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Economic crisis and promotion of sustainable transportation:

A case survey in the city of Volos, Greece

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Abstract

The paper presents the results of a survey that examines the effects of the current economic crisis to the promotion of sustainable transportation in the city of Volos (a medium-sized Greek city, 130,000 inhabitants). The survey was based on a questionnaire conducted on a random sample of 605 participants through personal interviews in the year 2013. The questionnaire comprised 24 questions divided into two parts. In the first part, the participants provided their demographic data, purchase power, possession of bicycle, private vehicle and driving licence. In the second part, participants stated their choice to change transport mode for utilitarian or recreational trips comparing the years 2008 (before the crisis) and 2012 (crisis in process). They also answered questions about road safety and personal safety issues when they walk or bike during the day and night time in the city of Volos. The analysis supports that citizens have changed their transportation habits during the years of economic crisis in Greece in favor of sustainable transport modes. Due to the increased unemployment and the decreased personal income, commuters preferred the use of public transportation, bicycle or walk instead of private vehicles. Thus, the crisis has a positive impact towards sustainable mobility by changing the way commuters travel in urban areas favoring more economic, environmental friendly and socially alternative transport modes.

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Keywords: economic crisis; survey; urban; transportation; sustainability

1. Introduction

The transportation system is a dynamic one aiming to adopt every change in economical, societal and environmental issues in order to serve its purpose which is to transport passengers and freight efficiently and safely. The world economy is changing so fast, that it is necessary to decide in time every change by using the appropriate technological tools and use well trained human resources, in order to find the best financial opportunities and business proposals in favor of the society. Global production and trade has gradually moved towards the developing economic countries in the last decades. The economy today is in the era of globalization, meaning that people and capital can freely travel

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worldwide in order to find the best value for money and business opportunity. This fact impacts on the global financial system, because no country or enterprise is considered to be protected against unexpected situations or counted risks.

The term "economic crisis" is widely used in Greece not only for its economic point of view but also for its political and social ones. The Greek economic crisis starting in 2008 affected seriously the economy of the country. Between the years 2008÷2014, the Global Domestic Product (GDP) of Greece was reduced by 35.55% (Figure 1), compared to -6.85% in Spain, -7.99% in Portugal, -1.14 in Eurozone countries and -0.67% in the EU-28 countries (Profillidis and Botzoris, 2015). Unemployment increased in Greece from 7.8% in 2008 to 26.5% in 2014 (Figure 1), in Spain from 11.4% in 2008 to 24.5% in 2014, in Portugal from 8.8% in 2008 to 14.1% in 2014, in Eurozone countries from 7.6% in 2008 to 11.6% in 2014 and in the EU-28 countries from 7.0% in 2008 to 10.2% in 2014 (Profillidis and Botzoris, 2015). Unemployment of the youth was significantly affected in Greece after the year 2011 reaching up to 50% (52.4% in 2014), (Karafolas and Alexandrakis, 2015).

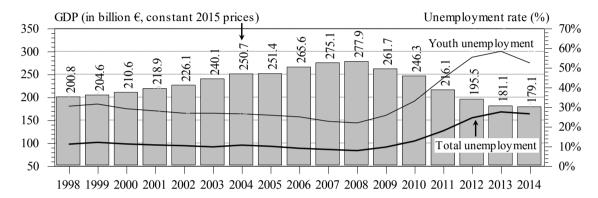


Figure 1. Evolution of GDP and (total and youth) unemployment rate in Greece (Profillidis and Botzoris, 2015).

Due to the economic crisis in Greece and other countries, citizens are trying to reduce their transportation cost not only for utilitarian but also for recreational purposes. Citizens favor the use of more sustainable transport modes (walking, bicycling, public transportation, car sharing) or they increase teleworking in order to balance the expenses (Botzoris et al., 2016). Due to this fact, a new balance in transport demand has been achieved and the necessity for investment in high cost transport infrastructure is reduced which benefits also the environment (Profillidis et al., 2014; Botzoris et al., 2015). The economic crisis should not be an excuse but an opportunity for public authorities in order to promote sustainable transportation in urban areas and improve their citizens' quality of life (Galanis and Botzoris, 2014).

This paper presents the results of a survey that examines the effects of the current economic crisis in Greece in sustainable transportation in the city of Volos (a medium-sized Greek city). The survey was based on a questionnaire conducted on a random sample of 605 participants of different age, education, profession and purchase power, through personal interviews in the year 2013. The aim of the survey was to reveal the participants' willingness to change transport mode for utilitarian or recreational trips comparing the years 2008 and 2012 and also evaluate road safety and personal safety issues when they walk or bike during the day and the night in the city of Volos.

2. Literature review

2.1 Sustainable transportation: Walking

Walking is a sustainable transport mode available to all at no cost. The safer and more convenient the walking environment is, more citizens will prefer walking than other transport modes mainly for short distance urban trips. Cities that are suitable for walking have many benefits for their citizens such as an increased level of road and personal safety, better accessibility to destinations and selection of multiple transport modes.

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