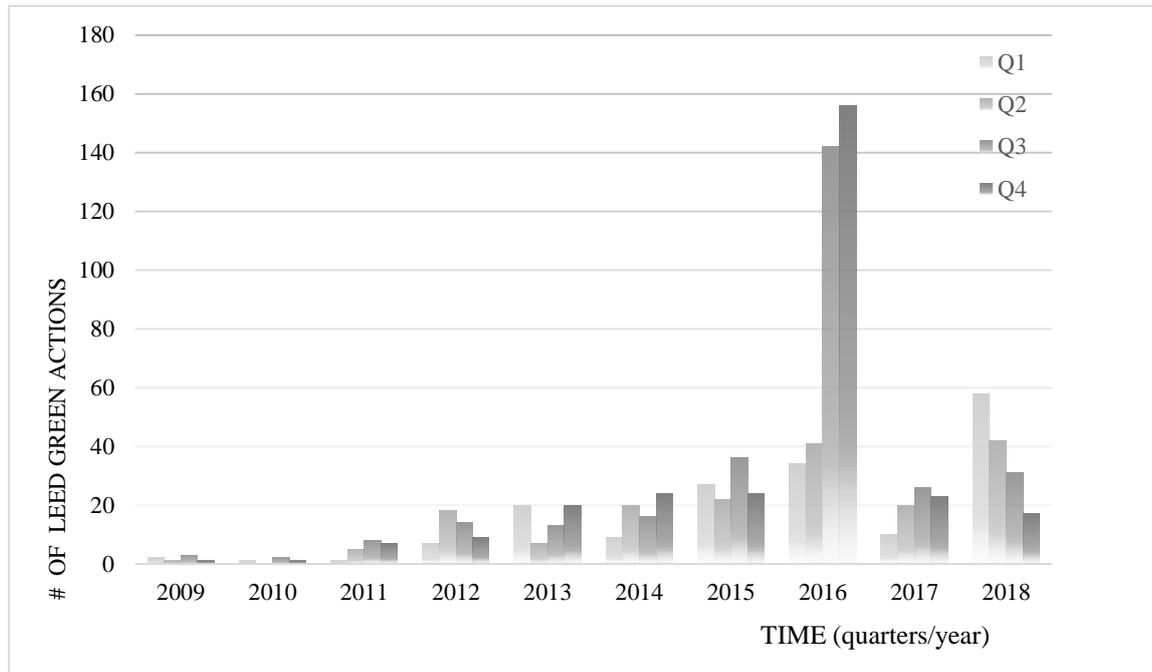


Figure 3. Green Building Activities in Turkey by LEED (Dec. 12<sup>th</sup>)

Table 3. Economic activities in directly real estate related sectors by labour force (x1.000) [2]

	NACE Rev.2 Sectors	2009	2010	2011	2012	2013	2014	2015	2016	2017
Industry	(D+E) Electricity, gas, steam, water supply, sewerage etc.	112	165	212	218	218	245	257	257	277
Construction	(F) Construction	1306	1431	1676	1709	1782	1912	1914	1987	2095
	(H) Transportation and storage	986	1009	1044	1095	1152	1119	1108	1185	1235
	(K) Financial and insurance activities	273	273	280	264	288	301	294	301	271
Services	(L) Real estate activities	63	61	154	184	186	205	212	242	286
	(M) Professional, scientific and technical activities	398	429	427	507	553	684	750	846	895
	(R) Arts, entertainment and recreation	130	102	100	108	121	131	149	141	154
Related categories	Total	3268	3470	3893	4085	4300	4597	4684	4959	5213
Related / All categories ratio	(%)	15,36	15,36	16,15	16,46	16,85	17,73	17,60	18,23	18,49
All categories	Total	21277	22594	24110	24821	25524	25933	26621	27205	28189

## Conclusion

Even the revolution of industry achieved the level 4; the vernacular methods are still and will be very precious to be respectful approaches to the nature and the part of nature like human beings. Most healthy and scaled precisely. With all these ongoing trends, architectural responsibilities might be rewritten within the context of sustainability. The structures like real estate investment trusts can be used to have the opinion of the participants shows attitude by buying shares comparably rare projects and to force the corporates to build the environment as they preferred. The education of the shareholders and the ethics of any establishment attitude is becoming important.

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## **EVALUATION OF THE PARAMETERS EFFECTING HOUSING PREFERENCES IN TERMS OF BUYERS: CASE STUDY OF MERSIN-TURKEY**

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### **Abstract**

This study aims to create an awareness of parameters affecting housing preferences in the housing sector in Turkey and to shine light on this subject to the house buyers, house sellers, designers and real estate development specialists. In this context, the aim of the study is to determine the importance of the housing sector in Turkey and to evaluate the parameters affecting housing preferences in terms of buyers. In line with the aim of the study, a literature review was made relating to the housing sector in Turkey, the housing policies applied in the historical process and the development of the housing preferences were examined. The parameters about physical properties, accessibility, safety and values affecting housing preferences were classified with the sub parameters and were explained specific to houses. The present situation of the housing sector in Mersin was searched. In the light of this data, a survey was made to the house buyers in Mersin concerning physical properties, accessibility, safety and values affecting housing preferences. Questions regarding spatial planning, locational planning, additional facilities and recreation areas were asked within the “physical properties”. Questions regarding centralization, accessibility to educational institutions, accessibility to health institutions and accessibility to public transportation were asked within the “accessibility”. Questions regarding structural security, and safety of life and property were asked within the “safety”. Questions regarding social value, economic value and esthetical value were asked within the “values”. A total of 230 buyers were participated in the survey. The important and unimportant parameters were determined according to the importance rating and were presented with cross matching.

**Keywords:** House, housing sector, housing preferences, buyer, physical properties, accessibility, safety, value, Mersin, Turkey

## **1. INTRODUCTION**

In most industrialized countries, real estate investment is the most important component of household wealth (Case vd. 2004). For this reason, the concept of house within the society is considered as both a basic requirement that meets the need for habitation and an investment tool. Due to the continuous change in the structure of society, changes in the buying behaviors of individuals may develop. For this reason, parameters affecting the housing preferences may change over time. In scientific studies on housing preferences; it is determined that the houses only have some features such as construction year, area, facade, number of rooms, number of bathrooms, parking lots, location, quality, rental price and transportation status. No study has been found to evaluate all parameters of a house in terms of physical properties, accessibility, safety and values of a house (Kain ve Quiqley 1970, Palmquist 1984, Kim 1992, Leishman 2001, Ucgdrok 2001, Bover ve Velilla 2002, Ogwang ve Wang 2002, Filho ve Bin 2003).

This study aims raising awareness about the parameters affecting the housing preferences in the housing sector in Turkey, and shedding light on house buyers about this subject. In this context, the main targets of this study is determination of the importance of the housing sector in Turkey, examination of the development of housing policies, evaluation of the housing preferences development process, and the assessment of the parameters that effect the housing preferences of the buyers. In addition, with the results of this study. It is aimed to determine the demands of buyers in Mersin and contribute to the development of house production and sales strategies. In line with this aim, Mersin Province in the Mediterranean Region of Turkey has been selected as the sample area. A survey study was made on house buyers in Mersin. The parameters effecting the housing preferences were evaluated in terms of house buyers.

## **2. HOUSING SECTOR**

In order for the structures to carry the characteristics expected of them, starting from the design stage, approaches to meet these characteristics must be realized during the production phase (Arslan 2011). House is a way of living and settling with the shelter and protection function of the individuals or families who live together and share the same parts of the space, make all their life activities together, such as sleeping, resting, eating (Arcan 1999).

### **2.1. Current Situation of the Housing Sector in Turkey**

The construction sector in Turkey leads the position that creates goods and services for more than 200 sub-sectors. This widespread effect can be regarded as the most basic indicator of the construction sector as the locomotive of the economy. The direct share of the construction sector in the economy is about 8%. Indirect share is 30% when considered different sectors of construction sector (Anonymous 2017a). One of the sub-sectors of the construction sector is the housing sector. The housing markets formed by the housing sector are very important for both the developing countries and the developed countries, although they are used in different meanings. The housing markets are sometimes seen as an alternative to gold, and are sometimes considered to be a highly lucrative investment instrument. They also have a great importance in the economy and strengthens the effects of an economic crisis (Saner 2008).

As of 2007, balloon discussions have started in the housing sector in the world. Turkey housing sector was also affected by these discussions. In the cb course of time, significant changes on house prices

and housing preferences has been realized in Turkey. In addition, the needs and requirements of the users in house and housing area have been varied and changed. Changes in both house prices and user requirements have affected the housing preferences of buyers in the housing sector. There are different parameters affecting house prices and housing preferences. The most important parameters effecting the house prices can be classified as approximate costs, labor costs and deposit interest rates.

When the current situation of the housing sector in Turkey is evaluated, it can be stated that house is often introduced as a means of investment, not as a means of housing. The fact that banks give housing loans with appropriate interest rates and the idea of obtaining income through the rent from the house encourages the public to buy house. Therefore, the majority of investments related to real estate in Turkey today is in the form of buying houses. This situation causes an increase above the inflation in the value of real estates, and especially in the value of the houses. When house sales in Turkey within the scope of TSI (Turkish Statistics Institution) data is analyzed, it is observed that there is an increase trend between the years of 2013-2017 (Anonymous 2017b).

## **2.2. Current Situation of Housing Sector in Mersin**

The urban development of Mersin is classified as unplanned and planned periods. The unplanned period covers the period before the 1938 Jansen Plan, the first plan of the city, while the planned period covers the period beginning with the Jansen Plan in 1938 and after. Mersin has grown above Turkey average with the social and economic developments. This situation has emerged as a significant problem related to urbanization in Mersin. In order to solve this problem, 1294 plan changes were made in Mersin between 1986-2003 (Ünlü 2007). According to the data of the State Institute of Statistics, the population of Mersin, which was 26,430 people in the 1935 census, increased to 537,842 people in 2000 from 114,337 in 1970 (DIE 2001). During this period, when the population of Turkey grew by 4.2 times, the population has increased to about 20 times in Mersin (Ünlü 2007).

The construction of Akkuyu Nuclear Power Plant in Mersin was approved by the Metropolitan Council in October 2016. This situation can be interpreted as a decrease in the sales of houses in Mersin. Indeed, according to Turkstat of Mersin Chamber of Commerce and Industry, in mortgage and other sales across Turkey, there was an increase of 3.64% increase in 2016 compared to 2015, while a decline has occurred in Mersin (Anonymous 2017c).

## **2.3. Parameters Affecting Housing Preferences in Mersin**

Changes in user requirements as well as the house prices have a significant impact on the housing preferences in the housing sector in Turkey. There are different parameters that affect the users' housing preferences. In determining the housing preferences, the parameters related to the physical properties, accessibility, safety and values of the house gain importance. Considering the characteristics of the province of Mersin, these parameters are classified in Table 2.1. In a similar survey conducted in a different country or city, these parameters and sub-parameters can be varied, increased and categorized differently.

**Table 2.1.** Classification of parameters and subparameters effecting housing preferences

PARAMETERS EFFECTING HOUSING PREFERENCES		SUB-PARAMETERS EFFECTING HOUSING PREFERENCES
Physical properties related parameters	Spatial planning	Number of balconies Size of the balconies Size of the kitchen The presence of cellar The presence of laundry room Number of rooms Functionality of the plan
	Positional planning	Apartment or site The direction Overlooking the main street The presence of a historical building around The presence of a natural beauty, such as sea and forest around The district Closeness of the surrounding buildings No traffic density around
	Additional facilities	The presence of a generator The presence of elevators The presence of a water tank
	Recreation areas	The presence of swimming pool The presence of common seating areas The presence of children's playground The presence of bicycle path The presence of walking track The presence of an outdoor fitness area The presence of indoor sports hall The presence of indoor parking The presence of outdoor parking
Accessibility related parameters	Centralisation	Proximity to the market Proximity to the shopping center Proximity to the work Proximity to the parents of the spouses Proximity to the city center
	Accessibility to the educational institutions	Proximity to the children's school
	Accessibility to the health institutions	Proximity to the family health center Proximity to the hospital
	Accessibility to public transport	Proximity to the public transportation
Safety related parameters	Structural safety	Safety against fire Safety against natural disasters (such as earthquake, flood etc.) Resistance of the ground
	Safety of life and property	Having security guard(s) Having security cameras Closeness to the base station
Value related parameters	Social value	A famous architect design The importance of neighbors
	Economic value	Monthly rental income of the house The dues
	Aesthetic value	The aesthetics of the exterior The age

### 3. THE EVALUATION OF THE PARAMETERS EFFECTING THE HOUSING PREFERENCES IN MERSİN FROM THE VIEWPOINT OF BUYERS

In this study, a survey was conducted on 230 households in order to evaluate the parameters and sub-parameters effecting housing preferences in Mersin. In the survey, face-to-face questioning technique was applied to the personnel working in various institutions in Mersin or the individuals who did not work in any institution. The surveyed group includes the staff of the Mersin Court House, the Mersin Office of Revenue, Mersin Toroslar Municipality, Mersin Chamber of Commerce and Industry, the Mersin University, the Mersin Law Society of Mersin, Mersin Regional Directorate of Highways and some other public institutions and organizations and the individuals who does not work in any

institution. Table 3.1 gives information about gender, age, marital status, number of children, educational level and monthly average income level of the aforementioned buyer group. IBM SPSS Statistics 23 package was used to evaluate the results of the survey. Those who were considered to be remarkable from the evaluation results were also interpreted by cross-comparisons. Cross-comparisons of the results found in the survey can be varied and the number can be increased.

**Table 3.1.** Demographic characteristics of buyers surveyed

DEMOGRAPHIC SPECIFICATIONS		FREQUENCY	RATE (%)
Gender	Woman	107	46,5
	Male	123	53,5
	Total	230	100
Age	18-25	41	17,8
	26-35	75	32,6
	36-45	60	26,1
	46-55	40	17,4
	56-	14	6,1
	Total	230	100
Marital status	The married	154	67,0
	Single	76	33,0
	Total	230	100
Number of Children	1	42	28,0
	2	83	55,3
	3	17	11,3
	4	6	4,0
	5	2	1,3
	Total	293	100
Educational Status	Primary education	10	3,3
	High school	75	24,8
	University	120	39,7
	Master's Degree	20	6,6
	Doctorate	5	1,7
	Total	230	100
Monthly Average Income	0-2500	67	29,1
	2500-5000	117	50,9
	5000-10.000	38	16,5
	10.000-15.000	5	2,2
	15.000 and more than	3	1,3
	Total	230	100

### 3.1. Evaluation of parameters related to physical properties from the viewpoint of buyers

Table 3.2 presents the results found parallel to the answers of the buyers based on the parameters of the physical properties effecting the preferences of the buyers.

**Table 3.2.** Approaches of buyers regarding the physical properties

PARAMETERS AND SUB PARAMETERS			ANSWERS OF THE BUYERS					
			Does not matter	Insignificant	Neither important nor unimportant	Important	Very important	TOTAL
Spatial Planning	Is there more than one balcony?	F	1	7	14	127	81	230
		O (%)	0,4	3	6,1	55,2	35,2	100
	Are the balconies large?	F	1	4	18	128	79	230
		O (%)	0,4	1,7	7,8	55,7	34,3	100
	Is the kitchen of great?	F	0	1	13	86	130	230
		O (%)	0	0,4	5,7	37,4	56,5	100
	Is there a cellar?	F	9	11	65	77	68	230
		O (%)	3,9	4,8	28,3	33,5	29,6	100
	Is there a laundry?	F	12	30	78	63	47	230
		O (%)	5,2	13,0	33,9	27,4	20,4	100
	Is the number of rooms important?	F	0	1	13	90	127	230
		O (%)	0	0,4	5,7	39,1	54,8	100
	Is the plan functional?	F	0	3	11	65	151	230
		O (%)	0	1,3	4,8	28,3	65,7	100
Positional Planning	Is it important to be in a site or a single apartment?	F	8	12	33	90	87	230
		O (%)	3,5	5,2	14,3	39,	37,9	100
	Is the direction important?	F	1	3	18	76	132	230
		O (%)	0,4	1,3	7,8	33	57,4	100
	Does the house face the main street?	F	12	29	68	62	59	230
		O (%)	5,2	12,6	29,6	27	25,6	100
	Is there a historical structure around?	F	31	59	68	41	31	230
		O (%)	13,5	25,7	29,6	18	13,5	100
	Is there a natural beauty like sea and forest around?	F	5	16	39	81	89	230
		O (%)	2,2	7,0	17,0	35	38,9	100
	Is the neighbourhood important?	F	0	2	15	74	139	230
		O (%)	0	0,9	6,5	32	60,6	100
	Is it important that the surrounding buildings are close?	F	3	8	23	75	121	230
		O (%)	1,3	3,5	10,0	32,6	52,6	100
Is it important that there is not much traffic density around?	F	2	4	24	84	116	230	
	O (%)	0,9	1,7	10,4	36,5	50,4	100	
Additional Facilities	Is there a generator?	F	3	4	29	85	109	230
		O (%)	1,3	1,7	12,6	37,0	47,4	100
	Is there an elevator?	F	1	3	18	71	137	230
		O (%)	0,4	1,3	7,8	30,9	59,6	100
	Is there a water tank?	F	4	9	23	85	109	230
		O (%)	1,7	3,9	10,0	37,0	47,4	100
	Is there a swimming pool?	F	28	30	93	45	34	230
		O (%)	12,2	13,0	40,4	19,6	14,8	100
	Are there common seating areas (such as a camellia, bench)?	F	8	15	68	84	55	230
		O (%)	3,4	6,5	29,6	36,5	23,9	100
	Is there a children's play area?	F	7	8	45	101	69	230
		O (%)	3,0	3,5	19,6	43,9	30,0	100
	Is there a bicycle path?	F	21	26	72	68	43	230
		O (%)	9,1	11,3	31,3	29,6	18,7	100
Recreation Areas	Is there walking-track?	F	20	27	67	78	38	230
		O (%)	8,7	11,7	29,1	33,9	16,5	100
	Is there an outdoor fitness area?	F	29	31	95	46	29	230
		O (%)	12,6	13,5	41,3	20,0	12,6	100
	Is there an indoor sport facility?	F	31	25	90	60	24	230
		O (%)	13,5	10,9	39,1	26,1	10,4	100
	Is there indoor parking?	F	13	18	60	85	54	230
		O (%)	5,7	7,8	26,1	37,0	23,5	100
	Is there outdoor parking?	F	6	7	30	105	52	230
		O (%)	2,6	3,0	13,0	45,7	35,7	100

*Within the scope of the spatial planning parameter*, seven features were determined such as having more than one balcony, having a large balcony, having a large kitchen, having a cellar and laundry room, having too many rooms and having a functional plan. When the answers were examined, it was determined that the buyers, in great ratio, had given importance especially to dimensions of the balconies and the kitchen, the number of rooms and to the plan.

*Within the scope of the positional planning parameter*, eight features are specified for the housing such as being in a site or a single apartment, facing to the main street, the presence of a historical building or the natural beauties like sea, lake and forest, its district, presence of the buildings in the inner circle and not having a traffic density around. When the answers were examined, it was determined that the buyers did not prefer the housing to be in a site. It is determined that it is not an important parameter for the apartment facing to the main street but the direction which the apartment faces is an important parameter. Its reason can be expressed like that: buyers do not want to experience the noise pollution caused by the traffic.

*In the scope of additional facilities parameter*, three sub-parameters have been determined such as having a generator, elevator and water tank in the house. When the answers were examined, it was understood that the buyers gave almost the same importance to the presence of generator, elevator and water tank in the house. This result can be interpreted as each of these additional facilities has a special importance in daily life. When buying a house, buyers have given different answers according to their age ranges. When the answers given by 230 people were examined, it was seen that older buyers prefer to have an elevator more than the younger buyers. A total of 14 people aged 56 and over were included in the survey. Four out of these 14 people (28.6%) considered that it was important to have an elevator in the house while 10 people (71.4%) were considering that it was very important. The fact that the 18-25 age group, which is considered as the young population, has a high elevator preference ratio and this is one of the interesting results of the study. Besides, 36-45 age group buyers' ratio who give great importance to have houses with elevators is the second biggest group after the 56 years and older group.

*Within the scope of the recreation areas parameter*, nine sub-parameters have been determined such as having a swimming pool, common seating areas (such as pavilion, bench), children's playground, cycling path, walking track, outdoor fitness area, indoor sports hall, indoor and outdoor parking. When the answers are examined, can be seen that it was not too important for the buyers to have a swimming pool, a cycle path, a walking track, an outdoor fitness area or an indoor sports facility but common sitting areas (such as a pavilion, a bench) and children's play area were considered to be important. In addition, it is understood that the outdoor parking is more important than indoor parking.

### **3.2. Evaluation of accessibility related parameters from the viewpoint of buyers**

The results of Table 3.3 have been produced in accordance with the responses received from the buyers about the accessibility parameters effecting the housing preferences

**Table 3.3.** Approaches of buyers regarding accessibility

PARAMETERS AND SUB PARAMETERS			ANSWERS OF THE BUYERS					TOTAL	
			Does not matter	Insignificant	Neither important nor unimportant	Important	Very important		
Centralisation	Is it near to the market?	F	2	9	30	98	91	230	
		O (%)	0,9	3,9	13,0	42,6	39,6	100	
	Is it near to the shopping center?	F	6	11	54	96	63	230	
		O (%)	2,6	4,8	23,5	41,7	27,4	100	
	Is it close to the office?	F	3	11	49	99	68	230	
		O (%)	1,3	4,8	21,3	43,0	29,6	100	
	Is it close to the parents' houses?	F	6	17	61	90	56	230	
		O (%)	2,6	7,4	26,5	39,1	24,3	100	
	Is it near to the city center?	F	6	6	43	109	66	230	
		O (%)	2,6	2,6	18,7	47,4	28,7	100	
	Accessibility to the Educational Institutions	Is it close to the children's school?	F	1	6	35	102	86	230
			O (%)	0,4	2,6	15,2	44,3	37,4	100
Accessibility to the Health Institutions	Is it close to family health center?	F	5	7	35	105	78	230	
		O (%)	2,2	3,0	15,2	45,7	33,9	100	
	Is it close to the hospital?	F	4	7	39	108	72	230	
		O (%)	1,7	3,0	17,0	47,0	31,3	100	
Accessibility to Public Transportation	Is it close to public transportation?	F	1	6	19	111	93	230	
		O (%)	0,4	2,6	8,3	48,3	40,4	100	

*Within the scope of the centralisation parameter;* five sub-parameters have been determined as being close to the market, shopping center, workplace, parents of the spouses and the city center. When the answers given are examined, it is determined that the buyers especially care about the house to be near to the market and they care more about being close to the shopping center. The proximity of the house to the workplace is a very important feature for the buyers. This may be because family members want to save time and have a lower cost. The wishes of the spouses to be near to their parents were also considered as an important feature for the buyers. When the male and female buyers were examined separately, it was concluded that married women had a higher desire to live near to their spouses' parents and married men were less willing to do so. Proximity to the city center can be considered as a feature of great importance. The buyers have given different answers in terms of their marital status and gender to be close to the market or shopping centers. It is concluded that those who are married prefer to have their houses close to the market and single ones prefer to be close to the shopping center. The buyers gave different answers parallel to their monthly average income in terms of being close to the workplace. As buyers' incomes decrease, their desire to be close to their workplaces increases. Similarly, it can be said that buyers with higher income level prefer to have their houses close to their workplaces. The buyers have given different answers regarding with the proximity to the parents of the spouses in accordance with their sexualities. Of the 154 buyers participated in the survey, 61 were female and 93 were male. The desire of married women to be close to their spouses's parents while choosing their houses was higher than married men. This may be because married women who have children have demand for help from their parents for the care of their children.

*Within the context of the accessibility to the educational institutions,* the only sub-parameter was determined as the proximity of the children to the school. According to the answers given by the

buyers to the question prepared for this sub-parameter, it is determined that the proximity of the house to the schools of the children is an important parameter.

*Within the scope of the accessibility parameters of health institutions*, two sub-parameters were determined as being close to family practice center and to the hospital. When the answers given were examined, it was determined that the buyers were equally evaluating the house status of proximity to the family practice center and to the hospital. In terms of proximity to the family practice or to the hospital, buyers gave different answers according to their ages. It is seen that the 46-55 age group and older than 56 years of age have a higher ratio who desires to be close to a family practice than other age groups. For these age groups, the reason of this preference to be close to a family practice center rather than a hospital may be the density of the hospitals and problems such as waiting their turns.

*Within the scope of the accessibility to public transportation*, the only sub-parameter was determined as the proximity to the public transportation. According to TUIK Household Consumption Expenditure distribution, transportation for 2016 has an 18.2% share in household expenses (Anonymous 2017g). For this reason, proximity to the public transportation is of great importance for the buyers due to its importance in the family budget. When the answers are examined, it is determined that the buyers pay close attention to proximity to the public transportation. The buyers gave different answers in terms of their age ranges in terms of being close to public transportation (Table 3.19). It is determined that the buyers aged 46-55 and older than 56 years gave more importance to be close to public transportation than other age groups.

### 3.3. Evaluation of security related parameters from the viewpoint of buyers

The results given in Table 3.4 were produced according to the responses of the buyers to the safety related parameters effecting the housing preferences.

**Table 3.4.** Approaches of buyers regarding safety

PARAMETER AND SUB PARAMETERS			ANSWERS OF THE BUYERS					
			Does not matter	Insignificant	Neither important nor unimportant	Important	Very important	TOTAL
Structural Safety	Is the house fire-proof?	F		2	13	70	145	230
		O %	0	0,9	5,7	30,4	63,0	100
	Is the house safe against natural disasters (such as earthquakes, flood landslides)?	F		1	9	54	166	230
		O %	0	0,4	3,9	23,5	72,2	100
	Is the ground firm?	F	0	2	12	43	173	230
		O %	0	0,9	5,2	18,7	75,2	100
Safety of life and property	Are there any security staff?	F	2	7	38	87	98	230
		O (%)	0,9	3,0	16,5	37,8	41,7	100
	Are there surveillance cameras?	F	6	6	30	82	106	230
		O (%)	2,6	2,6	13,0	35,7	46,1	100
	Is the house near to a base station?	F	15	15	54	62	84	230
		O (%)	6,5	6,5	23,5	27,0	36,5	100

*In the context of the structural safety parameter*, three sub-parameters have been determined such as security of the house against the natural disasters such as fire safety, earthquake, flood, landslide and the soundness of the ground. When the answers given by the buyers to the questions prepared for these sub-parameters were examined, it was found that the buyers gave importance to all three sub-parameters.

*Within the scope of safety of life and property parameters*, three sub-parameters were identified as the presence of security guards and security cameras in the house and the proximity of the house to the base station. When the answers given by the buyers to the questions prepared for these sub-parameters were examined, it was determined that the security officer (s) and the security cameras were important for the buyers. It was concluded that the presence of a base station near the house was not very important for the buyers.

### 3.4. Evaluation of the parameters related to values in terms of buyers

The results of Table 3.5 were produced according to the responses of the buyers to the parameters related to the values effecting the housing preferences.

**Table 3.5.** Approaches of buyers regarding values

PARAMETER AND SUB PARAMETERS			ANSWERS OF THE BUYERS					
			Does not matter	Insignificant	Neither important nor unimportant	Important	Very important	TOTAL
Social Value	Is the house a famous architectural design?	F	37	24	75	50	44	230
		O (%)	16,1	10,4	32,6	21,7	19,1	100
	Are neighbors important?	F	5	4	23	70	128	230
		O (%)	2,2	1,7	10,0	30,4	55,7	100
Economic Value	Is the monthly rental income of the house important?	F	5	5	23	107	90	230
		O (%)	2,2	2,2	10,0	46,5	39,1	100
	Are the dues of the house important?	F	3	3	33	101	90	230
		O (%)	1,3	1,3	14,3	43,9	39,1	100
Aesthetic Value	Is the exterior of the house aesthetic?	F	5	7	36	112	70	230
		O (%)	2,2	3,0	15,7	48,7	30,4	100
	Is the age of the house important?	F	1	3	14	86	126	230
		O (%)	0,4	1,3	6,1	37,4	54,8	100

*Within the scope of the social value parameter*, two sub-parameters were determined as “the design belonging to a famous architecture and the importance of the neighbors“. When the answers given are examined, it is concluded that belonging to a famous architect’s design did not have any importance for the buyers. It was found that neighborhoods were more important.

*Within the scope of economic value parameter*, two sub-parameters were determined such as the monthly rental income and monthly fees. When the answers are examined, it is concluded that the monthly rental premium of the house is important by the buyers. In terms of buyers, rental income is seen as an alternative income. The monthly fee is considered as an additional cost for the buyer.

*Within the scope of aesthetic value parameter* two sub-parameters were determined as “aesthetics of the exterior of the house and the age of the house“. When the answers are examined, it is seen that both the exterior appearance of the house and the age of the house are important for the buyers.

## 4. CONCLUSION AND RECOMMENDATIONS

In this study, a questionnaire was conducted with 230 people to evaluate the parameters affecting the housing preferences in Mersin. In this survey study, within the scope of “physical features” questions regarding spatial planning, orientational planning, additional facilities and recreation areas; within the scope of “accessibility” centralisation, accessibility to the educational institutions, to health institutions and to public transportation; within the scope of “security“ structural safety and security of life and property and within the scope of “values” social value, economic value and aesthetic value

are addressed to the buyers. According to the answers given in the survey study, the important and unimportant parameters for the house buyers were determined according to their importance. IBM SPSS Statistics 23 package program was used to evaluate the results of the survey. In this study, only those who are thought to be remarkable from the evaluation results are presented by using cross-comparisons. However, these comparisons can be diversified more extensively in another study. The evaluation results obtained in this study, are predicted to be useful with regard to public investments and in planning the local administrations. Besides, it is also predicted that the application of the same survey on the basis of house sellers as part of another study would be important. A similar survey to be carried out on the basis of house sellers is predicted to be useful in determining whether sellers are acting in line with buyers' demands.

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## NATIONAL AND ETHNIC MINORITIES IN POLAND

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### Abstract

Poland is one of the most ethnically homogenous states in Central Europe. However, in times of the Second Republic, Poland was a multinational country, in which minorities accounted for a large proportion of the state's population. After changes that took place after World War II, such as moving some of the borders and resettlement of the population, a significant share of national minorities in the country's population began to visibly fade. Still, the territory of the country is inhabited by the ancestors of 9 national minorities and 4 ethnic minorities. This work aims to analyze the problem of national minorities in Poland. The authors will attempt to answer the following questions: What is the current situation of national and ethnic minorities in Poland.

**Keywords:** *Minorities in Poland, National Minorities, Ethnic Minorities, Minorities, Ethnicity*

### Introduction

Today, peoples living within the borders of states are not of a single ethnic origin. Some of the inhabitants of the country are different from the majority in terms of religion, sect and language. There are minorities within the borders of a state and relatives in the outside. In this respect, what is included in the definition of minority is important. The Britannica encyclopedia defines the concept of minority as follows: "Minority, a culturally, ethnically, or racially distinct group that coexists with but is subordinate to a more dominant group. As the term is used in the social sciences, this subordinacy is the chief defining characteristic of a minority group. As such, minority status does not necessarily correlate to population. In some cases one or more so-called minority groups may have a population many times the size of the dominating group, as was the case in South Africa under apartheid."<sup>1</sup>

This work aims to analyze the situation of national minorities in Poland. It consists of three parts. The first part presents the most important provisions of the Polish legislation on minorities. The second part discusses a brief history of national minorities in Poland. Finally, the third chapter presents the

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<sup>1</sup> Britannica, "Minority", <https://www.britannica.com/topic/minority>, [20.04.2018].

characteristics of national and ethnic minorities, as well as a community using a regional language. The authors try to answer the question: What is the current situation of national and ethnic minorities in Poland? The work has been prepared on the basis of the rich source material.

### **Definitions of Minorities in Polish Law**

Under the provisions of the Act of 6 January 2005 of National and Ethnic Minorities and Regional Language, national minority is a group of Polish citizens who meets the following conditions (Art. 2): 1. It is a smaller in numbers group than the rest of the population of Poland; 2. It is distinguished significantly from other citizens, through its traditions, culture and language; 3. Its purpose is to preserve its traditions, culture and language; 4. It is aware of its own historical national community, and is oriented to protect and express it; 5. The ancestors of this group have inhabited the territory of Poland for at least 100 years; 6. It has a sense of identity with the nation which is organized in its own country.

The conditions mentioned above were met by nine minorities, which in the Act are considered minorities in Poland. These are Belarusian, Czech, Lithuanian, German, Armenian, Russian, Slovak, Ukrainian, and Jewish minorities. According to these conditions, it was decided to recognize four minorities living in Poland as ethnic minorities. These are Karaim, Lemko, Roma, and Tatar<sup>1</sup> minorities.

Members of minorities have the right to freely use minority languages, both in private and public life (Art. 8, paragraph. 1), right to teach the language, as well as to use it in the process of teaching. Minority language can also be used as an auxiliary language in front of the body of the municipality (beside the official language). However, it is possible only in municipalities in which the number of minority residents is not smaller than 20% of its total population. The required condition is presence of a given commune in the Official Register of Municipalities (Art. 9, par. 2). Using the minority language as an auxiliary language means that its members have the right to apply to the municipal authorities in that language, both written and oral, and (at the explicit request) can get an answer in that language (both oral and written)<sup>2</sup>.

Constitution of the Republic of Poland from 7 April 1997 provides in Art. 35 paragraph. 1 “*freedom to maintain and develop their own language, to maintain customs and traditions and their own culture*” to Polish citizens who belong to national minorities and ethnic minorities. In paragraph. 2 of the same article, national minorities and ethnic institutions are guaranteed with the right to create their own cultural, educational, and for the protection of religious identity. In addition, they also have the right to participate in the resolution of issues that are related to their cultural identity<sup>3</sup>.

### **History of Minorities in Poland**

In the days of the Second Republic (1919-1945), national minorities and religious minorities accounted for about 36% of the population. This was the last period in the history of the country

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<sup>1</sup>Ustawa z dnia 6 stycznia 2005 r. o Mniejszościach Narodowych i Etnicznych oraz o Języku Regionalnym, Dz.U. 2005 nr 17 poz. 141.

<sup>2</sup>Ibidem, art. 9, par. 3.

<sup>3</sup>Przedstawicielstwo Niemiec w Polsce, *Mniejszości Niemiecka*, accessed: <http://www.polen.diplo.de/Vertretung/polen/pl/11-kultur-dt-minderheit/07-dt-minderheit/0-dt-minderheit.html> [23.04.2015].

where the society was so much differentiated<sup>1</sup>. According to the extensive literature analysis carried out by Henryk Chałupczak and Tomasz Browarek, the early 30ies Polish minorities accounted for 35.1% of the population, or 11.2 million people. The largest group were Ukrainians - approx. 5 million, then the Jews - 3.1 million, Belarusians - 1.9 million, Germans - 830 thou., Lithuanians - 180 thou., Russians - 100 thou., Czechs - 40 thou., Gypsies - 30 thou., Slovaks - 7 thou., Armenians - 5,5 thou., Tatars - 5 thou., Karaites - 1 thou.<sup>2</sup>.

Polish population between 1921 and 1935, increased from 27.2 million to 35 million<sup>3</sup>, which was higher growth than the European average. Poland was ranked sixth in terms of population counts in Europe, while the ethnic structure of the country presented as follows: 66% - Poles, 14% - Ukrainians, 10% - Jews, 4% - Belarusians, 2% - Germans, others - 4%<sup>4</sup>.

On February 14, 1946 in Poland the census was carried out. According to the results, from almost 24 million people, 20.5 million declared themselves as Poles. The estimated population of Germans in Poland reached 2 million. 400 thousand people were classified as subject to verification (which would show whether they are of Polish or German nationality). Another 400 thou. were people of other nationalities (including approx. 162 thou. Ukrainians, approx<sup>5</sup> 108 thou. Jews).

### Characteristics of National and Ethnic Minorities in Poland

In Poland live representatives of 9 national minorities and 4 ethnic minorities. In addition, there is a community Kashubian in region Kashubs. Kashubians speak the regional language, or Kashubian. As national minorities in Poland are recognized: Belarusians, Czechs, Lithuanians, Germans, Armenians, Russians, Slovaks, Ukrainians, and Jews. Ethnic minorities in Poland are: Karaites, Lemkos, Roma and Tatars.

Poland is one of the few countries in the region, in which is the marginal importance of the issue of borders, national minorities and ethnic conflicts<sup>6</sup>. According to the data of the National Census of Population and Housing, from 2011 (Conducted by the Central Statistical Office), in Poland 94.8% of the population (i.e., 36 522 thou.) is a population of Polish nationality. It means that Poles are the dominant group inhabiting this country.

**German Minority:** The largest national minority living in Poland is the minority of Germans. According to data from the National Census of 2011, 144 238 people declared that they belong to the German minority. According to estimates this minority has twice as many people - approx. 300 000 - 350 000<sup>7</sup>. The German minority has its representative in the Polish Parliament. The German minority is actively involved not only in politics, but also the Polish cultural life, while also cultivating their own traditions. In Poland there is the Union of German Social and Cultural Associations, which represents 9 socio-cultural associations operating in 9 Polish provinces and approx. 600 local groups.

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<sup>1</sup>U. Wróblewska, *Polityka Oświatowa Państwa Polskiego wobec Mniejszości Narodowych, Grup Etnicznych i Wyznaniowych Zamieszkujących Kresy Wschodnie w II RP*, Nauka 2/2011, p. 209.

<sup>2</sup> H. Chałupczak, T. Browarek, *Mniejszości Narodowe w Polsce 1918-1995*, Wydawnictwo Uniwersytetu Marii Curie Skłodowskiej, Lublin, 1998, p. 22.

<sup>3</sup> W. Roszkowski, *Historia Polski 1914-2004*, Wydawnictwo Naukowe PWN, Warszawa, 2004, p. 85.

<sup>4</sup> Ibidem, p. 85.

<sup>5</sup> H. Chałupczak, T. Browarek, *op. cit.*, p.25.

<sup>6</sup> K. Lastawski, *Sytuacja geopolityczna Polski po przemianach ustrojowych i wstąpieniu do Unii Europejskiej*, *Studia Europejskie* 1/ 2011, p. 24.

<sup>7</sup> Przedstawicielstwo Niemiec w Polsce, *op. cit.*

Representatives of the German minority are mostly Catholic. Only few of them declare to belong to the Evangelical Church in Augsburg and they are mainly residents of northern Polish provinces.

**Belarusian Minority:** According to data from the National Census of 2011 on the territory of Poland at that time lived 43 878 people who declared Belarusian nationality.<sup>1</sup> Belarusian minority has its representative in the Polish Parliament<sup>2</sup>. Most of the representatives of the Belarusian minority in Poland are members of the Polish Autocephalous Orthodox Church, one of the local independent members of the Orthodox Church. Polish Autocephalous Orthodox Church has approx. 500 thou. believers and its superior branch is His Beatitude Metropolitan Sawa of Warsaw and the entire Poland<sup>3</sup>.

**Czech Minority:** Czech minority in Poland is also a religious minority. It is a part of Reformed Church. Evangelical Reformed Church<sup>4</sup> is referred to as a “*refuge Czechness*” and “*religion is the main reference system for living in the central part of the Polish Czechs*”<sup>5</sup>.

The members of the Czech minority are members of the Association of Czechs in Poland, based in Żelów, which works to m.in: support religious traditions of people declaring minority in Poland, the Czech Republic, defending the interests of minorities, to cultivate its culture and traditions, community development and community local development of culture, art, science, and the protection of cultural heritage and traditions<sup>6</sup>. The most important cultural event organized by the Czech community in Poland is an annual competition kindergarten theater groups.

### Lithuanian Minority

Lithuanian minority has a very strong territorial and autochthonic concentration. It resides in the majority its “*regional ethnic homeland*” with the capital in Puńsk. Lithuanians are there, “*a compact piece of a neighboring nation having its own state*”<sup>7</sup>.

Lithuanians are crystallized minority that has a sense of separateness and coherent identity. This group is clearly distinguished by the language, tradition, culture, and history. It is characterized by both strong sense of local (within their “*little homeland*”) and supra-local ties (with its own country and countrymen in Lithuania). Most Lithuanians in Poland are Roman Catholics. According to the National Census of Population and Housing from 2011, 7 374 Polish citizens declared Lithuanian nationality

### Armenian Minority

<sup>1</sup> Ministerstwo Administracji i Cyfryzacji, *Charakterystyka mniejszości narodowych i etnicznych w Polsce*, accessed: <http://mniejszosci.narodowe.mac.gov.pl/mne/mniejszosci/charakterystyka-mniejs/6480.Charakterystyka-mniejszosci-narodowych-i-etnicznych-w-Polsce.html#niemcy> [20.04.2018].

<sup>2</sup> E. Czykwin, *Życiorys*, accessed: [http://www.bip.czykwin.kadan.pl/index\\_2.php?chapter=id2001](http://www.bip.czykwin.kadan.pl/index_2.php?chapter=id2001) [25.04.2018].

<sup>3</sup> Dziedzictwo, *Polski Autokefaliczny Kościół Prawosławny*, accessed: <http://dziedzictwo.ekai.pl/@prawoslawie> [25.04.2018].

<sup>4</sup> K. Gawliczek, *Historia mniejszości czeskiej na ziemiach polskich oraz różnice w interpretacji wzajemnej historii między Polakami a Czechami*, in: *Czesi*, (ed.) L. M. Nijakowski, Wydawnictwo Sejmowe, Warszawa 2012, p. 13.

<sup>5</sup> P. Wróblewski, *Kim są żelowscy Czesi?*, in: *Czesi*, (ed.) L. M. Nijakowski, Wydawnictwo Sejmowe, Warszawa 2012, p. 53.

<sup>6</sup> Gmina Żelów, *Stowarzyszenie Czechów w Polsce*, accessed: <http://www.zelow.pl/pl/strona/stowarzyszenie-czech%C3%B3w-w-polsce> [25.04.2018].

<sup>7</sup> M. Barwinski, *Mniejszość litewska w Polsce. Studium przypadku gminy Punska*, Punska 2014, pp. 138-141.

Armenians are the only national minority in Poland which has an oriental pedigree and a long history of settlement in Poland<sup>1</sup>. During the 2011 National Census of Population and Housing, 1 684 people declared that they belong to Armenian minority (in 2002, 1 082 people declared Armenian nationality but only 262 people had Polish citizenship, which meet the formal requirements to be able to include them in the minority). According to estimates, the Armenian minority in Poland can count from 5 000 up to 15 000 people.

Most of the representatives of the Armenian minority are Catholic Armenian or Latin. Some of them, however, are members of the Armenian Apostolic Church.

### **Russian Minority**

Their allegiance to the Russian minority in 2011 declared 8 796 Polish citizens. Most of the representatives of the Russian community belong to the Polish Autocephalous Orthodox Church. Russian minority in Poland has its own socio-cultural organizations. In Warsaw there are two Russian Associations - Association "Russian House" and the "Russian Community". Bialystok is the seat of the Russian Cultural and Educational Association, which organizes contests for high school students

### **Slovak Minority**

Membership to the national minority of Slovaks in 2011 was declared by 2 740 people . Traditional areas inhabited by Slovak minority are regions of Spisz and Orava. The main organization of the Slovak minority in Poland is the Association of Slovaks in Poland with its registered office in Krakow. The Association has its own printing and publishing. It is the editor of *Zivot* and books on topics related to the Slovak minority. The Association also organizes numerous events such as: Days of Culture of the Slovak or Overview Countrymen Wind Bands<sup>2</sup>.

### **Ukrainian Minority**

In 2011, 38 797 Polish citizens declared their belonging to the Ukrainian minority. The Ukrainian minority has its own titles releases - weekly "Nasze Slowo" and the bimonthly "Nad Buhom i Narwoju". In addition, radio broadcasts in the Ukrainian language are broadcast on Radio Orthodoxy. Also, The Ukrainian minority in Poland has a number of socio-cultural organizations. Among them are, for example, the Association of Ukrainians in Poland, Ukrainian Youth Organization "Plast", or Ukrainian Historical Society.<sup>3</sup>

### **Jewish Minority**

In 2011, membership in Jewish minority was declared by 7 353 Polish citizens. The most important organizations of socio-cultural life of the Jewish minority include: The Social - Cultural Association of Jews in Poland, the Association of the Jewish Historical Institute, the Association of Jewish Veterans and Victims of World War II, the Association of "Children of the Holocaust" in Poland,

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<sup>1</sup> Rodakpress, *Ormianie Polscy*, accessed: [http://www.rodaknet.com/rp\\_szumanski\\_39.htm](http://www.rodaknet.com/rp_szumanski_39.htm) [25.04.2018].

<sup>2</sup> Towarzystwo Slowiakow w Polsce, *Imprezy kulturalne*, accessed: <http://www.tsp.org.pl/imprezy-kulturalne.8.html> [20.04.2015].

<sup>3</sup> Zwiasek Ukraincow Podlasia, accessed: [http://www.zup.org.pl/index.php?option=com\\_content&task=section&id=2&Itemid=8](http://www.zup.org.pl/index.php?option=com_content&task=section&id=2&Itemid=8) [20.04.2018].

Jewish Youth Organization, Foundation “Shalom”, Foundation for the Preservation of Jewish Heritage. The Jewish minority has, like other minorities, their own dailies and these are the monthly “Dos Yiddishe Wort - Slowo Zydowskie ” and the bimonthly “Midrash”.

### **Other Ethnic Minorities**

Karaites are the smallest ethnic minority in Poland. In 2011, 313 Polish citizens declared their belonging to this minority. Other ethnic minorities are Lemko ( 9.641), Roma (16 725) and Tatars (1 828). Polish Tatars lost ability to speak in their mother tongue, but remained ties to Muslim religion. The Muslim Religious Union of Poland plays an important role in social life of Tatar minority. The main organization for Tatars in Poland is the Association of Tatars. It strives to maintain ethnic awareness of Polish Tatars and aims to integrate population of Tatar origin. It also cultivates and promotes Tatar tradition, which is also part of Polish culture. Under the supervision of Tatar community, magazines such as bimonthly “Life of Tatarstan” or the quarterly “Overview of the Tatar” are issued.

### **CONCLUSIONS**

Poland is a state nationally and ethnically homogeneous. However, still on its territory there are citizens who are descendants of those members of 9 national minorities and 4 ethnic minorities who came to this country over 100 years ago. Together they account for approximately 5% of the population of Poland. As can be easily seen, the major concern is the phenomenon of unforced denationalization of members of minority groups.

In 2005, the Act on National and Ethnic Minorities and Regional Language was adopted. It was a huge progress in the struggle for “cultural justice of minorities”, but it did not eliminate all the problems<sup>1</sup>. It can be assessed, that the Polish state has left itself a monopoly in deciding on matters of security, development, and preservation of cultural identity of minorities. It was possible due to passing competences and tasks in these matters to the government administration, as well as local government units. The country must change its policy in order to eliminate racist and xenophobic behaviors, which have been shown by a part of Polish society.

The country will face many new challenges. Next to the old national minorities, there are new groups, such as Kashubians and Silesians, who start to talk louder about their autonomy. Also, due to the Polish accession to the European Union and the opening of the borders, we can see a new influx of population. Polish institutions must learn how to peacefully manage a multicultural platform of coexistence of many national and ethnic groups in the country.

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## **ANCILLARY REVENUE AS A STRATEGIC ADVANTAGE FOR AIRLINE PROFITABILITY: THEORY AND TRENDS AMONG WORLD AIRLINES**

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### **Extended Abstract**

After liberalization and deregulation of airline markets; airlines have taken the opportunity to use ticket price proactively as a part of both tactical and strategic tool for their competitive strategies. Under historical conditions of pre-deregulation years, ticket prices were subject to controlled by a government agency. In those days, the price of an airline seat was directly related to the cost of producing it. Prices were simply based on costs, plus a rate of profit. Since deregulations around the world; the pricing structure has become complex. The linkage between costs and prices has been broken. The price of an airline seat has no relationship to the cost of producing it, but rather reflects the degree and nature of competition.

Achieving profitability in the airline industry is becoming an increasingly difficult task with each passing year. Airline yields have continued to decline over the last few decades as more entrants have joined the competition, and today airline companies operate in aggressively competitive online travel markets which have been made fares very transparent. The electronic marketplace of internet offers consumers fast, borderless and efficient access to information on airline services including fares. In terms of economic theory, greater knowledge among consumers or purchasers means greater market power.

Today, it is becoming more apparent that traditional revenue management systems can no longer maximize revenues. Clearly, the industry needs to think outside the box and create new types of ideologies if it is to generate additional revenue systems. Airline managements are seeking to lower costs and/or making ancillary revenues.

Airlines around the world generated \$57.2 billion USD Ancillary revenue in 2017. Ancillary Revenue sources can be categorized in three main groups; a la carte features, frequent flyer miles business and commission-based products.

A la carte features represent items and amenities consumers can add to their air travel experience. This is the revenue that is generated from selling products or services separately, which traditionally have been included in the price of the airline ticket. In today's airline market, the list of

things not included with the plane ticket seems to be constantly growing. At most airlines, buying a plane ticket gives passenger only the right to get on the plane; anything else is extra. These extras include; checked baggage charges, assigned seats or better seats within the same cabin, onboard sales of food and beverage, priority check-in and screening, usage of airline lounges, priority boarding benefits, on-board entertainment systems, and wireless internet access on board.

The largest single source of a la carte revenue remains checked baggage, with assigned seating a distant second. Traditionally airlines did not used to charge for the first two pieces of checked luggage unless they exceed the overall weight limitation. Now baggage fees are one of the fastest growing items in ancillary revenues. Over the past 10-15 years, passengers have become more knowledgeable about air travel and ask more frequently for aisle, window or exit row seats. So, in recent years airlines throughout the world have begun to capitalize on this, by charging for the privilege of acquiring these unique seats that hold the value for the passenger.

The frequent flyer miles sold to banks by airlines are another source of ancillary revenue. Each airline has long-term contracts with big banks, in which banks buy miles from airlines and gives them as reward points to customers. As banks compete to offer the [best travel-related rewards for credit card customers](#), airlines are generating massive revenues from loyalty programs that likely account for a major proportion of their overall profits. In 2017, the big three US major airlines had a total of 11.2 billion USD ancillary revenue by selling miles to partner banks.

Commission based products, are another source of ancillary revenue. They generally include commissions earned by the sale of the hotel accommodations, car rentals, travel insurance, even concert tickets through the web site of the airline company.

This paper reviews the ancillary revenue trends that have occurred in the aviation industry. Theoretical aspects and different sources of ancillary revenue are defined in the study. This paper states the importance of ancillary revenue in competition and gives examples of ancillary revenue in today's aviation market.

**Keywords:** *Ancillary Revenue, Yield, Airline, profitability, a la carte features, Competition, Regulation*

## GENDER ISSUES AND CHALLENGES IN GEORGIAN ECONOMY

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Unemployment rate among men is higher than among women in Georgia. The gap is growing further since 2012 and in 2017 unemployment among women amounted 12.7%, while in men – 15% (Geostat data). However, it should be emphasized that women participation rate in the labour force is low. Accordingly, the number of “voluntary” unemployment in women is higher than in men. In addition, unemployment among women in 15-24 age group is relatively high (1992-2016 average 31%) compared to men (27.5%).

According to the 2017 Global Gender Gap Index, which measures women’s engagement in economic and political activity, Georgia occupies the 94<sup>th</sup> rank among 144 countries. With regards to economic participation and opportunity Georgia occupies 75<sup>th</sup> rank, while in terms of wage equality for similar work country ranks 45, worse than in 2015 (34<sup>th</sup> rank). Difference between estimated earned income between women and men is also very high (USD 6595 for women and USD 13721 for men).

Notably, according to the Global Gender Gap Index, education is equally accessible to both men and women in Georgia. Based on 2016 data, the number of women in institutes of higher education actually exceeded the number of men. However, lack of practical skills still remains the problem for women to start the job. However, they lack resources to improve their skills due to the various reasons, e.g.: Lack of access to information about available training and education programs, lack of financial resources to attend fee-based trainings, lack of free time due to the house-care.

Based on the Public Defender’s report, the so-called glass ceiling remains one of the main sources of gender inequality in Georgia, meaning that there are invisible barriers hindering women and minority groups in their career development.

Based on the Public Defender report, the main reasons for gender inequality on the labour market in Georgia is (1) lack of legislation outlawing gender discrimination against women, combatting sexual harassment, unequal pay, etc. and (2) Uneven distribution of family-caring duties: the majority of women combine their jobs with unpaid work such as child- and housecare, which reduces their economic participation.

Apart from above mentioned, the main hindering factor for women to start the business is limited access to finances to start business. Generally, women do not own the property in Georgia due to the tradition that property is inherited to male members of the family. Accordingly, banks do not issue loans or issue with high interest rates to women. The situation is even worse on the local level where women has fewer opportunities compared to women in Tbilisi. Accordingly, gender-related challenges requires holistic approach and should involve various measures viz.: changing attitudes and stereotypes, awareness raising campaigns, capacity building measures both for women and employers, strengthening Vocational Education Programs especially in the regions to enable women improve their skills and start jobs.

## PENSION SYSTEM REFORM AND CHALLENGES IN GEORGIA

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Pension reform is the cornerstone of the policy debate around the globe. Many developed and developing economies are in the process of modifying pension systems with the aim to address more effectively the issues of retirement income adequacy, financial sustainability of fiscal budgets and demographic shifts in the population. In this context, a Pension Reform Unit (PRU) has been created under the Ministry of Economy and Sustainable Development of Georgia to design a pension reform strategy.

On July 21, 2018 Georgian legislators approved an accumulative pension scheme, after years of discussion. As one of the requirements of the new law, employees with contracts who are under the age of 40 have to contribute 2% of their remuneration to the state-run pension fund, on a monthly basis. Although other employees are not legally required to do so, they may participate in the scheme voluntarily. This law is a first step in a larger reform of Georgia's pension system. The administration of the accumulated pension scheme and contributions will be launched from 1 January 2019. Participation in the accumulated pension system is compulsory for employed people under the age of 40 years whilst it is voluntary for self-employed individuals and for those turning 40 years of age before the law had entered into force.

### *Historical Overview:*

In the last two decades, Georgia has been through multiple rounds of reforms of its pension system. Most important was the introduction of a flat rate pension in 1995. Another reform of the pension system commenced in 2004. Until 2004, state pensions were financed by the State United Social Insurance Fund (SUSIF) based on social contributions of employer and employee. However, from 2004, social programs became financed from the general budget revenues. Remarkably, from 2008 to August 2012, the pension amount included a long-service bonus distributed on top of the flat rate pension – for those with 25 years or more of working life, the bonus equaled GEL 10 per month. However, at the end of August 2012, pensioners stopped receiving long-service bonuses and instead received the combined amount as a flat rate pension benefit.

Under the Pension Law, LEPL Pension Agency (the “Pension Agency”) will be a body responsible for overall administration and management of accumulative pension system in Georgia.

## **AUTISM AS A GLOBAL PHENOMENON (CASE OF GEORGIA)**

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Autism spectrum disorder (ASD) describes various collective symptoms of neurodevelopmental disorders. Autism means disability of a child's complex development, which has an effect on a child's brain development. People with Autism syndrome have mainly social problems which means they are struggling with communication skills and interaction with the society, they have difficulties understanding what other people think and feel, they have problems with expressing themselves with words or gestures and facial expressions are also challenging for them, repetitive behaviour is characteristic for them.

Condition – autism is called these days autism spectrum disorder because it contains many different kinds of symptoms from a handicap, which needs all day care by professionals to people with an ASD diagnosis, who can live independent lives.

Symptoms of autism usually appear during the first three years of children's lives. With some children, symptoms of autism are obvious from birth, however other children seem to develop normally at first then symptoms become noticeable after 18 to 36 months. An interesting fact is that Autism is four times more common in boys than in girls. Autism can affect people in all cultures, regardless of race, ethnic, lifestyle, social boundaries, family or financial status or educational levels of parents.

Research from 2018 showed, that worldwide, roughly 1 in 59 children have an autism spectrum disorder diagnosis.

Despite the large number of people diagnosed with autism, the exact cause of autism spectrum disorder is still unknown. Modern research demonstrates that there is not only one cause of the disorder. There are many suspected risk factors for ASD – these are: family members with ASD (genetic factor), other genetic disorders, having children in older age, taking specific drugs while pregnant, unhealthy eating habits while pregnant, polluted air, metabolic imbalances, babies low weight at birth to name a few.

Although autism is a worldwide phenomenon, awareness of what it is, where it comes from and if it is possible to cure it, is quite low. A research from a very small East European section of the world - the republic of Georgia, proves that understanding about what autism is and how to deal with it needs to be on a higher level.

## **THE IMPACT OF EXTERNAL DEBT ON ECONOMIC GROWTH AND GEORGIA**

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### **Abstract**

Sustainable economic growth is the main concern for each economy all over the world and especially for transitional countries due to the high fiscal imbalances. This is why increases the dependence of these countries on foreign loans, that leads to accumulation of substantial external debt volume over time. In this context, special attention was paid to the influence of external debt on growth.

This is a conceptual analysis of the relationship between indebtedness and growth rate of transition countries. If not sustainable, external debt can lead economic well-being become under the risk. The main reason of this is that debt service may cause a problem of debt excess in the country. Thus, it is a must for governments of transitional countries to take into account the value of external debt beforehand and to have balanced fiscal and monetary policies.

The paper aims to enhance the existing literature on the debt-growth nexus. Worldwide events in the 1970s and 1980s—particularly the oil price shocks, high interest rates and recessions in the developed countries, and then weak primary commodity prices - are usually referred to as the major contributors to debt explosion in the developing countries (IMF 2000). According to the economic literature, in this paper there are summarized the factors that are usually referred as the major contributors to debt explosion in transitional countries. These are as follows: 1) exogenous factors, such as adverse terms of trade shocks; 2) the absence of sustained adjustment policies; 3) the lending and refinancing policies of creditors; 4) the lack of prudent debt management by debtor countries; 5) lack of careful management of the currency composition of debt; and 6) political factors, such as civil war and conflict.

While exploring the channels through which external debt might affect economic growth, literature has broadly focused on two theories, i.e., “debt overhang theory” and “Liquidity constraint hypothesis – Crowding-out Effect”. This paper tries to determine each of these two theories.

The widely discussed “debt-overhang theory” suggests that heavy debt burden creates a disincentive for private investment because of fears of future taxes and/or debt-induced crises (Krugman 1987 and 1988). This reduces investment spending, leading to a slowdown in economic growth.

A heavy debt burden can also affect growth through other avenues, such as the crowding out effect. The debt-servicing cost of the public debt can crowd out public investment expenditure, thus reducing total investment directly and also indirectly by reducing complementary private expenditure.

In the end, the paper discusses a case-study of Georgia. According to the International Monetary Fund data, the ratio of the debt to a nominal GDP for the developing countries must not exceed 50%. Georgia belongs to developing countries and, therefore, this limit imposed by the International Monetary Fund works for it as well. In 2011, the Government adopted the Law of Economic Freedom of Georgia, where the main parameters of economic stability of the country were established. According to the above, this indicator should not exceed 60% for Georgia. The paper analyzes the dynamics of the ratio of public debt to nominal GDP of Georgia.