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Editors:
Marin Milkovic, Goran Kozina, Dinko Primorac

Economic and Social Development

12th International Scientific Conference on Economic and Social Development

Book of Proceedings

Bangkok, 18-20 February 2016

Varazdin Development and Entrepreneurship Agency
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UNIVERSITY NORTH

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CONTENTS

NATIONAL COHESION IN ECONOMIC DEVELOPMENT OF JAPAN AND IRAN IN RECENT CENTURIES

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ABSTRACT

This paper examines the economic development in two countries of Iran and Japan in recent centuries. In this article to be tried; modernization actions of Iran and Japan for economic development with guidance and reforms of above by elites in other words by powerful forces is examined. Two countries of Iran and Japan with regard to the economic superiority and development of West tried to find an economic balance with the West. The modernization actions of Japan began with Meiji revolution. Emperor with the Japan powerful forces by territorial and financial reforms provided the necessary resources to the development of industries and with the formation of heavy and light industries had a major role in the economic development of Japan. In Iran, modernization efforts was formed in the Qajar and Pahlavi period by Abbas Mirza, Amir Kabir, Sepahsalar, Constitutional Revolution, Reza Shah and Mohammad Reza Shah but the result of efforts was different despite somewhat similar situation. Japan succeeded in economic development but Iran could not reach to economic development like Japan. In Japan there was consensus and harmony between powerful forces with a unit goal to achieve economic development, but in Iran there was not such consensus and unanimity to reach to economic development in both Gajar and Pahlavi period because personal interests rather than national interests.
The research method of article is historical and descriptive. In this article be tried according to the theory of habermas, the process of economic modernization is evaluated in two countries of Iran and Japan to historical and descriptive method to reach economic development.
Keywords*: Modernization, Development, Elite, Iran, Japan.*

1. INTRODUCTION

Development, in other words, progress in different fields especially in economic field, needs to a good condition to reach that. Economic development needs the economic stability and security to create the good condition for business and production. Until such appropriate condition is not created, development is faced with problem. One of the factors that have a fundamental role in the stability, security and economic development can be internal cohesion in other words consensus and solidarity of society to achieve development. Internal coherence between powerful forces is the appropriate field to overcome underdevelopment. Such consensus creates favorable conditions for economic progress and activity. Iran and Japan as two Asian countries in recent centuries with respect to economic inequality with West follow a series of steps to achieve economic development. The goal of these efforts was the gain of progress to deal with the west superiority. Although such measures began in recent centuries in two country somewhat at the same time. But the result of measures was different in the two countries. Modernization actions in Iran was created by Abbas Mirza, Amir Kabir, Sebahsalar and Constitutional Revolution in Qajar period and by Reza Shah, Mohammad Reza Shah in Pahlavi period. Before such modernization measures had formed Safaviye centralized state in Iran with Shiite official religion. The cultural conditions had provided a good opportunity for economic security and stability. Therefore, the Shiite religious was a integrative factor in the course. But such conditions rarely occurred with the fall of the Safaviye state. Until Qajar government formed in Iran the late eighteenth century. In Qajar period Iran was faced the superiority of Western countries. To overcome such superiority, Qajar state pursued corrective programs. But

failed in achieving to economic development. Japan also began modernization actions with Meiji Revolution. Before the Meiji Revolution, Japan was isolated in Tokugawa period about two centuries. In the two centuries Japan achieved national unity against foreigners. After the Meiji revolution, Emperor and powerful forces on a appropriate cultural context started the process of economic development with the modernization actions and ultimately reached economic development in the Japan. in this article be tried to study the process of economic development and modernization of Iran in Qajar and Pahlavi period and Japan in meiji period in economic , industrial ,financial and land fields.

2. RESEARCH THEORETICAL FRAMEWORK

The internal coherence and consensus among influential forces in society is an essential basis for the development. When consensus is created that is created common understanding and interaction between different groups. So that the powerful forces reach a common understanding with respect to the different views in an interaction. Integration means unity with respect to the plurality of views. Unity in diversity needs a dialogue on a common framework. Common symbols, values and beliefs can have effective role in the dialogue and mutual understanding through intercultural interaction and communication. In interaction, individuals with regard to their beliefs will adhere toward common beliefs at the macro and national level. in fact communication arena depends on a common understanding with the different attitudes to achieve the common language and belief by mutual interactions. This attitude is what Habermas believes mentally a common understanding in the public arena of Interactions. Habermas considers life-world as communicative act, agreement and consensus arena. in the life-world, dialogue is based on debate and consensus. In this arena, compulsion have not basic role in the agreement. The basis of arena is dialogue and understanding between different interests within a democratic framework. In fact, in Habermas's communicative action, participants expect to reach a consensus through communication and dialogue. According to Habermas, the extension and independence of the life-world and the development of the field of cultural rationality requires the ability of understanding and communication. Such a situation could lead to rationalization of the life-world (Bashirieh, 2004, PP.225-226). In such circumstances, individuals and groups debate in a suitable condition to reach consensus and shared belief and choose the most appropriate method to achieve their goals.

3. NATIONAL COHESION ON THE FORMATION OF NATIONAL CENTRALIZATION GOVERNMENT IN JAPAN AND IRAN

Iran and Japan are two Asian countries that followed modernize and reforms in the 19th century because of its weakness against Western countries. The elites of both countries emphasized modernization and reforms with guidance from above. Despite the similarities between the two countries in the background of modernization and reforms by elites in two countries, both countries have passed somewhat different historical path of modernization and reforms. In both countries before the Meiji government of Japan and the Qajar government in Iran, powerful governments had been elapsed like the Safavid Empire in Iran more than two centuries and the Tokugawa government in Japan about two and a half centuries. Tokugawa government was passed in isolation from the outside world, but Safaviye government especially during the Shah Abbas period spent by interacting with the outside world. Despite the trade positive balance of Safaviyeh government with the West, Safaviyeh government during the last Safavid king was weakened and country was faced with scattered distribution of power and insecurity until the rise of the Qajar government. The first king qajar, Agha Mohammad Khan Qajar, suppressed internal riots and some other powers and then to neutralize internal riots and external aggressions, Qajar government could create a strong and focused government. After Agha Mohammad Khan death, border clashes were created between Iranian and Russian forces. The

2

Qajar government was faced with the military and economic superiority of the West. To achieve the superiority of the West, qajar government followed a set of modernization actions. in japan also before Meiji revolution, Daimyo(Great Feudals)dominated areas of the country. Daimyo in this regions enjoyed traditionally bureaucracy and military forces. In the 17th century AD Some Daimyo sought to expand their territory to occupy the territory of the other feudals. Daimyo "Ayaso Tokugawa" prevailed over other feudals and created central government in the country. Tokugawa government to the creation of national unity and Centralization applied hostage system. According to any Daimyo was some time in the capital and some time in its land and was traveling between the city and its land. The Tokugawa government action was led to unification and centralization of the country. Therefore, Tokugawa government could control the country with peace and tranquility for almost two and a half centuries of isolation from the outside world. Although Japan isolation from the outside world created unity in the country but this situation was led to a lack of Tokugawa government knowledge of progress in the West. So that as soon as the entry of American troops to the port of Japan, the Tokugawa government was faced with a serious challenge in dealing with the fleets and modern weapons. This situation increased the Opposition of the tribes against the Shogun. Shogun due to increased domestic opposition accepted the superior power of Emperor and power was restored to the Emperor.The Meiji government began modernization actions for reaching to west progresses. Therefore, both the government of iran and japan follow modernization against west progresses. But Japan toward Iran was succeed in the field of modernization and reform. Here the question arises: Why Japan was more successful than Iran? One of the most important reasons in this field was consensus among elites in Japan. Meiji modernization was shaped with consensus between traditional and new powerful forces and provided the path of modernization and reforms. So that these groups participated in the power restoration of the Emperor. Emperor victory was owe Chosho , Satosuma, Hizen and Thoosa tribes. These tribes restored the emperor power with together coalition and merchants and nobles efforts and formed a centralized government and removed Feudalist system. The four tribes of west Japan; Thoosa, Hizen, Chosho and Satsuma, to create a centralized government after restoring power to the emperor agreed that would give their property and military forces to the Emperor to create a centralized government. The tribes in the time of transferring property to the emperor stated: in the realm of the Emperor any spiritual belongs to the Emperor... nothings is not that is not subject to the Emperor. Although Emperor power was decreased in the past, and was created a military class and was divided the land between them. But now that the emperor was restored. How can take land that belongs to the emperor and governs on the people that are servants of Him? Therefore, we give all their feudal property... to create uniform rule throughout the country (Story, 1988, p. 99).

Meiji oligarchy disturbed the old structure of Tokugawa government so that the Samurai privileges disappeared. In addition to the abolition of the Han and the establishment of Governor in 1871 and the creation of a pyramid structure to the lowest point of the center of the country, centralization was formed in the country. At oligarchic top were a few number of Chou Shu, Satsuma, Hizen and tosa tribes with totalitarian forces. They managed ministries with Samurai employees. The lower level was provinces, cities and villages (Tiption, 2002, p.42). Compared with the coordination and integration of Japan's elites in the field of modernization and reforms, powerful Iran forces and elites had not coherence and coordination for reforms so that no coalition was formed between traditional and modern Iran forces like Japan. Modern and reform elites faced with serious opposition so that the exception of the Pahlavi regime that formed centralized government with the suppression of internal strong forces was not resolved. Here the question happens what is the main obstacles to reform and modernization in Iran compared to Japan? So that was mentioned, one of the main obstacles in this regard was the lack of consensus and solidarity between powerful forces in Iran. So that the conflict was continued between the traditional powerful forces like landowners, nobles,

princes, religious forces, monarch and reformist elites. If in Japan for the formation of the central government, tribes and other groups gave their property, assets, and troops to emperor to form centralized government, The traditional forces in Iran was not willing to give concessions in favor of the modernization and reform, even Landowners were not willing to grant financial assistance to the central government. If in Japan for their national interests, tribes gave their assets to central government, in Iran personal interests was effective to action. So that when the sepahsalar was going to centralization, the wave of opposition increased toward sepahsalar. The autocratic rulers of states opposed with centralization and reduction of their power. Because the Assembly of Options of sepahsalar considered peasant rights and would decreased the power of the rulers. Some autocratic rulers like Ghouchan governor resisted against options that sepahsalar deposed him. Some governors announced to the king their opposition to the sepahsalar. The opposition of the rulers was of the serious obstacles in the path of sepahsalar centralization. The question that arises here is: If the Iranian tribes such as Japan gave their assets and property in the hands of the king, the central government was formed and provided the path of modernization in Iran? As it was mentioned before, the emperor which was the symbol of national union goes back to the long history of Japan and was sacred to the people as if they didn't see the emperor. But in Iran Sultan didn't have such a position as sacred as the emperor in Japan. Although in Safavid the king was kind of sacred, it was not so in Ghajar. In addition the emperor in Japan had bestowed all the authority to the renovating elite and some when supervised them. But in Iran the renovating elite didn't have such an authority and the king acted upon the decision of powerful traditional forces and had lost his own independence. On the other hand the traditional forces considering their own benefits didn't like to have a solidarity and consensus with the renovating and reformer elite. Therefore this lack of solidarity and consensus in Ghajar were serious obstacles to forming a focused government and making suitable ground for renovation and reformation. Unlike the lack of consensus among the elite in Ghajar, Reza Shah overwhelmed the opponents unilaterally and could make a focused and absolute government in the country. It should be mentioned that before taking the power by Reza Shah, riots spread out all over the country. In 1919 AD (1279) England was up to support Iran and signed a contract with Vosugh Aldola. This action led to many oppositions and resignation of Vosugh Aldola. After him Moshir Aldola took his position and in his perion the country faced many serious tensions. Rebels and brigands revolt around the country. Some of states and tribes didn't pay the taxes and didn't obey the central government and on the other hand the financial situation of the country was very unstable (Maki, 1363, pp. 23-24). The riots spread out in Gilan, Azerbaijan, Kordistan and Khorasan, southern and other parts of the country which all were overwhelmed by Reza Khan's coup and taking the control of war ministry and making the central government. Unlike Ghajar government in which traditional sources had power and dominance in the court, Reza Shah overwhelmed the opponents and some of traditional forces who were opponent to the focused and absolute government. He could destroy all the serious obstacles to the renovations and reformations unilaterally and without the solidarity and consensus of the elite, he actually could make a way for the renovation and reformation in the country. Therefore it could be said that in Japan the elite make a way toward renovation and reformation but in Iran there was not such a consensus among the elite in Ghajar and on the other hand without such a solidarity and consensus among powerful internal forces the government in Pahlavi was formed unilaterally and by overwhelming the opponents.

4. TERRITORIAL AND FINANCIAL REFORMATIONS OF JAPAN AND IRAN

In some European and non-European countries agriculture had been the background for industrial investment and supply financial sources of the government. Japan as a non-European country also made agriculture the basis of industrial renovation and it could supply the government financial sources in difficult conditions. Aligarshi Miji didn't borrow money from European countries because they had a colonial vision of them. They believed that borrowing from European countries not only would lead to their entrance and dominance in Japan but also make their economic independence unstable and doubtful. They made agriculture the basis of supplying financial sources of the government. Miji government could supply preliminary finance for developing the industry by putting up territorial taxes on territoriews and other internal financial actions. As if in the end of 19th AD century (the second half of 13th century) about 80% of the government financial income was supplied from taxes of territories. Therefore in Japan the agricultural revolution was before the industrial revolution (Naghizade, 1372, p. 62). Peasants who had territories had to pay a yearly permanent quantity of taxes based on the price of their territory. This tax system was the main part of government income which mostly was used for strategic industries. The government made the village as the back of the city (Story, p. 11). In addition to its wealth of owners who had desire for reservation was an important factor in forming massive assets for industrial and economical plans. The development of agricultural methods and many unemployed labors in villages also supplied human sources for occupation in industries. In comparison with Japan, in Iran agricultural renovation was seriously started in Amir Kabir period in recent centuries. Amir Kabir believed that developing agriculture needs social security and preserving peasant's rights. He could get the social security by overwhelming the riots and on the other hand the amount of agricultural productions were increased and new products were implanted by destroying Siversat old tradition and supporting the peasants (Adamit, 1384, p.391). Amir Kabir in addition developed agriculture by building huge dams in different parts of the country and rebuilding of aqueducts and also producing new products. His other action was taking taxes from owners who didn't pay their taxes. This action was opposed by those who may concern and had benefits. Seif Aldola prince was among those supported by British legation, he went to London and was its pensioner. When he came back in Mohammad Shah period, "Petrakh Tappe" was given to him and his wife also was paid 200 tomans yearly. Mirza Taghi Khan cut this payment of the princess and asked for the product taxes of these several years. As Seif Aldola didn't pay it his land was taken back. The British minister opposed to this action but Amir didn't answer him (pp. 268-269). Even though land owners and governors and some of courts were opposed to Amir Kabirs's reformations and were up to plot against him. From among them we can name Soleiman Khan the brother of Mahd Olia, Shir Khan Ein Almalek the nephew of Mahd Olia and so on (ariayee, 1372, p.59). Since Anir Kabir period to Reza Shah period there was not any serious agricultural reformations. Although the actions of Reza Shah were toward his own benefits. After gaining the power he took many territories of Khans and the feudal by force and assigned them to himself or his officers and relation and therefore he became one of the biggest land owners. He passed some laws substituting old system of ownership by a new one. Before that the law of estate and title deed registration was passed in 1923 AD (1302). Those laws passed in 1928 AD and 1929 AD (1307 and 1308) officially strengthened the owner's right in personal ownership and water resources, and the taken or bought or state territories were made legal and juridical (Ivanov, yi ta, pp.69-70). In addition in new law of 1931 AD (1310) the rights of territory owners were mentioned and taking taxes system was created (p.70). Although Reza Shah's territorial reformations in estate and deeds registration and legalization of territories were positive, his actions in taking forcibly the estates if Khans and the feudal and repressing them caused fear among other owners and prevented them from investing more in estates. It should be mentioned that taking estates and territories and becoming a big land owner was very prestigious for him and he believed that

in this way he could supply the government budget. But actually because of oil resources, agriculture was almost the main supplier of industrial reforms. While in Japan agriculture was supplier of government financial sources in industrial and other investments. Territorial reformations were started widely in Mohammad Reza Shah period. The US role in territorial reformations of Iran was very crucial. Based on bitter experience of Asian southeast and Latin America events and peasants redeemer role in wars of 1950s AD (1330) such as Vietnam, China, Algeria, Cuba wars in which territory and peasant were their main factors, the western countries and especially the US concluded that by performing up to down territorial reformations anti alien and anti-autarchy movements could be prevented and get the stability of ready countries for reformations. Western allies of Mohammad Reza Shah were concern about old agricultural structure and traditional social relations in villages increasing country power against communism and the possibility of outbreak a political revolution (Azghandi, 1379, pp.176-177). In 1960s AD (1340) because of Kennedy's government pressure, the revival of national deploy and also the hypothesis that territorial reformations would destroy land owner's power in benefit of government power and peasants would remain loyal to themselves, developed the program to the overall territorial reformations. By performing territorial reformations unilaterally and without consultation of land owners, the shared peasant agricultural system and the dominance of land owners were destroyed (Ghuran, 1382, pp.472-473). Irregular migration of villagers to the cities was another backwash of territorial reformations. As if in 1930s AD (1310) 68/6% of population lived in villages and 31/4% in cities. In 1976 AD (1355) more that 47% of population were inhibited in cities. The number of big cities increased. In 1966 AD (1345) Tehran has the population of 500.000. In 1976 AD (1355) four big cities had such a population. In addition in 1645 AD (1324) cities with population more than 100.000 had 21% of the population. While in 1976 AD (1355) it reached to 29% (Kamali, 1381, p.194). Therefore it becomes clear that Mohammad Reza Shah unlike Miji government which made agriculture its main income supplier and industrial investment, made it peripheral because of huge oil benefits. Mohammad Reza's objective from territorial reformations was more political. As it was mentioned before his political objective in gaining peasants support was under the Kennedy's and western pressure for territorial reformations. In addition to agriculture Miji government needed immediate budget for forming offices and performing laws and sending armies to different parts. In 1868 AD (1274) the government for supplying the budget asked for merchants help and forcibly borrowed a loan of three million Rios from them. This amount formed the government budget and "Mitsui Gumi" company was assigned for directing government treasury bargains. In 1868 AD (1274) the government spread 48.973.973 Rio bills and it was going to be gathered again after 13 years. Although the government was up to use this amount for industry, it was used for paying debts. Because of the government financial problems Mitsui Gumi paid a gratuitous bounty loan of one thousand and other investors paid such bounties to the government (Rafat, 1340, p.151). to have a better currency progress the government established a mint in Osaca in 1871 AD (1250) and "Yen" became its currency and metal currencies were minted. Mitsui Gumi was assigned to money, gold and silver exchanges and gathering old currencies and transforming them into gold and silver bars. After a short period it established a huge plant for printing bill (p.152). In 1879 (1258) the government also imposed a new law for banks which led to establishment of national bank. In 1879 AD (1258) about 150 banks were established. In 1882 AD (1261) "Matsuka Tamasayushi" the financial minister of that time established the bank of Japan. This bank was established for government financial affairs and in 1896 AD (1275) the loan bank was established and in 1900 AD (1279) the industrial bank was established for industrial affairs (p.198).

In comparison with Japan that Aligarshi Miji supplied government financial sources through getting loans and establishing banks in the country in addition to agriculture; Amir Kabir tried to battle with financial corruption. When he became the first minister he faced the lack of budget. This lack of budget was because of Mirza Aghasi's bestowments to a punch of useless people. In his period Aghasi had given money to different people that increased the govern debts. Amir Kabir was up to survey these money (Avari, 1363, pp.123-124). He considered two ways for solving this problem; to validate or invalidate all that money. The first way was not applicable because of government financial problems and the second way would make the government broke and invalidate. Amir chose a better way. The real government debys were gradually paid and those which were unnecessary bestowments and bounties and Aghasi's prodigality were completely omitted the government was not supposed to pay them (Adamit, ppp.262-263). In addition Amir for balancing cost and income considered a committee to adjust the country budget. This committee appointed the lack of income about one million Tomans. For solving this problem Amir decreased the salary of those who were paid from government, from Shah to servants (p.263). Amir Kabir stopped illegal bureaucracy taxes. Based on tax system the employees must not take the taxes and illegal money from people. He made a regular tax system which has important role in increasing government incomes and decreasing the role of clergymen in gathering the taxes (Kamali, p.95). He also prevented them who were paid from budget without any right. For example the royal guard was actually exists in Fath Ali Shah period and it was formed of 600 persons but now they were up to 4000 persons were considered as royal guard just on paper. While the actual number was less than 300. Amir adjusted all of them and stopped budget prodigality (Arbabi, p.30). Amir's battle with financial corruption and bribery had an important role in increasing government financial incomes. In Japan the merchants supplied the government financial sources in addition to agriculture but in Iran not only commercial companies were not established as Japan but also if it was so the companies would not cooperate. Because in Iran personal benefits were prior to national benefits. If Japanese companies helped the government financially believed it was for national elevation and had a definite unique objective but in Iran the objective was not national elevation and personal benefits were prior to national ones. Both Amir Kabir aand Miji governments didn't accept western loans because of their colonial vision toward western countries. In Jpan financial sources problem was solved through merchants save agriculture but in Iran Amir Kabir supplied the government financial sources through battling with financial corruption in addition to agricultural taxes which was opposed by many groups and powerful forces and led to Amir Kabir's deposition and therefore his long term ideals for industrial renovation and independence were not fulfilled. Like Amir Kabir, the financial reformations of Sepahsalar were battling with bribery and preventing from getting court gifts. He believed save common taxes and definite claims which are up to the people, the governors shouldn't take anything else under any title (Zibakalam, 1377, p.289). His another action was establishment of "state bank" which "Merton" plan was passed with some modifications (Adamit, 1378, pp.299-300). The government also brought Austrian "Baron Dostein'' with a group to iran to make new financial systems. Sepahsalar's objective was to use Stein to coordinate internal taxes and custom traditions with Europe but when the financial conselor's mission ended he didn't succeed. Even though money and coinage reformation had a very considerable progress in Sepahsalar's period. This action fulfilled by the help of a mint master from Austria called "Pashan" (p.314) and silver gheran and one toman gold coin were common in Iran. The price of one gheran equated one frank and one gold toman equated ten franks. Therefore a new money spread in the country (pp.315-316). Unlike Miji government using merchants financial helps for supplying government financial sources and industrial investments, Sepahsalar's government didib't have such a powerfull financial support. While like Amir Kabir his financial reformations could supply the government financial sources and make a way for industrial investments. But battling

with bribery and financial corruption faced them with the opposition of those who enriched through bribery and financial corruption. It should be mentioned that solidarity and consensus of Japan's higher class especially land owners, merchants, emperor and so on led to supplying government financial sources and industrial investments but in Ghaar period there was not such a solidarity and consensus. In addition if the Japanese elites could establish new banks to progress currency, in Iran the establishment of national bank faced problems because there was no reliance among powerful forced themselves and also government, and if some banks were established with high financial support by Russia and England they were toward their benefits. Although in Mashrouta period some financial actions were performed, they did not succeed. As if in second Majlis, Shushtar was invited to Iran for financial reformations and he could adjust the government financial sources through taking taxes but faced Russian opposition. Because some of owners and merchants were supported by Russia and Russia could not tolerate taking taxes from them and asked for Shushtar's deposition from Iran's financial affairs. Or in the first Majlis period when getting loan from British loyal bank or Russian loan bank was discussed, one of the majlis representatives called Moein Al Tojjar represent a plan based on establishing national bank based on the merchants and people investments but he didn't succeed and loyal and loan banks continued to abuse Iran's treasures by giving loans with high interests and bringing the government their indebted. As if one of government actions was repaying its debts to Russian and British banks. After forming Pahlavi government by Reza Shah, financial reformation were one of its important objectives. After his coup an American delegation under the supervision of Milspo entered Iran on September 1922 AD (shahrivar 1301) for financial reformation. In 1923-24 AD (1302-03) Milspo could balance the budget and the government income got to about 5.768.173 and costs around 5.827.44 Lire. Commodity payments were stopped in 1923 AD (1302). But lack of reliance of Sardarseoah to the aliens and his wish for freeing Iran from aliens presence and especially his severe anger for Milspo's delay in designation of army budget led to Milspo's mission (Avri, pp.501-503). Reza Shah's another action against alien banks was the establishment of national bank. The establishment of national bank was one the nation's wishes. So the national bank of Iran was established by a German expert and the monopoly of printing the bill was transferred from loyal bank to the new bank (Katuzian, 1372, pp/157-158). The development of bank branches in the cities, supplying expert human force by sending 6 persons to Europe, employing German experts and establishment of bank instruction office for instructing bank sciences, calculating, economics, law, and progression of bank stock to 300 million Rials in 1935 AD (1314) resolved some of bank problems gradually (Khalili, 1373, p.190). The government income sources in Reza Shah period were as follows: oil incomes, customhouse incomes, other indirect taxes and taxes on incomes. Direct and indirect oil incomes were the biggest government incomes. The increase of oil income led to supplying 1.3 of the total government costs (Katuzian, p.159). In comparison with Japan which financial renovation formed through Aligareshi cooperation and consensus and the merchants helped the government financially, in Iran the merchants and land owners almost never had any plan about helping government financially to supply its financial sources and investing in industry. The only way remained for reformer elites was leading their ideals by themselves. In Ghajar period because of gaps in power, the reformer elites couldn't succeed and if there were any actions they faced many serious obstacles because of powerful forces, land owners, merchants and other oppositions but Reza Shah solved the problem of lack of consensus and cooperation among powerful sources by repressing internal powerful sources and taking taxes from land owners and other government financial suppliers.

Reza Shah powerfully took taxes from tax payers and no one dared to object. In addition to taxes he supplied government incomes and paved the way for economical and industrial investments through oil sources. His actions were continued after him by his son Mohammad Reza Shah. He also considered huge oil sources as the government income source and industrial and non-industrial investment sources, he could make economical and industrial progressions in the country.

5. ECONOMICAL AND INDUSTRIAL IN JAPAN AND IRAN

In recent centuries both Iranian and Japanese reformer elites by beholding western countries developments and their own weaknesses and also their pessimistic colonial vision toward western countries were up to industrial and economical renovation and independence. In Japan Aligarshi Miji by beholding the world evolutions and industrial international competitions and for defending itself against alien intervention, considered strengthen military forces in addition to economic powers. They could import money through agricultural products such as silk and tea, and also they considered industrialization as a factor against importing western goods spreading Japanese markets. It was needed lots of money for heavy industry but other industries which were more applicable and cheaper could be a good model for importing more money and progressing heavy industries. Most of economic experts believed that loom industries progression after Miji period is a good example of material evolution of the country. Loom industries needed less technical sciences and investment in comparison with machinery industries and through them small workshops could be established. These workshops used labor forces coming easily from peasant families. Loom industries was the first in attracting largely personal investments and had no more need to the governments helps. Silk textile and spinsterhood industry were almost progressed. The spinsterhood industry was mechanized. In this industry spinners from 8000 in 1878 AD (1269) reached to 77000 over ten years. In addition in 1893 AD (1272) 382000spinners were permanently activated and the yearly production of cotton got to 88 million. This progression was along with the increase of raw materials. The fast progression of the market since 1890 AD (1269) mechanized the loom industries and supply suitable export opportunities (Rajabzade, 1365, p.299). Japan was the first non-European country in using western industrial and commercial techniques in large scales and could reach a unique position. Cheap eastern labor and western technology made a perfect mixture for producing cheap commodities. The rest of Asia had cheap labor but they needed technical skills. Europe and North America had higher technology and more natural resources and also higher life standards and higher salaries over Japan. This difference between eastern and western life standards and non-western industrial weaknesses made a unique situation for progressing industrial and commercial activities in Japan. Textile forms more than the half of plant productions and by the end of 19ᵗʰ AD century (second half of 13ᵗʰ century) was the main exportation. Steel and ship industries were made because of their strategic importance (Reischouer, 1946, p.15). In addition the cooperation of state and private parts had a crucial role in economical and industrial development of Japan. This cooperation was very close and they helped each other in critical situations. The objective of economic development was not just the internal markets but also the government had higher international objectives. Before the revival of Miji there were a few companies like Mitsui. But Miji government supported private part under any conditions to achieve higher objectives and private part worked toward government's objectives, too. There was an acceptable relation between government and private part. This cooperation made both strong. They were both after the national objectives. The financial support of private part had an important role in the victory of Miji revolution. The financial private part especially Mitsui company in early Miji when it needed money, was a reliable source for the government. In addition commercial companies were devices for strengthening military powers and developing exports. The cooperation of private part and

government led to strengthen the private companies and increase their efficiency and therefore they could penetrate their neighbors (Motevaseli, 1374, pp.195-197) and decrease their competitors penetration. By special plans of the government and the private part the industrial and commercial activities of private part increased and they could penetrate Asian countries. In addition they politically could supply weaponry and military support for the government. They paved the way for penetration in Asia and could made more markets there as a non-European country. After Miji this economical and industrial development continued. As if Japan's investment largely increased during the First World War. As if over 1913 AD and 1920 AD (1292 and 1299) steel efficiency increased from 255 to 533. The potential of electrical energy was also doubled in that period. Even though Japan's industry did not yet get to Germany, England or the US. Among the interval of two world wars Japan's economy was mainly based on small plant systems or even peasant system which was under the rule of some of Zaibatsues plants. The Zaibatsue got to the peak of its power in 1929 AD (1308) i.e before the great inactivity crisis. This group increased its penetration in agriculture and small industries through supplying financial sources and ruling the market (Moore, p.270). The Zaibatsue which Mitsui, Mitsubishi, and Yasuda were its main companies had a very close relation with government and invested in government plans and on the other hand gained its support. Their activities range from banking and heavy industries to the other beneficial grounds. These big financial and industrial complexes supported multilateral benefits. They successfully passed economic crises and ruled small production institutes (Alipour Tehrani, 1372, p.414). Industrialization elevated the people's lives especially in cities. Since agricultural productions were fixed after 1920 AD (1299) the villagers came to the cities after jobs and were employed in big or small plants. Japan took many advantages from the first world war and after the war not only was among prior powers in international societies but also its economy jumped and was activated. As if by the end of war Japan became an industrialized country. But this progression led to political and social movements and new forces entered the social and political life (Rajabzade, p.387). In addition these economical evolutions developed urbanism. Although still there were many populations in villages. Industrialization made the ground for increasing urban population and welfare. One of the qualities of industrial and economical developed countries is the formation of average class. After the First World War the condition was suitable for forming such a class in Japan. Another factor of industrialized and developed countries is the labor union defending vast labor force rights. Labors in Japan were increased in quantity and quality and they had preliminary equipments. The development of Japanese companies continued up to the Second World War in which the US attacks and Japan defeat challenged Japan's economic activities. As if after their defeat colonizers were up to destroy Zaybatsues, Kartels and other financial unions. Their objective of such a destruction was decreasing the economic and political focus which was the main factor of militarism but by the end of occupation Zaibatsues started again and controlled many industries. Another objective of colonizers was forming the labor unions to preserve labor rights against economical and commercial companies and to prevent them from increasing blocking of labor rights to the benefit of their own capitals (Motevaseli, pp.202-204). But since confederates especially the US had controlled over Japan and their systems were based on capitalist democracy and because they considered one of their early objectives forming of constitution based on western democracy and competition of different parties and groups in elections, made it necessary that to battle against communism they should have a recess from destroying Zaibatsues and financial, economical monopolies. Therefore the condition was good enough for Zaibatsues to start again. Financial and economical monopolies could increasingly developed the country again over two decades and Japan again became a prior industrial and economical power. In addition along with economic development and forming political parties and some welfare, democracy was also fixed in Japan and as a democratic country continued its economic development by having interactions with

other countries in the world. Like Miji government Amir Kabir was also after economical and industrial independence and decreasing the dependence to western countries. He believed that free commerce policy is beneficial for Europeans and would destroy internal economy in long term. In addition to form a rate system to support Iranian merchants, he also encouraged the establishment of national industries. Like Miji government Amir Kabir sent some of talented Iranian masters to western countries to gain experience and decided to employ some western experts and technicians. He encouraged those who had talent in industry. As if when he was informed about a pot which was a gift by Russian head merchant "Vish Ghartsov" in 1849 AD (1227) gave it to one of Isfahan's artists to make a model of it. The Isfahani artist succeeded and took the monopoly of producing that kind of pot. Amir Kabir's action toward industrial independence and cutting the dependence on the west led to forming small industries in the country and made a crucial evolution. But in comparison with Japan he didn't have such financial sources and the support of internal powerful sources. As it was mentioned before the solidarity and consensus between the government and private part in Japan ha d an important role in its economic development. It should be mentioned that like Japan in Iran the private pa did not formed before Amir Kabir. In Japan private companies were formed in Tokogawa period. As if this private part, and merchants had an efficient role in reviving Miji's power. After the emperor revival financial helps were given to the government to supply its financial sources and different investments and the government also started to invest in heavy and other industries by consensus and solidarity. Then these industries were given to the private part. But in Iran not only such private part and commercial companies were not formed before Amir Kabir but also there were not any consensus or solidarity among powerful forces if the country. As if not only traditional powerful forces didn't like to help the government financially but also they reacted harshly because their benefits (sush as decresing court salary and so on) were in danger. Addition to internal problem Amir Kabir faced foreign problem, too. His ministry was along with imperialist development of England and Russia. Amir's economical reformations restricted Russian and British merchant's benefits in favor of Iranian merchants. His actions in changing their favorable governors were opposed by England and Russia. Russian activities in occupying some of the islands of Caspian Sea for controlling Iran's commerce in north and political (slave commerce in Persian Gulf) and economical (controlling commerce in Persia Gulf) pressure of England are the examples of their negative positions (Kamali, p.100). Along with these internal and foreign oppositions Amir how could developed economical and industrial and other renovations and reformations in the country. Japanese could defeat western colonial policies by consensus and solidarity but in Iran lack of such solidarity and consensus led to more penetration and intervention of colonial countries in internal affairs. Like Amir Kabir one of Sepahsalar's objectives was industrial and economical renovation. But there was a difference in which Sepahsalar made a priority for foreign investment in Iran because of lack of invests that led to his deposition. If in Japan the investment in industries by private part was prior and there was no need to foreign investment, it was because the ground for developing commerce and private part for investment was already formed. In Iran the private part was not formed as in Japan in which it could invest in any government plan and give financial helps to the government for investments. In Japan also a regular tax system was formed and supplied government financial sources while, there was not such a thing in Iran. In Iran private part and financial and economical companies not only didn't developed but also the government didn't have enough financial sources for investing in industries. Therefore Sepahsalar believed the only suitable way for industrial and economical investment is through foreign companies. This interest to foreign investment and signing a contract with Reuter led to his deposition. As if after the signing of Reuter's contract internal and foreign oppositions increased especially from Russia. Because of these oppositions he was deposed by Shah.

Amir Kabir's efforts for industrial and economical renovation were based on internal invests and Sepahsalar's efforts were based on foreign invests, both of them faced serious obstacles and by their depositions the way toward economic development remained unstable in Ghajar period until by the entrance of Reza Shah and forming an absolute government economical and industrial renovation seriously started again. Reza Shah started economical and industrial plans in the country by structuring tax system and oil incomes. His economic policy was based on nationalism support and the Soviet Union economical and industrial development model. He tried to develop private industries through custom exemptions, some tax exemptions, Industry and Agriculture banks established in 1933 AD (1312) and also by using supportive actions such as rate and shares. In addition the government tried to establish loom plants, sugar infiltration, cement and other industries. The government built a small iron melting plant in 1940 AD (1319) (p.150). Reza Shah's support the industry led to increasing the budget in this ground. In 1941 AD (1320) industrial budget was about five times of 1934 AD (1313). In result the industrial and commercial share from 3.1% in 1934 AD (1313) got to 24.1% of the total budget of the country (Katuzian, p.181). In his reign Reza Shah invested around 260 million dollars in railway and 260 million dollars in industries. His national interests led to his opposition against foreign loans. The cost of most plans was paid through taxes and oil income. Social results of his economical reformations were somehow more important for social and political development than economic development. For example labor force in Iran tripled during 1938-1941 AD (1317-1320). By the end of Reza Shah period about 700 thousand labors were employed in older industries such as carpet, fishing, and also new industries (Kamali, p.151). Reza Shah's reformations led to more urbanism and forming new classes such as labors, bureaucrats and so on in the country which were different from traditional classes belonging to the pre Reza Shah reformation period. These new forces and classes which mostly were formed by economical and industrial renovations have a share in political decisions of early Mohammad Reza Shah period. It should be mentioned that like Aligarshi Miji Reza Shah could make evolution in economical and industrial renovation by suitable economical programming and management. There was a difference in which Aligarshi Miji after industrial and economical investments gave them to the private part and paved the way for solidarity of private parts and forming Kartels and financial and commercial monopolies in order to continue Japan's industrial and economic development and gain penetration in neighbors for huge profits. In Iran although Reza Shah supported private part, it was not as powerful as Japan's private part. Reza Shah in addition restricted the economy to the government and after government's investment didn't give it to the private part. In Mohammad Reza Shah period the economical and industrial renovation and development had priority in the country's policies. He took the power after the coup of 28 mordad and for gaining legitimation among people continued territorial reformations and economical evolutions. Iranian government as the receiver of oil money was the main factor of industrial development. It performed this policy from different ways (Holiday, 1358, pp.159-160). 1. The government directly invested in industries. Based on the third program about 53.1% of the total industrial investment was belonged to the government. The government share increased to 38.8% in forth program and 40% in fifth. The increase in oil price in 1973 AD (1352) increased this ratio. As if in 1975 AD (1354) 60% of investments were belonged to the government. 2. The government supplied the private part for investments. Private banking was never powerful and couldn't act as industrial invest supplier. Tehran exchange was established in 1967 AD (1346) but it was not that much successful. The government supplied invests through special institutes. Four important institutes were as follows: industrial credit bank, industrial and mineral development bank, industrial guaranty box, and Iran development and investment bank. The national bank was the biggest bank of the country and gave credits to the country's industrial development. In this way the government supervised an industrial bourjois development. 3. Financial actions had an important role. Heavy taxes were put up on imports

to support internal productions. The government exempted the companies from taxes in their early stages of work and those invest commodities needed to import for building plants were also exempted from taxes. 4. Iran government was responsible of basic constructions for industrial development in building ways, ports, and power systems in which private invests had no share. Industrial boujois had also a role in private capitalism which had three parts: 1. Owners after territorial reformations, 2. Government employees who gathered capitals through savings and administrative corruption, 3. The market. In addition to the government and industrial boujois, foreign investment had also a role in the development of capitalism. The government developed investment in Iran by giving some grants such as custom and financial exemption and the right of transferring benefits the same as the money invested at first, and finally this led to the foreign companies desire for investing in Iran. Considering these actions toward industrial development, the industry faced a basic evolution in this period. From 15% yearly development in 1967-1975 AD (1344-1355) to 14.6% in 1976-1977 AD (1355-1356) and 9.6% in 1977-1978 AD (1356-1357). It was probably the highest rate among third world countries. As if it was two times of developing countries. The formation of impure fixed capital was even higher and it was about 18.4 in 1963-1977 AD (1342-1356) (Ghuran, p.483). Industry development led to the labor force increase in industries. In 1977 AD (1356) about 1.5 million persons were employed in industries and from the total of 250000 industrial institutes about 6000 institutes employed more than 10 persons. Not considering petrochemical part, other industrial units such as iron melting plants; increasing automobile, buses, trucks industries; machinery plants; electronic devices montage plants and so on. Automobile efficiency increased from 2300 in 1964 AD (1343) to 73000 automobiles, 1911 buses, and 29360 trucks in 1974-1975 AD (1353-1354) (Holiday, p.157). The other industrial numbers and statics show a little increase in small plants (with 10 to 49 labors). In 1953 AD (1332) the number of these plants were less than 1000 units but in 1977 AD (1356) they were more than 7000 units. There is the same increase in average plants (50 to 100 labors); i.e from 300 units to 830 units. Big plants (more than 5000 labors) have increased from 19 units to 159 units. The number of industrial labors in 1977 AD (1356) got to the 2.5 million persons. Thanks to the supportive rates and granted monopolies, the capital interest in 1970s AD (1350s) was 30% to 50% (Ghuran, p.484). Mohammad Reza Shah was stock between the need for private capitalist cooperation and the political need for national and popular government. Since 1975 AD (1354) he started a triple battle to gain people support as follows: battling with high prices, corruption, and fixing labors stock in industries. The objective of labor stocks was motivating them for staying in their workplaces. Battling with high prices led to catching and pecuniary punishing of about 8000 tradesmen and merchants. Battling with corruption caused some attacks to foreign companies such as " Grooman" weaponry company, British "shekrtit and lile" company and German "Zimens" company, and labor stocks in plants became a danger for private investment and deceased it. About 2 billion dollars of Iran private capitalists (i.e 10% of total oil income) was sent to foreign countries in the same year (Holiday, p.166). Economical evolution led to wide migration of villagers to the cities and forming labor class. Industrial development increased the number of labors and they became a rich class in the country who challenged industry and economy by their strikes. Pahlavi government wasn't able to stop them and they had an important role in Shah's overwhelming. Based on these explanations and statistics it is became clear that Mohammad Reza Shah's economical reformation can be to some extent compared with Miji period reformations. There is a difference in which Mohammad Reza Shah's renovation and reformation was mostly based on oil incomes and agriculture was peripheral so oil price updowns hurt the economy of the country but in Japan agriculture was continually considered by Aligarshi Miji all over their period. In addition Aligarshi Miji was based on internal capitals while Mohammad Reza Shah considered both

internal and foreign capitals in industrial investment which in turn along with the exit of foreign capitals the country faced economic problems.

6. CONCLUSION

According to what discussed above the renovation of Japan and Iran to achieving economic developments have some things in common but their economic development results are deferent. Japan could get economic development by renovating actions but in Iran although there were efforts in Ghajar and Pahlavi periods, they didn't lead to economic development. Actually successful renovation needs a series of suitable grounds for renovation. One of these suitable renovating grounds is the solidarity and consensus in renovation. This condition was different in Japan and Iran. Miji revolution in Japan was formed after two decades of Japan's seclusion from the world. A Japan was not informed of universal events. Japan gained these information through putting Japanese warships and finding the world priority over Japanese forces which led to oppositions to Shugun's government ruling about two centuries and making emperor ceremonial. The revival of the emperor's power a supporting him made a way toward a development equating western priority. Therefore Japanese different tribes prevent tribal conditions and gave their authority and financial sources to the government to have an important share in developing Japan. In addition to tribes, commercial companies also helped the government financially if it was needed. This solidarity and consensus in Japan was a suitable support for economic development. Therefore traditional and modern forces unlike their different interest and visions unified to get the economic development and considered national interests prior to their personal interests and in renovation and territorial reformation was by their government side. Such a condition led to suitable financial sources for government for forming suitable conditions for developing small industries and then enough sources for heavy industries a Japan's economic development. But in Iran the situation was different. As if renovation in Ghajar in Abbas Mirza period his renovation was opposed by those who saw their personal benefits in danger. Such condition led to Iran's defeat by Russia and England. In Amir Kabir period the condition was not that much suitable. athough Naser Aldin Shah personally chose Amir kabir, his financial and territorial renovations faced princess, court, land owners, England and Russia oppositions and he couldn't continue his renovations. Penetrating and powerful forces didn't like to consensus in getting economic development and supplying national interests. In Sepahsalar's period the situation was the same. If Amir Kabir believed in internal financial interests and economic independence, Sepahsalar focused on internal and foreign sources. He signed a contract with Reuter which caused a lot of oppositions and finally led to his deposition. Even though the opponents of his renovating financial actions such as battling with bribery took this opportunity for his depositions. Economical renovations continued in Reza Shah period. He could make a central government by repressing his opponents and had some economical actions in some industries deep structure connections but his actions in repressing powerful land owners and some of traditional classes such as clergymen and the tradesmen and other classes caused that they didn't support him against the confederates. In Mohammad Reza Shah period economical financial and territorial renovations were also increased by giving internal and foreign grants but his renovating actions like his father was along with repressing powerful clergymen, commercial and other forces which led to no consensus. Therefore this lack of consensus in Ghajar period caused by the lack of cooperation of powerful forces with renovating actions but in Pahlavi period it was caused by repressing these forces.

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ASSESSMENT OF THE MATURITY LEVEL OF IT FUNCTION IN A CROATIAN INSTITUTION

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ABSTRACT
Modern business companies are investing large sums in information and communication technology (ICT) due to the fact that various aspects of this highly dominant technology have a great impact on business and the competitive position of the company on the market. Use of IT is no longer adequate on operative level only; ICT investments are expected to yield better business processes, connected value chain in organizations and expanded business. Furthermore, IT organizations have to provide the quality of IT services related to the business requirements and to concentrate on customer oriented approach. In order to accomplish these goals, the companies must develop adequate IT management methods and establish systems of measurement, monitoring and evaluation of the effects of the ICT investments. It will raise the maturity level of IT function as well as to provide a higher business value of ICT investments. The purpose of the paper is to conduct an assessment of the current maturity level of IT function in the higher education institution in Croatia using the one of the most comprehensive good-practice framework such as CobIT (Control Objectives for Information and Related Technology). Furthermore, the paper presents whether the current role of ICT deliver business value to the institution and suggests improvements to the optimal level of informatization in accordance with the institution's objectives.
Keywords: ICT role in the business company/institution; maturity level of IT function; assessment the maturity level of IT function; CobIT framework.

1. INTRODUCTION
Companies invest high amounts into information and communication technology (ICT), since various aspects of this highly dominant technology have made a great impact on the competitive market positioning. However, in order to achieve a greater effectiveness of investing into ICT and the higher business value, it is necessary to apply adequate concepts and methods of managing ICT potentials and establish systems of measurement, monitoring and evaluation of the IT function within the company.
In general, the role of ICT within the business company can be defined as follows: ICT as a technological support for business, ICT as a service (process) partner, ICT as a strategic partner. The goal of modern companies is to improve the maturity of the IT function/department and achieve the role of ICT as strategic partner for the business. Accordingly, a specific focus on governance of enterprise IT (GEIT) has arisen over the last two decades and the business systems are increasingly making investments in GEIT and its relevant mechanisms such as IT Balanced Scorecard, CobIT 4.1/CobIT 5 (Haes, Grembergen,2015).
The implementation of these methods/ concepts/frameworks for managing the ICT potentials is often perceived as costly and complex, while its return in stakeholder value is difficult to measure in tangible (often financial) outcomes. A number of studies show that in business practice such methods are not applied enough, and the effect of ICT investments is not at a

satisfactory level. The purpose of the paper is to conduct an assessment of the current maturity level of IT function in the higher education institution using the one of the most comprehensive good-practice framework such as CobIT (Control Objectives for Information and Related Technology). Furthermore, the paper presents whether the current role of ICT provides business value to the institution and suggests improvements to the optimal level of informatization in accordance with the institution's objectives.

The research was conducted as an online survey. The questionnaire was mainly built according to the CobIT 4.1 Maturity Model as an IT governance tool that allows a company to assess *As-Is maturity level of IT function*, and define *To-Be maturity level* as well as gaps to fill. The maturity model allows a company to grade itself from nonexistent (0) to optimized (5) maturity level. According to the CobIT 4.1 process reference model that includes 34 IT processes, 15 representative IT processes were selected for this study. The business and IT managers within the higher education institution were invited to complete an online questionnaire. Case study includes one business company.

2. THE POSITIONING OF THE ROLE OF ICT IN THE BUSINESS COMPANY

High investments in ICT are not a guarantee of the better business benefits. For executive and IT management, it is important to understand and align strategic potential of ICT with the business needs of enterprises. Managing the maturity level of IT function is a precondition for a better use of its potentials. Depending on the governance of enterprise IT as well as business requirements for the ICT, information and communication technology can has a role of technical support or strategic partner within the business company (Selig, 2015). Table 1 shows three generic roles of the ICT within the business company: IT Infrastructure Management (ITIM), IT Service Management (ITSM) and IT Governance as a strategic business function (Salle, 2004). Modern IT management methods and standards raise the maturity level of IT function and improve the role of ICT within the company. To be a strategic partner to the business company means to coordinate the business strategy with the IT strategy and make that the base for adequate development of the information system (IS). The company should also improve its business strategy using new technology.

How to use the ICT potentials?	The maturity level of IT funtion	Standards
ICT has a role of technological infrastructure (ITIM)	The background, technical functions, ICT as a cost and technology support to the business	Technological standards CMMI ITIL
ICT has a role of the service partner oriented to customer (ITSM)	ICT as a service partner IT Service Quality	ITIL (ISO 20000) ITUP CMMI ISO 15408 ISO 13335 COBIT ISO 17799, ISO 27001-27005 PRINCE 2 PMBOK
ICT has a role of the strategic partner for the company (IT Governance)	ICT has a strategic role ICT as a driver of innovation and competitive advantage Risk Management	COBIT Val IT COSO Sarbanes-Oxley ISO 27001-27005 IT BSC

Table 1: Different roles of ICT within the business system (Authors)

Transfer from a lower level of maturity to a higher one requires the transformation of the IT function, implying changes to the *vision and strategy of the IT function, IT processes, IT staff knowledge and competences, technology and culture* (ISACA,CobIT 5, 2012). Gargallo-Castel and Galve-Górriz (2012) found the complementary effect between the usage the information and communication technology and organizational factors in the business companies. The increasing of the technology in the business companies is linked with the process of the strategic human resource management (Tohidi, 2011). Each higher level of maturity, despite the higher business risk, should result in a greater business value of IT as well as the higher motivation for IT staff and higher user/buyer satisfaction. Fig.1 shows how companies are progressing toward achieving IT-related goals and enterprise goals based on the main CobIT enablers.
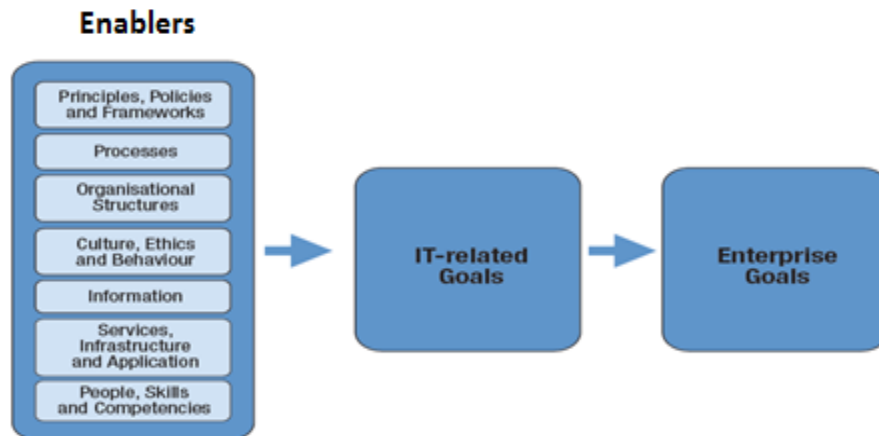
Figure 1: CobIT 5 Goals Cascade (Haes, Joshi, Grembergen, 2015)

3. COBIT FRAMEWORK
CobIT as the Governance framework offers the varoius management tools how to conduct the control and audit of IT function within the company. One of them is *business-focused and enables business companies the support related to aligning the business strategy with the IT strategy (shown in Fig 2).*
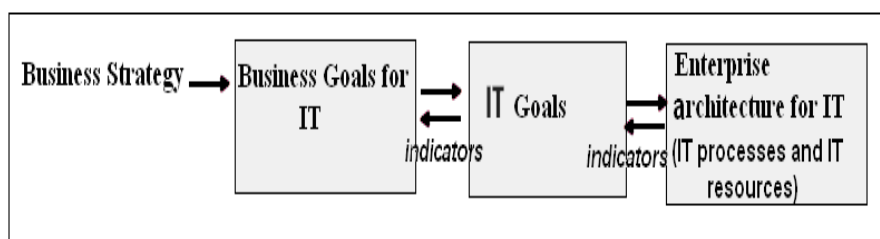
Figure 2: Business and IT goals alignment (ISACA, CobIT 4.1, 2007)

Furthermore, CobIT framework is also the process-oriented framework because it defines IT activities in the generic process model through four domains. These domains are: *Planning and organization, Acquisition and implementation, Delivery and support and Monitoring and evaluation.*

The effective IT Governance means to define organizational structures, processes, obligations aimed at realizing business values of IT and ensuring that ICT investments are coordinated and are supporting the business strategy. The entire example of the CobIT framework is shown on Fig. 3 (ITGI, CobIT 4.1, 2007). The process model is based on 4 domains of IT processes managing IT resources in order to ensure the information necessary for conducting business.
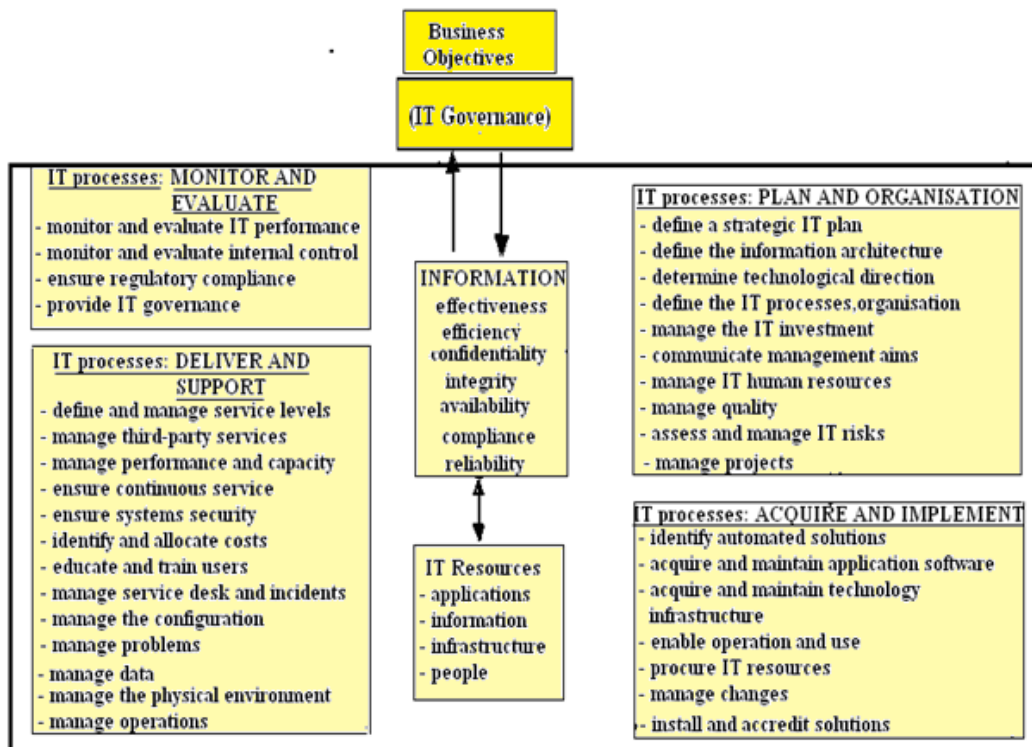
Figure 3: CobIT framework (ISACA, CobIT 4.1, 2007)

Furthermore, CobIT framework is also the control-based framework. A control procedure is built into every IT process. The control procedure is designed in order to check the coordination of processes with the defined goals, demands and standards, thus preventing unwanted events and initiating necessary corrections. Each IT process has control goals (a minimum of demands and results and the purpose wanting to be reached by installing the control procedure in the IT process). Each IT process also contains detailed control goals.
CobIT framework is also the measurement-driven framework. Each control procedure is connected to measurements aiding the management in assessing the current state and the level of maturity of IT activities. Performance goals and metrics are defined for each IT processes as follows:

    a) **The business level**: IT goals and metrics (measurements) are factors in successful realization of business goals (what the business expects from IT);

    b) **The IT level**: Process goals and metrics are factors for successful realization of IT goals;

    c) **The process level**: Goals of activities and metrics are factors for successful of processes and successful realization of process goals.

Additional main management guideline is the assessment of the maturity of each IT process using the Capability Maturity Models (CMM). This assessment is the basis of benchmarking in relation to other IT functions/organizations. The maturity levels are described on Fig. 4.
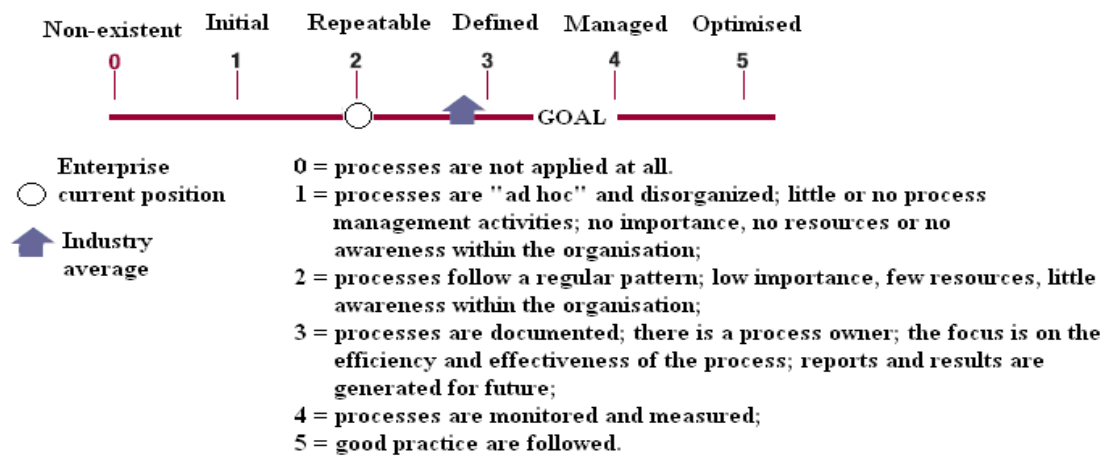
Figure 4: CobIT Maturity Model (ISACA, CobIT 4.1, 2007)

4. THE RESEARCH AND RESULTS

Case study includes one business company. The research was conducted as an online survey. The questionnaire was mainly built according to the CobIT 4.1 Maturity Model for the assessment of the maturity of IT function in the Croatian higher education institution. The business and IT managers within the higher education institution were invited to complete an online questionnaire. Participation was at the volunteering based.

The observed business institution of higher education is very similar to other higher education institutions in the Republic of Croatia according to the technical characteristics, management structures and methods as well as the implemented information systems. Therefore, it represents a good example of how to obtain general overview of the real maturity of the IT function within the higher education institutions. According to the CobIT 4.1 process reference model that includes 34 IT processes, 15 representative IT processes were selected for this study. Pederiva methodology (Pederiva, 2003) was used for assessing the maturity of IT function within the higher education institution. The questionnaire with statements was created according to the description for each maturity level (0-5) of the selected IT processes. What is a description of each maturity level for each IT process? The description of each maturity level for each IT process within the CobIT 4.1 framework is based on the following important criteria: *awareness of the application of IT process*, *work activities within the IT process*, *IT responsibilities, measurement and improvements of the IT process*. Each selected IT process within the study had an average of 20 to 30 statements, depending on the process to be monitored. Table 2 displays an example of the questionnaire with the statements that were created according to each maturity level description (0-5) for the CobIT process ***PO1 Define a strategic IT plan.***

	Maturity Level	STATEMENTS	NO	Usually NO	Usually YES	YES
		CobIT PO1 process: Define a strategic IT plan				
				Do you agree with the statement?		
	0	IT strategic planning is not performed			0,66	
	0	There is no management awareness that IT strategic planning is needed			0,66	
total number of statements	2	Σ (maturity level 0)	0	0	1,32	0
	1	The need for IT strategic planning is known			0,66	
	1	IT planning is performed on an as-needed basis				1
	1	IT strategic planning is periodically discussed at IT management meetings.		0,33		
	1	The alignment of business requirements and IT takes place reactively			0,66	
	1	The strategic risk position is identified informally		0,33		
total number of statements	5	Σ (maturity level 1):	0	0,66	1,32	1
	2	IT strategic planning is shared with business management on an as-needed basis.				1
	2	Updating of the IT plans occurs in response to requests by management.			0,66	
	2	Strategic decisions are driven on a project-by-project basis without strategy.	0			
	2	The risks and user benefits of major strategic decisions are recognised intuitively		0,33		
total number of statements	4	Σ ((maturity level 2):	0	0,33	0,66	1
	3	A policy defines when and how to perform IT strategic planning		0,33		
	3	IT strategic planning follows a structured approach that is documented		0,33		
	3	Employees in IT knows all the procedures related to IT strategic planning			0,66	
	3	the organization is willing to take the risk, invest in new technology	0			
	3	There is no process by which to examine the implementation of new technologies	0			
total number of statements	5	Σ (maturity level 3):	0	0,66	0,66	0
	4	IT strategic planning is standard practice	0			
	4	Management is able to monitor the IT strategic planning process, measure its effectiveness.		0,33		
	4	There is a well-defined process for determining the usage of internal and external resources required in system development and operations.		0,33		
	4	The IT strategy and organisationwide strategy are increasingly becoming more co-ordinated		0,33		
total number of statements	4	Σ (maturity level 4):	0	0,99	0	0
	5	IT strategic planning is a documented			0,66	
	5	Risk and value-added considerations are continuously updated in the IT strategic planning process.		0,33		
	5	Realistic long-range IT plans are developed and constantly updated to reflect changing technology and business-related developments.		0,33		
	5	Benchmarking is integrated with the strategy formulation process.	0			
	5	The strategic plan includes how new technology developments can drive the creation of new business capabilities and improve the competitive advantage of the organisation.		0,33		
total number of statements	5	Σ(maturity level 5):	0	0,99	0,66	0

*Table 2: Questionnaire with the statements created according to each maturity level description (0-5) for the CobIT process PO1 **Define a strategic IT plan** (Agnezović and Kozina, 2014)*

For each statement should answer whether you agree with it. There were four possible answers: *NO, Usually NO, Usually YES, YES*. The response **NO** has been added to 0, the response **Usually NO** 0.33, the response **Usually YES** 0.66 and the response **YES** 1. The statements are grouped according to the level of maturity. For each IT process individually set an average of 20 to 30 statements depending on the process to be monitored. The calculated overall maturity for the CobIT process PO1 - *Define a strategic IT plan* is shown in Table 3.

Maturity level for the Cobit process PO1 - Define a strategic IT plan					
Maturity Level	Sum of the numerical value for the statements	The number of statements for each of the maturity level	Compliance maturity level	Normalized values	Contribution
	(A)	(B)	C = (A/B)	D = (C/SumC)	E = (Razina zrelosti*D)
0	1,32	2	0,660	0,254	0,000
1	2,98	5	0,596	0,230	0,230
2	1,99	4	0,498	0,192	0,383
3	1,32	5	0,264	0,102	0,305
4	0,99	4	0,248	0,095	0,382
5	1,65	5	0,330	0,127	0,636
	Σ	25	2,595	1	
Overall level of maturity:					1,936

Table 3: The overall maturity for the CobIT process PO1 - Define a strategic IT plan

(Agnezović and Kozina, 2014)

According to the conducted research for the CobIT PO1 process -*Define a strategic IT plan* (shown on Table 3), we can see its overall maturity level: **1,936**. CobIT maturity model defines that maturity level 1 or 2 mainly focuses to the processes that are not documented processes and have defined responsibilities. In this business case, the process *Define a strategic IT plan*, assessed within the higher education institution, is not documented process and it is necessary to implement the improvements. The emphasis is on stronger alignment between IT strategy with the strategy of the institution as well as the involvement of business and IT management in the decision-making process related the strategy of informatization for the higher education institution. This method of data collection and analysis has been applied to all 15 of the CobIT selected process. The results of the maturity level of the analyzed IT processes are shown in Figure 5 and Table 4.
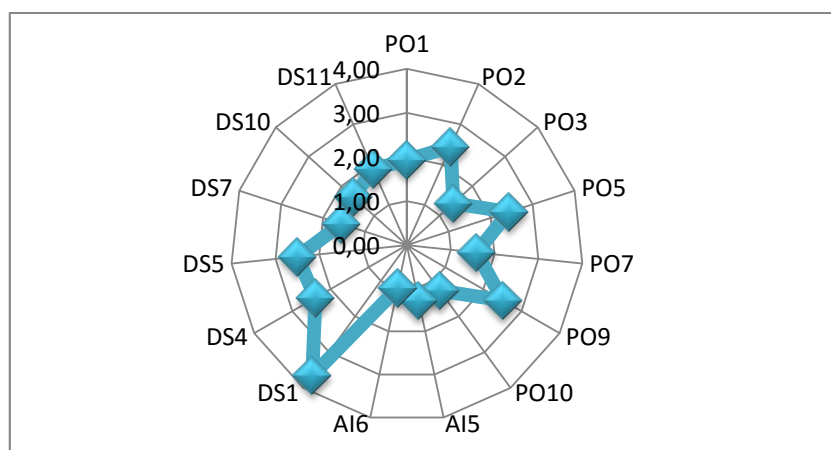
Figure 5: The maturity level of analyzed IT processes

(Agnezović and Kozina, 2014)

Maturity level of analyzed IT processes			
1.	PO1	Define a strategic IT plan	1,94
2.	PO2	Define the Information Architecture	2,44
3.	PO3	Determine Technological Direction	1,42
4.	PO5	Manage the IT investment	2,44
5.	PO7	Manage IT Human Resources	1,59
6.	PO9	Assess and manage IT Risks	2,52
7.	PO10	Manage projects	1,28
8.	AI5	Procure IT resources	1,29
9.	AI6	Manage Changes	0,99
10.	DS1	Define and manage Service Levels	3,65
11.	DS4	Ensure Continuous Service	2,40
12.	DS5	Ensure Systems Security	2,50
13.	DS7	Educate and Train Users	1,56
14.	DS10	Manage Problems	1,64
15.	DS11	Manage Data	1,88
Overall maturity for IT function:			**1,97**

*Table 4: Results of the assessed maturity level of analyzed IT processes
(Agnezović and Kozina, 2014)*

Furthermore, it is also necessary to improve the following processes:

a) *PO3 (Determine Technological Direction):* the institution must continually introduce improvements of existing technology and know how to manage risks of the new technology.

b) *PO5 (Manage the IT Investment)*: the institution should apply the modern method for the assessment of the benefits of ICT investments and raise awareness of the importance of this process.

c) *PO7 (Manage IT Human resources)*: it is necessary to carry out continuous training of IT staff and regularly monitor business changes and accordingly to employ and improve existing IT staff. This institution has a poor communication between the employees and there is no well-defined responsibilities. Usage of the good quality management system has positive impact on the human resource management within IT function.

d) The processes such as *PO9 (Manage IT Risks)* and *PO10* (*Manage Project)* should be improved, standardized and documented, continuously evaluated.

e) *AI5 (Procure IT resources)*: the institution should introduce documented business policies and all procedures related to procurement of the IT resources.

f) *AI6 (Manage Changes):* IT change should be integrated with all other business changes and implement the standard processes of the change management.

g) Furthermore, it is important to improve the education of users (DS7) as well as the problem management (DS10).

5. CONSLUSION

According to the results of the research it can be concluded that the overall maturity of the IT function within the business system of higher education is between levels 1 and 2. What does it mean? This means that IT processes are, as enablers for achieving IT-related goals and

enterprise goals, poorly structured and documented without defined responsibilities. The role of ICT within the observed institution is located between the level of ITIM and the level of ITSM (shown in Table 1) and requires improving the maturity of IT functions (*IT processes and other enablers such as organizational structure, services, infrastructure and applications, people, skills, culture ,ethics, policies, information*). If the needs of the business company for ICT are higher than the level of maturity of IT functions within the company, we have an ICT deficit. On the other hand, if the needs of the business company for ICT are less than the level of maturity of the IT function, we have an ICT surplus. For each business company (institution) is optimal when the business requirements for ICT (ICT role) are aligned with the level of its maturity. The results of this research show that the role of ICT in the higher education institution needs to be improved as well as the maturity level of IT function within this institution and all of its important enablers.

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INVESTIGATING A QUALITY OF SERVICES IN THE PUBLIC SECTOR: EVIDENCE FROM NORTHERN CYPRUS

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ABSTRACT
The current study aims is to investigate the service quality delivered by public enterprises in Turkish Republic of Northern Cyprus (TRNC) and level of customer satisfaction as well as word of mouth (WOM) in return. A convenient sampling method has been employed by using the service quality (SERVQUAL) instrument which is used to gather customers' excellent public service and compared those with their perceptions of the service delivered by Public Sectors which are operating in TRNC. Results of the study revealed that dimensions of reliability and assurance exert positively significant effects on Customer Satisfaction in the public sector. Moreover, the level of Customer Satisfaction from public services exerts positively significant effect on positive word of mouth. Finally, with the light of findings, the current study will also attempt to provide some recommendations about possible quality reforms and rearrangements to the policy makers for the public enterprises in TRNC.
Keywords: Public Sector, Service Quality, SERVQUAL, Northern Cyprus.

1. INTRODUCTION

The primary goal of the businesses is to reach high profit rates by providing high quality goods/services to the customers. Satisfying the expectations and needs of the customers is important in todays' dynamic business atmosphere since satisfied customer enhances customer loyalty (Wilson et al., 2008) by performing repeated purchase intention (Agbor, 2011).

It could be indicated that quality of service has become a vital dimension of customer satisfaction. The term of "consumer loyalty" just characterized as a man's approbation or frustration when contrasting their conclusions of administrations got and their unique administration desires (Kotler & Keller, 2006; Liao, 2012). Understanding customer satisfaction is crucial for the organizations since it provides a deep insight about the values which are important for the customers and how this might changes among different types of people and thus where measurements should be taken and how these modifications could improve delivery of services (Thıjs, 2011). Thıjs (2011) also stated that measurement of customer satisfaction would create a better understanding for the organizations on several issues such as the main factors behind the reasons of satisfaction or dissatisfaction with a service experience and what an organization can control and cannot control. Moreover, Lewis (1994) expressed that perceived service quality is a consumer judgment which occurs after comparing the expectations of consumers from services with their perceptions of actual service performance. According to Parsuruman et. al. (1988) service quality is one of the important actors which has a significant impact to determine business survival and competitiveness in the market and it could be conceptually identified as an extend to which customer perceptions of service meet and/or exceed their expectations (Zeithaml et. al. 1990).

To be more precise, if expectations of the customers are greater than the performance, then perceived quality would be less than the satisfactory thus customer dissatisfaction occurs (Şafaklı, 2007). It could be also indicated that quality of service is important aspect of customers' perception since it rooted from customer satisfaction (Kumasey, 2014). According to Strydom, Tooste, Cant (2000), customer perception refers to a process of receiving organizing and assigning meaning to information. Lewis (1989) indicated that customer perceives services by relying their quality and level of satisfaction that they attained. Bitner (1990) also mentioned that customer perceptions about services quality have an effect on consumer behavior and intention (Dutta & Dutta, 2009).

Dutta & Dutta (2009) expressed that administration supplier ought to be commonplace about how clients could see the administration as "quality administration" and convey euphoric feeling. Zeithaml & Bitner (2003) said that administration supplier must focus on the variables which may impact the client discernment, parts of administration quality and fulfillment keeping in mind the end goal to rank on aggressive edge and create perceptual distinction which may lead clients to see benefit as quality and perform positive verbal correspondence about the conveyed administration if all these thought of it as could be shown that perception is one of the components which influences consumer satisfaction.

The term of word of mouth is also one of the key consequences of customer satisfaction. As indicated by Kitapci et. al. (2014) WOM could go about as a limited time device to impart administration quality to other people. Anderson (1998) defined the term of WOM as an informal communication among parties which might be related with the assessments made about the product-related performances. Furthermore, Lang (2013) also expressed that service quality is one of the most important element of both customer satisfaction and word of mouth communication. WOM could be either positive in terms of recommendations to others or could be negative in terms of private negative grievances. Suryani & Hendryani (2015) expressed stated that as a result of motive of recommendations which carried by individuals as a form of communication of mouth is one of the crucial actors that effects person's decision to buy.

It could be stated that customers' degree of satisfaction or dissatisfaction rooted from experiences of customers is one of the drivers of WOM (Anderson, 1998). Furthermore, Lang (2011) stated that customer satisfaction is one of the most important antecedents of WOM while other antecedents could be named as customer commitment, and trust. Studies revealed that satisfied customers are tend to perform positive WOM (PWOM) (Ranawera & Prabhu ,2003; Derbaix & Vanhamme, 2003) whereas, dissatisfied customers have more tendency to perform negative WOM (NWOM) (Asugman,1998). Surprisingly, Parthasarathy (2010) also mentioned that satisfied customers might also engage with NWOM about the products that they used. To be more exact, studies likewise uncovered that rather than specialized nature of administrations, utilitarian nature of administrations have an impact on forming WOM (Suryani & Hendryani, 2015) with the consumer loyalty plays an essential interceding role (Teo & Souter, 2012) which related with steadfastness and WOM (Shao-Chang Li, 2013).

Şafaklı (2007) and Heizer & Render (1999) described the term of "service" as an economic activity that generally produces intangible products such as education, food, transportation, insurance, trade, real estate, government and maintenance like occupations. Services have different characteristics compared with goods particularly by being inseparable of production from "consumption, variability; heterogeneity and flimsiness are main specifications of services which distinguish them from goods" (Ghobadian et al., 1994, pp. 44-46).

Teicher et al. (2002) and Kumasey (2014) mentioned that client needs and needs may change regarding taxpayer supported organizations and their quality prerequisites. Also, it could be likewise communicated that when all is said in done terms, endeavors on administration quality arrangements openly area is low and difficult to assess results and much more prominent weight from open and weight make the case hard to oversee (Kumasey, 2014).

The importance of the public services should also stated for the current study. According to Kumasey (2014) public services play an important role at shaping the formulation and practising policies and programs for the common good of its citizents. As indicated by Kumasey (2014) public sector is likewise vital for the administration's position and if there should arise an occurrence of any disappointment of actualizing arrangements productively and reasonably may offer mischief to the strength of the goverment. Barbu & Dimian (2012) communicated the significance of government/public establishment on financial advancement by showing that the productivity of its operations are extremely essential and presence of inordinate organization, overregulation, defilement, deceitfulness and absence of straightforwardness while managing open contracts and over the top political reliance on legal framework causes significant monetary expenses to organizations and ease off the monetary advancement of the country. Therefore, the main of the current study is to analyze the customer satisfaction about the provided service quality by Public Enterprises in TRNC by employing SERVQUAL Approach. Moreover, with the light of the findings it is important to give suggestions about the possible quality reforms and re-arrangements to the policy-makers for the public enterprises in TRNC. Isochenko (2012) stated that many Turkish Cypriots are unwilling to be employed in private sector due to benefits provided by public sector to civil servants such as thirteenth salary, reduced working hours, job security, 45 days of annual sick leave, 42 paid holidays, and lastly generous pension packages. Studies also revealed that reduced working hours might create opportunities to civil servants also to engage with supplementary economic activities which are not documented therefore not subject for taxation issues (Isochenko, 2012). It could be stated 31,276 employees are available in the workforce that are working for public enterprises which constitutes %30,3 of the workforce of TRNC (SPO, 2014) .

The rest of the current study will structured as follows. Literature review will be mentioned in Section 2. In Section 3 Methodology and Measures, Sample and Hypotheses of the current study will be mentioned. Finally in Section 4 Findings and Conclusion will be indicated and suggestions to policy implications will be mentioned for the policy makers.

2. LITERATURE REVIEW

Katırcıoğlu et. al. (2005) studied service quality perceptions of Greek Cypriot bank customers by employing SERVQUAL model. The scholars also extended a study by examining the relationship among service quality, customer satisfaction and positive WOM. Authors found that expectations of bank customers were not met where the largest gap occurred on responsiveness and empathy dimensions whereas reliability items had the highest impact on customer satisfaction which in turn had a statistically significant influence on the positive WOM.

Parasuruman et. al. (1985) argued that service quality is a function of the difference which occurs between customer perception and actual performance along quality dimensions. Parasuruman and his colleagues proposed an administration quality model and named it as SERVQUAL which fundamentally depends on crevice investigation. As indicated by the model gap 5 is an administration quality setback which showed by clients and researchers additionally recommended that a crevice 1-4 contributes for gap 5.

SERVQUAL model was applied to evaluate perceived service quality for several sectors by various authors such as in banking sector by Katırcıoğlu et. al. (2005), Yavaş et. al. (2005), Brahmbhatt & Panelia (2008), hospitality sector by Nadiri & Hussain (2005), public services by Anderson (1995), Wisnievski (2001), Baumann (2006), Donelly et. al. (2006), Ahmet et. al. (2010), Gera (2011), Kumasey (2014), Kitapçı et. al. (2014), Anbori et. al. (2010), Yeşilada & Direktör (2010).

Anderson (1995) constructs a study which aimed to measure the quality of service provided by a public pubic universities' health clinic by employing SERVQUAL Model. She found that patients were dissatisfied with five dimensions of SERVQUAL and highest dissatisfaction was exhibited with the assurance.

Wisniewski (2001) performed a study to evaluate customer satisfaction within the public sector across a range of Scottish Council Services. His findings stated that the gap scores particularly on tangibles and reliability had negative gaps which indicate that customer expectations were not met whereas responsiveness and assurance were positive which means that customer expectations were actually exceeded by the service provided.

Baumann et. al. (2006) has carried out a research and his research revealed that effectiveness of service provider's attitude and empathy of staff leads to a higher degree of satisfaction and as a result customers suggest to other customers to use this service.

Donelly et. al. (2006) performed a study to investigate the use of SERVQUAL way to deal with access the nature of administration gave by police compels in Strathclyde police headquarters in Scotland. The study likewise incorporates parallel SERVQUAL review to cops to look at how well the power comprehends its client desires and how well its interior procedure supporting the conveyed top policing administrations. The study uncovered that there is a noteworthy deficiency in meeting client desires however cops are prone to comprehension the desires of the clients. Also, holes happened at formulizing the administration quality benchmarks in the power's capacity to meet set up principles and its capacity to convey the level of administration it guarantees to clients.

Brahmbhatt & Panelia (2008) have conducted a study to evaluate service quality and customer satisfaction among private, public and foreign banks by using SERVQUAL model. Their study results revealed that service quality is at the root of customer satisfaction and also found banks in public sector, and private sector have more service quality gaps when compared with foreign banks. Moreover their findings also indicated on tangibility public sector banks have less quality gaps.

Ahmed et. al. (2010) conducted a study to examine relationship between customer satisfactions, service quality and repurchase intention for telecom sector in Pakistan. Findings of the study were supporting that there is a positive relationship between service quality and satisfaction of the customer and findings also revealed that there is a positive relationship between service quality retention and future retention of the customers.

Anbori et. al. (2010) suggested a linkage between patient satisfaction and service quality. Study revealed that empathy and assurance which mainly represent word of mouth communication had a strong effect on patients desire to revisit the hospital.

Furthermore, Yeşilada & Direktör (2010) conducted a study which aimed to examine the level of customer satisfaction for the public healthcare services in TRNC. Results indicated that while all three dimensions are somewhat have an effect on patients' satisfaction in public hospitals, have no significant effect on satisfaction.

Gera (2011) also carried out study to look at relationship among administration quality, esteem, consumer loyalty and behavioral expectations in an open area bank in India. He found that administration quality has an altogether impacting consumer loyalty and worth perceptions.

Kumasey (2014) performed a study which aimed to measure the quality and customer satisfaction for Ghanian Public Bank by practicing SERVQUAL model. His findings were supporting the statement of service quality significantly and positively related with customer satisfaction and customer perception and expectation is also significantly and positively related with customer satisfaction.

Kitapci et. al. (2014) has conducted a research based on Public Healthcare Industry in Turkey and found that customer satisfaction; WOM and Repurchase Intentions (RI) are significantly related to each other.

3. METHODOLOGY

3.1 Instrument

The questionnaire which is the revised instrument of Parasuraman et al. (1988) used in the current study is consisted of three parts. Part A covers the demographic profile of the respondents including gender, age, marital status, occupations, nationality, and education level. Part B includes the expectations and perceptions of respondents regarding the services provided by public enterprises in TRNC by using a seven point Likert Scale ranging from 1="Strongly Agree" to 7="Strongly Disagree" . In Part C contains questions to measure the level of customer satisfaction on public enterprises again by using a seven point Likert Scale ranging from 1="Strongly Agree" to 7= "Strongly Disagree".

3.2.Sample

As a sample size number of population was determined as 350 and "convenient sampling method" was used for the current study. On the whole, 100 of the respondents were not fulfilling the criteria needed to fill out the questionnaire and proved as "useless for under consideration". The response rate was determined as 71% since 250 units were collected back as a "complete and useable form".

The required data collected during June to August 2015 from "willing respondent". A "willing respondent" in this research includes public sector customers who have made use of public services including tax, immigration, deed, social security and other public offices.

3.3.Hypothesis

As previously stated the current study concentrates on the effect of customer satisfaction and WOM regarding the quality of service provided by the public enterprises in TRNC by employing SERVQUAL model. The following hypotheses which consistent with introduction, literature review would provide scope and depth of the study.

H_1: SERVQUAL dimensions exert positively significant effect on Customer Satisfaction in public sector.

H_2: Level of Customer Satisfaction from public services exerts positively significant effect on word of mouth.

4. FINDINGS AND DISCUSSION

Table 1. shows that out of the 250 participants, 143 (57.2 %) of the respondents were female and 107 (42.8 %) were male. As for the level of age of respondents, 93 (37.2 %) were between the ages of 31-40. As for the marital status, the 149 (59.6 %) of respondents indicated as married. A total of 109 (43.6 %) of public service customers were engaged in private sector. On the other hand, out of the total sample size of 250 respondents, 229 (91.6 %) were TRNC citizens. As for the monthly income level almost half of the respondents, 131 (52.4 %), salaries were 2700 Turkish Lira and more. Furthermore, in terms of the education level, 112 (44.8 %) were university graduates. A total of 108 (43.2 %) public service customers were living in Nicosia.

	Public Services Customers N=250	
	Frequency	**%**
Age:		
Less than 20	6	2.4
21 – 30	81	32.4
31 – 40	93	37.2
41 – 50	37	14.8
50 and above	33	13.2
Total	250	100
Gender:		
Female	143	57.2
Male	107	42.8
Total	250	100
Marital Status :		
Single	82	32.8
Others	19	7.6
Married	149	59.6
Total	250	100.0
Occupation:		
Civil Servant	43	17.2
Retired	23	9.2
Student	33	13.2
Private Sector	109	43.6
Self-employed	42	16.8
Total:	250	100.0
Nationality:		
Others	3	1.2
TRNC	229	91.6
TR	18	7.2
Total	250	100.0
Monthly Income Level:		
1500-1800 TL	56	22.4
1800-2100 TL	23	9.2
2100-2400 TL	22	8.8
2400-2700 TL	16	6.4
2700 + TL	131	52.4
Total	250	100.0
Education :		
Primary School	1	.4
Secondary School	2	0.8
High School	51	20.4
University Graduate	112	44.8
Post Graduate	49	19.
Phd	35	14.8
Total	250	100.0
Area of Living:		
Iskele	13	5.2
Kyrenia	28	11.2
Guzelyurt	7	2.8
Nicosia	108	43.2
Famagusta	93	37.2
Total	250	100

Table 1. - Demographic Distribution of the Data.

Table 2. shows the grand mean scores for the five SERVQUAL dimensions indicated in the study. Grand mean scores have been given for public service customers on the basis of expectations (E), perceptions (P) and gap scores (G).

When gap scores are evaluated, the numbers denotes that expectations of customers are greater than a perception which exerts positive significant scores for five dimensions.

SERVQUAL Dimensions	E	P	G
Tangibles	5.6250	4.3397	1.2853
Reliability	6.1464	4.3953	1.7511
Responsiveness	5.6057	4.4231	1.1826
Assurance	6.2681	4.5940	1.6741
Empathy	4.9764	4.0256	0.9508

Table 2. - Grand Mean Scores of Public Service Customers for Five SERVQUAL Items.
NOTE: 'E' represents expectations , 'P' represents perceptions and 'G' as gap scores.

Figure 1. illustrates the positive effects of the SERVQUAL dimensions on the public service customers for the prediction of relationship between overall satisfaction and the strength on positive word of mouth (PWOM). The hypothesized relationship for customers indicated that reliability and assurance have a positive effect on overall customer satisfaction and after in relation with this, also positive word of mouth about the public sector.
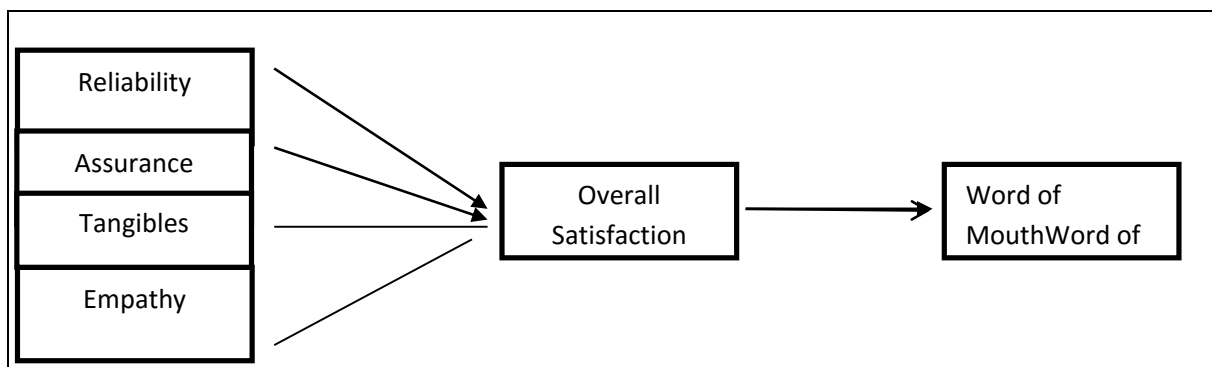
Figure 1. - SERVQUAL Dimensions, Overall Customer Satisfaction and Word of Mouth Hypothesized Relations.
NOTE: Proved connection ⟶ , Unproved connection �

Table 3. gives the regression results for Model 1 and Model 2. The Model 1 is a multiple regression model of estimating the effects of SERVQUAL items on overall satisfaction level of public services customers. In Model 1 of Table III it is shown that all of the service quality items are statistically significant for overall satisfaction of public services customers. 53% of variation in overall satisfaction is explained by Model 1. In Model 2 of Table III, it is clear there is an effect of overall satisfaction of customers on their positive word of mouth and also it is statically significant. 69% of variation explained by Model 2.

Variables	Coeff.	t-statistics
Model 1: $S = b_0 + b_1(T) + b_2(R) + b_3(\text{Re}\,ss) + b_4(A) + b_5(E) + e_t$		
b_0	0.455	1.085***
b_1	0.139	1.069***
b_2	0.524	3.429*
b_3	-0.336	-1.661
b_4	0.579	2.500*
b_5	-0.056	-0.274
R^2	0.528	
$F-statistics$	23.678*	
Model 2: $PWM = b_0 + b_1(S)$		
b_0	0.853	3.791*
b_1	0.840	18.566*
R^2	0.687	
$F-statistics$	344.712*	

Table 3. Overall Satisfaction and Positive Word-of-Mouth Regression Models.
*Notes: *Significant at 1%, **Significant at 5%, ***Significant at 10%.*

According to the factor analysis, Table 4. shows that: all service quality dimensions are statistically significant except one factor (P20) as follows. For the reliability analysis, the alpha coefficient for the total scale was 0.924, 0.951, 0.875, 0.937 and 0.901 respectively for the dimensions of tangibles, reliability, responsiveness, assurance and empathy. The reliability coefficients are above 0.85 so they are sufficient.

	Initial	Extraction	Cronbach Alpha
Tangibles			
P1.XYZ public enterprise has modern looking equipment.	1.000	0.776	
P2.XYZ public enterprise `s physical facilities are visually appealing.	1.000	0.850	
P3.XYZ public enterprise `s reception desk employees are neat appearing.	1.000	0.623	0.924
P4. Materials associated with the service are visually appealing at XYZ public enterprises.	1.000	0.835	
Reliability			
P.5 When XYZ public enterprise promises to do something by a certain time, it does so.	1.000	0.763	
P.6 When you have a problem, XYZ public enterprise shows a sincere interest in solving it.	1.000	0.763	
P.7 XYZ public enterprise performs the service right the first time.	1.000	0.827	0.951
P.8 XYZ public enterprise provides its service at the time it promises to do so.	1.000	0.757	
P.9 XYZ public enterprise insists on error free records.	1.000	0.787	
Responsiveness			
P.10 Employees in XYZ public enterprise tell you exactly when the services will performed.	1.000	0.778	
P.11 Employees in XYZ public enterprise give you prompt service.	1.000	0.796	
P.12 Employees in XYZ public enterprise are always willing to help you.	1.000	0.618	0.875
P.13 Employees in XYZ public enterprise are never to busy to respond to your request.	1.000	0.816	
Assurance			

(continued below / next page)

P.14 The behavior of employees in XYZ public enterprise instills confidence in you.	1.000	0.878	
P.15 You feel safe in your transactions with XYZ public enterprises.	1.000	0.801	
P.16 Employees in XYZ public sector area consistently our teous with you.	1.000	0.820	0.937
P.17 Employees in XYZ public enterprise have the knowledge to answer your questions.	1.000	0.762	
Empathy			
P.18 XYZ public enterprise gives you individual attention.	1.000	0.817	
P.19 XYZ public enterprise has operating hours convenient to all its customers.	1.000	0.849	
P.20 XYZ public enterprise has employees who give you personal attention.	1.000	0.355	0.901
P.21 XYZ public enterprise has your best interest at heart.	1.000	0.722	
P.22 The employees of XYZ public enterprise understand your specific needs.	1.000	0.768	

Table 4. - Factor Analyse Results of the Public Sectors Where, Overall Cronbach Alpha Coefficient is 0.974 and the p-value=0.000.

Table 5. shows the first three components have eigen-values greater than one and the others are less than one. Thus the model important components are P1, P2 and P3.

Component	Initial Eigenvalues	
	Total	% of Variance
P1	14.470	65.773
P2	1.251	5.688
P3	1.040	4.726
P4	0.885	4.023
P5	0.621	2.821

Table 5. - Principal Components Analysis for the Dimensions.

5. CONCLUSION

The main aim of the study is to measure the service quality provided by the public enterprises in TRNC by employing Parasuruman et al. (1988) SERVQUAL Model and Seven- Point Likert Scale. Results of factor analysis confirmed the suitability of the instrument in the current research study. Results also expressed that, expectations of the respondents regarding the quality of service (E) which provided by the public enterprises was higher than the perceived quality of services provided (P) which indicates customers are dissatisfied with the quality of the services provided by the public enterprises in TRNC.

Regression results suggest that only dimensions of reliability and assurance have exerted positively significant effects on the overall customer satisfaction in public sector of TRNC. Therefore, H_1 (SERVQUAL dimensions exert positively significant effect on Customer Satisfaction in public sector) should be rejected. Furthermore, regression results suggest that level of customer satisfaction from public services exerts positively significant effect on word of mouth so H_2 (Level of Customer Satisfaction from public services exerts positively significant effect on word of mouth) should be accepted.

Managerial Implications

Although there are numerous factors might influence service excellence the most important factor could be stated as "employee-customer relationship." Thus, TRNC government might pay considerable attention to employee training programs which should be designed to improve interpersonal communication and of shaping attitude to be more customer- oriented to create better understanding about the nature of service culture, service excellence and satisfying the need of customized service. Moreover, with the help of the training program employees will have more constructive view which could enable them to be more empathic while engaging with service provision. Therefore, providing a service with altered failures would increase chances of removing the gap between expectations of the customers about service to be provided and perceptions of the customer about the provided service.

Aesthetics and contemporary image are important determinants that shape the impressions of customers towards to corporate image which could be fundamental indicator of the service quality. To be more precise, overall impressions shape customer opinions about quality of service. Therefore, policy-makers in TRNC could supply a financial aid to its enterprises to renew office supplies and furniture, may organize restoration work for the building, and also print some brochures to give some detailed information about the provided services.

Changes of the nature of providing services could also play important role at overall customer satisfaction as most of the service providers prefer to serve their services by ICT. As previously indicated internal consistency for serving 24 hours has the lowest internal consistency and one reason behind of it could be the expectations of e-public services of TRNC citizen's. Therefore, TRNC government may also engage with investments to construct user friendly web sites to the public enterprises and hire a technical staff member to each enterprise to monitor the demands of the citizen's and satisfy their needs. In other words, e-government would allow public enterprises to be more accessible.

Limitations and Future of the Study

As previously stated that SERVQUAL model has applied for the current study to measure service quality which provided by the public enterprises in TRNC. The planned sample size for the present study was 350 however respondents found employed questionnaire was quite long and researcher has also spent time to explain some of the questions in the questionnaire to reduce the risk of misunderstanding. To be more precise employed model was quite time consuming both for respondents and researcher**.** According to Zeithaml and Bitner (1996) contact employees or front-line employees represent the enterprise therefore, might have a

direct effect on customer satisfaction Moreover, it could be indicated that front- line employees in service sector might function either the advantage or disadvantage of the enterprises (Munhurrun et. al. 2010). Munhurrun et. al. (2010) mentioned that front-line employees also well-informed about the way in which the services are provided. Moreover, Munhurrun et al. (2010) also stated that customers construct their impressions of the organization's level regarding the service provision by relying their encounters with front-line employees. Thus front-line employees in service sector might be helpful to supply information for improving the quality of service provided. It could be expressed that public enterprises which are operating in Northern Cyprus need to restructure their corporate image and identify new quality standards for service excellence. Therefore, government may conduct SERVQUAL questionnaire model to customers sector employees and a may also draw attention to Front-Line Employees(FLE) in order to investigate how closely customer expectations of service and Front –Line Employees' perceptions of customer expectations match thus contribute to restructuring image of enterprise and determining the new quality standards for service excellent and also reduce the gap between expectations and perceptions.

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NEOLIBERALISATION AT THE LOCAL SCALE: CONTENT ANALYSIS OF THE TEXTS ABOUT NEOLIBERALISATION OF THE LOCAL COMMUNITIES PUBLISHED IN ANTIPODE JOURNAL, 2010-2013

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ABSTRACT

The paper represents a study of papers published in Antipode – A Radical Journal of Geography, from 2010 to 2013, in which, as to the author's assessment, a highly critical stance towards contemporary neoliberalism exists. After the introductory remarks describing the nature of neoliberalism and its definitions, relevant sources regarding the definitions of neoliberalism and its present existing forms were consulted and pointed out. The intent of this paper is to present what kind of critical stance was present in the texts published in Antipode in the period of four years (2010-2013). The discourse that was used to describe, characterize and critically judge the contemporary relationship of neoliberalism towards local communities was identified and analyzed. The basic content analysis of the selected texts from Antipode was made. Emphasizing the importance of scale in studying the processes of globalization and neoliberalisation (among others), the main topics that were studied in the research of neoliberalisation at the local level were: gentrification and privatization of former public space, privatization of local resources, the influence of neoliberalism on the immigrants in specific communities, and the resistance to neoliberalisation through the social protests in local communities. The focus of the analysis was on the words used to describe neoliberalisation of the aforementioned areas of social life and the context in which those words were used, through the analysis of full citations. The analysis has shown that neoliberalisation at the local scale has its specific occurrences, forms, subjects, and objects. The pressure from the private capital is transforming the local communities, and concurrently causing resistance that is taking various forms.

Keywords: neoliberalisation, Antipode, local communities, public space, privatization, urban resistance movements.

1. INTRODUCTION: DEFINITIONS AND THEORETICAL FRAMEWORK

There are dozens of different definitions of neoliberalism. Pointing out just a couple of them, we can state the following:

1. Neoliberalism is a project primarily aimed at freeing capital from the constraints imposed by these "embedded liberalisms", and more directly as a process ultimately focused on restoring the class power of economic elites. (Harvey, 2005: 11);
2. Neoliberalism names an approach to governing capitalism that emphasizes liberalizing markets and making market competition the basis of economic coordination, social distribution, and personal motivation. It recalls and reworks the 18th and 19th century liberal market ideals of economists such as Adam Smith and David Ricardo. And yet it is new – hence the 'neo' – insofar as it comes after and actively repudiates the

interventionist state and redistributive ideals of welfare-state liberalism in the 20th century. (Sparke, 2013: 1);

3. Neoliberalism is a simple withdrawal of the state from markets and society via trade liberalization, privatization, reduced entitlements, and government deregulation. (Hess, 2011: 1056);

4. Neoliberalism is an ideological hegemonic project, selectively rooted in the free market and non-interventionist state philosophy of classical liberalism, and internationally propagated by think tanks and intellectuals like Hayek and Friedman in their assault on "egalitarian liberalism". (Peck and Tickell, 2007);

5. Neoliberalism is a specific policy and program—a process of "creative destruction" that aims to replace the national institutional arrangements and political compromises of Keynesian-Fordism with a "new infrastructure for market-oriented economic growth" set within a globalizing and financializing economy. (Brenner and Theodore, 2002: 362);

6. Neoliberalism is as a form of governmentality, which follows Foucauldian ideas in emphasizing how neoliberal governmental power operates in multiple sites and scales from the state down to the personal level "not through imposition or repression but rather through cultivating the conditions in which non-sovereign subjects are constituted" as entrepreneurial, self-reliant, rational-economic actors (Hart, 2004: 92).

7. "Neoliberalism defines a certain existential norm…. This norm enjoins everyone to live in a world of generalized competition; it calls upon wage-earning classes and populations to engage in economic struggle against one another; it aligns social relations with the model of the market; it promotes the justification of ever greater inequalities; it even transforms the individual, now called on to conceive and conduct him- or herself as an enterprise. For more than a third of a century, this existential norm has presided over public policy, governed global economic relations, transformed society, and reshaped subjectivity." (Dardot and Laval, 2013: 3);

8. Neoliberalism seeks to disaggregate communities into discrete units, each with an economic value. (Narsiah, 2010: 390).

9. Amid widespread privatization, cuts to public expenditure, and reduced social transfer programs, violence has become both a conduit of societal bigotry and an attempt by beleaguered states to regain their footing (Goldberg, 2009). Violence from above comes attendant to both "roll-back" neoliberalism, where regulatory transformation sees the state narrowly concerned with expanding markets to the peril of social provisions, and "roll-out" neoliberalism which concentrates on disciplining and containment of those marginalized by earlier stages of neoliberalization (Peck and Tickell, 2002). (Springer, 2011: 549).

When discussing the possible answers to the question whether the neoliberalism has completely taken over the world and in what ways, we always have to consider the matter of scale and the categories that we are referring to, since a positive development in one scale/category at the same time can mean a negative development in some other scale/category. For example, the fact that many Asian states are experiencing high growth rates and have managed to pull hundreds of millions of people from the extreme poverty does not mean that the workers in these states are not exploited. Concurrently, the fact that European and North American workers generally experience better working conditions and living standard than Asian does not mean that their position and rights have not deteriorated in the last two or three decades. The changes

in the geographic distribution of the economic power, and consequently the political, and military power that have shifted a significant portion of power from the West to Asia, have not significantly changed for the better the position of the majority of the population in the Newly Industrialized Countries (NICs). Therefore, we always have to keep in mind that we are discussing two different categories/scales:

1) State, region, realm, and continent, as categories, quantified in absolute numbers – measured in absolute scales: GDP, number of political initiatives and its orientation and success, absolute defence spending and so on. In this sense, we can also consider GDP per capita to be an absolute measurement since it provides no information about social inequality, working conditions, environment pollution etc. Besides the quantitative indicators, we can characterize these categories through qualitative descriptions, for example: the regions of East, South, and Southeast Asia have become "the workshops of the world".

2) Populations of the states, regions, realms, continents – as categories quantified through relative indicators that show the relations between different portions of the population (GINI index etc.), and the economic position of different parts of the population: GNI per capita income, HDI, living standard, working hours and conditions, social security, health insurance, pension schemes etc.

The main problem for the workers all around the world is that "neoliberal globalization has made, through its strategies of class decomposition, marketization, the naturalization of individualism, the intense competitive struggle between every worker on the planet possible" (The Free Association, 2010: 1025). Consequently, the large masses of disciplined workers with skills that are above average for a particular kind of production are the greatest benefit that can maximize the profits of the capitalists. Since these masses of workers can only be found in the afore-mentioned parts of Asia that comprise about a half of the world's total population, and in the states that mostly have stable regimes (whether democratic or autocratic), they have become the workshops of almost the entire world. The reduction of extreme poverty is one of the achievements of the contemporary era. However, it is mostly based on the exploitation of hundreds of millions that have no alternative – they can either try to survive on subsistence agriculture or become industrial workers, and work in conditions and for wages that are unimaginable for workers in the developed world. The doctrine of neoliberals (*There Is No Alternative – TINA*) is indeed lived by the hundreds of millions of workers in the developing and emerging economies, but for them it means something completely different than for the elites that are pursuing this doctrine. The cultural implications of a rapid economic development that occurs in the large parts of Asia can be viewed as the success in gradual acceptance of the contemporary capitalist model, which is intellectually developed in the West. However, these states have kept the role of the state in their development very firm, through the protection of their own markets. The West, as the arena where capitalism has developed, experiences the crisis of that same capitalism. At the same time, capitalism seems to function better in the states that have basically accepted capitalism, and its different neoliberal forms, which are mostly a heritage of the West. Does that mean that capitalism in the West has passed through its zenith and that geographic re-distributions of capitalism's successes i.e. the changes in the distribution of the economic power also mean a difference in the temporal stages of capitalism? Is thereby the Western capitalism "older" or "more mature" than the capitalism in Asia, and is that the reason why it is experiencing a crisis that is much less experienced outside the developed, mainly Western states? We can conclude that Asian economies practice two concurrent practices: neoliberalism for the workers, and the state-managed capitalist development, with a full support of the state for the investors and transnational corporations, concurrently protecting their markets. The connectedness of economies makes this presumption questionable, since if the economies are complementary, then one economy's difficulties are not automatically another economy's benefits. If the economies are mutually highly competitive, then we can

discuss whether difficulties for one side mean benefits for the other. Nevertheless, the economic development of the world cannot be perceived as a simple zero-sum game, so we definitely cannot conclude that more crises for the developed economies consequently mean more economic growth for the underdeveloped or emerging economies. The current economic crisis has made position of the workers in most of the developed states worse – the living standard of the average family has decreased, health and social insurance are getting more and more expensive, and labor markets have become "flexible". "Flexible" labor markets in the developed economies mean less workers' rights, especially referring to a certainty of finding and keeping a decent job in a reasonable time-frame. Neoliberalism has made workers from the underdeveloped and developed states competitors, and that is the biggest achievement of the neoliberal capitalist elite. Concurrently, it is the biggest defeat of the working class that is now highly atomized, with no real aims, goals, and the means to achieve these goals. The worker has become disposable, and the biggest value of product, which is comprised in the work that is necessary for its production, has become even more underappreciated. The capitalists' profits have "exploded", just like it was about a hundred or a hundred and fifty years ago, in the era of imperialist and monopolist capitalism. Throughout the middle of the 20th century, capitalism has made concessions, accepting a Keynesian perspective and creating a welfare state in the already developed states, thereby limiting the possibility of a peaceful or non-peaceful socialist revolution in these states. Since the 1970ies and especially 1980ies we are witnessing the era of the neoliberal capitalism, which does not have considerations about the possibility, since it was already clear that the socialist model, as it was realized in the communist bloc, was not so attractive and sustainable, as it was perceived in the 1950ies or 1960ies. Consequently, capitalism has made a full circle in the 20th century, from its brutal and exploitative form of monopolistic and imperial capitalism in the late 19th and in the first four decades of the 20th century, through Keynesianism and the creation of the welfare state, up to a neoliberal, brutal, and more exploitative form, starting from the end of the 20th century and continuing into the 21st century. After the introductory remarks and the various definitions of neoliberalism, this paper brings a brief study of papers published in Antipode – A Radical Journal of Geography[1] (further in the text: *Antipode*), from 2010 to 2013, in which, as to the author's assessments, the neoliberalisation of the contemporary communities, and particularly cities, was discussed, hence there is a well-known historically proven connection between capitalism and urbanization[2]. Therefore, this topic was chosen in order to analyze how the authors that published in Antipode from 2010 to the beginning of 2014 studied and discussed the new developments in the contemporary, neoliberal capitalism, primarily regarding the neoliberalisation of cities.

2 METHODOLOGY

The paper analyses the neoliberalisation of communities in the texts published in Antipode in a 2010-2013 period. In order to analyze the discourse that was used to describe and characterize the relationship of neoliberalism towards communities, particularly cities, the basic content analysis was used: the research focused on key words and phrases that were identified in most of the texts, and the presence of these key words and the context in which they were used was the criteria for selecting of the texts that were analyzed. The key words used for the analysis

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[1] http://antipodefoundation.org/about-the-journal-and-foundation/a-radical-journal-of-geography/.
[2] "From their very inception, cities have arisen through the geographical and social concentrations of a surplus product. Urbanization has always been, therefore, a class phenomena of some sort, since surpluses have been extracted from somewhere and from somebody (usually an oppressed peasantry) while the control over the disbursement of the surplus typically lies in a few hands. This general situation persists under capitalism, of course, but in this case there is an intimate connection with the perpetual search for surplus value (profit) that drives the capitalist dynamic." (Harvey, 2008: 2)

were the following: neoliberalism (i.e. neo-liberalism) and/or neoliberalisation. The context of usage of the key words was also analyzed, through the analysis of sentences and/or full citations in which the key words were used.

3. DISCUSSION

The analyzed texts covered these main topics:

1. Gentrification and privatization of a former public space in the large cities;
2. Privatization of the local resources, such as the water supply;
3. The influence of neoliberalism on the immigrants in the specific communities, especially on the illegals;
4. The resilience and resistance to neoliberalisation through the social protests in the local communities.

Gentrification and privatization of a former public space in the large cities

Globalization has brought a more important role of the cities that even before. The process of urbanization is firmly connected with a modern development[3], as well as with capitalism generally. The topic of gentrification[4] was covered by the various consulted authors that have showed, on different examples, how communities are being changed under the influence of capital and private investment. The nature of capitalism is thereby directly produced into the public space that becomes more and more private, concurrently becoming separated (literally fenced from the new, shrunken public space). Springer (2011) discusses the public space as emancipation: "By employing radical notions of public space through an ordinary cities approach, we may improve our understandings of the relational geographies of neoliberalism, where each "local" contestation of public space can be read as a nodal point of interconnection in socially produced space." (Massey, 2005) (527) Democratic struggle grounded in public space offers a chance not only for those most oppressed by neoliberalism to demand social justice, but for the integral totality of human society to seek a new way forward through agonistic politics." (528)

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[3] The importance of cities has increased, as Castells and Hall (1994) and Scott (1998) argue, in the sense that they have become crucial nodes in the formation and management of global economic networks. Additionally, during the same period mass migration has accelerated primarily towards the cities of developed countries, which are becoming more multi-cultural and cosmopolitan. (Labrianidis, 2011: 1801)

A city's development depends not only on its capacity for value production, but also on its ability to enhance this value and to capture it (Liu and Dicken, 2006: 1232). Yet the endogenous characteristics of an economy are not enough to promote development in times when competition becomes increasingly globalized (Coe et al, 2004). Thus, in relentless competition, cities attempt to attract the largest possible share of mobile capital to their own locale. (Labrianidis, 2011: 1803)

[4] Harvey points out: "A process of displacement and what I call "accumulation by dispossession" also lies at the core of the urban process under capitalism. It is the mirror image of capital absorption through urban redevelopment and is giving rise to all manner of conflicts over the capture of high value land from low income populations that may have lived there for many years." (…) Also pointing out Mumbai as an example of gentrification, Harvey states: "Financial powers backed by the state push for forcible slum clearance, in some cases violently taking possession of a terrain occupied for a whole generation by the slum dwellers." (Harvey, 2008: 10-11)

In the developed world, dispossession also takes place, slightly different: „Similar examples of dispossession (though less brutal and more legalistic) can be found in the United States through the abuse of rights of eminent domain to displace long-term residents in reasonable housing in favor of higher order land uses (such as condominiums and box stores)." (Harvey, 2008: 11)

http://www.fastcompany.com/1673037/david-harveys-urban-manifesto-down-suburbia-down-bloombergs-new-york.

Springer (2011) further explains: "The realization of a radical democratic ideal grounded in public space is of primary importance to the achievement of any emancipatory goal that seeks to transform neoliberalism's violent geographies of exclusion, inequality, and poverty, but cautions that this process of transformation itself lamentably runs the risk of violence precisely because the political terrain has been so sharply narrowed by neoliberal anti-politics. Thus, while the focus is theory, the underlying concern is always with a view towards praxis." (529) "The predominance of neoliberalism means that the ordered vision of public space has become the primary model available to ordinary cities insofar as it represents the interests of capital." (554). Discussing the topic of open green spaces in Berlin, Rosol identifies these as outcomes of neoliberalism as well: "The emergence of open green spaces maintained by volunteers can only be understood against the background of "roll-back" neoliberal urban politics and that their rationality cannot be separated from "roll-out neoliberalism."[5] (240) "Roll-back" neoliberalism (Peck and Tickell, 2007) with its cuts in public spending and re-orientation of the role of the local state prepared the ground for new forms of creating and maintaining public green spaces. (249) Open green spaces maintained by volunteers emerge against the backdrop of "roll-back" neoliberal urban politics and their rationality cannot be separated from the reality of "roll-out neoliberalism."(250). Didier, Morange and Peyroux (2013) have devoted their paper to the abilities that neoliberalism has to adapt to the local scale. They have discussed the topic of City Improvement Districts (CIDs) in Cape Town and Johannesburg: "The local tension around CIDs has actually led over the past decade to adaptations of the original model, exemplifying the creative capacity of neoliberalism to overcome internal contradictions and local resistance in Johannesburg and Cape Town." (121) South African cities with their legacy of political struggle, social, and most especially racial inequalities, and the post-apartheid expectations of a middle income country constitute a unique terrain far from the heartland of neoliberalism to unravel the dialectical nature of this adaptation, a structural process that fosters the resilience of the model." (123). Not omitting the component of social awareness and action, the authors claim: "Unpacking "local Third Ways" rhetoric might also help to strengthen the awareness of those combating neoliberalism, in particular social movements: this approach enables one to see how discourses adopt new political guises while pursuing a similar agenda (see also Peyroux 2012). This awareness can prompt a better political reactivity to the local variations of neoliberalism and contribute to connect CID criticisms and broader mass protest against neoliberalisation in South Africa." (134). Lauermann and Davidson (2013) have discussed development strategies across neoliberal urban governance projects: "Viewing particular forms of neoliberalism as functioning always in relation to universal capitalist logics therefore enables an ideologically contextualized analysis of particular governance projects. Calls to focus on capitalism within neoliberalism studies are not new. Using the example of mega events, we have attempted to demonstrate the utility of this framework for understanding the particularities of neoliberalism while at the same time remaining committed to a critical examination of capitalism. (…) Neoliberalism is the currently hegemonic component of ideological processes that make this assemblage possible, and any contestation of neoliberalism necessarily entails a political engagement with fundamental antagonisms within capitalism." (1293)

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[5] Peck and Tickell introduced a helpful analytical differentiation of neoliberalisation processes, distinguishing the "roll-back" of the Keynesian welfare state in the 1980s from the "roll-out" of neoliberal institutions in the 1990s, which they see already as a response to neoliberalism's immanent contradictions (Peck and Tickell, 2002). This roll-out neoliberalism involves "new state forms, new modes of regulation, new regimes of governance, with the aim of consolidating and managing both marketization and its consequences" (Peck and Tickell, 2007: 33, see also summary p 34) (240-41).

Privatization of the local resources

Through the discussion about the privatization of water services in Cape Town, South Africa, Narsiah (2010), points out: "Through the product of a Western imaginary, neoliberal ideas and practices have entered into the economic and social life even of recently liberated societies, such as South Africa." (…) "Neoliberalism has percolated through to the local scale, leading to the neoliberalisation of the local state. One of the ways in which this has been articulated is through privatization strategies." (374) "In South Africa, and with special reference to the city of Cape Town, the ostensible corporatization of water services is evidence of the "rollout" phase of neoliberalism." (378). Wilshusen (2010) discusses the alteration of modes of production in local communities in Mexico, with a special focus on the role of ejidos[6]: "Drawing on research from nine communities in the state of Quintana Roo, I argue that local producers have accommodated neoliberal policies and programs in creative ways by adopting hybrid logics, property regimes, forms of organization, and modes of exchange." (768). Whereas neoliberal policies emphasized individuals and small producer groups as their main economic subjects, collectivism focused on the role of ejidos and ejido associations." (777) Wilshusen also points out: "As one of the primary formal institutions that define the bureaucratic field of community forestry in Mexico, changes to national forest policy illustrate this hybridization of neoliberalism and collectivism." (778) "In this case, neoliberal reform did not produce a sudden and complete transformation at the local level but rather represented one of many historical waves of state-led institutional changes that evoked local responses within the context of existing political histories and cultures." (793). In the text that covers the topic of local energy supply, Hess (2011) suggests the benefit of an analytical distinction between the ideological and distributional dimension of policies: "For example, the deregulation of a heavily regulated industry may allow increased competition and lower prices for consumers, thus reducing elite profits and enhancing savings for a wide range of consumers in the short term. In this sense, a neoliberal policy has a redistributive effect, and in fact neoliberal policies are often framed by such promises in order to gain widespread political support. However, in the longer term the industry may respond to the increased price competition by reducing wages or undergoing consolidation, thus moving the distributional impact of the policy up the continuum toward elite accumulation." (1060-61). "On first glance, the gradual transition of the American electricity industry that occurred from the 1970s, from a highly regulated public utility system to marketplace competition, might be viewed as a transition from social liberalism to neoliberalism." (Hess, 2011: 1063) "In terms of the typology developed above, green pricing arrangements are an example of the ethical markets of redistributive neoliberalism that have been enabled by wholesale competition in electricity markets. In this case, environmentally concerned customers pay a voluntary tax that, in theory, supports a marginal increase in green power generation that is locally and publicly owned. Again, what might first appear to be a neoliberal policy (a voluntary green tax) is associated with local public ownership." (Hess, 2011: 1071)

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[6] Ejido, in Mexico, village lands communally held in the traditional Indian system of land tenure that combines communal ownership with individual use. The ejido consists of cultivated land, pastureland, other uncultivated lands, and the fundo legal (town site). In most cases the cultivated land is divided into separate family holdings, which cannot be sold although they can be handed down to heirs. The increasing fragmentation of the land caused by the family inheritance pattern has in some cases resulted in an inefficient scale of operation. This result, together with a lack of capital and limited educational attainment, has retarded progress in ejido agriculture. Some cooperatively run ejidos, however, particularly in the cotton-raising areas, have shown great success.
More in: http://www.britannica.com/topic/ejido.

The influence of neoliberalism on the immigrants in the specific communities, especially on the illegals

In his text about illegality as a technique of neoliberal governmentality, Hiemstra (2010) emphasizes "how neoliberalism permeates scales, and comes to be reflected and embedded in local-scale economic, political, and social processes involving immigrants in the USA." (…) "Understanding illegality as governmentality is a powerful tool for scrutinizing the local scale, a scale at which neoliberalism's diffuse operations become particularly visible." (75). Hiemstra (2010) also points out the following: "While neoliberalism viewed through the lens of governance draws the scholarly gaze to macroscale, unidirectional state practices (Leitner et al 2007c), neoliberalism understood through the lens of governmentality draws attention to neoliberalism's scattered, indirect impacts that include both state and non-state practices, as well as combinations of the two." (…) He then applies this framework to Leadville, Colorado, "a place that is experiencing dramatic economic, social, and demographic changes due to neoliberalism." (77) "Illegality, through the power of the law and the accompanying discourse, operates as an indirect yet profoundly powerful technique of governmentality in support of the contemporary neoliberal system by enforcing and naturalizing spatial and economic distance. Many residents are lulled into complacency with neoliberalism, not bothering to question the blatant disparities in class and space along racial markers." (93-94). Matejskova (2013) examines how middle-aged and older post-Soviet immigrants in eastern Berlin navigate the neoliberalised landscape of work-based integration in face of their long-term unemployment: "I first show how these immigrants' own insistence on the centrality of paid work for their feeling integrated contributes to their experience of collective despondency and enrollment in exploitative quasi-markets, including workfare. Focusing on this insistence, I examine how it draws strength primarily from their continued subscription to the conceptions of self as deeply socially embedded, and of work as a practice of such an embedding, adopted through their Soviet-era socialization into the culture of dispersed personhood and obligation to work, rather than from their adoption of neoliberal concepts of citizenship in Germany." (984)

Buckley (2013) discusses processes of neoliberalisation in Dubai through a case study of the local politics surrounding migrant construction workers in the city. The author studies "what specific strategies have characterized the contemporary regulation of Dubai's foreign construction workforce and what do they reveal about processes of neoliberalisation underway in the city?" He also studies "how equipped are critical theories of neoliberalism to make sense of these strategies, and how do they shape our understandings of the constraints and possibilities for labor justice in an autocratic, authoritarian city-state?" He suggests that "depictions of autocratic neoliberalism in Dubai which view the state as territorially hegemonic tend to ignore the informal and fragmented labor politics at work in the city, and overlook some of the antagonisms between the state's autocratic and neoliberal interests." (257)

The resilience and resistance to neoliberalisation through the social protests in the local communities

Cumbers, Helms and Swanson (2010) studied the resilience to neoliberalisation in the old industrial cities, mostly using the examples from the United Kingdom: "Individuals drawn into criminal activities (and other forms of coercive social relations) to supplement household incomes clearly constitute a risk to both their communities and themselves. However, mass land occupations by disposed rural dwellers or the illegal reconnection of electricity supplies in South African shanty towns following privatisation clearly are significant self-valorisation actions on behalf of oppressed groups." (59). "Resilience takes diverse forms. Poor work conditions can inspire high levels of turnover and absenteeism evident in many low-paid service sector activities, particularly pronounced in Glasgow's booming call centre industry (Helms and Cumbers 2006). It can also take more socially destructive forms such as the high levels of

school dropout rates in Britain's deindustrialised cities or working in drug related and other forms of criminal activity. Although important not to glorify such activities, particularly given that the incidence of violent (especially knife-related) crime is almost entirely felt in poorer urban neighbourhoods and predominantly on young working class men, it is important to understand the rationalities at work. For young people who are either uninterested or unable to afford to stay on at school beyond 16 and go to university, the employment options in the service-based economy are restricted." (63). White and Williams (2012) are discussing the ways of resistance to neoliberalism, pointing out the Zapatista movement: "This radical commitment to re-reading the orthodox neoliberal approaches to "the economic" has led to diverse, multiple and heterogenic modes of economic conceptualization, representation, meaning and materialization being identified and represented. This in turn has resulted in far richer contemporary economic landscapes emerging, within which the capitalist mode of production in is seen to be highly uneven and incomplete." (1626) "Under the bright inspiring lights of the Zapatista struggle, I had begun to forget just how many people continue to resist neoliberalism, the deadlock of consumer-led market fundamentalism and the patronizing dead hand of representative democracy in a wealth of untold ways; often putting their own liberty on the line to struggle for a better, more equal society where everyone has a say in how it is built." (1641) Manderscheid (2012) points out the role of social movements that are promoting intergenerational and intragenerational solidarity and inclusion in the spatial planning strategies: "By obliterating the crucial social significance of movement and relations as constituting social participation and inclusion, the ongoing conflict between equity and ecological goals concerning motorized transportation remains outside the picture. Overall, these representations of socio-spatial problems foster the primacy of the economic, the strengthening of roll-back neoliberalism, and its legitimization in seemingly emancipatory sustainability terms as well as the ongoing subordination of the political sphere." (212). Laing (2012) analyzed postcolonial struggle theories in Bolivia, describing the protests of the Indigenous population: "Tens of thousands of Bolivian citizens lined the streets along the route chanting in solidarity with the marchers and demanding the cancellation of the government's planned highway set to cut through the ancestral lands of the lowland indigenous people of the Yuracares, Mojenos and Tsimanes. Such an outpouring against the once popular President, Morales, reflected the anger of the Bolivian people that he had contradicted his international discourse surrounding climate justice, anti-neoliberalism and indigenous rights. Two days later the President announced the cancellation of the road." (1051) "The "post-neoliberal" frame of analysis is undoubtedly important, especially in a country that suffered hugely under radical neoliberal restructuring. However, it is imperative that the academy does not turn a blind eye to other modes of analysis for the Bolivian people by focusing solely on the Zeitgeist of "post-neoliberal" enquiry. For many of the indigenous ethnic groups of Bolivia, the notion of "colonialism" represents a more substantive and enduring lens in which to analyze current political trajectories. For the indigenous marchers of the tierras bajas the Bolivian government represents a renewed colonialist regime following a 500-year history of exploitation since Spanish rule." (1052-53). Waquar (2012) discussed the anti-Enron movement in India: "BJP and Shiv Sena had never been sympathetic to socialist ideas in India—they dismissed socialism as a western concept. They viewed neoliberalism favorably, though they preferred a nationalist, and often jingoist, slant to it. Yet, so militant was their antagonism to Enron that a large section of the population accepted the Shiv Sena–BJP alliance as political leader of the movement. The Shiv Sena–BJP alliance, while opposing the DPC project, maintained a clear distinction between neoliberalism, which they viewed favorably, and Enron, who they opposed." (1071) Newman (2013) discussed citizenship and the urban movements in urban Paris: "Urban movements' orientation towards "collective consumption" and the use value of urban space (see Castells, 1985) are transformed under neoliberalism; one feature of neoliberal

governmentality is that "grassroots" organizations are increasingly supplanting the managerial function of states (Ferguson 2002)." (949). The same author then continues with observations about the nature of neoliberalism at the local scale: "Analyses of urban design and neoliberalism often invoke a restrictive and repressive vision of power; Foucault's famous metaphor of Bentham's panopticon has loomed large in scholarship on surveillance in particular. However, the approach I elaborate here by emphasizing "built-in" vigilance emphasizes the generative aspects of power and is better captured through Foucault's theorization of architecture as an instrument in the creation and molding of individual subjectivities." (952) "This managerial and productive function of neoliberal citizenship highlights the Janus-faced nature of grassroots politics under a political orthodoxy in which municipalities are always eager to downsize, "right-size", or otherwise place the burden of providing public goods on citizens. The protest movement demanded a green space and a voice in making sure it met the long neglected needs of northeast Paris residents." (961). Shin (2013) discussed a neoliberal transformation of China's cities, especially the policies of assembling urban land and transferring of land use rights: Since the early 1990s, China's major cities have seen the intensification of urban redevelopment. Beijing, for instance, saw the introduction of a new set of policy tools in 1990, which heavily relied on inputs, both technical and financial, from developers who are not necessarily private. The rapid urban transformation through inner-city redevelopment as well as suburban expansion has been driven by urban accumulation needs that rest on mobilising land resources (Hsing, 2010; Wu, 2009). The accumulation needs involve the conversion of rural farmlands under villagers' collective ownership into urban construction lands for urban governments to secure more land resources. The assembly of urban land and the transfer of land use rights have become critical to local state's performance and public finance (Ding, 2005). In this process, clearance and demolition have also become the norm of urban spatial transformation, accompanied by a large scale of displacement. While there is a growing emphasis on establishing the "rule of law", opportunities for citizens to put forward their legal claims are still limited. Because of this, protestors often make use of various "non-legal modes of resistance, including protests, petitions, and deadly confrontations" (Cai, 2007: 94). (Shin, 1171-1172).

4. CONCLUSION

The analysis of texts that have been published in Antipode from 2010 until the end of 2013 has shown that neoliberalism has permeated the local scale, and is rapidly changing large cities. The authors have devoted their texts to various topics, which can be grouped in the four main groups: the changes in public space governance (gentrification, privatization, and "fencing" of the public space) in large cities; the privatization of management regarding resources at the local level (water supply, electricity supply etc.); the treatment of foreign and migrant workers in various communities, and especially the influence of neoliberalism on the illegal workers; and the resistance actions i.e. movements against neoliberalism at the local level. In most of the texts that were analyzed, there are introductory, general i.e. theoretical remarks about neoliberalism, in which mostly Harvey, as well as Peck and Tickell, were cited.

The topics discussed have covered various aspects of neoliberalisation at the local scale:
- The topic about privatization of the public space and gentrification dealt with general notions about these afore-mentioned processes, and the processes that have been going on regarding open green spaces in Berlin, city improvement districts (CIDs) in Cape Town and Johannesburg, and urban governance projects in general;
- Privatization of local resources was covered through the discussion about privatization of water services in Cape Town, alteration of modes of production in local communities

in Mexico, with a special focus on the role of ejidos in Quintana Roo state; various aspects of the privatization of electricity supply and production of green energy in the U.S.A.;

- The topic about immigrants and illegality has covered the examples from Leadville, Colorado, as well as Berlin and Dubai;

- The most covered topic was the resilience and resistance to neoliberalisation at the local scale through social movements. Besides discussing general remarks, the authors have mostly published the papers about what is referred to as "anti-colonial" (actually neo-colonial) struggle of mainly Indigenous peoples in Mexico and Bolivia, anti-Enron movement in India, the urban resistance movement against neglect of northeast Paris residents in France, and the struggle against displacement in Chinese cities.

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AN ALTERNATIVE APPROACH TO THE
TRADE DYNAMICS IN CROATIA

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ABSTRACT
The point of understanding the international finance and trade perspective is closely related to comprehension of the terms of trade (exchange rate) – trade balance nexus. How well can a country balance its international trade engagement over international price changes and/or applied exchange rate regime is of great importance, especially for a small, opened, indebted and import dependent country such as Croatia. By focusing on the relationship between the terms of trade, exchange rate, volume of trade, current account and output we are trying to provide some new insights into trade dynamics over a business cycle in Croatia. Furthermore, the analysis is done on aggregate level and evaluates only the market of goods, for it constitutes the larger part of the trade balance. Empirical assessment relies on the lead and lag cross-correlation functions between the variables comprising the period 2000 – 2014. Results suggest the existence of the S-curve pattern leading us to some indicative conclusions regarding the trade dynamics in Croatia.
Keywords: business cycle, Croatia, S-curve, trade dynamics

1. INTRODUCTION
Empirical research on the exchange rate, as one of the most important variable in the Croatian economy, is rather extensive. Since real effective exchange rate had been steadily appreciating after 2000 and we witnessed mild depreciation after 2009, it was necessary to find out whether Croatian kuna was misaligned or not. Controversy over this topic split academics and professionals, causing many mixed and opposed conclusions, nevertheless dictating different patterns of analysis within different scientific approaches. An important stylized fact regarding the evolution of exchange rates in transition economies like Croatia is the initial undervaluation of the real exchange rate, misalignments and appreciation of the real exchange rate due to transition-related structural changes, and other factors (Bahmani-Oskooee and Kutan, 2009, p. 2523). On the other hand, theoretical and empirical studies on the importance of the terms of trade for Croatia have been rare. Theoretically, terms of trade are relevant explanatory variable of the movements in exchange rates and output for improvements in relative terms of trade are expected to lead to the appreciation of the exchange rate, hence the change in output produced and traded.
Both, exports and imports solidly depend on exchange rates and/or terms of trade, as well as their development. Average share of export to GDP in last fifteen years was around 45%, which indicates that Croatian economy is not closed, but rather open. However, this export was insufficient in respect to demand and preferences towards import products (average share of import to GDP was around 55%), thereby generating constant trade deficit (average share of trade deficit to GDP was around 10%). Surplus on the service account of the balance of payments compensates to a large extent for the exceptionally high Croatian trade deficit. In such situation, policy makers can apply two measures to influence its international competitiveness: (a) internal approach that relies on supply side-policy implications and/or (b) external approach that is directed towards devaluation/depreciation of a national currency. First

approach calls for serious structural changes with emphatic rather than sensible economic and social costs. The second approach seems an easier path to competitiveness, yet applied in wrong economic environment could cause disastrous consequences for whole economic system. Though trying to achieve the aftermaths of the first approach, Croatian policy makers have been constantly 'flirting' with possible currency depreciation, never actually applying it due to threatening effect that could rise from high international indebtedness. A country that is experiencing a decline in its net exports may adhere to currency devaluation or allow its currency to depreciate, but due to adjustment lags such as recognition, production, delivery and etc. (Bahmani-Oskooee and Xi, 2015, p. 79) the trade balance may continue to deteriorate, with improvement coming later (so-called J-curve); if it even comes! Whether depreciation actually helps in improving trade deficits remain a key question that has drawn much scholarly attention. This relation is concentrated around the J-curve phenomenon and Marshall-Lerner condition, and recently a new concept based on asymmetric cross-correlations functions which may resemble an S-curve pattern. The concept of an S-curve, introduced by Backus, Kehoe and Kydland in 1994, suggests that the cross-correlation function between current terms of trade (exchange rate) and future values of the trade balance is positive, but between current terms of trade (exchange rate) and past values of the trade balance it is negative. Therefore, an S curve is a slight extension of the J-curve in the sense that the impact of exchange rate depreciation wears out after a while and there is no further improvement when all impacts are realized.

The aim of this paper is to look into the relationship between the terms of trade, real effective exchange rate and current account developments (with few mediating variables) in order to analyze the trade dynamics over a business cycle as well as to link possible fluctuations of some variables with the fear of misalignments of the Croatian kuna. Additionally, the analysis is done on aggregate level and evaluates merchandise market by including income terms of trade and current account measures of only goods traded. Empirical part evaluates the lead and lag cross-correlation functions between the variables comprising the period 2000:Q1 – 2014:Q4. Results suggest the existence of the S-curve pattern leading us to some indicative conclusions regarding the trade dynamics in Croatia. The rest of the paper is organized as follows. Section 2 surveys theoretical and empirical literature. Section 3 gives a full perspective to the analytical part by describing used methodology and data, and explaining the results. Section 6 provides some concluding remarks.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

The role of trade is crucial for economic growth as well as economic development of a country. Trade surplus tends to bring inflows into economy giving a way for economic expansion. The relationship between the terms of trade and trade balance has been discussed thoroughly in the literature of international finance, and it is extended to include the exchange rate in the analysis (Rhee, 2014, p. 5). Magee in 1973 became a pioneer in explaining such a relationship by depicting the so-called J-curve. In their seminal paper, Backus et al. (1994) showed that terms of trade (or alternatively exchange rate) is positively correlated to future movements of the trade balance but is negative correlated with past movements thus resulting in an S-shaped curve. However, Backus et al. (1994) doubted that such S-pattern existed in developing and less-developed countries because of different economic structures, mainly due to the fact that the degree of openness of the foreign sector is different in these countries (Rhee, 2014, p. 5).

The S-curve is closely related to J-curve which was used to show the relationship between the trade balance and a real devaluation. Namely, the theory behind the J-curve states that a country's trade deficit will worsen initially after the depreciation of its currency because higher prices on foreign imports will be greater than the reduced volume of imports. The effects of such change in the price of exports compared to imports will eventually induce an expansion

of exports and a cut in imports, which, in turn, should improve the balance of payments[7]. Though there is a vast body of empirical literature dealing with the topic, still the findings are quite negative i.e. there is little statistical evidence of a J-curve pattern in general. Most of the studies that tried to test the J-curve existence have relied upon a reduced form trade balance model and regression analysis with not much support. Yet in some countries and in specific periods, J-curve phenomenon has been recognised (for an extensive review of the literature see Akbostanci (2004), Šimáková (2014) or Bahmani-Oskooee and Kutan (2009)). As we already mentioned, the S-curve is an extension of the J-curve since the impact of exchange rate depreciation wears out after a while and there is no further improvement when all impacts are realized, meaning that at the top of the curve, the slope is zero or negative. Though conceptually related, these two concepts are methodologically different. Note that the S-curve, which is a description of unconditional cross-correlations between the two variables, is not the same thing as the J curve, which describes the conditional dynamic response of one variable following a shock to the other. Thus it is possible to depict an S-curve in the data, even absent a detectable J-curve (Baxter, 1995, p. 1854).

Ghosh (2012, p. 326) points that existing studies on S-curve can be classified under three categories: (1) aggregate level, (2) disaggregate level and (3) industry level analyses. The fundamental paper by Backus et al. (1994) in which they developed international real business cycle model and found that the trade balance is countercyclical and the cross-correlation function of the trade balance and the terms of trade display an S-shape, focused on aggregate data for 11 developed OECD countries. Next important paper was written by Senhadji (1998) who also used real business cycle model to show that, for the most of the 30 less developed nations, productivity shocks are key factor in generating an S-curve. Parikh and Shibata (2004) analyzed the relationship using annual data from 1970-1999 for 59 less developed nations, all with mixed results. Nadenichek (2012) developed basic general equilibrium model and found that both trade balance and terms of trade are driven by productivity shocks and that the subsequent behaviour generates an S-curve pattern, reminiscent of the J-curve. He concluded that the fact that productivity shocks would generate a pattern similar to the J-curve underscores the importance of properly identifying the shocks generating movements in the trade balance in the broader J-curve literature. Rather heterogeneous results suggested that there could potentially exist the problem of 'aggregation bias', meaning that aggregate data will not show if a country's trade balance is improving against some trading partner(s) while deteriorating against others. Hence a country's trade balance and/or terms of trade could be deteriorating with one trading partner while at the same time improving with another. The aggregation could smooth out the fluctuations observed in the bilateral trade (Bahmani-Oskooee and Ratha, 2007b, p. 431). This led to a number of papers dealing with disaggregate data re-examining in that way the relationship between the terms and balance of trade on the bilateral basis (see Bahmani-Oskooee and Ratha (2007a, 2007b), Rhee (2014), Ono and Baak (2014), Akkay (2015)). Most of the studies found a support for the S-curve relationship, however for most of the countries analyzed this nexus was shown to be relatively weak. This again led to a further disaggregation, papers now focusing mainly on the industry level relations (see Bahmani-Oskooee and Ratha (2008, 2009 and 2010), Bahmani-Oskooee and Xi (2015) etc.). Since the focus of our paper is an aggregate level type of the analysis we shall not evaluate literature on other two approaches through roughly (for deeper literature review on this topic see Akkay (2015)). A comprehensive review of empirical investigations into the existence of both the J-curve and the S-curve can be also found in Bahmani-Oskooee and Hegerty (2010).

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[7] Exchange rate depreciations should reduce imports and increase exports thereby contracting a country's trade deficit provided the well-known Marshall-Lerner condition (the sum of the export and import demand elasticities are at least equal to unity) holds. Therefore, the effects of exchange rate depreciations on exports, imports, and hence on trade balance are neither guaranteed nor instant.

When concentrating on (the number of) studies that included Croatia, we have to express our concern. There is very limited number of papers dealing with the J-curve phenomenon and not one paper which would evaluate the possibility of an S-shaped curve. First that found evidence of the J-shaped curve for Croatia was Stučka (2004) for the period 1994-2002. He employed a reduced form model to estimate the impact of a permanent shock on the merchandise trade balance. It was found that one-percent depreciation in the exchange rate improves the equilibrium trade balance between the range of 0.94%-1.3% and it took 2.5 years for equilibrium to be established. Bahmani-Oskooee and Kutan (2009) did an extensive study on the emerging European countries (Bulgaria, Croatia, Cyprus, Czech Republic, Hungary, Poland, Romania, Russia, Slovakia, Turkey and Ukraine; period 1990-2005) and found empirical support for the J-curve pattern in three countries: Bulgaria, Croatia and Russia. On the other hand, Cota et al. (2006) examined whether bilateral real exchange rate changes in Croatia have any significant impact on trade balance changes between Croatia and six main trading partners (Slovenia, Austria, Germany, Italy, UK and France for the period 1995-2005) and found no empirical support for the J-curve. Hsing (2009) likewise examined the J-curve possibility for the bilateral trade between Croatia, Czech Republic, Hungary, Poland, Slovakia or Slovenia and the USA. He found that the J-curve cannot be empirically confirmed for any of these six countries. As we can see, J-curve literature for Croatia also offered some mixed results. Interestingly, all studies were made for pre-crisis period and could be considered as obsolete. We could say that there is a need for newer and conceptually wider studies which would approach the delicate topics of real exchange rate misalignments, depreciation, trade dynamics, changes in international prices, terms of trade volatility and etc. This is especially true if we know that Croatian economy 'traditionally' suffers from the lack of international competitiveness and internal structural problems.

3. TRADE DYNAMICS OVER A BUSINESS CYLCE
The S-shaped relationship between lags and leads of the trade balance and the terms of trade/exchange rate is a well established feature of international data so it is desirable for researchers to observe and explain this empirical 'regularity'. Therefore, the aim of this analysis is to investigate the trade dynamics based on the S-curve concept for Croatia.

3.1. Methodology and data
In order to investigate the dynamic relationship between terms of trade and trade balance based on the S-curve phenomenon at aggregate level we applied (adapted) methodology used by Backus et al. (1994) and analytical approach presented by Nadenichek (2012). Accordingly, S-curve depicts negative cross-correlations between past values of the trade balance (*TB*) and the terms of trade (*TOT*) or current real exchange rates (*REX*), but positive cross-correlations between future values of the trade balance and the terms of trade or current real exchange rate. If the contemporaneous correlation is negative, then there is also evidence of a Harberger-Larsen-Metzler (HLM) effect[8]. In order to test the validity of possible S-curve pattern for Croatian economy we will calculate cross-correlations for both, terms of trade as well as real exchange rate. Cross-correlation coefficients ($\rho_{k\text{-}TOT}$, $\rho_{k\text{-}REX}$) are defined as:

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[8] When deterioration in the terms of trade causes a drop in income, consumption drops. However, if the marginal propensity to consume is less than one, the drop in consumption will be less than proportionate, causing both savings and net exports to decline. Since the terms of trade is defined such that an increase amounts to a deterioration of the same, a negative contemporaneous correlation between terms of trade and trade balance would be indicative of the HLM effect (see Bahmani-Oskooee and Ratha, 2009).

$$\rho_{k-TOT} = \frac{\sum (TOT_t - \overline{TOT})(TB_{t+k} - \overline{TB})}{\sqrt{\sum (TOT_t - \overline{TOT})^2 (TB_{t+k} - \overline{TB})^2}} \qquad (1)$$

$$\rho_{k-REX} = \frac{\sum (REX_t - \overline{REX})(TB_{t+k} - \overline{TB})}{\sqrt{\sum (REX_t - \overline{REX})^2 (TB_{t+k} - \overline{TB})^2}} \qquad (2)$$

where marked values of the variables present the mean of all observations over a study period. By placing cross-correlation coefficients on the vertical axis and the different lags and leads (k) on the horizontal axis, we can graphically interpret and confirm the existence of the S-curve pattern. We will display the cross-correlation function for the terms of trade/real exchange rate and the trade balance ($t+k$) for k ranging from -8 to 8 quarters, i.e. leads and lags up to two years.

Quarterly data for the terms of trade, real exchange rate and trade balance (as well as other mediating variables) are collected from the Croatian National Bank and Croatian Bureau of Statistics for the period 2000:Q1 – 2014:Q4. By applying methodology similar to Backus et al. (1994) we did not find evidence of the S-curve pattern for Croatia. However this is not strange if we remember relatively mixed results for J-curve testing. This led us to consider an alternative approach to S-curve testing, having in mind the characteristics of the Croatian economy. First, all variables were seasonally adjusted using Census X12 seasonal adjustment procedure and then transformed in their logarithmic form. Second, since the J-curve phenomenon (as well as terms of trade) is mainly focused on the dynamics of merchandise trade we opted to evaluate the S-curve relationship only for goods. Though service sector plays an important role in Croatian economy, we did not find support for the relation when services are included in the analysis. Similar logic was used for trade balance variable, however here we also opted for alternative approach using a broader measure of current account balance (depicts visible exports and imports plus invisible exports/imports) instead of trade balance (depicts only visible and really traded exports and imports). Third, instead of barter terms of trade we used income terms of trade measure for Škare et al. (2012, p. 913) and Tomić (2014, p. 289) found that this variable is more relevant in macroeconomic modelling[9]. Therefore, our analysis is based on these variables: **ITOTg** – income terms of trade for goods (based on national accounts data on nominal and real exports and imports of goods in HRK) is calculated by multiplying the basic terms of trade measure (export prices/import prices) with the exports of good volume; **REER** – real effective exchange rate deflated with the consumer price index; **CAg** – current account measure only for goods in HRK. Other mediating variables are: **Y** – real gross domestic product (HRK), **QEXg** – real quantities of exported goods and **QIMg** – real quantities of imported goods. To calculate adequate cross-correlation coefficients we detrended the data (using Hodrick-Prescott filter with common smoothing parameter λ of 1600 for quarterly data) and tested the presence of a unit root. For this purpose we used Augmented Dickey Fuller test, Phillips-Perron test and Kwiatkowski-Phillips-Schmidt-Shin test (available upon request). Generally, all tests confirmed the absence of unit root for all the variables (graphical displays

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[9] Whereas, the 'basic' barter terms of trade just measures variations in prices, the income terms of trade includes the effect of the changes in volume of quantities exported. This means that 'basic' terms of trade could decline even though income terms of trade improve since the quantities of export could grow at the larger scale. Income terms of trade measure reveals whether the country would end up with net gain or net loss as a result of changes in terms of trade and export volume, which *de facto* depends on the elasticity of demand for its export or in broader terms on Marshall-Lerner condition (see Škare et al., 2012, p. 913).

of the variables also suggest that they are stationary in levels). In conclusion, variables reveal a stationary behaviour after the trend has been removed. There are two shortcomings of this kind of approach. First, aggregate level analysis can sometimes lead to 'aggregation bias' problem and second, conclusions based on adapted data should not be embraced as finite reasoning on this topic. Further research pattern should therefore include analyses on disaggregate level, especially industry level that could suggest which industries could reap the benefits of possible currency devaluation. Altogether, there is a vast empirical emptiness on this topic in Croatia suggesting a need for broader trade dynamics, J-curve and S-curve literature.

3.2. The existence of the S-curve

The main focus of this paper is to test the validity of an S-curve phenomenon in Croatia. Therefore, two S-curves will be presented according to two different approaches of the analysis. First S-curve relation reflects the terms of trade (presented as *ITOTg*) and trade balance (presented trough *CAg*) nexus (see *Figure 1*), whereas the second S-shaped curve displays the real exchange rate (as *REER*) to trade balance (as *CAg*) relationship (see *Figure 2*), all at aggregate level respectively. Both relations demonstrated that while the cross-correlation between the current values of *ITOTg* or *REER* and the future values of CAg is positive, the same cross-correlation between the current values of the *ITOTg* or *REER* and past values of the *CAg* is negative. When we plot cross-correlations functions against the lags and leads, relations resemble the letter S, meaning that we have found the evidence of an asymmetric S-curve phenomenon in both cases. Furthermore, the HLM effect is not revealed in any case since contemporaneous correlations in both cases are not negative.

To scrutinize the subject we could also analyze the strength and the significance of cross-correlation coefficients. Namely, the highest statistically significant correlation coefficient of 0,35 in the first case (coefficients under the *Figure 1*) reveals in bottom line a positive correlation between the *ITOTg* and *CAg* (pro-cyclical behaviour of *CAg*); meaning in general that an improvement (appreciation) in *ITOTg* should lead to an improvement in *CAg*. Similarly, highest statistically significant correlation coefficient of – 0,59 in the second case (coefficients under the *Figure 2*) reveals a negative correlation between the *REER* and *CAg* (counter-cyclical behaviour of *CAg*). However, in our case a decrease in *REER* reflects a real depreciation of the kuna, which implies that the contemporaneous correlation coefficient between the two variables is expected to be positive, meaning that an appreciation (depreciation) of kuna in general should lead to an improvement (deterioration) in *CAg*. This probably reflects the behaviour of *REER*. Furthermore, historical data suggest that expansion of Croatian economy was always followed by the exchange rate appreciation, and *vice versa* during recessions. Thus, the past depreciation of exchange rate of kuna was *de facto* aftermath and not a monetary instrument, as some would conclude. Reason for that could be found in the fact that capital inflow produced appreciation pressure on exchange rate of kuna, which also resulted in private consumption biased growth of the Croatian economy (Benazić and Tomić, 2014, p. 90). Though few of the conclusions here cast some doubt on the existence of S-curve pattern, we think that they are very important facts that illustrate the complexity of the Croatian economic situation.

Figure 1: Cross-correlation ITOTg to CAg with lags and leads up to 8 periods
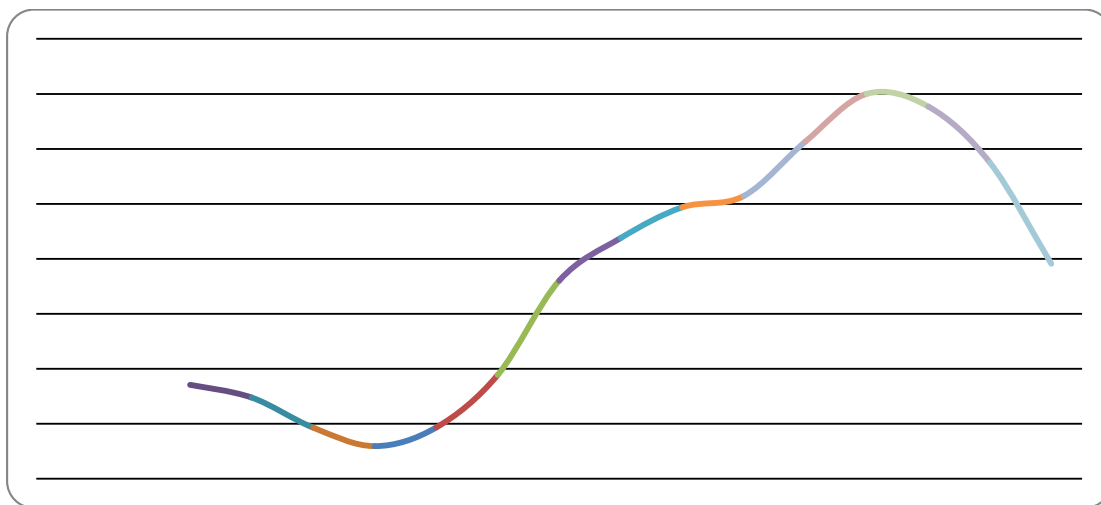
t-8	t-7	t-6	t-5	t-4	t-3	t-2	t-1	t-0	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+8
-0.26	-0.19	**-0.23**	**-0.33**	**-0.35**	**-0.34**	**-0.23**	-0.07	0.18	0.00	0.10	**0.24**	**0.30**	**0.36**	0.17	-0.01	-0.19

*3quarter moving average was employed to smooth graphical presentation
**bold number denotes 1%, 5% or 10% significance levels respectively
Source: Author's calculation.

Table 2: Cross-correlation REER to CAg with lags and leads up to 8 periods
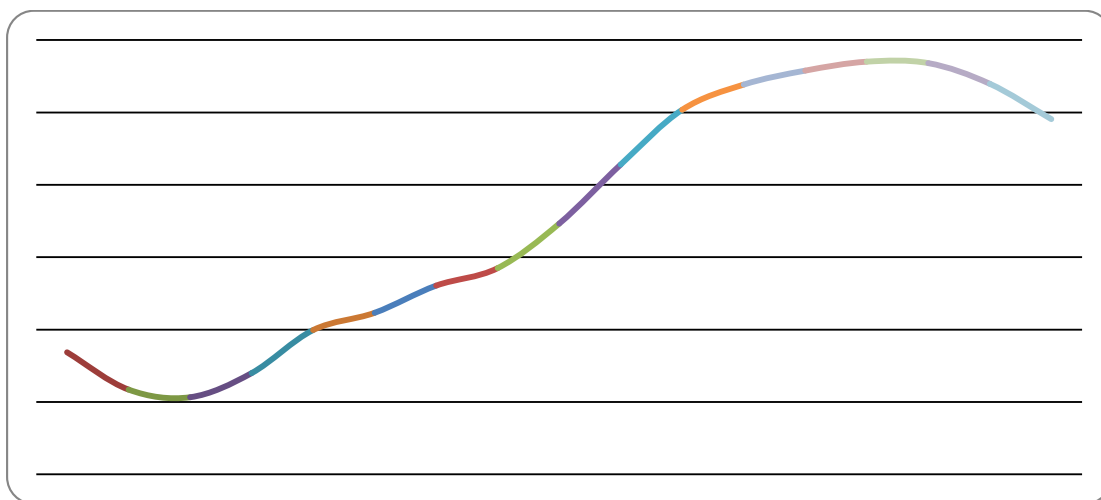
t-8	t-7	t-6	t-5	t-4	t-3	t-2	t-1	t-0	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+8
-0,46	**-0,57**	**-0,59**	**-0,52**	**-0,40**	**-0,35**	**-0,28**	**-0,23**	-0,11	0,06	0,21	**0,28**	**0,32**	**0,34**	**0,34**	**0,28**	0,18

*bold number denotes 1%, 5% or 10% significance levels respectively
Source: Author's calculation.

Concentrating on the S-curve phenomenon, results are consistent with the existing literature. Croatia is a small and opened economy that belongs to developing nations meaning that it can also exhibit an S-curve pattern largely due to limited access to international financial markets for capital formation and for smoothing effects of international terms of trade and other exogenous shocks. Hence, these results require interpretations with extra cautions. S-curve pattern does not necessarily suggest the existence of J-curve in the data, thus it is possible to depict an S-curve in the analysis without finding any evidence of the J-curve. In such manner we cannot recommend any real exchange changes to be used as a policy tool to manipulate trade flows based on the proof of the S-curve existence.

An S-curve describes only unconditional cross-correlations, whereas J-curve describes spots the conditional dynamic response of trade balance following a shock in the exchange rate. The inability of the S-curve to depict the strength and/or the speed of the adjustment process before and after the exchange rate/terms of trade depreciation explains its limitation within policy recommendations. Non-the-less, complemented with other types of research (correlations between other trade variables, exchange rate dynamics - Marshall-Lerner conditions - J-curve pattern, terms of trade developments and its causal relation to trade balance or output, analysis on disaggregated level and etc.), the S-curve confirmation could be of great help in achieving long-run policy goals suggesting that there indeed exists a nexus of some kind between the terms of trade/exchange rate and the trade balance. Will this allow exchange rate manipulation? Maybe! Considering the main objective of Croatian National Bank (exchange rate in Croatia has been given a role of economic stabilizer rather than a position of an active instrument within a monetary policy), we may conclude that reliance on exchange rate as a factor inducing positive movements in business cycles is a highly unrealistic assumption mainly due to a great external indebtedness (Benazić and Tomić, 2014, p. 89).

3.3. Other results

Additional goal of this paper was to examine cross-correlation functions between various trade variables at different lags and leads in order to clarify some questions revolving trade dynamics in Croatia (see Appendix). These too reveal some puzzling results. The cross-correlations between the *CAg* and *Y* are generally negative, reaching its minimum at contemporaneous values of both output and trade. It means that over a business cycle, an increase in output is related to a worsening of the current account. Nothing strange considering that Croatia is highly import dependent country. On the other side, cross-correlations between the *ITOTg* and *Y* are positive, indicating that an increase in output is associated with an appreciation of income terms of trade (consistent with conclusion made by Škare et al. (2012), Kovačević and Tomić (2012) and Tomić (2014)). This is also consistent with some of our previous conclusions but opposite to an S-curve logic. Next, cross-correlations between *QEXg* and *Y*, *QIMg* and *Y*, *QEXg* and *ITOTg*, and *QIMg* and *ITOTg* are positive in general, hump shaped, reaching in that manner a maximum at contemporaneous values. It suggests that a rise in output and income terms of trade can be associated with both an increased outflow and inflow of goods. In deduction, though Croatia is considerably opened economy, it still lacks the results on the export side. However, when we observe graphical display of the relationship between *QEXg* and *ITOTg*, there is an allusion of the S-curve pattern in the data which is in conformity with our previous conclusion[10]. Croatia should therefore consider it strategic position and place it towards an improvement in export performance in order to perform well within established macroeconomic conditions. *Ditto* it calls for structural adjustments and an increase in competitiveness while maintaining fiscal discipline, all with questionable reach of a monetary policy.

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[10] Interestingly, Škare et al. (2012, p. 914) found that depreciation of the kuna would lead to an improvement of the income terms of trade by 1.83%. Though it should be in reverse within the terms of trade scope (appreciation – increase in terms of trade; depreciation – decrease in terms of trade), since income terms of trade also include the volume of export it is logical that depreciation makes domestic products on world markets more cheaper, increasing in that way the volume of export, hence the income terms of trade. This conclusion is however doubtful considering possible exogeneity of Croatian income terms of trade, a low competitiveness of export products and the controversy over the J-curve effect Croatia.

4. CONCLUSION

The impact of currency depreciation on trade balance is still an empirically open question in international and financial economics. Our paper was pointed towards (at least partial) clarification of that question by analyzing trade dynamics in Croatia through the concept of S-curve. We employed two variables to test the S-curve hypothesis in order to answer the robustness requirements and came to conclusion that there indeed exists S-curve pattern in the Croatian data. Both relations demonstrated that while the cross-correlation between the current values of income terms of trade or real effective exchange rate and the future values of current account is positive, the same cross-correlation between the current values of the income terms of trade or real effective exchange rate and past values of the current account is negative. When we plotted cross-correlations against the lags and leads, relations resembled the letter S, meaning that we have found the evidence of the S-curve phenomenon in both cases. On the other hand, similar analysis between various trade variables reveals opposite conclusion, casting some doubt on the existence of the S-curve relation. This is even more so true when we evaluate in dept the sources of economic problems in Croatia, as well as empirical studies that suggest that exchange rate changes would not ultimately improve trade balance and international competitiveness but would lead to a debt chaos and economic havoc. However, the finding of an S-curve pattern does not necessarily mean we confirmed the J-curve pattern, meaning that conclusion should be affiliated in that manner. Hence, the inability of an S-curve to depict the strength and/or the speed of the adjustment process before and after the exchange rate/terms of trade depreciation explains its limitation within policy recommendations.

Due to several reasons, the results of this paper should be interpreted with due cautions. First, aggregate level analysis based on some adapted variables enables an alternative approach to the topic yet leaves room for analytical questions. Second, the revealed S-curve pattern should not be used as a pillar for economic policy actions due to its limited reasoning. And third, this ubiquitous S-curve often describes a natural design of flow systems in a business cycle manner, therefore it could only reveal natural behaviour of the terms of trade/exchange rate and trade balance. Non-the-less, complemented with other types of research (Markov switching model that would reveal two regimes, J-curve estimation etc.), the S-curve confirmation could be of great help in achieving long-run policy goals suggesting that there indeed exists a nexus of some kind between the observed variables giving as some new insight into Croatian trade dynamics and its international financial position.

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Appendix
Cross-correlation functions:
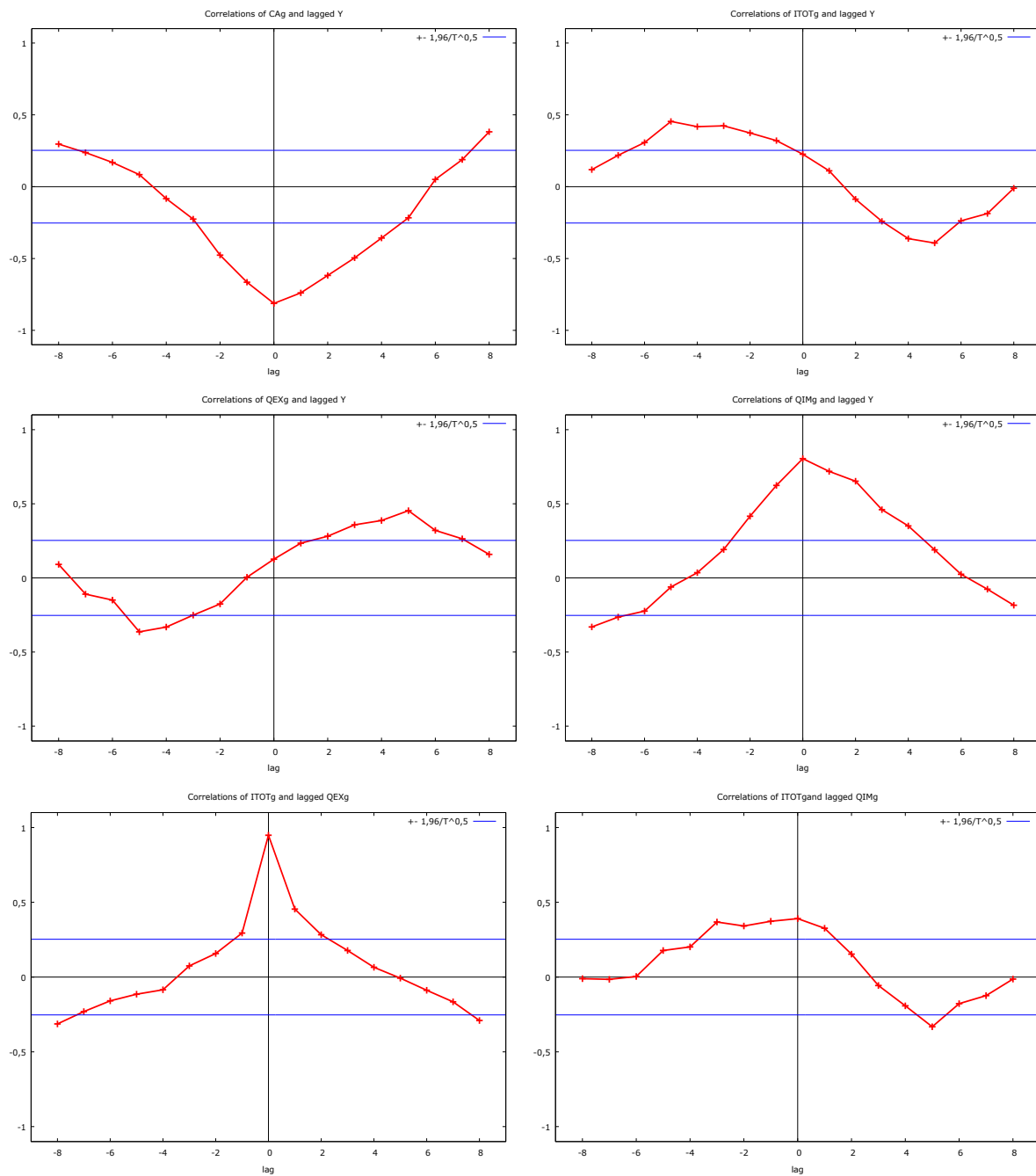
STUDYING OF URBAN MOVEMENTS THROUGH THE PARADIGMS OF POPULAR GEOPOLITICS AND ANTI-GEOPOLITICS

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ABSTRACT

The paper studies urban movements, as a type of social movements. These phenomena are studied through the perspectives of critical geopolitics' two sub disciplines: popular geopolitics and anti-geopolitics. Urban movements represent a type of social movements devoted mostly to the resistance of urban population towards changing of the cities under the influence of neoliberalism i.e. capital and private interests. Urban movements that were studied were mostly the ones resisting the privatization of public space as an expression of neoliberalisation of the cities, which has been going on for the last three decades in the West, and for about two decades in the former socialist countries and various emerging economies, such as P. R. China. Studying of urban movements has a tradition of a little more than quarter of a century, since critical geopolitics as a geopolitical perspective exists. It is mostly tied with the geopolitics of resistance i.e. anti-geopolitics that is an expression of challenges to the cultural, political, moral and economic dominance of the elites in various societies. Social movements represent the ties that bind the individuals involved in resistance, hence they articulate individual actions into comprehensive, socially visible and tangible actions that attract and keep the attention of the society as well as the authorities. In the era of social media, social movements have much more diverse ways of transmitting messages and coordinating actions. The main conclusion is that we live in the era of social movements (and therefore urban movements as well), in which social media have become a very important means of the social movements' actions.
Keywords: social movements, urban movements, social media, popular geopolitics, anti-geopolitics, the Internet age.

1. INTRODUCTION

The paper studies some of the current developments connected with social movements from a critical stance, such as urban movements that are struggling against neoliberal capitalism and globalization[11] as an agent of mainly neoliberal capitalism, as well as the studying of these phenomena in critical geopolitics' two sub disciplines, popular geopolitics and anti-geopolitics.

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[11] Globalization is leading to the formation of a transnational global capitalism. The world may not be fully transnational, but is heading in that direction as transnational production networks, a transnational capitalist class, and transnational state co-exist, and are increasingly taking over a previously more national world (Robinson, 2004).
Globalisation creates new forms of transnational class relations across borders and new forms of class cleavages globally and within countries, regions, cities and local communities, in ways quite distinct from the old national class structures and international class conflicts and alliances. (Robinson, 2005: 6)
The concept of transnational capitalist class originated was discussed by neo-Marxist scholars like Kees van der Pijl, Leslie Sklair, Robert Cox, Barry Gill, David Harvey, William Robinson and Jerry Harris.
The process of globalization is to an important degree commanded by transnational capitalist class (Robinson, Harris, 2000)
Harvey (2005) points out: "What we are left with is a transnational capitalist class, and a thoroughly liberal, anti-political, and state-centric version of civil society where politics in this realm is reduced to economic competition among competing elites, both "internal" and "external"."
Robinson, discussing the concept of hegemony, points out to "transnational social forces not necessarily tied to any one nation-state behind contests over hegemony and other global political dynamics." (Robinson, 2005: 3).

Urban movements represent a type of social movements devoted mostly to the resistance of urban population towards changing of the cities under the influence of neoliberalism i.e. capital and private interests. Studying of urban movements has a tradition in little more than quarter of a century, since critical geopolitics as a geopolitical perspective exists. It is mostly tied with the geopolitics of resistance i.e. anti-geopolitics that is an expression of challenges to the cultural, political, moral and economic dominance of the elites in the societies[12]. In the era of social media, social movements have much more diverse ways of transmitting messages and coordinating actions. Social media have been studied as a social phenomenon almost as long as they exist and not only in geopolitics. In the current era of new media and especially social media, social movements have much more diverse ways of transmitting their messages and coordinating their actions. Nevertheless, studying of the influence of social media on urban movements is a relatively new trend in popular geopolitics. This relative newness and not so widespread research (still) of the social media's influence on social movements was the main driver behind research that is briefly presented in this paper.

2. THE OVERIEW OF MAIN TERMS AND CONCEPTS

Critical geopolitics[13] is a subfield of human geography, claims Kuus, emphasizing that "a critical inquiry into the spatiality of world affairs must be central to the study of politics. All analyses of international affairs make geographical assumptions, whether acknowledged or not. Critical geopolitics seeks to make these assumptions visible so as to submit them to analytical scrutiny" (Kuus, 2010: 683). Critical geopolitics therefore studies the geographical determinants and factors that influence global and international politics. It has been mostly focused on the documents, speeches and papers commonly referred to as "texts", studying their narrative and linguistic features, thereby analyzing discourses. Critical geopolitics studies and explains the actions through which the intellectuals of statecraft give geographical and spatial features to international politics, representing the "world" marked by the certain types of places ("locations"), which are tied to a certain identity. Critical geopolitics is therefore connected with the studying of new spatial relations and the processes of capitalist accumulation, which it criticizes with its scientific apparatus. It is also highly critical of geopolitics of neoliberalism[14]. Popular geopolitics is a part of critical geopolitics, which studies popular, circulating representations of geopolitical problematics. It studies various cultural products as well as their producers and audiences, it offers insights into a range of locations and agents of geopolitics outside the realm of the state: popular magazines, newspaper reporters, cartoonists, film

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[12] Despite the changes in the world connected with globalization, information and the Internet age, this thesis is still valid: „Geopolitics is here to stay anyway, as illustrated both by its constant circulation in media and politics, and by the booming academic industry in appending new qualifiers to geopolitics, which has seen the emergence of, among others, subaltern, feminist, actor-network, everyday, emotional, embodied, and bio-geopolitics." (Ingram, A. in Ciuta, 2011: 224)

[13] The term critical geopolitics was first coined by Simon Dalby (1990) in his analysis of the representational strategies of the Committee on Present Danger (a conservative foreign policy interest group) in the 1970s and 1980s. By the late 1990s, after numerous articles and several further books, critical geopolitics was a clearly discernible and rapidly growing strand within political geography (Kuus, 2010: 686).

[14] Local strategies-aimed particularly at securing mobile (public and private) investment-have become more prominent and more pervasive not because they provide the 'answer ', but because they represent a common tactical response to political-economic disorder at the global scale. They are in fact about selling the local to the global. This commodification of place… must be understood in terms not of ' the local ' itself, but of relations between places. These relations are increasingly being constituted on a neoliberal basis. In order to explain this new spatial disorder, then, it is necessary to consider the geopolitics of neo-liberalism, an ideology which we characterize here as a creature of the crisis. As the leverage of nation states has waned, and as new global-local relations have been constituted, there does indeed seem to have been something of a geopolitical realignment. For some, this implies a spatial reconstitution of state power. (Peck et al, 1994: 318)

directors, and social activists of various kinds (Kuus, 2010: 693). One part of this inquiry into popular culture and everyday life is the work on resistance geopolitics or anti-geopolitics.

Popular geopolitics is a form of geopolitical discourse. It has recognized that geopolitics is something that occurs every day outside of the academic and policymaking discourse (and not just in them!). This recognition has been central to the development of critical geopolitics.

Popular geopolitics has generally been focused on media and popular culture artifacts. This has led to a popular geopolitics that has been focused on the elite visions of media moguls, movie directors, and lower-level yet still relatively empowered media functionaries like writers and reporters (Dalby, 2008; Dittmer, 2005; Mc Farlane and Hay, 2003) (in: Dittmer, Gray, 2010: 1664)[15].

Anti-geopolitics can be defined as: "an ambiguous political and cultural force within civil society that articulates forms of counter-hegemonic struggle." (Routledge, 2006: 234). By civil society, Routledge means those institutions that are not part of either material production in the economy or the formal sphere of the state. By counter-hegemonic, he means: resistances that challenge the material and cultural power of dominant geopolitical interests or states and their elites (2006: 234; in: Kuus, 2010: 694). The challenges to the military, political, economic and cultural dominance of the elites in societies from "below" (the subaltern groups) are not new developments. These challenges are various forms of resistance that are articulated, and can be termed as "anti-geopolitics". Anti-geopolitics can take myriad forms, from the oppositional discourses of dissident intellectuals to the strategies and tactics of *social movements* (although the former may frequently be speaking on behalf of the latter). While anti-geopolitical practices are usually located within the political boundaries of the state, with the state frequently being the principal opponent, this is not to suggest that anti-geopolitics in necessarily localized. For example, with the intensity of the processes of globalization, *social movements* are increasingly operating across regional, national, and international scales, integrating resistance into global strategies, as they challenge elite international institutions and global structures of domination (Routledge, 2003: 236-237). From Routledge's mentioning of the forms that anti-geopolitics can take, we can see that he mentions social movements[16] here twice. The intellectuals with a developed sense of awareness about the inevitability of resistance are important since they provide intellectual perspectives and help people to see things in a different way that is not formed by the common prejudices and mainstream media sponsored by the state or private capital, the importance of social movements for the development of anti-geopolitics is even greater.

Studying of the social movements from the perspectives of Marxist geopolitics is not viable hence attempts to suffix geopolitics to Marxism, are not so successful, mainly because of two

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[15] While space was carved out under the term "popular geopolitics" to note the ways in which geopolitical discourse suffused everyday life, early writings in critical geopolitics focused on the formal and practical forms of geopolitical discourse, with popular geopolitics seen as the "legitimating" form of discourse that brought popular acquiescence to policies of militarism in democratic states. Popular geopolitics has continued in this mold for the past decade; tracing the ways in which popular media reinforce elite discourses (Dittmer, Gray, 2010: 1665).

[16] Social movements articulate anti-geopolitics on a number of interrelated realms within society, including the economic, cultural, political and environmental. In the economic realm, social movements articulate conflicts over access to productive natural resources such as forest and water that are under threat of exploitation by states and transnational corporations. In the cultural realm, social movements' identities and solidarities are formed, around issues of class, kinship, neighborhood, and the social networks of everyday life. In the political realm, social movements challenge the state-centered character of the political process, articulating critiques of neoliberal development ideology and of the role of the state. In the environmental realm, social movements are involved in struggles to protect local ecological niches – e.g. forests, rivers, and ocean shorelines – from the threats to their environmental integrity through such processes as deforestation and pollution. Many of these social movements are also multidimensional, simultaneously addressing, for example, issues of poverty, ecology, gender, and culture (Routledge, 2003: 240-241).

reasons: one explicit, the other much less so, both essential, yet fundamentally incompatible. The first reason, Colás and Pozo argue, is applied analysis. With a Marxist geopolitics we can understand better 'the capitalist valorization of territory and . . . its international repercussions'. Naturally, such an argument rests on the claim that Marxist geopolitics is a new thing. In turn, this claim requires not only carving out a niche within the empirical domain covered by Marxist theory, but also specifying the distinct parameters of geopolitics which make this new-found compatibility possible and desirable. Clandestine, although it dazzles at the very top of the manifesto, the second reason for the coming of Marxist geopolitics is that geopolitics in general is no longer a theoretical pariah, having been sanitized, deodorized and purified from the dirt and messiness of 'the corridors of power or popular commentary' (Ciuta, 2011: 221-222).

The recognition of social movements' importance is not a recent development. It has been present in social sciences for decades. However, as Harvey (1996) pointed out: "In face of the neoliberal challenge, social movements can either remain place-based and ignore the potential contradictions inherent in transnational coalitions; or treat the contradictions as a nexus for creating a more transcendent and universal politics, combining social and environmental justice, that transcends the narrow solidarities and particular affinities shaped in particular places."

The neoliberal (counter) revolution of the Reagan–Thatcher era had strong repercussions at the urban scale, opening the way for an unprecedented deregulation of housing markets and generally for an irreversible shift to the entrepreneurialization of local government and the privatization and commodification of urban public space (Smith, 1996; Mitchell, 1997; MacLeod, 2002). Urban neoliberalism more specifically is to be viewed as the translation of the logic of free market capitalism into the urban domain of socio-spatial relations (Rossi, Vanolo, 2015: 847).

The counter offensive by capital and state actors, including the emasculation of progressive local and city governments and assault on trade union power (especially in the USA and UK), allied to the flight of capital away from the industrial cities of the north to low wage locations elsewhere, represented a response to an upsurge in class politics. Neoliberalism then represents a new round of attempts to control labour in and beyond the workplace, fusing with aspects of social conservatism to attack the gains made by women, gay and minority ethnic groups in the 1960s and 1970s (Harvey, 2005).

Neoliberalism's power to "press upon" stems from its institutional arrangement and hegemonic discourses backed by the United States' military might (Harvey 2003; Peet 2007). But the presence of power that "presses upon" does not negate the possibility of subaltern counter-politics. In fact, the presence of power that presses upon also gives rise to productive power, or the power to resist and transform (Foucault 1979). The power of those adversely affected by neoliberalism is dependent on their alliances, relations, networks and counterhegemonic discourses (Waquar, 2012: 1063).

Nilsen suggests that a new theory of social movements[17] are necessary, since established social movement theories have limitations – on the one hand, the various ways in which these theories operate with a deeply reductive conceptualization of social movements as a particular institutional level of an essentially fixed political order, separate and different from everyday

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[17] *Social movements from above* are defined, above all, by the ability of dominant groups to draw on a set of specific power resources in their attempts to shape the social world in specific ways – a directive role in economic organization, a privileged ability to act in and through the institutions of the state, and a capacity to mold everyday routines and common sense. (…)
Social movements from below grow out of people's experience of a concrete lifeworld that is somehow problematic in relation to their needs and capacities and from their attempts to combine, organize and mobilize in order to do something about this. In other words, social movements from below are dynamic entities that contain a contingent potential for expansive development from circumscribed to more encompassing forms of activism (Nilsen, 2015: 5-6).

resistance, political parties, trade unions, and revolutionary transformations; and on the other hand such theories have limited capacity to say anything of strategic substance about the struggles of the day (2015: 2). Social movements can be seen as being simultaneously constituted by and constitutive of praxis, and thus as being situated at the very heart of the making and unmaking of the structures and processes that underpin *both* social order *and* social change. Social movements should be understood according to the way how they play a role in shaping and reshaping the current form of given institutional fields and political economies, and taking seriously the basic intention that animates social movements, that is, the intention of moving, of becoming more than what they currently are (2015: 4-5). Social movements represent the ties that bind individuals involved in the resistance hence they articulate individual actions into comprehensive, socially visible and tangible actions that tie and keep the attention of the society as well as authorities. In the current era of new media and especially social media, social movements have much more diverse ways of transmitting their messages and coordinating their actions, exactly through the widespread use of social media. The "resistance to accumulation by dispossession" (Harvey, 2003)[18] has been picked up by "new" social movements concerned with issues such as land and minority rights (Hickey and Bracking 2005). In this period, socially ameliorative interventions were aimed at providing a certain degree of collective consumption and at upgrading the living spaces of the disadvantaged. Meanwhile, the terrain of profitable activities was expanded with the help of policies and plans. Citizens and interest groups have become stakeholders in this increasingly fragmented and participatory governance system. Concomitantly, social mobilizations became part of an organized and formalized negotiation process (Eraydin, Tok-Kasan, 2014: 114). The racial issue in capital accumulation should not be overlooked at any time[19]. Even today, it is quite clear, hence in multiracial societies, the population of European origin ("whites") always have much better social status and more wealth than the population of Asian or especially African origin. Latino population in the North America, as well as Amerindian and Mestizo population in the Latin America share the similar fate. The roots of urban movements primarily can be found in high discrepancies of wealth distribution, besides the more obvious reasons, such as: gentrification and privatization of former public space; privatization of natural resources and natural monopolies (for example: water supply).

3. DISCUSSION

It is a striking historical fact that at the various apices of US global ambition over the last century, powerful discourses emerged to the effect that the world is devoid of geographical hierarchies and that it should be seen instead as a plain of equal opportunity for all. (…) All in the world were supposedly equal in this beautiful vision, perpetrated by powerful ruling class

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[18] In the late 1980s, David Harvey was the first social scientist to clearly identify the rise of a neoliberal art of governing cities, through his conceptualization of the entrepreneurialization of urban governance in US cities over the 1980s, even though at that time he did not explicitly use the term neoliberalism (Rossi, Vanolo, 2015: 846).

As Harvey had explained, politico-economic elites across the world were urged to connect cities and regional spaces to economic, political, and cultural relations of global reach. (…) The 'new urban politics' becomes thereby a crucial terrain of investigation with reference primarily to Anglo-American cities and metropolitan areas but also to cities in other contexts of advanced and emerging capitalism (Rossi, Vanolo, 2015: 847).

[19] The racial wealth gap is one of myriad economic realities that reflect these disparities. In the USA, the median wealth of white households is 20 times that of black households and 18 times that of Latino households (Kochhar, Fry and Taylor 2011). These economic geographies are produced through state violences that support enslavement, colonization, and incarceration, and the racism enshrined in agendas like homesteading, housing policy, urban renewal, and suburbanization that have devoured communities of color while facilitating capital accumulation for privileged white Americans. (Inwood, Bonds, 2013: 517)

Additionally, the mobilization of neoliberal projects rests on racialized and sexualized discourses (eg. welfare mothers, criminalization of race). (Ibid, 517-518)

men who sat at the top of a global hierarchy and who clearly had an interest in seeing no privilege. Today the language of a US-led neo-liberal globalization revisits this fantasy; its favourite slogan tells us that globalization provides a level playing field. But it is precisely the self-serving trick of neo-liberalism to assume that such a flat world is already here, hierarchy is gone, equality rules[20] (Smith, 2005: 893).

The neoliberal dogma about equality among people and the flat world[21] represents a fantasy, a composition of "realities" based on the false premises. Therefore, the conclusions cannot be anything but false. The only thing that is becoming more equal is the range of social inequality i.e. social stratification in the societies of the majority of the world's countries, both developed and underdeveloped. At the same time, the differences in the level of economic development between the developed and the least developed countries (LDCs) are increasing, leaving the emerging economies as the only examples of shrinking differences between the developed countries and the non-developed countries. However, this faster, sometimes in purely economic terms, incredible economic development of the emerging economies comes at a very high price: rising social inequality, rising crime rates, increased resource extraction, increased dependence on resource imports (especially oil, in most of the emerging economies – P.R. of China and India are the best examples) and a rapid pollution and destruction of the environment (P.R. China probably stands out as the perfect example).

Recognition of neoliberalism's geographies of poverty, inequality, and violence as intertwined across a multiplicity of sites (Hart 2008; Springer 2008) impels us to view its geographies of protest, resistance, and contestation in the same light (Springer, 2011: 553).

Because the changes associated with neoliberal policies often had negative distributional impacts on the working class, the poor, the small-business sector, and the environment, diverse forms of resistance and contestation have emerged. Leitner et al (2007) suggest that contestations of neoliberalism fall under four basic types: engagement, opposition, alternative knowledge production, and disengagement (Hess, 2011: 1058).

There are ample evidence from around the world that the state aims to pacify opponents, concurrently performing authoritarian and entrepreneurial state interventions, connected with neoliberal urban management[22].

Social movements of the present day world are definitely thriving because of the two main processes. The first is the neo-liberally inspired internationalization (which the ideologists of globalization refer to as "globalization") that increases social inequality in both rich and poor states, concurrently increasing inequalities between the developed and non-developed states, increasing the number of least-developed states, and therefore turning whole regions into the "*zones of compression*" (Cohen, 2008) i.e. social and environmental destruction (Central Africa is the worst example). The second process is the revolution in information technologies that has invented "new media" and then made them available to significant parts of the world population (in developed states, the percentage of Internet users well surpasses 50%). Internet and its tools have become ubiquitous. Social media (especially Facebook and Twitter, as well as YouTube) have changed the possibilities of social movements.

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[20] From Latour's actor network theory to Paul Virilio's ''death of geography,'' from Castells' network society to Jean Beaudrillard's ''end of geography,'' leftists and ex-leftists have variously refracted visions of a flat playing field (Smith, 2005: 895).

[21] Probably one of the best examples of this dogma is a book by T. Friedman, *The World is Flat*.

[22] Any sense of collective agency has disappeared with the collapse of trade union membership, the failure of attempts to prevent plant closure and in some cases, decisive moments of defeat for the working class. In the case of the UK, Thatcher's defeat of the 1984–1985 miners' strike or the failed attempts by British city governments to develop municipal socialism in the 1980s in the face of the neoliberal onslaught at the national level. In the USA, the bankruptcy of New York City (Harvey, 2005) and the subsequent collapse of a progressive urban politics of redistribution alongside the job losses, plant relocation and emasculation of the autoworkers are similar symbolic moments. (Cumbers, Helms, Swanson, 2010: 61).

Social movements typically grow from "cramped spaces", situations that are constricted by the impossibilities of the existing world with a way out barely imaginable. But precisely because they are cramped, these spaces act as incubators or greenhouses for creativity and innovation. Social movements that grow from these spaces might form around antagonistic demands (more money, better housing, and withdrawal of the police) but they also produce their own problematics. By this we mean they throw up concepts, ideas, desires that don't "make sense" within existing society and so call forth new worlds (The Free Association, 2007)[23].

Castells is one of the authors who has recognized the new possibilities of social movements' actions through the use of social media. In his book, titled *Networks of Outrage and Hope: Social Movements in the Internet Age* (2012) he recognizes the importance of Internet and social media for the development of social movements. Castells has identified over a 100 different social movements that have thrived in 2009-2012 period, in various parts of the world, in democracies and developed states (various movements in European states, Occupy Wall Street Movement etc.), as well as in the autocratic regimes of the developing world (for instance, the Arabian Spring movements, protests in Russia against Putin). All these movements used social media as a means of coordinating their actions and announcing their messages to their supporters and to the outside world. Some of these movements were motivated by a desire for more political freedom and some were motivated by the increasing social inequalities and injustice, as well as the economic crisis itself. Third kind of movements were the ones that had both political and economic motives that initiated them. It also has to be noted that this differentiation is sometimes very vague, since changes in the political arena are usually preconditions for changes in the economic arena.

Urban movements

Neoliberalisation of the cities is referred to by Smith (1996) as "revanchism": "A ruthless, right-wing reaction against the supposed theft of the city by, among others, the working class, the unemployed, immigrants and minorities."

The response to the elimination of collective bargaining rights for public employees in Wisconsin, the growth of the Occupy Movements, and the emergence of student protests to the oppressive cost of education remind us that radical activism is still possible. However, certain instances within these moments of possibility brought with them the baggage of privilege and essentialism that should serve as reminders of the importance of anti-racism to anti-capitalist activism (Inwood, Bonds, 2013: 518).

The people who were evicted formed the wellspring of urban movements in cities around the world (Sugranyes, Mathivet, 2011). At this stage, interventionist urban agendas and state entrepreneurialism are likely to be found not only in developing countries but also in advanced economies (Swyngedouw, 1996).

The response of the Turkish state to urban movements in the last decade illustrates that economic neoliberalism does not have to coincide with the dismantling of the state. (…) Neoliberal urban policies and practice are used to legitimize the enhancement of authoritarian governance[24].

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[23] But just as social movements take root and slow down, so these problematics stop moving. What was once new becomes codified. It's a vicious circle: as problematics slow down, they acquire baggage; as they acquire baggage, they slow down. Rather than being innovative and productive, the problematic loses its purchase and becomes cliché. It becomes saturated in meaning (The Free Association, 2010: 1023).

[24] Second, it shows that governments use urban areas not only as a growth machine but also as grounds for a socio-political transformation project. This approach, which necessitated a strong role for the state, has engendered different forms of intervention in urban areas combining economic neoliberalism with increasing social control, restrictions, penalization, and exclusion of certain social groups. Third, the response of the Turkish state to urban movements depicts changing partnerships between the state, the market, and the citizens. (Eraydin, Tasan-Kok, 2014: 111).

Urban movements and urban poor are not only typical for the underdeveloped countries and emerging economies that are under harsh pressure of neoliberalism. It is also typical for the most of the developed countries and their cities: "The resurgence of an urban poor is the starkest manifestation of the growing economic polarization evident in advanced industrial societies (Brenner and Theodore, 2002; Dorling and Thomas, 2004; The Guardian, 2004). For example, in the UK since 1978 there has not only been a growth in the number of households living in relative poverty, but also a growing divide in absolute levels of income between upper and lower quartile of earners (Hocking, 2003; Nickell, 2004). The greatest gaps in wealth are to be found in the major cities, particularly in the disjuncture between the relative few with the right professional qualifications who have benefited from the small number of knowledge economy jobs available (Thompson, 2004) and a working class which has seen its livelihoods and economic identity disappear as the result of a shift from manufacturing to service-based work (Helms and Cumbers, 2006). It is in those old industrial cities and regions that experienced the most dramatic economic decline and subsequent restructuring that these concerns are most urgent[25] (Cumbers, Helms, Swanson, 2010: 49).

Through the strong theoretical lens of neoliberalism, the PFI[26] is in many respects an ideal-type capitalist technology that tries to mystify an enormous transfer of public revenues and assets to finance capital under the ruse of so-called "risk transfer". At the national scale, the PFI has played a small but nevertheless significant role in the New Labour government's 2000–2010 Decent Homes programme, which, beneath the rhetoric of modernisation, has been designed to facilitate the long-term privatisation of council housing[27] (Hodkinson, 2011: 378).

As far as the resistance to PFI is concerned, from the perspective of urban movements, there are some positive developments: Nationally, the Defend Council Housing campaign has successfully fought off dozens of stock transfers, while internationally, momentum is gathering behind Lefebvre's slogan of The Right to the City as myriad local urban movements seek to connect up working class struggles "against gentrification and displacement to other local and

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In view of the common features of the state's response to urban movements, three different types of state response can be identified since the 1960s: collective consumption, urban social movements, and clientalism (ie the urban politics of the post-war period for many places); the new entrepreneurialism (a first strand of revision of post-war urban politics); and the new authoritarianism (a second strand of revision of post-war urban politics, connected to the first strand). (Ibid. 112)

[25] "Dorling and Thomas's (2004) study found that, outside London, the city with the highest proportion of households living in poverty, with over 40%, was Glasgow. In as far as the absence of paid work is responsible for poverty levels, the decline of traditional industries such as heavy engineering and shipbuilding has severely affected old industrial cities such as Glasgow. Although unemployment levels are relatively low (in comparison to say 25 years ago), economic activity rates remain well below the national average. Recent evidence available from the UK Office of National Statistics suggests that almost a third of the working population in the UK's major old industrial cities continues to be "economically inactive", not in paid formal employment nor classified as unemployed according to the ILO." (49-50)

[26] PFI - *private finance initiative*, developed in England. The PFI is here described as "the Labour government's flagship public–private partnership (PPP) approach to public infrastructure modernisation."

[27] The Little London regeneration scheme also suggests, however, that the PFI's neoliberal straitjacket has three intended urban effects (or at the very least presents local actors with the following openings): the imposition of the government's proactive gentrification approach to regenerating inner city working class estates; the geographical rationalisation of public services and assets to free up land and other resources in order to feed the complex and costly financial model; and the further embedding of what Crouch (2004) calls "postdemocracy" by simultaneously "locking in" private sector interests into the governance of the area, while "locking out" grassroots stakeholders such as tenants, community activists and housing workers. So far, so disempowering. Yet we have also seen that the intended consequences of the PFI's neoliberal urban straitjacket confront other realities that shape and even threaten to derail them. Structurally, the PFI is a highly precarious technology because it rests on creating long-term contracts in which risk and uncertainty are massively increased, thus making the actual signing of schemes vulnerable to delays and any changes in future economic forecasting. This makes "time" the Achilles heel of the PFI, and, just as in the myth, this weakness can be exploited through the arrow of resistance (Hodkinson, 2011: 378-379).

international struggles for human rights, land, and democracy" (Right to the City Alliance, www.righttothecity.org; also Harvey 2008) (Hodkinson, 2011: 379).

4. CONCLUSION

Unless the state is limiting the access to the Internet, social media decrease or almost completely annul the monopoly on circulation of the information, and that can mean the end of any dictatorship. However, the dictatorship of neoliberal capitalism and the ubiquitous „TINA" (There Is No Alternative)[28] doctrine, continues, despite the actions of social movements and social media. Social media are the means that help make the struggle against the neoliberalisation of the cities of the social and therefore of the urban movements as well, different and probably more successful.

As Smith (2005: 898), bluntly pointed out: "So what is the alternative to a flat-earth pluralism and neo-critical geography? How do we both keep a multiplicity of voices alive and at the same time create a robust body of political thought and debate that helps guide and build political struggles. Major social transformations can spring from any number of sources: police abuse in Brixton, struggles over natural resources in Bolivia, religious strife in Bombay, imperialist occupation in Baghdad. The vital point for a critical geography is not an uncritical celebration of all revolts, but nor is it a tidy, detached desquamation of what counts as the only core struggle. Having said this, I also believe that as long as the class, race, gender and many other hierarchies of capitalism remain intact, we will get nowhere." Both forms of intervention (authoritarian and entrepreneurial) in urban practices and projects have become commonplace in cities that are undergoing neoliberal transformation increasingly.

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[28] A phrase/doctrine of neoliberal proponents of the omnipresent globalization, first used in the 1980ies by M. Thatcher, and used again by D. Cameron: "If there was another way I would take it. But there is no alternative." http://www.bbc.com/news/uk-politics-21703018;
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ACHIEVING LOCAL CONTENT IN EXTRACTIVE INDUSTRIES OF AFRICAN COUNTRIES

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ABSTRACT

Local content defines the extent of participation of local industry in extractive industries like mining, oil and gas. These industries are major destinations of foreign direct investments. They are very important revenue streams for governments of developing and emerging economies. In many countries, however, local industry is not participating enough. Recently researchers are bringing new perspectives into research and policy on the subject. We discuss the issue based on a review of relevant literature including a study in Nigeria in the wake of the passage of the new local content laws. Our study finds that the achievement of local content depends on the collaboration of a range of actors. Local political and legal institutions, local businesses, MNCs, universities and research organizations, international development partners and donors have to contribute their political and economic resources to achieve local content.
Keywords: *Africa emerging markets, local content, local participation in extractive industries; local participation in oil and gas industries*

1. INTRODUCTION

One of the factors that determine the extent of positive impact of natural resource extraction is the level of local content (LC) in the industry. The World Trade Organization (WTO, 2011) defines *local content requirements*, synonymously referred to as *domestic content requirements* as a "requirement that the investor purchase a certain amount of local materials for incorporation in the investor's product". The fundamental task is to "*involve and enhance the domestic knowledge base through arrangements that allow for a dynamic industrial and technological development, that gradually expand domestic competence and capabilities to competitive levels*" (Heum, 2008:4).

The research on LC is still in its infancy. Issues related to technology transfer and vertical integration have been studied by e.g. Kwon & Chun (2009); backward linkages between foreign multinationals controlling natural resource extraction and local companies by e.g. Ivarsson and Alvstam (2009), as well as Giroud (2007); effects of enhanced LC on welfare by e.g. Veloso (2006), as well as Takechi & Kiyono (2003); LC experiences in industrialized countries by e.g. Pursell (2001); LC in Brazil by Silvestre & Dalcol (2009); and a comparison of LC in West Africa and Central Asia by Klueh, Pastor and Segura (2009). In line with the studies mentioned above, LC has been mainly studied from industrial policy and industrial organization perspectives. We find that a stronger management and behavioural perspective is needed to understand the interrelatedness between institutions, governance, local and foreign companies, their capabilities and how they impact the achievement of LC. A recent study of the LC experience within Nigeria's oil industry showed the lack of collaboration between various local actors as well as between them and the foreign oil producers to be a major problem. Management and behavioural factors explained a lot of the problems impeding the achievement of LC over a period of over 30 years (Vaaland, Soneye & Owusu, 2012).

As more African countries find new deposits of oil and other minerals, researchers, policy makers, and managers need better understanding of the environment and interrelationships that should be developed to ensure the achievement of LC. The importance of LC is dawning on all players. In the endeavor to achieve successful LC, we need to better understand the enabling factors and challenges. In this paper, we discuss the enablers and challenges of achieving local content in extractive industries of developing countries based on a literature review and a study of local content in the Nigerian oil and gas industry (Vaaland et al, 2012). We are trying to answer the questions: how can increased LC be achieved in the extractive industries of developing countries? What are the enablers and challenges?

2. LITERATURE REVIEW
2.1. Enablers and Challenges of Local Content
There are two major actors in the LC regime in developing countries: institutions (local and foreign), and companies (local companies, and foreign MNCs who control the exploration and production of natural resources). Each of these actors contributes to the enabling environment and challenges. Local institutions include the decision makers; regulators; political authorities at both local and national levels; local universities and knowledge institutions providing research and policy guidance; NGOs and local pressure groups; as well as the laws and regulations the institutional actors create. Foreign institutions are powerful multi-lateral financiers and policy-makers like the World Bank and IMF, foreign donors and home countries of multinational oil companies like the EU, United States and China. Local companies are the indigenous business partners and beneficiaries of LC. Foreign MNCs are the foreign multinationals who undertake exploration and production of oil, gas and other minerals. In the subsequent sections, we describe the enablers and challenges provided by the various actors and end with a discussion of our policy, management, and research implications.

Institutional enablers
Local institutional enablers are governmental institutions or parastatals with direct or indirect influence on how the actors of the extractive industry operate. They include ministries responsible for national policy development, implementation, and monitoring of industrial and extractive activities in the country. National oil companies (NOCs) mediate between the central Government and oil producing MNCs. They are given implementation and policy development functions (Boscheck, 2007). The NOCs negotiate directly with the oil producing MNCs and supervise them. They also manage the national investments in the industry. They advise the Governments on the level of ownership, royalties and taxes to demand. As they work directly with the producers, their capabilities are very important in ensuring trust and fairness from the point of view of both parties. Various governmental and parastatal providers of critical infrastructure to the extraction industry like the Nigerian Electric Power Authority (NEPA) provide important capabilities. Legal institutions are also crucial for the work of the extraction companies. These include the lawmakers, the law enforcing police and prosecuting forces, and the court system necessary for providing protection, stability and a law abiding society. Other local institutions are universities and knowledge centers that develop and disseminate knowledge and technologies to political institutions, parastatals and companies. Additionally, NGOs and local pressure groups are critical in ensuring an enabling environment in the mining location and they impact the policy of Governments through their support or protests.
Foreign financiers and home countries of the oil companies like the United States, the European Union, Japan and China are potentially important enablers of LC in developing countries. By supporting the LC aspirations of developing countries they provide an important negotiating strength against the powerful MNC producers. Powerful multi-lateral agencies like the World Bank and IMF are increasingly playing a neutral role and supporting the LC aspirations of

developing countries. Historically, foreign companies' involvement in developing countries has been motivated by a desire to exploit natural resources and abundant labor pools (Hansen, Pedersen & Petersen, 2009). Finding the right mix between incentives and regulation is one important task for the industrial regulator in order to foster local participation through foreign companies (Kasuga, 1999). Based on experiences from the development of Brazilian oil industry, specific government imposed strategies are necessary to facilitate technology transfer from the MNC and to attract R&D activities into the industry (Hernandez-Perez, 2011).

In order to meet reluctance from MNCs to actively promote indigenous companies, Moser (2001) emphasizes the importance of external institutional pressures (i.e. institutional capabilities) principally in the form of legislation for MNCs contribution to sustainable development of developing countries. Recently, the Government of the Federal Republic of Nigeria has passed a LC law to ensure expanded LC (Federal Government of Nigeria, 2010: Atsegbua, 2012). Initially, the multi-national oil producers opposed the effort but later supported it with promises of training, funding and technological transfer to local suppliers.

Institutional Challenges

Ability of institutions to carry out their tasks can be related to their powers and accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption (Klueh et Al., 2009). Fattouh & Darbouche (2010) identify significant variations in performances and capabilities among NOCs in developing countries. For example, Boscheck (2007) claims that the Nigerian National Oil Company (NNPC) has exemplified poor governance, high levels of corruption, and inefficiencies in important tasks such as record keeping and collection of equity oil since its establishment in the early seventies. In some countries, (e.g. Nigeria and Ghana) the economic conditions for local industry such as; tariffs and exchange policies do not support local industrial development (Ilori et al., 2002). One example is when duty free industrial zones favor imported finished goods, while raw materials for local industrial production are heavily taxed (Ilori et al., 2002). In many developing countries, the legal system and their institutions suffer from a variety of challenges. The legal system in Nigeria, for example, is claimed to have lacked accountability and suffered from corruption, which in turn inhibited investments (Nwosu et al., 2006). In Frynas' (2001) study of the Nigerian court system, he argues that access to courts is a key test of the quality of a legal system, and identifies obstacles like the potential plaintiffs' lack of financial resources, long delays in the disposal of cases, and intimidation by public bodies. Deficient public infrastructure can always discourage investment and lead to low LC (Nwosu et al., 2006). In Nigeria, unstable electricity supply has forced virtually all large industrial companies to invest in backup generators with a view to avoid temporary shutdowns (Ilori et al., 2002). The situation is similar in many emerging countries like Uganda, Ghana, India and Pakistan. Many observers have criticized foreign Governments, particularly China, for pushing the economic interests of their companies to the detriment of the host economy. China has negotiated many oil and mineral contracts in African countries that are accused of not benefitting the local economy (Ramburuth, Buatsi and Owusu, 2010). In Angola and Zambia, for example, Chinese companies have used large numbers of Chinese workers and suppliers for their projects. This reduces the roles of local contractors to low technology land clearing and transportation tasks.

Inter-firm enablers and challenges

Inter-firm enablers involve the indigenous company or contractor/supplier, defined as (i) registered in the host country with a 60-100% local shareholding, (ii) possesses appropriate expertise, and financial viability, and (iii) has proven to be a contributor to the economic growth in its area of operation (Nwosu et al., 2006). In this definition, we exclude deliberate joint ventures between a foreign company and local interests that are established for the purpose of

matching local content requirements without real value creation for the local economy. The host country firms in our context include all commercial suppliers that are directly or indirectly involved in the various levels of value creation and position in the supply chain within the extraction industry. Indigenous companies in developing countries appear to be breaking into a wide range of activities but in low technology and labor intensive areas primarily (Vaaland et al, 2012). Local content aims at improving local contribution in more advanced areas of technology transfer, development and adoption. The development of indigenous suppliers particularly in technology intensive areas is hampered by the fact that they are SMEs; and are poorly linked to natural resource-based industries (Torres-Fuchslocher, 2010) and R&D / university sector (Ojewale et al., 2001). Local content can be enhanced not just by foreign MNCs' willingness to transfer competence and effective industrial regulation but also by proactive indigenous companies willing to improve their competitiveness within products and delivery processes. One is to improve the competence and resource bases by mergers or acquisitions with a view to form larger and more powerful companies and also to develop various types of inter-firm linkages as a means to overcome most of the inhibitions preventing increased local content (Hansen et al, 2009). Another option is to increase the business-to-business interaction through forms of agglomerations in similar geographical areas (Silvestre & Dalcol, 2009), and where stable platform for inter-firm cooperation and relation-based governance can be established (Biggs & Shah, 2006).

Foreign multinational company enablers and challenges
Foreign multinational companies (MNCs) control mining and oil drilling in most African countries. Chinese companies are new entrants. For example, 95% of the oil produced in Africa's largest petro-state Nigeria, is generated by five multinationals; Shell, Exxon, Chevron, Total and Agip (Frynas & Paulo, 2006). Smaller MNCs like Tullow Oil and Kosmos Energy are dominating new exploration and production in, for example, Ghana and Uganda. The oil and gas related MNCs possess superior technical and economic capabilities, and represent an important potential source of competence and resources transfer to host countries. These are done through both physical investments, implementation of more effective managerial practices and transfer of best practice technologies (Silvestre & Dalcol, 2009). Transfer of knowledge is not only restricted to transfer of technologies, but all types of specific support relevant for removing bottlenecks for a potential supplier in order to achieve the required performance level. The MNCs are therefore potentially important channels through which world-class knowledge can flow into natural resource industries and stimulate innovation in other local businesses (ibid). The extent of technological and managerial spillover from MNCs to indigenous companies and knowledge sector can be questioned. Some studies claim that the relationship between the MNCs and host developing countries suffer from low technological spillovers, especially the failure to develop dynamic local entrepreneurship in knowledge intensive areas (Ivarsson & Alvstam, 2009). Others claim that attitudes among major foreign oil companies are impediments leading to low local participation (Nwosu et al., 2006; and Almeida & Fernandes (2008), whereas others (e.g. Jordaan, 2011) scrutinize the formation of the supporting linkages from the MNEs to the local SMEs.

Research and educational enablers and challenges
In this group, we find many types of state and private knowledge institutions established with the purpose of creating and diffusing scientific, managerial and technological knowledge. The institutions include research institutions, universities, polytechnics, and vocational schools. R&D institutions have an important role in both creating and transforming foreign accessed knowledge into industrial applications. Development of technology intensive suppliers is assumed to have positive impacts on the industrialization process and economic development

of natural resource-based industries (Torres-Fuchslocher, 2010). They are key energizers to industrialization and economic expansion in developing countries, mostly in fast growing oil producing countries (Mohamed et al., 2010). A main challenge is the incapacity of educational and research institutions. However, inadequate public funding and ineffective support for research and dissemination of knowledge from the private sector reduce their capability as a vehicle for upgrading indigenous companies. According to Britz et al., (2006), an oil producing country like Nigeria has only capacity to accommodate 12% of qualified candidates for higher education. Many R&D institutions are inadequately staffed and poorly funded (Ilori et al., 2002), The low capacity leads to lack of high-quality entrepreneurial skills and relevant technical expertise (Nwosu et al., 2006).

Financial enablers and Challenges
Financial institutions include banks and all types of capital providers in the host country. Other providers of financial capabilities include public funding institutions such as the Local Content Developing Fund in Nigeria. Their tasks include providing capital to indigenous companies for funding investments and providing operating credit lines for projects based on sound risk assessments. As suppliers have to pre-fund their work, emerging companies in developing countries are heavily dependent on funding. Many indigenous companies claim absence of adequate and appropriate financing (Nwosu et al., 2006). According to Ilori et al. (2002), the usually high cost of production in Nigeria is traceable to high exchange rates and lending rates, inadequate working capital and lack of investment funds to replace/refurbish worn-out machineries.

Discussion
An important enabler of local content is the capabilities provided by public institutions because they have the power to impose local content laws, financial and operational regulations, and requirements to foreign operators as well as providing incentives for the local industry. As Table 1 shows, the effect of institutional enablers is, however, dependent on other enablers. These include other local and international institutions, MNCs, local firms, financial institutions, research and educational institutions. For example, the current indigenous mining and oil & gas related supplier industry often lack capabilities to provide high technology deliveries within recognized quality standards. One way to mitigate this problem is said to be to combine foreign participation in resource exploitation with technology transfer to the host country. The public institutions and regulators could therefore apply their powers in forcing and/or motivating foreign operators to sustain technology and competence transfer with the aim of developing the indigenous companies. Principals and suppliers need a dependable legal system. Without well-functioning legal systems, opposing parties would be forced to apply personal trust as the only governance mechanism, which in the final analysis is unrealistic in any business society. Two issues that arise from this in the African context are (i), how can the laws relating to business be aligned with international law and at the same time meet the national interests; and (ii) how can corruption be reduced effectively from the courts and through the law enforcement agencies? Another enabler focuses on the financial capabilities, where access to capital at competitive interest rates is assumed to be the major issue to be solved. The indigenous companies require operational credit lines and project funding, which may be difficult in many African countries. One factor is that of low lending power of the financial institutions. The other is the smallness of the institutions of both the lenders and borrowers alike. Also business professionalism has further implications on the ability of companies to develop products and services and make managerial decision making and delivery processes that are necessary for local content to prosper. Nonetheless, the funding issue also raises two pertinent questions for the country. The first is whether the lenders and borrowers

alike would wish to restructure with a view to enhance their business powers and capabilities in the face of the need for larger business units. The other is the ability to achieve a legal system capable of providing efficient protection from fraud and defaulting business practices. The level of education and training, technology development and diffusion are among the main constraints to building a competitive local industry. Some of these relate to how the institutions are managed, funded and organized. Some others focus on how competence is accessed and applied in the companies. The local R&D institutions and universities (and indeed, other technical and poly-technical schools of relevance) face the challenge to develop relationships with the MNCs and local industry in order to improve curriculum and industrial relevance and also to build up training facilities that are based on modern technological equipment and tools. Beyond low value catering, transportation and safety services, tight relationships between foreign companies, indigenous companies and the knowledge sector are very crucial for building capabilities that are necessary for making local content a reality.). The concerns around these are (i) how the universities and R&D institutions can be sufficiently prepared financially and capacity wise to be able to adopt and distribute technology transferred from MNEs to local industry; and (ii) whether the schools and universities are organized and managed sufficiently to meet industry requirements for their primary and further education.

Actors	Required capabilities / Enabling aspects	Challenges / Constraints related to other actors
Institutional (Local political, parastatal and international institutions)	Dependable authorities, functional infrastructure, a sound legal system; industrial policy fostering local content; foreign institutional support	Corruption hampering institutional governance (all enablers); weak contribution to institutional building (external institutional enablers); weak generation and diffusion of know-how (research & educational enablers); weak industrial links between MNE and indigenous companies (weak intra-firm enablers); weak capacities and negative positions of NGOs and local institutions
Foreign Multinational corporation (MNC)	Transfer of technology and know-how. Building backward linkages to indigenous companies	Weak local industrial base and small scale businesses (inter-firm enablers); weak legal protection and infrastructure (institutional. enablers); weak local institutions (institutional enablers); weak foreign institutions (institutional enablers)
Inter-firm	More inter-firm collaboration; larger business units; improved competence base.	Lack of trust in legal system (institutional enablers); weak financial system (financial enablers), weak access to R&D (educational & research enablers)
Research & educational	Transfer of know-how to indigenous companies; high R&D and educational output.	Low ability to assimilate technological developments in companies (inter-firm enablers); weak relationships between relevant actors (inter-firm and institutional enablers); low involvement from MNEs (external development enablers); Lack of funding (institutional enablers)
Financial	Credit access and competitive interest rates.	Weak economy hampering banking and financial system (institutional enablers); weak legal system hampering financial relationships (institutional enablers.); weak payback attitudes and low business professionalism (inter-firm enablers).

Table 1: Enablers and of local content and their inter-related challenges

Another enabler is summarized in the external development capabilities in which the willingness and ability of foreign multinationals to provide managerial and technological competence to indigenous companies are essential. The consequences of weak vertical (backward) links represent a major constraint to local content. While transfer of competence from foreign operators can improve the capabilities of the local supplier industry, it does not

necessarily imply that contracts can be awarded. The important questions that arise from these are (i) Whether the foreign companies (often powerful MNCs) are actually willing to develop small local suppliers with limited competence and capacities with a view to enter global supply chains without strong incentives from governmental bodies; and (ii) whether the MNCs are prepared to help develop local companies in a way which will reduce their (MNCs) power.

The final group of enablers focuses on inter-firm capabilities. It relates to how indigenous companies can develop their resource base and apply this to the production and delivery processes. Taking into consideration the small and informal nature of most businesses in African countries compared to the large multinationals and foreign suppliers, weaknesses in horizontal intra-industry collaboration among local suppliers might prevent active participation of the local industry in the country's extractive industries. Table 1 above summarizes the discussion and emphasizes that local content should never be an isolated question about how individual public and private actors approach the issue. Rather, it should be approached with the understanding of the interdependencies, challenges and opportunities in combining the capabilities of the five groups of actors.

The challenges / constraints in Table 1 show how the challenges of achieving LC are interrelated. Just as the capability of each enabler is important, the cooperation of each enabler in overcoming their own constraints and helping to overcome inter-related constraints is critical for the process. Whereas the main constraints have previously been blamed by different researchers on specific actors – e.g. corruption and lack of capabilities in emerging countries like Nigeria, or capitalist greed and refusal to support local development by MNCs like Shell Oil, the framework in Table 1 confirms that failure is likely to emanate from several actors. In other words, each single actor can easily sabotage the achievement of LC by not dealing with its constraints. Thus far, LC has been poorly achieved in African countries. To improve on that we suggest the concept of *mutual constraint mitigation* which requires that the actors all commit to removing constraints in their organizations as well as those that are embedded in the links between them. This suggests the actors will actively strategize to work towards achieving LC from the point of view of their organizations as well as the necessary mutual activities.

3. CONCLUSION

This paper discussed an important international business issue that is only sparsely addressed in research. We answered the questions: how can increased LC be achieved in the extractive industries of developing countries? What are the enablers and challenges? We approached our aims by a literature review which we contextualized in a developing country perspective by illustrating it with primary and secondary data.

We propose a managerial and behavioural perspective and an integrative approach in order to understand inter-relationships, interactions, roles, and coordination among the actors which our research shows to be the critical issues for achieving LC. According to the model in Table 1, five groups of enablers and challenges exist for achieving LC in developing and emerging countries. Their capabilities should be used to establish the required enabling environment as well as mitigate constraints.

A new study should investigate the relative importance of the five capabilities in different natural resource-based industries in different developing countries. Many new oil and mineral producers in Africa and other developing countries provide a live laboratory for studying the progress of LCs. Researchers should design longitudinal studies to follow the progress of LC and also use quantitative methods for cross-sectional studies.

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ORGANISATION OF THE SUGAR INDUSTRY IN POLAND AND EFFICIENCY OF OPERATING SUGAR FACTORIES

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ABSTRACT

This paper examines share price of the companies listed on the WIG-SPOŻYWCZY and their fair value between 2006-2015. Data from 2006 to 2015 were collected from the Stooq.pl (Polish portal of shares). Two hypotheses are tested: (1) value of the shares based on the market price; (2) value of the shares as the fair value of shares. Moreover, the financial condition of several companies with respect to the sector was examined with the selected financial ratios. In addition, the author expressed his view on the opportunities of the property companies market's WIG-SPOŻYWCZY (sugar industry) in 2015-2018.
Keywords: *food sector, financial condition, profitability, fair value, sugar*

1. INTRODUCTION

Humans have used sweeteners for different purposes for a very long time. The most common sweetener – sucrose – was originally obtained from sugar cane, while crystallised sugar was obtained from sugar beet by Sigismond Marggraf, the German chemist, only in 1747. He concluded that its content in a beet root is 1.6%. In 1786, Fryderyk Achard, S. Marggraf's student, took actions aimed at the sugar beet cultivation, selection, chemistry and processing. He also undertook the construction of sugar factories in Pomerania and Silesia. The sugar factory that he built in Künern (Konary), near Wołów in Lower Silesia, was recognised as the first factory in the world, where in 1802, sugar was made of sugar beet on an industrial scale. Until then, sugar cane was the only raw material from which sugar was obtained on such a scale. In 1806, another sugar factory was established in Passy (near Paris), and then a sugar factory was built in Alabiew (near Tula) in Russia, and a bit later in the Czech Republic. The rapid development of the European sugar beet industry was a result of the Britain's continental blockade ordered by Napoleon I, which suspended the delivery of colonial cane sugar to Europe. Since 1811, the intensive work on cultivation and selection of sugar beet as well as sugar chemistry began. The second half of the 19th century is a period of intensive work on breeding, agricultural engineering and improvement of obtaining sugar from beet, mainly in France and Germany, but also in the Polish territory.

In the areas of present-day Poland, the sugar industry firstly developed in Silesia, and in other areas, with the first sugar factories established in 1820-1826. Until the mid-19th century, 130 sugar factories were built. In 1913, within the current Polish borders, there were about 140 sugar factories operating that produced about 1 million tonnes of sugar (35 years earlier – 108 thousand tonnes), including about 400 thousand tonnes in the Prussian Partition, about 300 thousand tonnes in Silesia and about 215 thousand tonnes in the Kingdom of Poland. In 1924, 75 sugar factories operated in Poland (in 1913, there were 86 sugar factories in this area), and in 1937, there were only 61 of them.

After the Second World War, many sugar factories in the territory of Poland were destroyed, and those which survived were very irregularly distributed within the territory of the country. In addition, the capacity of sugar factories was insufficient in relation to the needs (raw material processing and sugar production). Therefore, a decision was made to rebuild the damaged sugar factories as well as to build five new ones in Eastern Poland. 78 active sugar factories were a result of these actions. At the turn of the 20th and 21st century, the Polish sugar industry was restructured, and as a result of it, five sugar companies, including 4 with foreign capital, were founded. Progress within the production technology of sugar and the implemented modernisation of sugar factories resulted in the increase of their capacity of more than the actual needs. The working period of sugar factories in the sugar production campaign was reduced, and it was necessary to exclude the growing number of them from the production activity. Therefore, in the campaign of 2001/02, 76 sugar factories operated (two sugar factories went bankrupt earlier); 2002/03 – 65; 2003/04 – 57; 2004/05 – 43; 2005/06 – 40; 2006/07 – 31; 2007/08 – 29; 2008/09 – 19; 2009/10 – 18 (until today). Firstly, sugar factories with outdated production technology and low capacity are excluded from the production activity. The presented state of active sugar factories is not final, and a further decrease in the number of sugar factories, which process sugar beet, should be expected. Sugar production in the European Union is regulated (Kapusta 2012, pp. 128-129; Mucha 2010, pp. 65-67). Although Poland is one of the largest sugar producers in the EU, in terms of its production from 1 ha of sugar beet, it is below the EU average (the 10th position). The sugar production quota (1405.6 tonnes) assigned to Poland, is less than the current consumption (global one and per one inhabitant), and the implementation of this limit results in the necessity to reduce its consumption for food purposes and import.

2. PURPOSE, SCOPE AND METHODOLOGY OF THIS PAPER

The aim of this paper is to show dependence of the sugar industry development on the European Union's policy in this regard as well as to present adjustment processes of the Polish sugar industry to changing operational conditions, and particularly to demonstrate the following changes:
- number of operating sugar factories, the amount of sugar quota, duration of the sugar beet processing campaign,
- raw material base within the scope of: changing the number of growers and the sugar beet cultivation area as well as the average area of plantation in case of one producer of sugar beet,
- efficiency of operating sugar factories.

This paper used the following sources: consistent and constant scientific publications, statistical materials from the Central Statistical Office – yearbooks, market analyses of the Institute of Agricultural and Food Economics – of the National Research Institute (IERiGŻ – PIB). The collected material was developed and interpreted by using a comparative method (comparison) in the vertical and horizontal form (Kapusta 1976, pp. 11-12; Stachak 2003, pp. 213-216) as well as a statistical method (Stachak 1997, pp. 132-133).

The obtained results were presented with the use of tabular and graphic techniques in connection with verbal description. The paper also includes the methods of financial (financial ratios) and economic analyses related to the examination of joint-stock companies. These companies were analysed and limited only to the food sector companies (grain production) quoted on the Warsaw Stock Exchange in Poland. The obtained results were presented in a tabular form in connection with the language description.

3. SUGAR FACTORIES AND THEIR PRODUCTION PROFILE

Sugar factories generally have a uniform production profile (they produce white sugar, liquid sugar, refined sugar, molasses as well as fresh, pressed and dried beet pulp, and defecation lime); they primarily differ in the production capacity which is adapted to specific local operational conditions of the raw material base. Sugar factories also perform the services of drying grains and seeds, and they produce animal feed based on the use of beet pulp and molasses. The sugar factories, which were excluded from processing of sugar beet into sugar, undertake refining cane sugar or preparing for bioethanol production.

The sugar industry plays an important role in relation to the entire agricultural production: by stimulating the development of sugar beet production, it intensifies agricultural production, and by returning the pulp, it provides feed for livestock production, and finally by the supply of defection lime and agrotechnical support, it improves the agricultural condition.

Table 1: Changes in the number of sugar factories, the amount of sugar production and processing of sugar beet per day. ᵃ Grouping of sugar factories in accordance to the state in May 2008. ᵇ This group included one sugar factory which operates as a separate sugar company. ᶜ In 2009, British Sugar Overseas Limited with its registered office in London sold to the Pfeifer & Langen company 100% of shares, and the company took on a name of Pfeifer & Langen Glinojeck SA. The companies reduce the number of employees in sugar factories and increase the capacity, and thus they strive for obtaining the optimum duration of the sugar campaign; Krajowa Spółka Cukrowa has the shortest duration, and Pfeifer&Langen-Polska has the longest one. (Source: Rynek Cukru 2008 No. 34, p. 16; 2009 No. 36, p. 15; 2011 No. 38, p. 15; 2014 No. 41, p. 19).

Specificationᵃ	Number of sugar factories					Amounts of white sugar production (thousands of tonnes) in 2013/14	Processing days		
	2006 /07	2007 /08	2008 /09	2009 /10	2013 /14		2010/ 11	2012/ 13	2013/ 14
Krajowa Spółka Cukrowaᵇ	13	11	7	7	7	549.6	94	95	91
Südzucker-Polska	10	10	6	5	5	351.9	108	125	101
Pfeifer&Langen-Polska	4	4	3	3	4	371.7	116	126	107
British Sugar Overseas-Polskaᶜ	2	2	1	1	-	-	-	-	-
Nordzucker-Polska	2	2	2	2	2	132.5	82	114	99
In total	31	29	19	18	18	1405.6	102	111	98

In the early twenty-first century, the Polish sugar factories were organised in five sugar companies; however, one of them has already transferred the ownership of its sugar factory to another sugar company, so four companies remain. The sugar factories are concentrated in three of them, with foreign companies holding the majority stake. Krajowa Spółka Cukrowa (National Sugar Company) "Polski Cukier" operates there as well (Act 2001). The organisational state of sugar companies in 2006/07-2013/14 is summarised in Table 1.

4. RAW MATERIAL BASE OF THE POLISH SUGAR INDUSTRY

The raw material base in the sugar industry can be defined as a cultivation area of sugar beet together with the resources of production factors and infrastructure, from which the raw material (sugar beet) is obtained in order to produce sugar. The proper use of processing capacity in sugar factories is determined by organising the raw material base.

Table 2: Area, harvest and yields of sugar beet in Poland. a Annual averages. b Within the current Polish borders. According to sugar factories: [1] 236.8 thousand ha, [2] 230 thousand ha, [3] 191 thousand ha. The difference between the area shown by sugar factories (Table 3 and 6) and CSO results from the fact that CSO demonstrates sugar beet cultivation also for other purposes than sugar, e.g. dried beet used in the production of coffee substitutes. (Source: Rocznik statystyczny rolnictwa i obszarów wiejskich 2006 [Statistical Yearbook of Agriculture and Rural Areas 2006], CSO, Warsaw 2006, p. 269,275,277; 2007, s. 255, 261; Rocznik statystyczny rolnictwa 2009 [Statistical Yearbook of Agriculture 2009]; CSO, Warsaw 2009, p. 149,155,158; 2011, p. 147, 153, 155; 2013, p. 159, 165, 167; Rynek Cukru 2008, No. 33, p. 15; 2010 No. 37, p. 9; 2014 No. 41, p. 14. Own calculations).

Years	Cultivation area (in thousand ha)	Harvest (in thousands of tonnes)	Yields (in dt/ha)	Years	Cultivation area (in thousand ha)	Harvest (in thousands of tonnes)	Yields (in dt/ha)
1934-1938a/b	225	5959	265	2001	318	11,364	358
1947-1949a	232	4170	180	2002	303	13,434	443
1950	287	6377	222	2003	286	11,740	410
1951-1955a	348	6503	187	2004	297	12,730	428
1956-1960a	367	7743	211	2005	286	11,912	416
1961-1965a	428	11,436	267	2006-2010a	216	10735	494
1966-1970a	420	13,601	324	2006	262[1]	11,475	438
1971-1975a	448	13848	309	2007	247[2]	12,700	514
1976-1980a	505	14,149	280	2008	187	8715	465
1981-1985a	472	15,606	331	2009	199[3]	10,849	543
1986-1990a	424	14,674	346	2010	206	9,973	483
1991-1995a	384	12,614	328	2011	204	11674	574
1996-2000a	395	14601	377	2012	212	12350	582
2001-2005a	296	12236	410	2013	185	11235	608

The connections of a spatial, organisational, production (technological) and economic nature occur between the raw material base and the sugar factory (Kapusta 2012. pp. 186-187).

The raw material base varies greatly in terms of the cultivation area of sugar beet, yields and harvest. In the following years of the campaign, the adjustment changes in the requirements of the sugar market organisation (Table 2) also take place – reducing the cultivation area and harvest of beet.

Table 3: Number of growers and the area of sugar beet plantations in Poland in 1981-2013.
Note: b The number of growers of one sugar factory was estimated. Table data apply to all sugar factories and one dryer. In 1996, the dryer included 1.7 thousand growers and obtained beet from the area of 6.1 thousand ha, however, in 1999, there were only 0.2 thousand growers and 0.6 thousand ha of plantations. For subsequent years, data on the dryer do not have a greater impact on the presented amounts. (Source: F. Kapusta, Wybrane problemy cukrownictwa polskiego, Prace Naukowe No. 880, Technologia 7, Eds. AE, Wrocław 2000, p. 65; Rynek Cukru 2007 No. 31, p. 15; 2008 No. 33, p. 11; 2010 No. 37, p. 9; 2014 No. 41, p. 13).

Years	Number of growers (plantations) and the average area of plantation (ha)			Years	Number of growers (plantations) and the average area of plantation (ha)		
	in total (thousand)	per one sugar factory (thousands of plantations)	per one grower (ha)		in total (thousand)	per one sugar factory (thousands of plantations)	per one grower (ha)
1981	468.6	6.0	1.00	2002	91.5	1.4	3.1
1990	383.7	4.9	1.15	2003	85.9	1.5	3.33
1991	288.6	3.7	1.25	2004	77.9	1.8	3.81
1992	291.1b	3.7b	1.29	2005	70.7	1.8	4.05
1993	295.6	3.8	1.25	2006	63.2	2.0	4.15
1994	272.7	3.5	1.47	2007	60.7	2.1	4.07
1995	258.9	3.4	1.48	2008	40.9	2.2	4.57
1996	259.6	3.4	1.74	2009	40.0	2.2	4.75
1997	209.9b	2.8b	2.00	2010	38.2	2.1	5.03
1998	166.6	2.2	2.40	2011	37.0	2.1	5.14
1999	137b	1.8b	2.71	2012	35.8	2.0	5.39
2000	111.9	1.5	2.98	2013	35.7	2.0	5.20
2001	99.4	1.4	3.19				

Due to fluctuations in the observed characteristics in individual years, the averages of five-year periods best reflect trends of changes. According to them, there was an increase of the cultivation area and harvest of sugar beet to the period of 1976-1980. After this period, the cultivation area is systematically reduced; and yields fluctuate at the downward trend with growing yields. Furthermore, there is a decrease in the number of growers and sugar factories, which determines changes in the number of growers per one sugar factory and an average cultivation area of beet (Table 3).

Therefore, in Poland, in 1980-2013, the total number of growers decreased from 468.6 thousand to 35.7 thousand, i.e. by 92.4%, the number of growers supplying sugar beet to one sugar factory decreased from 6 thousand to 2.0 thousand, i.e. 66.7%, and the average area of one plantation increased from 1 to 5.20 ha, i.e. by 420%.

The sugar beet cultivation has come full circle. In the interwar period, landowners were the main growers who were shareholders in sugar factories and who knew the technology of sugar beet cultivation.

Table 4: Selected information about the raw material base of sugar companies in Poland in 2002-2013. [a] Grouping of sugar factories in accordance to the state in May 2008 [b] This group included one sugar factory which operates as a separate sugar company. [c] In 2009, British Sugar Overseas Limited with its registered office in London sold to the Pfeifer & Langen company 100% of shares, and the company took on a name of Pfeifer & Langen Glinojeck SA. (Source: Rynek Cukru 2004 No. 26, p. 13; 2007 No. 31, p. 15; 2010 No. 37, p. 10; 2011 No. 38, p. 11; 2014 No. 41, p. 14).

Name of the company or group of sugar factories[a]	Cultivation area of sugar beet in a year				Number of growers in a year				Average area of the plantation (ha) in a year		
	2002	2006	2013		2002	2006	2013		2002	2006	2013
	(thousands of ha)		%		(thous.)		%				
Krajowa Spółka Cukrowa[b]	128.9	92.4	76.0	41.2	44.6	31.7	16.2	45.4	2.89	2.92	4.7
Südzucker - Polska	74.6	59.6	38.7	21.0	19.9	12.1	6.8	19.0	3.75	4.93	5.7
British Sugar Overseas[c]	34.3	25.9	x	x	9.9	6.3	x	x	3.46	4.12	x
Nordzucker - Polska	24.7	18.9	18.5	10.0	6.0	4.1	3.1	8.7	4.14	4.61	6.0
Pfeifer & Langen	47.8	49.0	51.4	27.8	11.1	9.0	9.6	26.9	4.29	4.43	5.3
In total / On average	310.3	236.8	184.6	100.0	91.5	63.2	35.7	100.0	3.39	3.75	5.2

Small-scale farmers had difficulties in concluding the contract for the delivery of sugar beet (Sondel 1929). In the post-war period, the sugar beet cultivation, mainly in small (in terms of the area) farms, due to labour resources, production profitability and dissemination of the agricultural condition, was extended (Kapusta 2012, p. 79). Since the 1990s, the situation has changed radically; sugar factories are interested in cooperation with a small number of sugar beet producers distributed near sugar factories and susceptible to biological and technological progress. As a result, the number of growers is systematically decreasing, however, the area of sugar beet cultivation in case of one grower is increasing, the crop, and consequently the harvest, are increasing. Individual sugar companies and groups have the differently advanced concentration processes of the raw material base, which is shown in Table 4. The largest concentration of sugar beet cultivation was reached by the sugar factories owned by foreign capital, while Krajowa Spółka Cukrowa showed the greatest progress in concentration of the raw material base; the increase in plantations in 2002-2013 from 2.89 ha to 4.7 ha, i.e. about 62.6%. Nevertheless, in KSC, the average area of plantation is the smallest one.

5. EFFICIENCY OF OPERATING SUGAR FACTORIES

The sugar industry in both economic and financial terms is favourably ranked in comparison with the entire food industry (Table 5).

Table 5: Economic and financial ratios of the sugar sector in Poland in 2008-2013. [a] Total revenues decreased by taxes and charges. [b] Sum of the net profit/loss and depreciation. [c] Relation of current assets to current liabilities. [d] Relation of investment expenses to depreciation. (Source: Rynek Cukru 2011 No. 38, p. 16; 2014 No 41, p. 21).

Specification	Year					
	2008	2009	2010	2011	2012	2013
Meters expressed in % of net revenues[a]						
- gross profit/loss	-7.0	9.1	18.5	24.0	27.3	21.8
- net profit/loss	-7.5	8.2	14.3	19.4	21.9	19.5
- accumulation of fixed assets[b]	-2.6	11.9	19.3	23.0	25.1	23.6
- financial costs	6.2	0.9	1.9	3.0	1.9	0.9
Financial relations:						
- financial liquidity (current ratio)[c]	2.6	1.3	3.3	3.0	3.4	3.6
- investment rate (simplified)[d]	1.5	1.4	1.3	1.2	1.2	0.8

The sugar sector achieved good financial results in 2009-2013. It resulted from high prices of sugar in the country and the world, a significant improvement of the efficiency of processing, low prices of the raw material, which constitutes about 40% of the cost of sugar production. The European Union's restructuring aid, which was paid in 2009, also plays a crucial role. The net profitability indices, which are the relation of profit to net revenues, were very high and increasing until 2012, and they decreased in 2013. The sugar sector in 2010 - 2012 was characterised by very high financial liquidity – 3 and more per cent.

Until 2012, the sugar industry had conducted an extensive investment activity facilitated by a very good financial situation. In 2013, the situation in this regard deteriorated and the investment rate was lower than the depreciation rate. The investments include the modernisation of production lines, energy systems and storage management systems (including silos for sugar). The investments contribute to improve the technical and economic efficiency of the sector, which is reflected in increased productivity and reduced costs. Therefore, technical labour productivity increased by 97.0%, while the economic one by 176.4% in 2007-2013. Reducing the number of active sugar factories and modernisation of the remaining ones resulted in a significant increase in the quantity of sugar production per one sugar factory.

6. ANALYSIS AND VALUATION OF THE SUGAR SECTOR COMPANIES QUOTED ON THE WARSAW STOCK EXCHANGE (WSE) IN POLAND.

The WIG-SPOŻYW index, presented in Figure 1, shows that from 2007 to December of 2008, the food sector's companies in Poland showed a downward trend in their values.
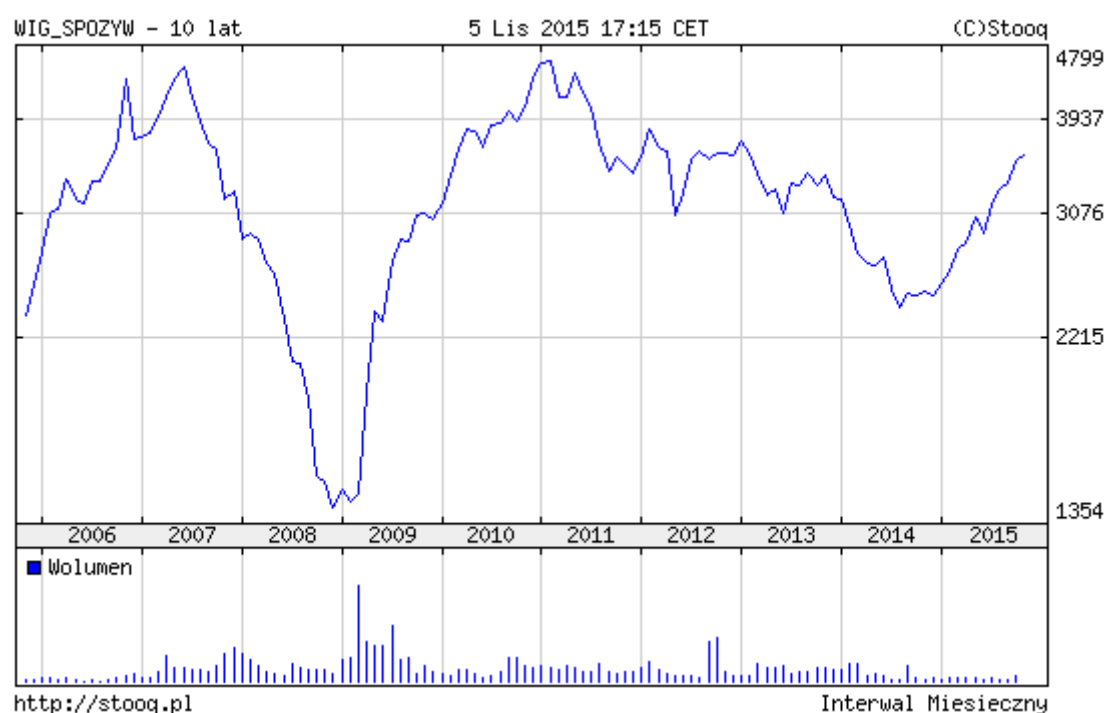
Figure 1. WIG-SPOZYW in the period from 01.2006 to 10.2015 (data of the stooq.pl).

However, since the first quarter of 2009, it has been possible to notice a significant upward trend, in which the augmentation and consolidation at the level of 3,669 points on the index take place. The values reported on November 05, 2015 reflect the upward trend and confirm it. However, the market values do not reflect their fair value (Borowski, 2014, pp. 1-5, Jajuga, 1996, pp. 34-57).

In the food sector, we can see one company, which reported its maximum on 05 November 2015, and that is AGROWILL. While the other companies did not show its maximum value, and even fair value, though they can show the net profit and the good financial condition. Some companies were overvalued by over 50%-70%. These companies are ASTARTA and OTMUCHOW. Only AGROWILL is trying to remain to be a flagship company, and recover its value of the previous years (Table 6).

Table 6: The food sector's companies quoted on the Warsaw Stock Exchange in Poland as of 05.11.2015 (own development based on the data of the Warsaw Stock Exchange, data of the Bankier.pl)

Name	Average rating	rating	Current price PLN	Maximum price PLN from the beginning of the stock exchange quotation
AGROWILL	5.0/5.0	AAA	0.86	1.16
ASTARTA	4.0/5.0	AAA	37.03	95.00
OTMUCHÓW	3.5/5.0	BB	6.60	15.98

In table 7, the most important ratios presenting the financial condition of the food sector's companies were presented. In 3 surveyed companies, the generated profit per share was reported in 2 companies. It shows that the food companies prosper properly on the financial market and are able to record higher or lower profits (Parvi, 2014, pp. 262-267).

The price to the operating earnings shows the profits of the company, and this state of affairs was reported in 3 examined stock exchange quoted companies (Damodaran, 2012, pp. 45-46, Pastusiak, 2010, pp. 34-46, Jędrzejczak, 2011, pp. 133-138).

In contrast, analysing P/BV and P/P, it should be noticed that both the price to the book value and the price to profit demonstrate that three companies operate excellently on the market and have a value of c. 1.0 and above, and the best of them is AGROWILL. Other companies do not differ significantly from average values (Parvi, 2014, pp. 179-185, Veale, 2001, pp. 88-125).

Table 7: Technical evaluation of the construction sector's companies quoted on the Warsaw Stock Exchange in Poland as of 30.06.2015 (own development based on the financial data of the companies quoted on the Warsaw Stock Exchange in Poland)

Name	P/OE (price/ operating earnings)	P/BV (price/ book value)	P/P (price/ profit)	Profit per share
AGROWILL	12.46	666.02	0.87	No data
ASTARTA	3.29	1.06	0.70	(EUR) 2.065
OTMUCHÓW	11.11	0.56	0.32	0.030

In table 8, the studies concerning, among others, the net profit, depreciation, EBITDA and assets of the construction sector's companies and the book value per share are presented. According to the obtained values, it is clear that AGROWILL, ASTARTA and OTMUCHOW showed a profit, which was confirmed by the previous ratios included in the table 6.

Table 8: The technical evaluation of the construction sector's companies quoted on the Warsaw Stock Exchange in Poland as of 30.06.2015 (own development based on the financial data of the companies quoted on the Warsaw Stock Exchange in Poland)

Name	Net profit (net loss) in thousands PLN	Depreciation in thousands PLN	EBITDA in thousands PLN	Assets in thousands PLN	Book value per share in PLN
AGROWILL	2280	0	2718	128427	No data
ASTARTA	(EUR) 54647	(EUR) 5445	(EUR) 46734	(EUR) 452809	(EUR) 8.335
OTMUCHÓW	257	2689	3384	248936	16.419

The book value per share shows that companies are overvalued, but we have no data (AGROWILL), and in case of one companies. However, it is important not to follow this opinion because the values are only the book values value (Froehlich, 2013, pp. 67-75), and the calculation of them is purely mathematical and financial. In case of using the economic attitude and interpretation, it would occur that the companies do not have the fair value (table 5) (Parvi, 2014, pp. 168-177, Thompson, 2008, pp. 52-54, Pierce, 2004, pp. 110-115).

The profitability of the equity as well as the profitability of assets is not shown by AGROWILL. Therefore, according to the presented study, it is possible to observe that the flagship food concerns have the profitability and they are not threatened by any disturbance of the financial liquidity (it is not full year) (Table 9).

Table 9: The food sector's companies quoted on the Warsaw Stock Exchange in Poland as of 05.11.2015 (own development based on the financial data of the companies quoted on the Warsaw Stock Exchange in Poland)

Name	ROE	ROA
AGROWILL	-10.22	-4.49
ASTARTA	0.22	0.13
OTMUCHÓW	5.95	3.85

Currently, the value of companies significantly deviates from the maximum value achieved a few years ago. The only exception is AGROWILL, which achieved the maximum value in its history. Other companies have the value less than 50%-70% of the maximum one (table 10).

Table 10: The food sector's companies quoted on the Warsaw Stock Exchange in Poland as of 05.11.2015 (own development based on the financial data of the companies quoted on the Warsaw Stock Exchange in Poland)

Name	Current value	Maximum value	Fair value	Deviation from the fair value in PLN
AGROWILL	0.86	1.16	1.16	0.30
ASTARTA	37.03	95.00	58.00	20.97
OTMUCHÓW	6.60	15.98	12.00	5.40

However, the fair value which should be reflected by the share prices of the examined companies significantly differs from the calculated value, which was presented in the table 9. In some cases, it is even 70% of the current value. However, the fair value is significantly higher than the current value of the examined companies, and in one company, AGROWILL, it is only similar.

7. CONCLUSION

The sugar beet industry originated in the Polish territory and fundamentally changed; both in terms of the number of sugar factories and the area of sugar beet cultivation and the organisation of cooperation between processing plants and raw material producers.

The number of processing plants (sugar factories) changed; we have to deal with fluctuations in the number of sugar factories – increase and decrease in their number. And then, at the end of the twentieth century, a process of systematic – although with varying intensity over time – reduction of the number of plants and increase of their processing capacity, was started. Changes of the raw material base proceeded in a similar fluctuating way.

The sugar market in the European Union is regulated; the amount of sugar production is also regulated. Reducing the amount of sugar for Poland results in a lower demand for the raw material – sugar beet, which creates the possibility of earmarking them in large quantities for the production of dried beet (for food and feed purposes), and production of bioethanol.

The fair value of the WIG-SPOŻYW sector's companies quoted on the Warsaw Stock Exchange in Poland should be reached within three years, that is up to 2018 because it is the right estimation of further fast development of the Polish WIG-SPOŻYW (grain production) sector.

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PRODUCT PLACEMENT IN MUSIC VIDEOS – THE LADY GAGA PHENOMENON

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ABSTRACT

One does not even have to watch today's music videos very attentively in order to recognize that brands appear in them from time to time. However, this was not always the case. The changing policies of Music Television, the introduction of VEVO (a music video channel launched on Youtube), and the widening use of product placement in general have all played a significant role in the changes of the landscape, the increasing number of product placements in music videos. The paper examines the spread of brand/product placement in music videos, also known as the Lady Gaga effect. The study focuses on two aspects of product placement: on the one hand, which music genres it is the most widely used in, and on the other hand, what its most common (classical and special) types are. The author describes the notion of product placement drawing on different definitions, then discusses several typical and unique examples of brands and artists involved in product placement in pop, electronic, rock, and more than anything else, hip-hop music videos. Through a discussion of various historical and contemporary examples (most of them visual or auditive), and their relation to business, the study proves that product placement in music videos has become an increasingly popular tool in the world of marketing.

Keywords: Branded Entertainment, Branded Content, Product Placement, Music Videos, Marketing Communications

1. INTRODUCTION

How can we define product placement? Although it is a new marketing communication genre, there are several definitions already:

− A product or a brand in one or more scenes of a film, in one form or another, in return for payment. (Snyder 1992)
− When a product is placed in a movie or television show in exchange for payment of money or other promotional consideration by the marketer (Gupta– Gould 1997).
− Paid product message which is aimed at influencing movie or television viewers through planned and discreet entry of a branded product into a movie or television program. (Balasubramanian 1994)
− A marketing tool where a product is put into a movie scene, or its brand name is heard. (Lehu 2008)

As the definitions suggest, product placement is usually mentioned in connection with brand placements in movies. Some definitions also add television programmes, but product placement has actually interwoven the entire entertainment industry. It is present in reality shows, talent shows, talk shows, sports coverages, and cartoons. We can find brands in console and computer games, books, and even in works of fine arts (Papp-Váry 2014). And, of course, it also appears in music videos, which forms the basis for this study. The article examines the topic focusing on two aspects:

− Which music genres have more brand appearances, and which have less?
− What are some of the examples of typical brand placements (visual, auditive, brands in song titles)?

2. PRODUCT PLACEMENT IN VARIOUS MUSIC GENRES

If we consider product placement in various music genres, the following stand out: pop (Lady Gaga also belongs here 'officially', although she might be offended by this label), electronic music, rock, and hip-hop (Csordás 2013, Bánfi – Csillag – Major 2012). Let us look at these in more detail.

2.1. Brands in pop music videos

We can find several video montages on Youtube collecting brands that appear in Lady Gaga music videos: Bwin.com (online gambling website), Campari (vermouth), Chanel (shoes), Coca-Cola Light (soft drink), Dior (ring), LG (phone), Mercedes (car), Neuro Sonic (water), Nemiroff (vodka), Nike (shoes), Parrot (music storage kit), Plenty of Fish (online dating site), Vespa (scooter), Virgin (mobile sevice provider), Wonder Bread (sliced bread), Polaroid (camera). In addition, Lady Gaga is also the creative director of the latter brand, Polaroid.

Several songs by the artist could be mentioned as examples, and one of these is *We love designers* featuring a lineup of designer brands such as Armani, Fendi, Valentino, Jimmy Choo, Dolce&Gabbana and Manolo.

Therefore product placement in music videos is also called the Lady Gaga effect, suggesting that the eccentric singer introduced it in the world of music. Nevertheless, the expression "revolutionize" would be more appropriate: there had been product placements before Lady Gaga, maybe just less often.

Illustration 1 – Brands in Lady Gaga music videos
Source: http://www.x17online.com/media/images/2010/03/gagaadvert2.jpg

On the other hand, Lady Gaga's "competitors" also use brand placement. Britney Spears even draws attention to this in one of her music videos: the Nokia's 5800 Xpress Music model appeared for 7 seconds in her 3 minute 46 seconds long song *Womanizer*. 4 seconds of this is full-screen placement, when the male main character takes a phone in his hand, and checks his calendar items. Ironically, one of these items happens to be a product placement meeting… Maybe she wanted to draw the attention of other brands to her welcoming them with open arms as she managed to get support worth 500 000 US dollars for her song *Hold it Against Me*.

Britney uses long brand placements quite well, which is a rare case, because music videos usually operate with quick cuts. However, in the first 14 (!) seconds of the 3-minute video for *Me Against the Music*, we see a Mazda approaching and stopping, and the driver getting out is Britney Spears. In order to get the brand imprinted on the mind of all viewers, the camera zooms in on the logo of the car at the end of the video (Kreativ.hu 2013). As Eric Spear told Advertising Age (a marketing and media magazine), the professionals of the car manufacturer had seen the screenplay of the music video before the start of the shooting, and they thought that the placement could increase brand awareness significantly, with no particular risk of featuring a Mazda RX-8. It is also interesting that Mazda executives raised no objections to lesbian scenes (Madonna appears with Britney in the music video), because the company's regulations of product placement do not prohibit such appearances. However though, they could not feature alcohol or car crashes in the music video as it would have been contrary to Mazda's support policies. News reports said that another – unnamed – brand was in competition with Mazda. As a marketing manager for the company said, the decision was made by Britney herself, being a great fan of RX-8. At the same time, Mazda refused to provide information regarding the amount that the company paid for this adoration. Rather enigmatically, the executive only said that "we have received a remarkably high offer, and paid significantly less" (Mfor.hu 2003).

Jennifer Lopez also often uses product placement; for example, she features a Fiat 500 in her music video *Papi*. Moreover, the car is the main character of the video as the singer is fleeing in it, being chased by an army of men. Later they also produced a 30-second Fiat commercial out of the scenes of the video.

Illustration 2 – Fiat 500 in the music video for Papi by Jennifer Lopez
Source: http://brandsandfilms.com/2011/12/the-best-of-2011/

Avril Lavigne is also open to product placement. The most interesting aspect of her video titled *What the hell* is that product placements seem to be more important than the plot of the video itself. Right in the beginning we see an armada of Adidas and Nike shoes. This is followed by a Sony Vaio laptop, and a gigantic Sony Bravia TV set. There is a heap of baseball caps below the TV, still carrying their labels. Then a small bottle of Avril Lavigne perfume appears, alongside with her fashion brand, Abbey Dawn. We can even see a Sony Ericsson Vivaz Light Pink towards the end of the video. At the same time, they removed the Ford brand name digitally from the NYC cab that she steals in the story (Webragacs.hu 2011).

Many people had enough of the commercialization of music videos after a quick succession of Avril Lavigne and Britney videos, and it seemed that Katy Perry was one of them. The singer explained her views on the issue via Twitter: "You have to get creative with it. Some artists don't care tho, and you can tell", she wrote. In another tweet some time later, Perry elaborated on her artistic vision of product placement: "Most, if not ALL popsters welcome deals with products to offset costs of big budget vids in these recessional music industry times. I'VE used them in MY vids before & am happy to able to make a better vid because of." (Inkai 2011). Yes, she did use them: her most famous song, *I Kissed a Girl*, featured the ChapStick lip care

product that really suited the video. Every now and then product placement is also mentioned because the record label has direct shares of a product or service. For example, the Plenty of Fish dating site appears in Lady Gaga, Natasha Bedingfield, Jennifer Lopez and Britney Spears videos as well, which is no wonder considering that the site is owned by Interscope Records, where the performers listed above also belong.

2.2. Brands in electronic music videos
Some of the celebrities of today's music scene are not singers or musicians, but DJs. They have a great number of fans, and some of the fans do not even know the origin of the abbreviation, disc jockey. One of these contemporary celebrities is David Guetta. The Ice Watch brand issued a special collection inspired by the musician. The name of the series became *F*** Me I'm Famous*, which is also the title of a "song" by the star. In addition, they also invited his wife, Cathy, to be a model for the brand in the framework of a "family enterprise". Therefore it is no wonder that the watch appears in the video *Where Them Girls At* by David Guetta. A Sony Erisson Xperia Ray and a Xperia X10 Mini mobile phone also appear in the same video. Moreover, the video for the song features the new, electronic Renault Twizy, which became the main character of another music video, *The Alphabeat.* Guetta likes and prefers to use Monster Beats Solo HD, which appears in several of his videos, and the music video that he recorded together with American singer Usher features an HP TouchPad, too (Bánfi– Csillag – Major 2012).

Illustration 3 – Renault Twizy electric car in the music video for Alphabeat by David Guetta
Source: http://fr.ubergizmo.com/2012/04/16/twizy-dans-le-dernier-clip-de-david-guetta.html

2.3. Brands in rock music videos
It is interesting that we see less brands and product categories in this genre, or at least we see other kinds of them. In rock videos we do not see luxury cars, mobile phones or perfumes.
At the same time, instruments are very often highlighted. For example, Airbourne "advertises" Marshall amplifiers in their music video *Runnin' Wild*. The Red Hot Chili Peppers' *Can't Stop* features the Pearl drum brand, and it appears clearly several times.
We could also mention another interesting case involving H-Blockx – the band had a European tour sponsored, and they also produced a music video on it. In *Countdown to Insanity*, the band hits the road by bus, and their destination is Air Race in Istanbul. It is perhaps not surprising that Red Bull was their sponsor.

2.4. Brands in hip-hop music videos
Regarding brand placement, hip-hop is the other leading music genre besides pop, and in some respects it even overtakes pop (Tuza 2013, Nagy – Spiegel – Buzás 2012).
Experts usually say that the first rap song was *Rapper's Delight* by Sugar Hill Gang, released in 1979 – and rap is the same as hip-hop in a certain sense, although some people consider rap

as a part of hip-hop (Papp-Váry 2006). This is also the first brand placement, as the lyrics say "everybody go, hotel motel Holiday Inn".

Then, in 1986, Run DMC wrote their hit song *My Adidas*. "We travel on gravel, drit road or street, I wear my Adidas when I rock the beat, on stage front page every show I go, it's Adidas on my feet high top or low", the lyrics said.

After a while Russel Simmons, the president of Def Jam Records (Run DMC's label at the time) realized that the guys should be getting paid for this advertisement. Therefore he contacted the German company to request financial support for their 1987 Together Forever tour. According to the story, the management of Adidas was not very enthusiastic about the idea of establishing relations with rap music, because at that time they considered it a fad serving as a call to riot. In order to convince Adidas bigwigs, Simmons took some of them to a Run DMC show. While the band was performing the song, one of the members yelled "Okay, everybody in the house, rock your Adidas!" – and several thousand sneakers kicked in the air. The Adidas executives could not reach for their checkbooks fast enough (Klein 2004). It is also interesting that Adidas issued limited series "Superstar 80s" shoes in 2011, celebrating the 25th anniversary of the concert on 11 November 1986. As a reference to the band, the number 1986 is stitched on the heel, and a small gold-plated chain is placed on the front. In addition, "Me and my Adidas" is appears on the tongue, and the name Run DMC is also used on the shoe.

Illustration 4 – In 1986, Run DMC wrote their hit song My Adidas
Source: http://lifestylesdefined.com/adidas-aka-the-old-school-favorite-for-the-new-school/

Some time later brand placements in hip-hop songs became a synonym of 'cool' (Kerner – Pressman 2007). Brands that could follow this trend (most of the time free of charge) were able to reach a new and aspiring young target group. There was a time when special lists were compiled with the brands appearing in hip-hop lyrics. For example, the 2004 rankings of the so-called American Brandstand showed that the most popular product categories were cars, fashion products, and beverages. In 2004, the artist with the most brands in his songs was Kanye West, followed by Twista, Lil' Jon, Chingy, and Ludacris. If we examine brands, we can see that Cadillac appeared 70 times and Hennessy cognac appeared 69 times in the lyrics of hip-hop hit songs. They were followed by Mercedes (63 mentions), Rolls-Royce (62), Gucci (49),

Jaguar (32). Chevrolet (28), and Cristal champagne (28). Two card brands took the 9th and 10th places: Bentley had 26 mentions and Maybach got 25. (Brandchannel.com 2004, BBC Money Programme 2006). Of course, not all luxury brands were happy about this. When a journalist of the Economist asked Frederic Rouzaud, the managing director of the company producing Cristal, a champagne brand that had been originally popular among more conservative, older white people: "Do you think your brand is hurt by its association with the 'bling lifestyle'?" Rouzeau said, "That's a good question, but what can we do? We can't forbid people from buying it."

As Jay-Z says in his book *Decoded*, "That was like a slap in the face. You can argue all you want about Rouzaud's statements and try to justify them or whatever, but the tone is clear. When asked about an influential segment of his market, his response was, essentially, well, we can't stop them from drinking it. That was it for me. I released a statement saying that I would never drink Cristal or promote it in any way or serve it at my clubs ever again. I felt like this was the bullshit I'd been dealing with forever, this kind of offhanded, patronizing disrespect for the culture of hip-hop.

Why not just say thank you and keep it moving? You would think the person who runs the company would be most interested in selling his product, not in criticizing—or accepting criticisms—of the people buying it. (…) What a lot of people—including, obviously, The Economist, Cristal, and Iceberg—think is that rappers define themselves by dropping the names of luxury brands. They can't believe that it might actually work the other way around.

Cristal, before hip-hop, had a nice story attached to it: It was a quality, premium, luxury brand known to connoisseurs. But hip-hop gave it a deeper meaning. Suddenly, Cristal didn't just signify the good life, but the good life laced with hip-hop's values: subversive, self-made, audacious, even a little dangerous. The word itself—Cristal—took on a new dimension. It wasn't just a premium champagne anymore—it was a prop in an exciting story, a portal into a whole world. Just by drinking it, we infused their product with our story, an ingredient that they could never bottle on their own. When people all over started drinking Cristal at clubs—when Cristal became a household name among young consumers—it wasn't because of anything Cristal had done. It was because of what we'd done." (Jay-Z 2011)

In order to "avoid" the above, and, of course, earn significantly more, most of today's hip-hop stars present their own product collection, which they also display in their music videos.

Let us consider, for example, the abovementioned Jay-Z, that is, Shawn Carter. We get up in the morning, we can hear his latest hit in the radio, spray some of his perfume on ourselves after having a shower, put on a piece of his RocaWear fashion brand, wear his S. Carter training shoes distributed in cooperation with Reebok, go to a game of his NBA team, Brooklyn Nets, have a dinner in his restaurant called Spotted Pig, and we may get to Broadway just in time to watch the play *Fela!*, produced by him. Then we can spend the night in the 40/40 Club, also co-owned by him. He has been listed on the Forbes Top 100 celebrity list several times. But he just says, "I am not a businessman. I am a business, man" (Papp-Váry – Tuza 2014)
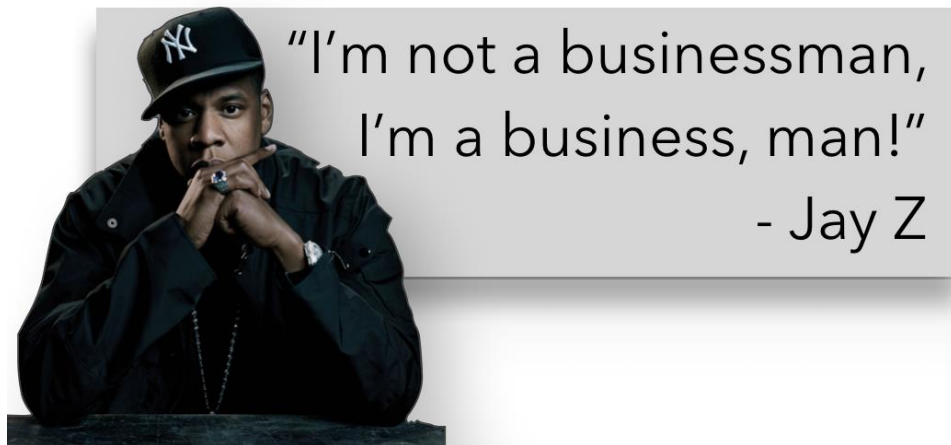
Illustration 5 – Jay-Z has been listed on the Forbes Top 100 celebrity list several times
Source: https://media.licdn.com/mpr/mpr/p/8/005/09a/204/08af1c3.png

We can also mention 50 Cent, another celebrity featured on the same list by Forbes. An example from the lyrics of his song *PIMP* proves that he also often uses brand placement: „She in the club, She dancing for dollars, She got a thing for that Gucci, that Fendi, that Prada, that BCBG, Burberry, Dolce and Gabbana…"

Or we can consider P. Diddy (original name: Sean John Combs), who also entered into a cooperation with a lot of brands. Just an example: Diageo, an alcoholic drink producer and distributor giant placed him into the chief marketing officer/brand manager position of the Ciroc vodka brand, and all this with a 50-50 percent allocation of the profit.

Diddy described the concept and the insight in an interview by Advertising Age: "There's no vodka out there that spoke my language. It was the same with my records and with Sean John. Nobody was speaking to the fashion community like I was. I didn't think there was a vodka whose marketing spoke to my lifestyle, that made me feel like I want to feel. I've branded myself as the king of celebration, and that's what this alliance is about." (AdAge.com 2007). And he did it just the same way he did earlier in the case of the Courvoisier, Patron and Cristal brands through his music videos, songs and parties – just this time it was on purpose. It was planned. For money. Intertwining them with music, placing products in videos, organizing VIP events, entering celebrity endorsement agreements.

First of all, he changed the basic brand strategy in order to differentiate it. Before him, Ciroc said that it was the only vodka made of grapes. But consumers did not care too much about this. Diddy provided a story and content for the brand. He made it a lifestyle.

"I'm a rapstar, not a rock star but don't get it twisted I'm a Ciroc star" Jadakiss raps in his song *Ciroc star*. Yes, in addition to appearances in the lyrics of numerous musicians contracted or not contracted to the brand – such as Diddy, Meek Mill, French Montana or even the song *Ciroc & Roll* by Let's Get It – they also produced an official club anthem for the product. "I don't know about any drink brands having their own anthems", Diddy said. "This is the way we insinuate ourselves into night life."
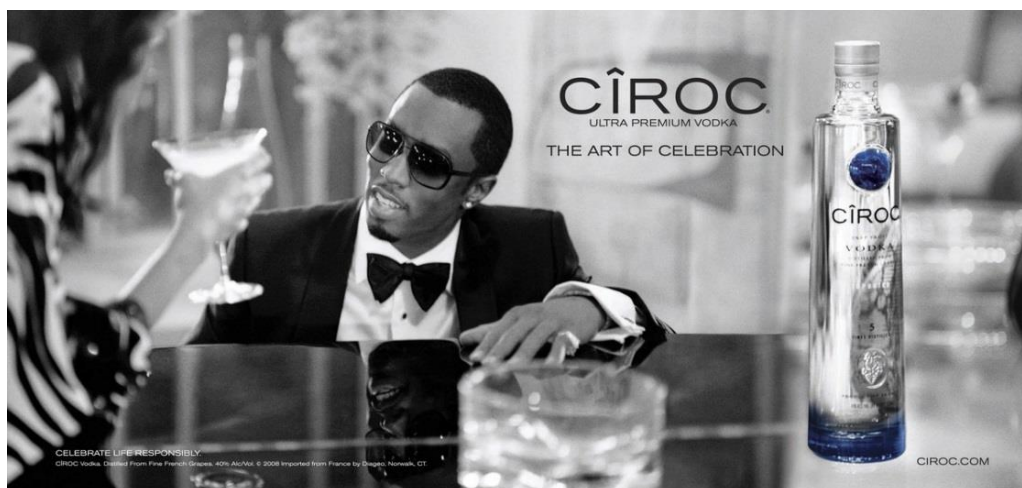
Illustration 6 – P. Diddy is the chief marketing officer of the Ciroc vodka brand
Source: http://media1.mfilomeno.com/image/archive/528835/129214/1200/800/2

In 2010, Diageo, the world's biggest alchohol distributor announced that Ciroc Ultra Premium Vodka was awarded the „Spirits Brand of the Year" prize by the prestigious Market Watch magazine. Each year, the award is voted by the executives of the greatest wholesaler companies. As for the sales figures: on the whole, Ciroc sales increased by 552% between 2007 and 2010, and the brand knocked Belvedere from the second position in the market of ultra-premium vodkas (Blackenterprise.com 2010).

However, P. Diddy is not the only one person with such an agreement: Voli Vodka appears in five music videos by Pitbull, a popular rapper also active in the genres of hip-hop, electronic and pop. The placement is no surprise as Pitbull is a spokesperson for the Voli brand, in which he also holds a majority equity stake.

3. TYPES OF BRAND PLACEMENT: CLASSICAL AND SPECIAL SOLUTIONS

Product placements in music videos can also be grouped by another aspect: just as in movies, there are some merely visual placements, and we can also see auditive ones, especially in the genre of hip-hop. In fact, there are also cases where the brand is included in the title of the song.

3.1. Visual brand placement in videos

This is the most common case. The abovementioned Lady Gaga videos are excellent examples: we see the brands in the videos, but their name is not mentioned in the lyrics. For example, in *Bad Romance,* the following brands appear: iPod Classic music player, Parrot music storage device, Heartbeat earphones, Lex Nemiroff vodka, Wii controller, Dr. Dre speakers, HP Envy laptop, Carrera sunglasses. Research has also found that 56% of viewers were able to recall at least one brand spontaneously (Quirk's 2011).

3.2. Auditive brand placement in videos

To put it simply, this means that the brand name is stated in the video. As it was mentioned above, Music Television used to refuse to air videos including product placement for a long time. In this light it especially interesting that the most played song of the channel is *Money for Nothing* by Dire Straits (Lehu 2009), as the first four lines of the lyrics say "I want my MTV. I want my MTV. Now look at them yo-yo's that's the way you do it, You play the guitar on the MTV". We have got so much used to this kind of placement that it is not at all surprising that Sean Kingston sings "It's like my iPod stuck on a replay" to describe the situation that he can not get a woman out of his mind. Ke$ha sings "Before I leave, I brush my teeth with a bottle of Jack", referring to Jack Daniels whiskey. Research by Gaylord Fields found that there are 13

well-known songs with lyrics mentioning Coca-Cola – the list includes country, rock, and swing songs (Fields 2012).

However, the mentioning of brand names is mostly popular in hip-hop. It is interesting that these performers originally wanted to improve their image mentioning brands in their songs (for free), but nowadays many brands pay great amounts of money to get included in lyrics.

Of course the best examples include lyrics that also communicate the characteristics of the brand – for example, in the song *Hey Yo* by Outcast they rap "Shake it Suga' shake it like a Polaroid Picture", referring to the way these cameras are used: we shoot with the camera, it prints the picture immediately, then we have to 'shake' the picture to make the paint dry faster.

3.3. Brands in song titles

This is not a new thing either. Let us start our list of examples with a recording by Janis Joplin that has been reworked several times. The title of the song is the brand itself: *Mercedes Benz*, and the first four lines say "Oh lord won't you buy me a Mercedes Benz. My friends all drive Porsches, I must make amends. Worked hard all my lifetime, no help from my friends. So oh lord won't you buy me a Mercedes Benz."
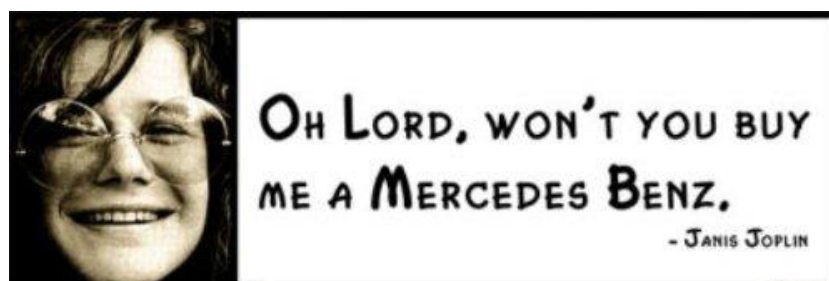
Illustration 7 – In some cases, the brand name appears in the title (and refrain) of the song
Source: http://ecx.images-amazon.com/images/I/41VVm4nKeVL.jpg

Then there is the title of a Paul Simon album, *Kodachrome.* Moreover, the lyrics do not only mention the film to be loaded in the camera, but the advantages of the product, too: "Kodachrome, You give us those nice bright colors, You give us the greens of summers, Makes you think all the world's a sunny day, oh yeah!, I got a Nikon camera, I love to take a photograph, So Mama, don't take my Kodachrome away."

The title of a song by Chicago singer Ron Caroll is *Walking down with my Nikes on.* What is more, the sentence appears several times in the lyrics as it is also the refrain of the song.

And we have not even mentioned the world of hip-hop, where the phenomenon is probably the most common. Busta Rhymes' *Pass the Courvoisier* has become one of the anthems of the genre: "We gon' tell that brotha, pass the Courvoisier; We gon' tell that brotha, pass the Courvoisier; Everybody sings it now, pass the Courvoisier; Everybody sings it now, pass the Courvoisier." (Kerner – Pressman 2007, Wipperfürth 2005)

It may come as a surprise, but there is a Hungarian brand that is featured in the title of an international hit – moreover, the whole song and its music video are focused around it. The song is *Hey Jasmin* by Flo Rida, referring to the live erotic videochat service LiveJasmin, and the video makes no secret of this fact, so the LiveJasmin caption appears, too. In addition, a handsome man wearing glasses and a suit appears in the video, greeting Flo Rida – he is none other than the owner of the company, György Gattyán.

3.4. Famous performers in branded advertisements

Is advertisement different from product placement? Yes, it is. However, such cases belong to branded entertainment in several respects. We see a performer singing, drawing attention to a brand. Although this is an advertisement, it may well be that we link the two the next time we see the original video.

An excellent example is the case of Pepsi and Michael Jackson. As Phil Dusenberry, former Chairman of the BBDO advertising agency wrote in his book *Then We Set His Hair on Fire* (Dusenberry 2005), they approached the pop star to ask him to provide them with a song for one of their advertisements, with lyrics custom written for Pepsi. Much to their surprise, Jackson offered them his coolest hit at the time, *Billie Jean*. The original lyrics said, "Billie Jean is not my lover. She's just a girl who claims that I am the one. But the kid is not my son". In the Pepsi spot, however, Michael Jackson was already singing, "You're the Pepsi Generation. Guzzle down and Taste the thrill of the day. And feel the Pepsi way." It is especially interesting that the hair of Michael Jackson accidentally caught fire during the shoot (and the book title *Then We Set His Hair on Fire* refers to this), which was a hot topic for the press, and of course Pepsi was also mentioned as part of the story.

Illustration 8 – In a Pepsi spot, Michael Jackson was singing "You're the Pepsi Generation.
Guzzle down and Taste the thrill of the day. And feel the Pepsi way."
Source: https://media.licdn.com/mpr/mpr/p/6/005/086/1dc/1e2ea67.jpg

Similar solutions (not someone's hair catching fire, but singers appearing in advertisements) are also popular today: the Levi's jeans brand usually chooses famous songs for his commercials, then sells these songs in compilations titled "Levi's Hits".

Lenny Kravitz concluded an agreement with Absolut Vodka in order to publish "Absolut Kravitz" posters as part of the famous advertising campaign series of the brand. The songs could be downloaded from the absoluttracks.com website.

Eminem appeared in a spot for the Chrysler car brand, also promoting the city of Detroit. The spot was one of the advertisements aired during Super Bowl in 2011 – the final of the National Football League (NFL) is not only important because of the game itself, but also it is the biggest "orgy of advertising".

4. CONCLUSION

Although product placement in music videos is often mentioned as the Lady Gaga effect, suggesting that the singer created this tool, it is more appropriate to use the word "revolutionize" as there had been product placements before Lady Gaga, although those were forbidden by the regulations of MTV. However, almost all contemporary genres of popular music feature brands, especially pop music and electronica, and more than anything else, hip-hop. Besides visual placement, that is, brands appearing in some part of the music video, auditive placement, that is, brand names being mentioned is also quite common. A special case of the latter is when brands appear right in the title of songs. In any case, it can be stated that the number of product placements in music videos has been increasing in recent years, and the trend will continue in the future. Brands and artists alike will increasingly need this as traditional record sales and royalty revenues have dwindled, therefore they have to find new sources of income. However, product placements can be helpful in many other ways: they can make music videos more realistic, and raise the image of artists.

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STUDY OF PATTERNS IN SURFACE WATER FLOW IN URBAN AREAS IN THE CONTEXT OF PHYSICAL PLANNING IN THE CITY OF BHOPAL, INDIA

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ABSTRACT
Land use planning deals with land transformation from natural areas into developed ones which lead to changes in natural environment. Therefore basic knowledge of relationship between the existing patterns of land use and the natural surroundings is necessary. In dynamic urban and climate scenarios, the parameters of incompatibility between urban functions and the functions of the natural environment are becoming various. Changes in land patterns due to built up, pavements, roads and similar land cover affects surface water flow seriously. It also changes permeability and absorption characteristics of the soil. Urban planners need to know natural processes along with modern means and best technologies as there is a huge gap between basic knowledge of natural processes and its requirement for balanced development having minimum impact on water recharge.
Keywords: Runoff, built up, bye laws, recharge, roughness

1. INTRODUCTION
As per present day knowledge from various summits, conferences, researches and programs, it has been observed that there is large scale change in urbanization as well as in natural systems all over the world. Increasing urbanization and variations in natural systems are identified by different organizations, scientists and various departments like Intergovernmental Panel on Climate Change (IPCC), (IPCC 2007) United Nations Environmental Program (UNEP), United States Geological Survey (USGS), Rio Summit, Millennium Development Goals (MDG) etc. The panelists at World Water Day 2011 (Worldwater 2007) identified rapid urbanization, poor planning, inadequate investments and overdependence on external resources as the main challenges facing water management in cities. Surface runoff occurs relatively rapidly in the urban areas, since storage and absorption capacity has been reduced to almost zero. Much of the surface consists of impervious materials such as concrete or asphalt. Urbanization is a major issue in the present scenario and water scarcity and floods too are directly linked to increasing built up areas and resulting runoff leading to declining ground water levels. Contemporary physical planning is equipped with modern means as well as best technologies, but the basic knowledge of natural processes is still eluding urban planners. Development of schemes, projects, a city etc. are only supported by plans and statistics of natural resources but using this knowledge in planning and in implementation is much less than required. The main aim of this paper is to detect the changes and correlate the parameters like built up and runoff areas with geological endowments and use this correlation for urban planning and management, in accordance with bye-laws and guidelines. The study is to develop an understanding of relationship between surface water runoff and ground water replenishment with respect to changes in land characteristics resulting from urbanization in the city of Bhopal.

2. THE STUDY AREA

Bhopal is located in the central part of India, and is just north of the upper limit of the Vindhya mountain ranges. Located on the Malwa plateau, it is higher than the north Indian plains and the land rises towards the Vindhya Range to the south. Bhopal has an average elevation of 500 metres. The city has uneven elevation and has small hills within its boundaries. The prominent hills in Bhopal are Idgah hills and Shyamala hills in the northern region, Katara hills in southern region. City's geography has in it two lakes namely upper lake and lower lake. Bhopal has a humid subtropical climate, with cool, dry winters, a hot summer and a humid monsoon season. The monsoon starts in late June and ends in late September. These months see about 40 inches (1020 mm) of precipitation, frequent thunderstorms and flooding. The average temperature is around 25 °C (77 °F) and the humidity is quite high. Winters in Bhopal are cool, sunny and comfortable, with average daily temperatures around 16 °C (61 °F) and little or no rain. Bhopal was selected to study and record the response of ground regime to the natural and anthropogenic stresses of recharge and discharge parameters with reference to local geology, climate, physiography, land use pattern and hydrologic characteristics. The natural conditions affecting the regime involve climate parameters like rainfall, evapotranspiration etc., whereas anthropogenic influences include land surface changes, declining recharge due to urbanization etc were studied for the study area. Since the aim of the study is to analyse the runoff due to urbanization it need to concentrate on the overland flow relating to small watersheds. Hence the study area was identified with urban areas within small watersheds. The catchment map shows total 19 catchments having 6 lakes and 13 catchments manifesting various types of development. The area in yellow colour hatching in figure 1 shows the demarcated area for critical zone as per Central Ground Water Board (CGWB) report. After obtaining catchments with rapid development (catchments experiencing development more than 30 to 50 percent in a decade and catchments with planned and unplanned development were identified. The geological map obtained from the geological survey of India was used for focus on the geology of these catchments and the different soil layers under these catchments. The hydro-geological characteristics of the area were determined (Figure 2 A).

3. WATERSHED AREA OF BHOPAL

The watershed map of Bhopal (1990) in which different catchment were identified for analysis of water prospect map and hydrogeology wells (Figure 2) of the city for maximum recharge potential and areas experiencing sudden decline in water table (Figure 3). Some areas which had been showing satisfactory reactions to urbanization processes were also selected to observe the basic factor underlying their performance in natural as well as urban cycle. Also the ward map (localities demarcated as wards by Bhopal Municipal corporation at local level plan) for the same area was obtained to ascertain the areas already developed and areas still developing.
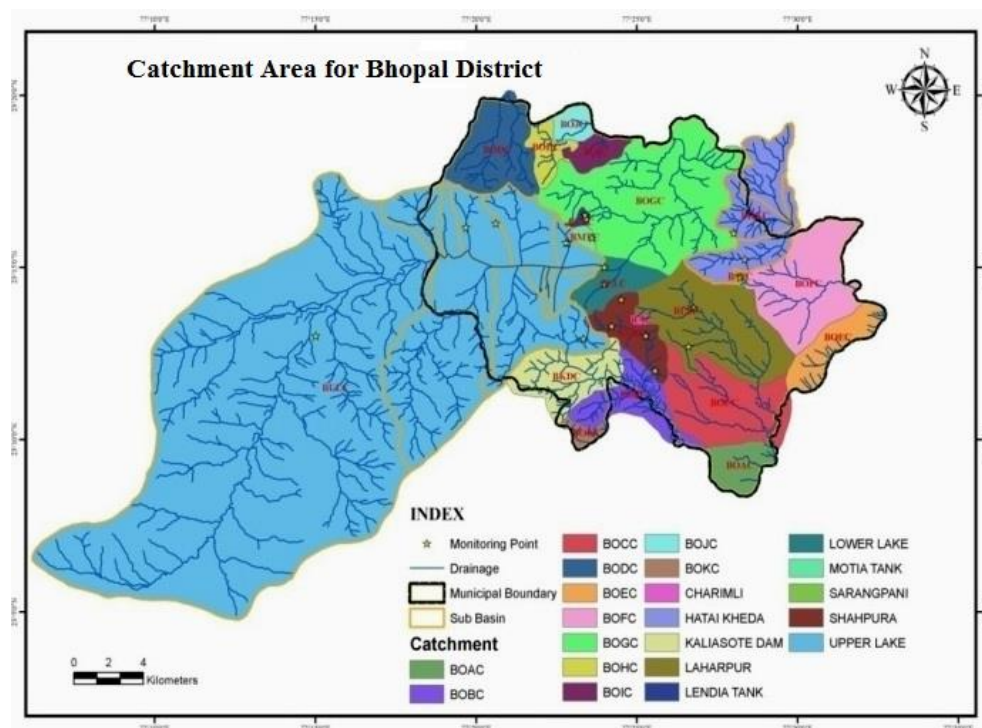
Figure 1: Catchment area for Bhopal District, Source: CGWB Bhopal.

Along with this CGWB report for critical water tables in city were identified. As per the secondary data it was found after analysis that some areas have been critical for water table fluctuation and some had shown improvement. The areas were marked as per the hydrogeology wells location. Water prospects of the study areas which were sensitive to water development and the areas which have great natural potential or carrying capacity were highlighted such as catchments named BSHC, BOBC, BOCC (catchment names as per nomenclature use by CGWB) and catchments with poor water prospects such as BSHC (upper part), BOBC-lower part and BLPC.
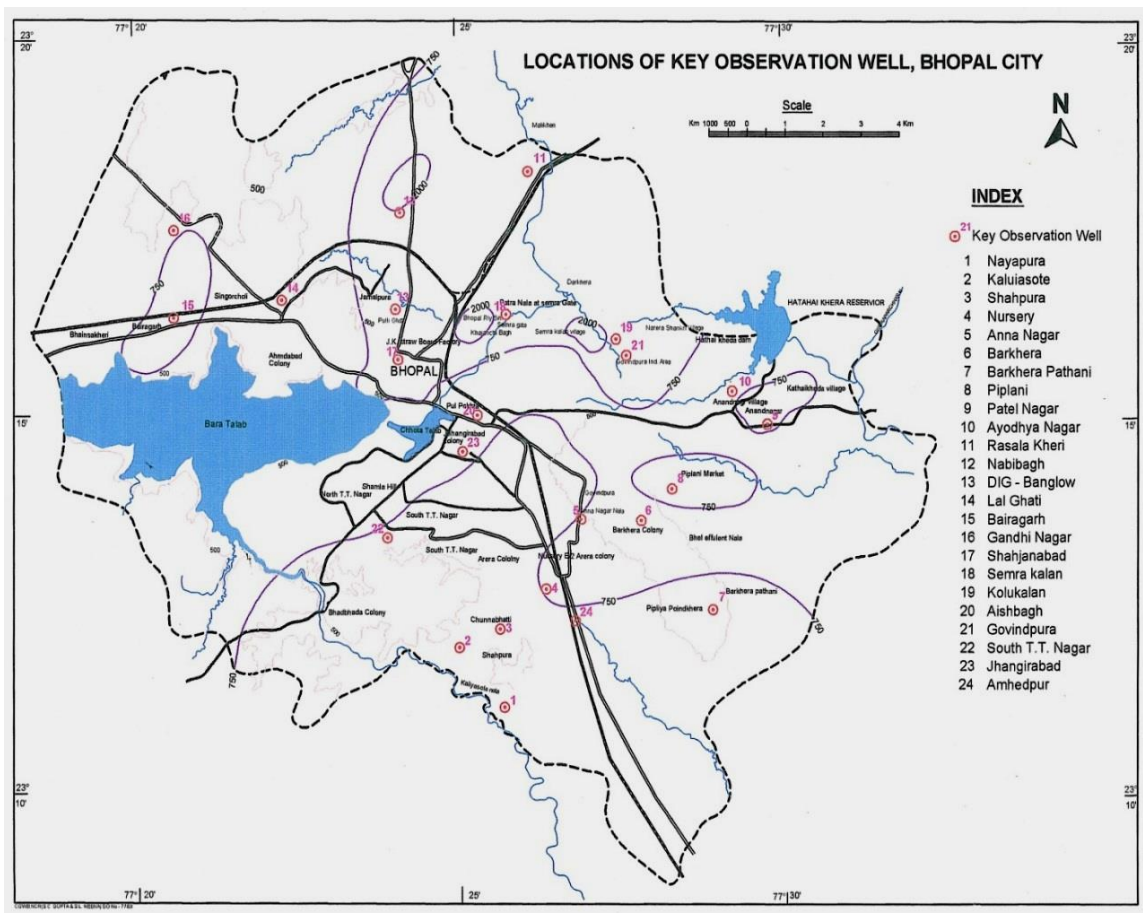
Figure 2: Hydrogeology wells Bhopal, Source: Hydrogeology map, CGWB 2008 (map Attached in Annexure)

As per the Peizometric and POW data (State Ground Water Board, M. P. India) (SGWB) 1984 to 2008 the following wells had variation: Figure 3
- **Satisfactory recharge**: Well no. 2,3,4,8,9,12,15,16, 24
- **Not satisfactory recharge**: Well no.5,6, 7,9,10,11,13,14,15,20,23

After obtaining catchments with varied development (catchments experiencing development more than 30 to 50 percent in a decade and catchments with uniform development were identified. The geological map obtained from the geological survey of India was observed for geology of these catchments and the different soil layers under these catchments. The hydro-geological characteristics of the area were determined.
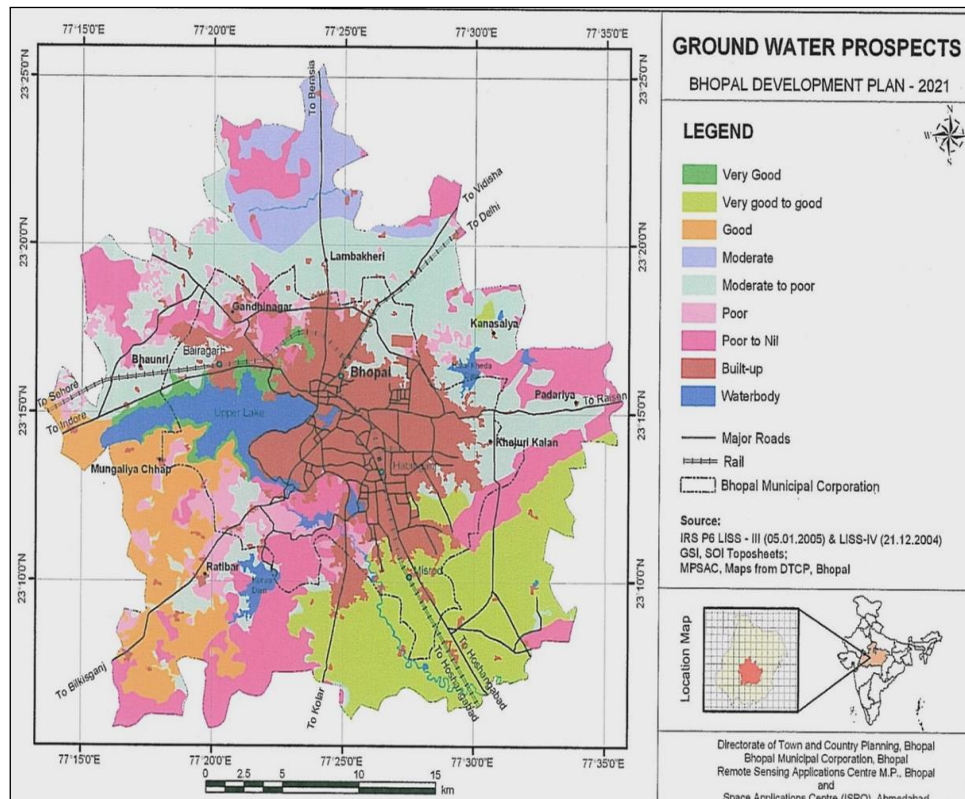
Figure 3: Ground water prospects of Bhopal. Source: Draft Master Plan, Bhopal 2020.

The areas which were sensitive to water development and the areas which have great natural potential or carrying capacity were observed such as catchments named BSHC, BOBC, BOCC and catchments with poor water prospects such as BSHC (upper part), BOBC-lower part and BLPC. Then the wards and population and water withdrawal was calculated for the same. Areas with fast pace development and with slow and steady development were identified
Thus a study area of about 22 sq. km was marked out having 5 different catchments and urban development with different geological characteristics and hydrological behaviours.

4. CASE STUDY
The wards coming within these natural boundaries have been taken for observation and analysis. It consists of Arera colony, Shahpura, Chuna Bhatti and Manit. The study area comprises of natural drainage of Kaliasot River along with Kaliasot dam, Bhadbhada area (Soil way of Upper Lake) and southern portion of upper lake (Fig. 4) It refers to Survey of India Topographical sheet No. 55 E/8 and bounded by latitudes $23^0 10'$ to $23^015'$ N and longitudes $77^023'30$ to $77^027'$ E.
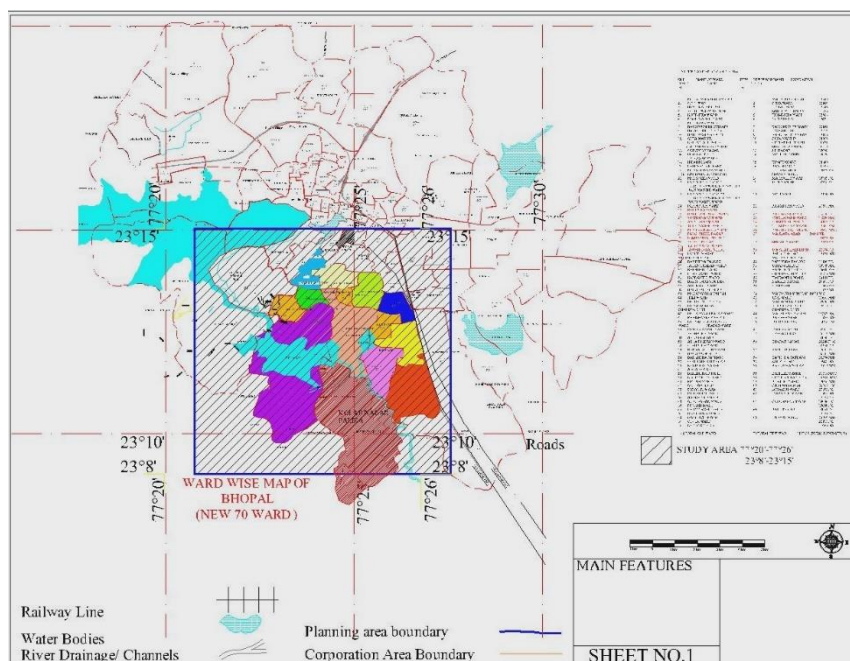
Figure 4: Wards in study area
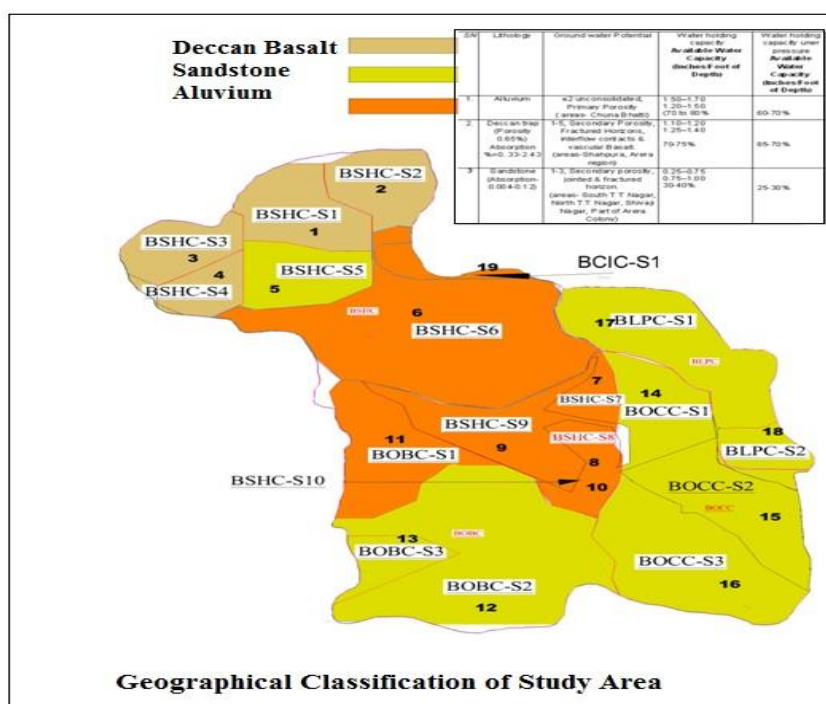
Figure 5: Geology, Sub-catchment. Source: CGWB Bhopal, GSI India.
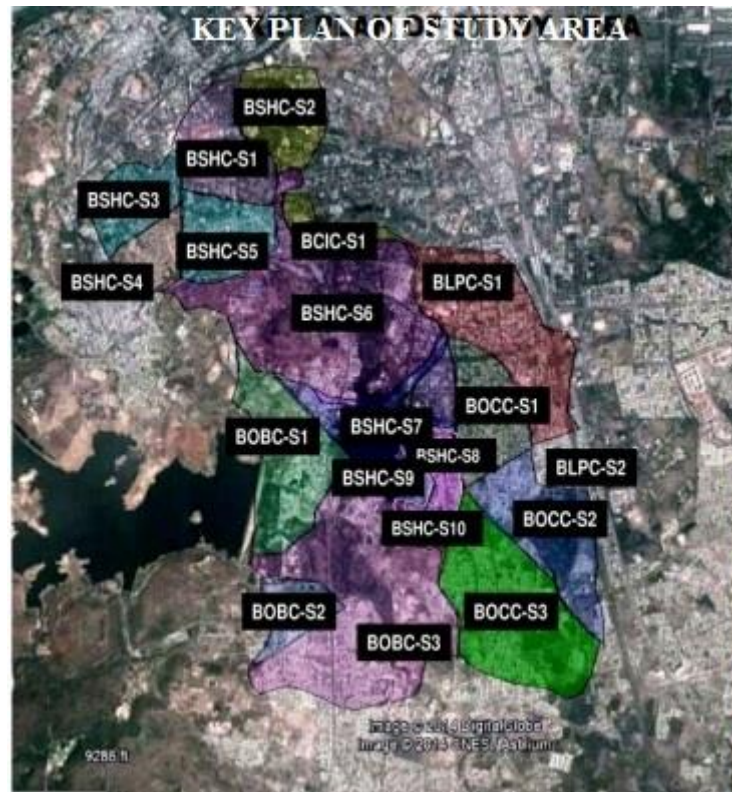
Figure 6: Geology, Sub catchment and Catchment Map for Bhopal District, Source: CGWB Bhopal, GSI India

4.1. Model Scale and Temporal scale
Model Scale: Plot, Colony, Neighbourhood and Zonal Level.
Temporal Scale: 40 years period from 1971 to 2011.

The scale of modelling and observations extend from plot level to the zonal level as shown in figure 3 including various wards and water sheds of the study area to get clear picture of effects of natural and urbanized areas on water cycle.

Figure 7: Model scale

4.2. Stage 1: Calculation of Built up area for temporal years (Map 1 and 2 Annexure A).
The sub-catchments were categorized as per their geology as in table 1

112

Table 1: Division of catchments as per geology (Nomenclature as per Catchment Map, SGWB)

Deccan basalt	Sandstone	Alluvium
BOBC-S3	BSHC-S1	BOBC-S1
BSHC-S5	BSHC-S2	BSHC-S6
BSHC-S7	BSHC-S3	
BSHC-S8	BSHC-S4	
BSHC-S9	BCIC-S1	
BSHC-S10		
BOCC-S1		
BOCC-S2		
BOCC-S3		
BLPC-S1		
BPLC-S2		

4.3. Inter-location sub-catchment analysis

The percentage of built up area was calculated for each decade as in Table No 3 and Maps 1 and 2 (Annexure A)

Table 2: Built up percentage in study area from 1971 to 2013(Refer Maps 1and 2)

Sl. No	Sub catch- ment	Total area (Sq. mt)	Percent 1974	Percent 1981	Percent 1991	Percent 2001	Percent 2011	Percent 2013
1	BSHC-S1	70351.56	41.07	69.58	77.85	83.71	83.92	83.92
2	BSHC-S2	796863	9.44	12.59	55.83	55.06	91.42	99.97
3	BSHC-S3	667820.6	46.78	48.61	87.01	99.98	100	100
4	BSHC-S4	467654.2	1.91	66.09	75.35	92.44	92.44	92.44
5	BSHC-S5	847028.4	7.11	56.47	64.53	67.14	81.42	82.71
6	BSHC-S6	3455035	2.36	17.18	42.37	46.93	77.89	87.18
7	BSHC-S7	292338.3	0	0	66.79	90.25	92.75	92.75
8	BSHC-S8	336526.1	2.54	18.88	34.14	51.86	59.08	59.08
9	BSHC-S9	1077419	0.48	12.81	18.66	38.82	43.72	46.26
10	BSHC-S10	253820.2	0	16.67	24.46	36.78	51.12	51.12
11	BOBC-S1	1446194	4.85	5.20	10.92	46.85	54.09	55.30
12	BOBC-S2	3267546	0	5.07	30.26	32.50	51.42	51.87
13	BOBC-S3	443747	0	12.37	31.15	45.20	45.20	47.62
14	BCIC-S1	241845.1	0	0	0	0	9.45	9.45
15	BOCC-S1	926885.2	2.00	65.16	90.92	93.15	94.48	94.48
16	BOCC-S2	1342964	0	23.83	33.04	42.66	42.66	45.50
17	BOCCS3	2056776	0	19.20	68.17	79.92	80.68	80.68
18	BLPC-S1	1850300	0.71	58.51	75.50	84.28	85.22	86.91
19	BLPC-S2	425139.3	0	11.88	11.88	49.91	51.60	51.2

4.4. Stage 2

4.4.1. Hydrological modeling: Snap Shot 1 and 2 Annexure A

Urbanization affects the roughness and perviousness of the land surfaces, which increases the runoff volumes. As surface roughness is decreased, the stream exhibits a faster response time and peak flows to precipitation. Since the objective of the study is to determine the impact of urbanization on the hydrologic systems, a spatially distributed precipitation-runoff method is desirable for a more accurate observation of the changes in built up and runoff, hence Storm Water

Management Model (SWMM) was used to analyse the hydrological behaviour. SWMM was chosen as the best method for Hydrological Modelling.

4.4.2. Process

The output of the Arc GIS Model is shape files, image files and word files. These files were used as reference files in SWMM model as back drop image and geo-referencing with the help of word files. The sub-catchments were drafted manually in the SWMM model with the help of backdrop image and characteristics were entered as input parameters in the properties table, based upon the district hydrogeology report and the geological map by GSI, 1980 (India). Land Covers or features were identified and observed by remote sensing, analyzing historical images of Google earth, Topographical sheets, and master plans (for 1991, 2005, and 2013) and photographs along with physical primary survey. The Soil Conservation Service (SCS) curve numbers and the curve number (CN) were based on USGS Data. Standard formats used by EPA, SWMM were used as default inputs.

The digitization was carried out in three stages:

a.   GIS Maps for watershed imageries.
b.   GIS and Geology map, ward map, road, built up and land use map for sub-catchments.
c.   Colony maps by town & country planning, Bhopal.
d.   Contour Map, Digital Elevation Model. DEM

The land cover analysis was minutely divided on the basis of imageries and colony maps in the study area for:

1.   Impervious areas (Roads, Buildings, Pavements, parking's etc)
2.   Natural land with grass covers – more than 20 percent, less than 20 percent.
3.   Land with bushes and trees.
4.   Water Bodies.
5.   Natural barren land.

After classification of the land covers they were again separated into two categories i.e. impervious and pervious. After dividing them under two heads each land cover was assigned by a Manning N for the type and category as mentioned above by USGS.

Accordingly a basic model of the study area in Bhopal city was built using the Arc GIS with integration of different layers for different time periods. The precipitation data obtained from the Meteorological Department and the report of Central Water Commission (CWC 1988) WRD 2008 the normal rainfall series and the critical rainfall series were decided. The rainfall data was available on an hourly basis as well as monthly basis for monsoon period. Auto CAD civil 3D software was used to categorize sub-catchments on the basis of water drop flows and contours of Google surface to facilitate analysis of surface flows. Then the natural drainage paths and the man made conduits along with the junctions and nodes were formed in the SWMM model. The sub catchments were identified with the related properties and detailing for length, width, slope, impervious percentage, flow routing, inflows, dry weather inflows, etc were addressed. The outlets and conduits were assigned properties such as circular pipe, trapezoidal, natural etc. Manning N for the concrete pipes and the natural rains were assigned. The storage units and the aquifers were assigned data as per Hydrogeology reports.

Thus a whole set of parameters were formed to set a model where simulation for various runoff, peak runoff etc can be observed. The two methods for simulation used were by keeping precipitation and slope, width constant for respective years, and by changing precipitation on hourly and daily basis to observe long term Runoff changes and short term peak flow changes.

The runoff changes for constant precipitation with decadal data were analyzed first. The combinations of inter location runoff and the intra location runoff were used to form the correlation equation and the constants ($y=ax^2+bx+c$) where y is runoff and x is built up. The correlation

observations for each catchment for each decade was plotted to see the trend line and the resulting equation. To calibrate the hydrologic model the LULC data was prepared in an 8m grid. The time series data was made for hourly rainfall event.

Finally the simulation was run for different years as per conditions prevailing for that specified period and the continuity errors as well as flow routing errors were minimized to get accurate results. The obtained report of the rainfall runoff was then observed and compared with varying precipitation and built up observations for viewing results and changes in the parameters. The correlation analysis was performed to obtain a correlation and best fit method was used to minimize errors. The correlation thus formed was observed for various catchments individually i.e. inter location and then with others with same characteristics over all the study area i.e. intra location.

5. MODELING PROCEDURE

To correlate and analyse these two cycles closely the modelling was done with different combinations of land covers and precipitations so as to achieve the best results for relation between two. Modelling procedure and observations are indicated in table 4.

Table 4- Modeling procedure

	Scenario	Varying parameter	Constant	Observation	Result	Remark
1	Actual scenario	Increasing built up.	Constant precipitation	Individual catchment	Runoff	1
2.	Policy guidelines	Built up as per Municipal bye laws	Constant precipitation	Individual catchment	Runoff	2
3	Climate	Precipitation	Built up	Individual catchment	Run off	3
4	Land cover and Geology	Roughness-land cover	Precipitation	Group catchment as geology	Run off	4

5.1 Observations: Remark 1

Charts 1 to 6 show the variation in runoff to built-up in different catchments.
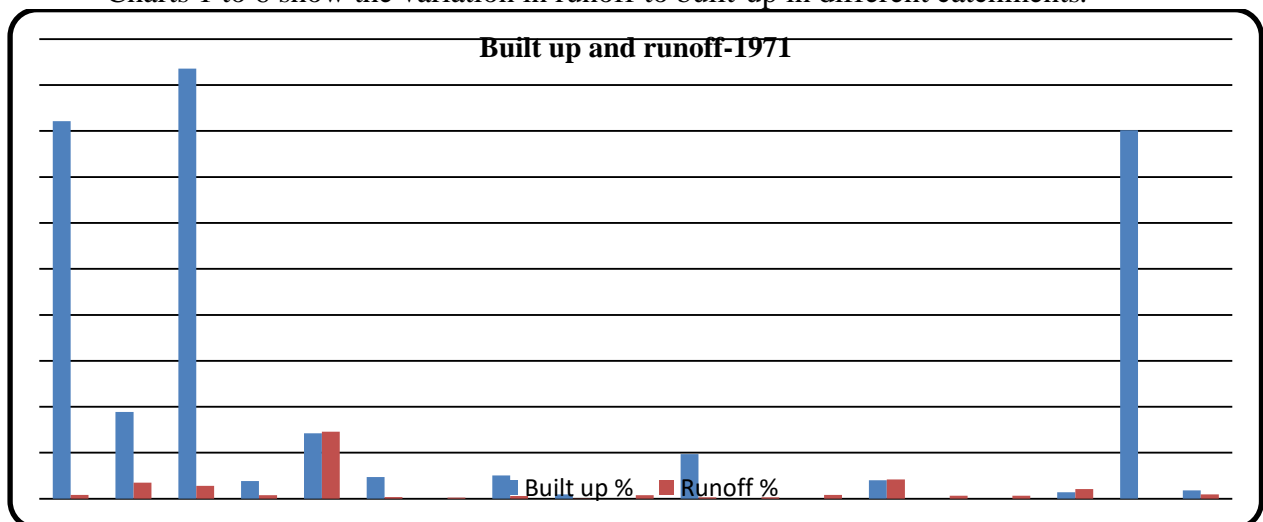
Chart 1-Built up and runoff in catchments for 1971

115
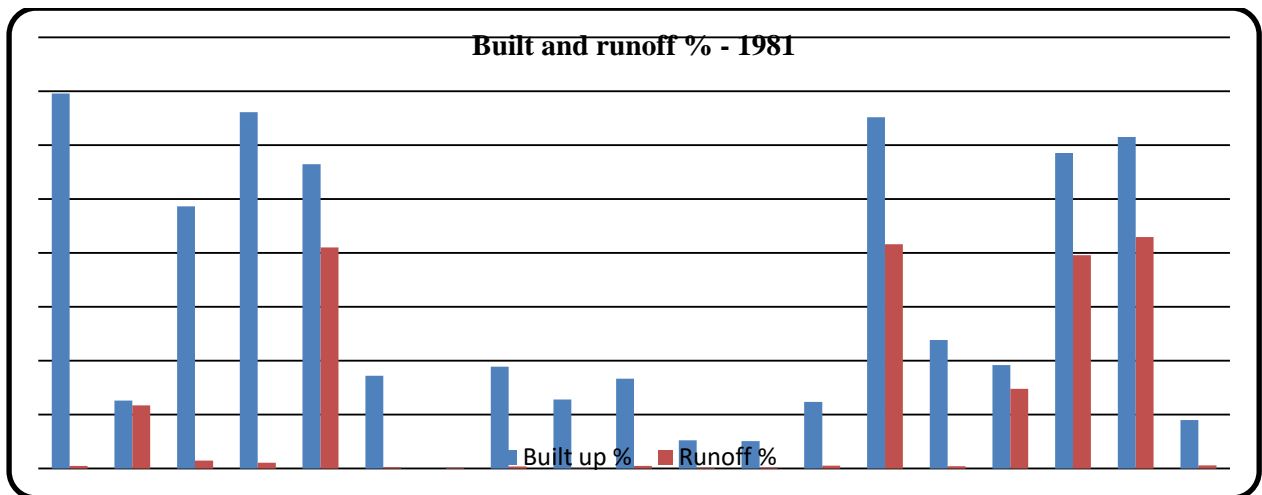
Chart 2-Built up and runoff in catchments for 1981
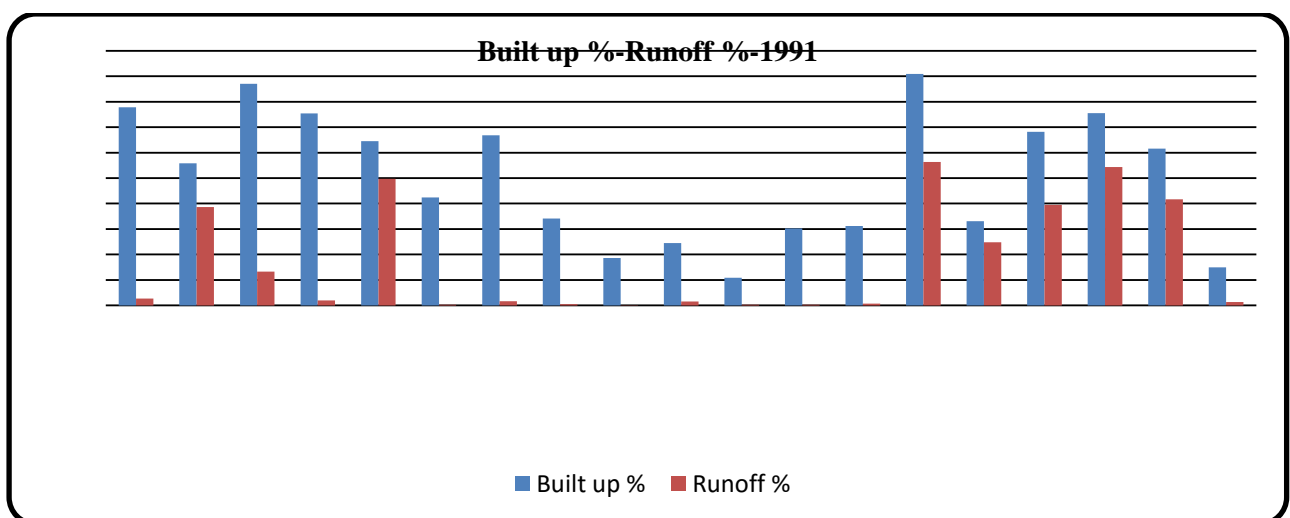
Chart-3 Built up and runoff in catchments for 1991
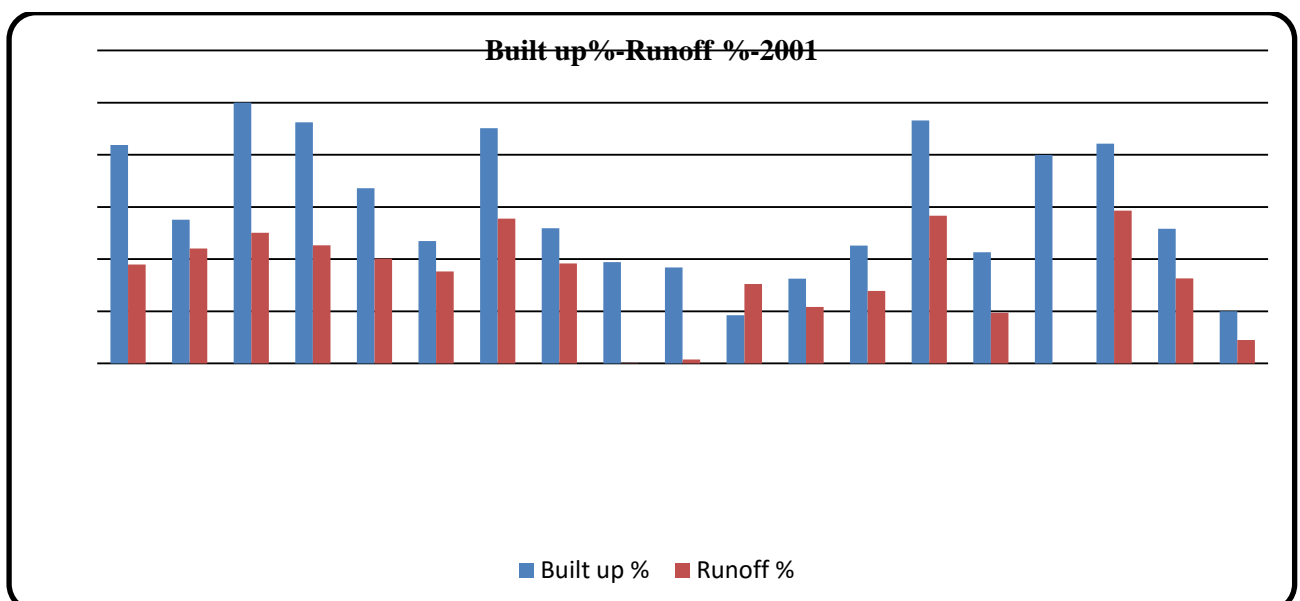
Chart 4-Built up and runoff in catchments for 2001
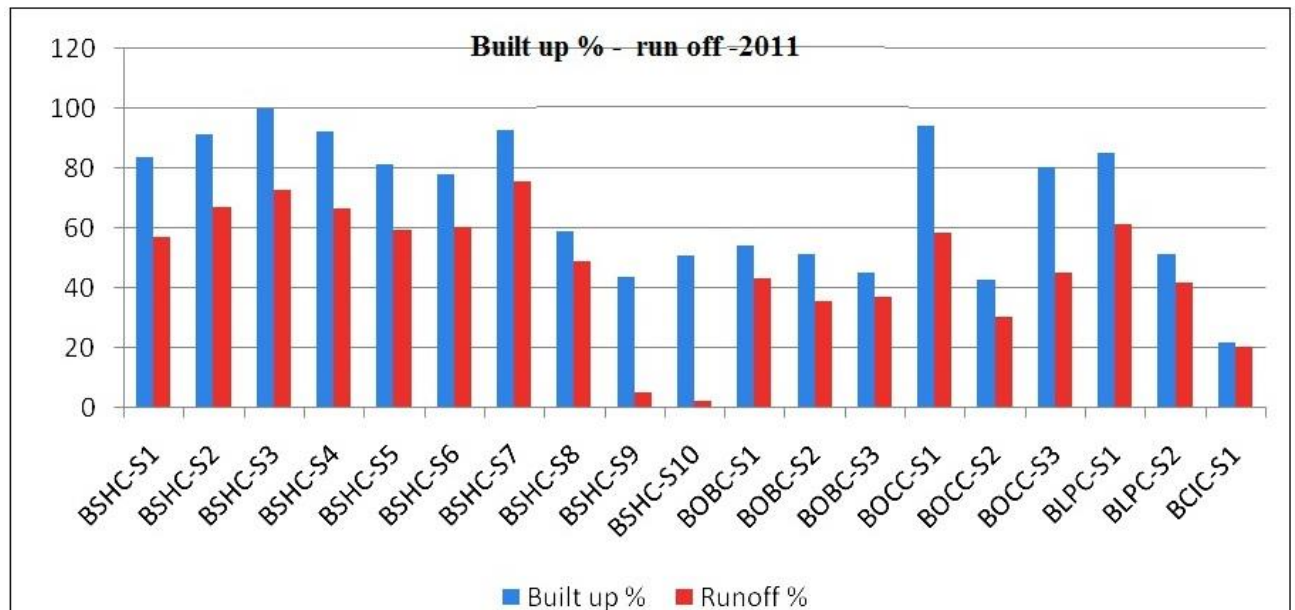
Chart 5-Built up and runoff in catchments for 2011
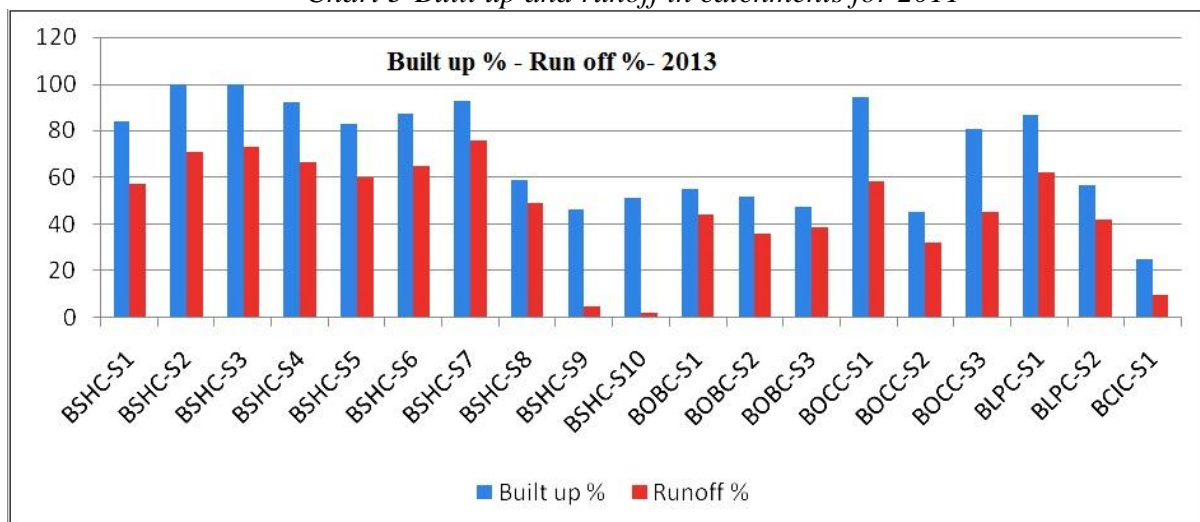
Chart 6- Built up and runoff in catchments for 2013

Above charts 1-6 show that runoff increases with built up in almost all catchments except catchments having more natural vegetation and water bodies as BSHC-S9, BSHC-S10, BSHC-S8. Apart from this, runoff observations for alluvial soil group also favor infiltration up to some extent but for less intensity rainfall and vegetated land cover like BSHC-S6, BSHC-S7, BOBC-S1, BOBC-S2, and BLPC-S1. The sandstone areas with barren land, less vegetation and built up to 50-60 percent have supported infiltration satisfactorily with connected impervious layers as well as combination of unconnected pervious surfaces such as BOBC-S3, BOBC-S2, BOCC-S2 acting as recharge pits.

5.2. Verification of results for calibration and validation for individual catchments

Table 5 Statistics for validated and calibrated events for individual catchments

Event (catch-ment wise)	Calibration	Validation	Confidence level(0-1)	Trend line and runoff pattern for built up
BSHC-S1	$R^2 = 0.874$	$R^2 = 0.824$	0.9	Upward trend > runoff increased rapidly after 1990
BSHC-S2	$R^2 = 0.970$	$R^2 = 0.988$	0.9	Linear trend>runoff increased gradually
BSHC-S3	$R^2 = 0.912$	$R^2 = 0.938$	0.92	Upwards trend>upward trend> runoff increased more than 40percent after 2001
BSHC-S4	$R^2 = 0.874$	$R^2 = 0.915$	0.89	Upward trend >runoff increased after 2001.
BSHC-S5	$R^2 = 0.817$	$R^2 = 0.960$	0.91	Downward trend> runoff increasing similar to built up
BSHC-S6	$R^2 = 0.906$	$R^2 = 0.887$	0.85	Upward trend< runoff increased after 1990
BSHC-S7	$R^2 = 0.860$	$R^2 = 0.987$	0.88	Upward trend< runoff increased after 2001
BSHC-S8	$R^2 = 0.843$	$R^2 = 0.978$	0.87	linear trend< runoff increased after 2009
BSHC-S9	$R^2 = 0.830$	$R^2 = 0.751$	0.86	linear trend< least value runoff
BSHC-S10	$R^2 = 0.917$	$R^2 = 0.909$	0.9	linear trend< least value runoff
BOBC S1	$R^2 = 0.868$	$R^2 = 0.933$	0.89	linear trend< maximum value runoff
BOBC-S2	$R^2 = 0.883$	$R^2 = 0.877$	0.95	Upward trend< runoff increased by fluctuation after 2001
BOBC-S3	$R^2 = 0.867$	$R^2 = 0.941$	0.91	Upward trend< runoff increased after 1999
BOCC-S1	$R^2 = 0.936$	$R^2 = 0.999$	0.93	Downward trend> runoff increasing similar to built up
BOCC-S2	$R^2 = 0.886$	$R^2 = 0.883$	0.92	Downward trend> runoff increasing similar to built up
BOCC-S3	$R^2 = 0.961$	$R^2 = 0.989$	0.94	Downward trend> runoff increasing similar to built up
BLPC-S1	$R^2 = 0.960$	$R^2 = 0.998$	0.91	Downward trend> runoff increasing similar to built up
BLPC-S2	$R^2 = 0.953$	$R^2 = 0.958$	0.99	Downward trend> runoff fluctuating.
BCIC-S1	$R^2 = 0.906$	$R^2 = 0.906$	0.99	Upward trend> runoff increased after 1991.

Note: The coefficient of determination and correlation coefficient were than compared to the calibrated one for validation using more number of observations as shown in table 5 and the trend line was observed for variation in behaviour.

The built up runoff correlation could have been demonstrated by a single chart, but the main aim of these has been to correlate the pattern of runoff variations with built up and with other characteristics like land cover and roughness and Geology so that the individual pattern of variations in runoff for same built up can be analyzed further for finding the responsible components for these difference in variations in runoff. Thus each catchment was observed independently not only for variations in runoff for these correlations but also further for different correlations of roughness and geology making a clear picture for interpretations. The observations of trend lines and coefficient in determination also correlated the confidence level for runoff observations along time period and scale of impervious and pervious areas.

5.3. Observations for varying precipitation: Remark 2

Similar comparison for catchments with varying precipitation and runoff pattern
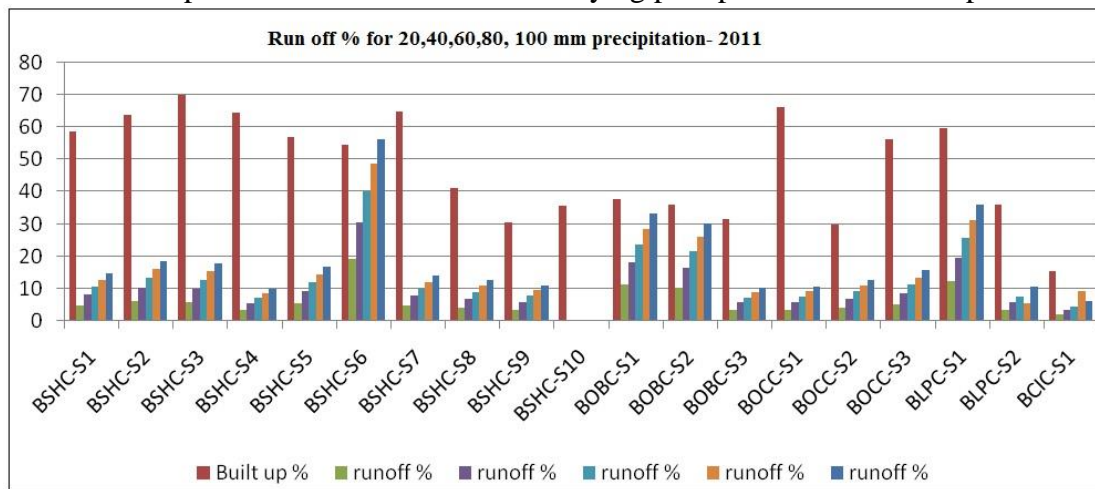
Chart-7 Built up and runoff in catchments for precipitation at 20,40,60,80 and 100 mm

The results for varying precipitation on constant built up shows almost similar increase in runoff along with the precipitation in some catchments. Some interesting facts are that catchments which showed increasing runoff with increasing built up like in BOBC-S3, BOCC-S1, BOCC S3 have not shown such increase with constant precipitation. Catchments like BSHC-S6, BLPC-S1, BOBC-S2 and BSHC-S2 have experienced highest runoff percent for increasing precipitation with constant built up. Highest runoff percentage is read as 56.38 percent as compared to 75.86 of same year with increasing built up. BSHC-S9 and BSHC-S10 have relatively less run off as it contains water body and natural vegetated land around in it with less built up. Reason behind such variations are rapid increase inbuilt up sealing the surfaces, no planning for direction of flow of water, increased volumes due to continuous impervious areas and decrease in peak runoff due to presence of vegetation in the path of flowing water or depression storage available nearby.

6. OBSERVATIONS FOR BYE LAWS AND GUIDELINES

The survey clearly showed that every plot and colony had far more area as impervious as pervious or water absorbing which is important as a parameter to be considered in planning and implementation of local plans and master plans. Also it was observed that smaller plots covered more impervious surface than large plots which comparatively had more open spaces maintained in them. This survey also revealed that roads and parking spaces were made of compact impervious layers and roads and parking's contributed to about 20 to 25 percent of space in a colony along with other land uses.

Now it is necessary to know the increase in runoff from these extra impervious areas in the study area so that difference in actual runoff and the runoff which would have been obtained if the open spaces were maintained, could be calculated. This difference being in large quantity is definitely affecting the natural areas along with the other effects of urbanization in the catchments.

For this, colonies in study area were inspected; their approved maps were obtained from the Bhopal Municipal Corporation and the Town and Country Planning Department. The permissible limits were tabulated for them. Then actual measurement and observations for the open spaces left at plot level, colony level and ward level were also tabulated to have a comparative assessment of both values. From table No.5 Annexure B, it is clearly shows that a variation in open spaces and ground coverage for study area was about 63 percent more than permissible limit. Means buildings had violated the bye laws and covered more space of 60 percent more than prescribed.

Considering this value as an effective value for behaviour of runoff and recharge based on land cover, the runoff results for this difference were calculated by running simulation in study area, keeping all other things common. Only permissible built up limit was considered in calculating runoff. Then following analysis was carried out for the maps.

Data was collected on basis of following points (Figure 4)

1.   Colony details different sizes and numbers of plots in the colony.
2.   Open, built up and land use pattern as per municipal norms.
3.   Impervious area as per rule.
4.   Runoff routing analysis for colony level and resulting changes in runoff.

Simulation was carried out for the runoff being produced from two different scenarios- (chart 7)

•   Area with open areas as per rules.
•   Area with actual open and impervious areas.
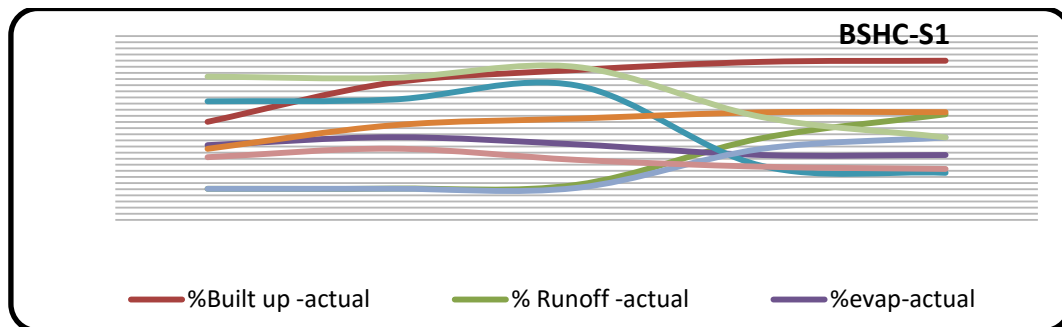
Chart 8
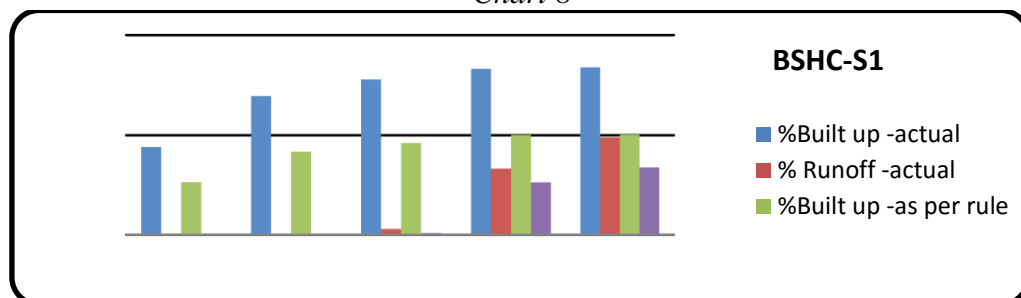
Chart 9
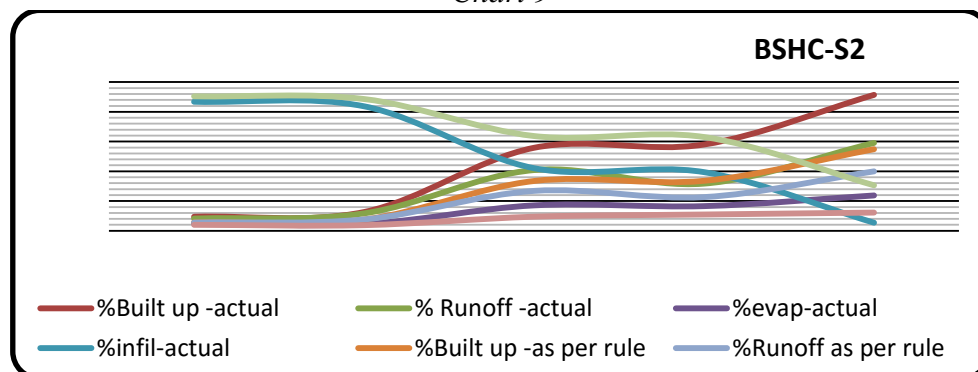
Chart 10
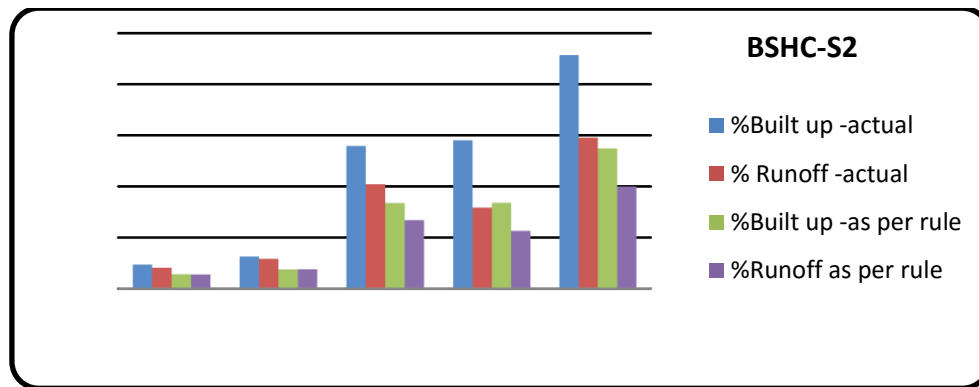
Chart -11 Correlation charts of Built up, runoff, Infiltration, recharge

Observations for variations: The results for catchments for runoff, infiltration and built up along with geological characteristics are as follows table 6: Remark 3.

Table 6: Combined observations for variations in built up, runoff and infiltration as per rule and actual scenario.

Catchment	Variation in land cover (built up) rule actual(+)	Variation in runoff (+) rule and actual	variation infiltration(-) Rule and actual	Geology Group
BSHC-S1	60.02	22.91	-84.86	Sandstone
BSHC-S2	88.72	35.86	-68.38	Sandstone
BSHC-S3	62.39	38.66	-88.09	Sandstone
BSHC-S4	42.68	27.35	-68.28	Sandstone
BSHC-S5	36.31	45.77	-82.13	Deccan Basalt
BSHC-S6	17.82	19.24	-31.15	Alluvial
BSHC-S7	20.04	31.87	-51.33	Deccan Basalt
BSHC-S8	16.00	22.84	-39.52	Deccan Basalt
BSHC-S9	9.51	0.30	-31.98	Deccan Basalt
BSHC-S10	15.15	0.80	-19.83	Deccan Basalt
BOBC-S1	20.00	11.32	-12.98	Alluvial
BOBC-S2	11.10	12.57	-32.68	Deccan Basalt
BOBC-S3	10.65	16.42	-30.49	Deccan Basalt
BOCC-S1	47.82	50.07	-100.17	Deccan Basalt
BOCC-S2	14.25	17.82	-38.11	Deccan Basalt
BOCC-S3	31.33	27.46	-76.96	Deccan Basalt
BLPC-S1	40.58	53.29	-86.12	Deccan Basalt
BLPC-S2	140.59	85.67	-122.47	Deccan Basalt
BCIC-S1	14.92	5.91	-9.56	Sandstone

From above observations in the table 6, it was concluded that if buildings are constructed as per bye laws, almost 20 to 35 percent of the normal runoff can be reduced for the same area and same precipitation. Apart from built up as per bye laws, other mean of balancing runoff is the correlation of land cover and geology. Geological base plays an important role in the occurrence of runoff. The results of runoff having different geology had same observations and some with same geology had different observations. Hence, correlation among them needs to be identified. The correlation of geology and land cover upon it are having separate effects on runoff is the assumption of the next simulation modelling. For this, catchments with their soil type and the existing land cover upon it are examined for resulting runoff. The correlation thus includes observations for group of catchments based on soil type and hence it is named as intra location analysis.

7. RESULTS AND DISCUSSION

After all the analysis and correlations a final table has been made to find out the gaps and need for better working of natural behaviour of soil and runoff in accordance with increasing built up .

Table 7 Behavior of catchments for runoff with Maximum built up in context of geological characteristics.

Sl. No.	Catch-ment	Soil (Geology)	Max Built-up & Runoff		Percent Recharge (less)	Remarks
			Built up	Runoff		
1	BSHC S1	Loamy Sandstone	83.92	56.63	49	Needs connected pervious areas.
2	BSHC s2	Loamy Sandstone	99.97	69.29	89	Needs conservation of natural drainage pathways
3	BSHC S3	Loamy Sandstone	95	71.61	75	Open space as prime land cover
4	BSHC S4	Loamy Sandstone	92	65.41	89.21	Interception storage needed.
5	BSHC S5	Deccan Basalt Lineament rock	82.71	52.87	73.72	Allows built up with open spaces.
6	BSHC S6	Alluvial Soil	87.18	64.59	61.77	Large chunks of open spaces allow recharge
7	BSHC 7	Deccan Basalt	92.75	75.75	90.51	Dense vegetation helps recharge and less runoff
8.	BSHCS8	Deccan Basalt	59	48.92	57.2	Porosity makes recharge better
9	BSHC-S9	Deccan Basalt	46	5.13	24.86	Water body hence good storage
10	BSHC S10	Deccan Basalt	51.12	44.01	16.38	Excellent for recharging.
11	BOBC-S1	Alluvial Soil	55.30	44.01	56.40	Natural drainages, excellent storage
12	BOBC-S2	Deccan Basalt	51.87	35.76	53.34	Lineament fractures make recharge less.
13	BOBC-S3	Deccan Basalt	47.62	38.22	46.14	Impervious layer affect recharge.
14	BOCC-S1	Deccan Basalt	94.48	56.36	49.77	Impervious layer affect recharge
15	BOCC-S2	Deccan trap	45.50	32.09	44.03	Large open spaces needed with built up
16	BOCC S3	Deccan trap	80.68	44.23	50.82	Steep slopes and built up affect recharge
17	BLPC-S1	Deccan trap	86.91	60.24	67.68	Impervious surface affect recharge ,intensify runoff
18	BLPC-S2	Deccan trap	51.60	42.14	83.21	Impervious surface affect recharge.
19	BCIC-S1	Sandstone	9.45	20.68	20.15	Green spaces help percolation.

7.1 Observations: Remark 4

Observations of different catchments and land covers show that the catchments having land cover with roughness values ranging from 0.011 to 0.013 had no very less infiltration and most runoff due to absence of vegetation. Similarly concrete and dense bushes showed slightly better behaviour in catchments BSHC S4, BLPC S1 etc. grass and mud surfaces helped more in reducing the runoff intensity and thus helped satisfactory infiltration also. Dense bushes and natural soil conditions were best to protect natural cycle of water with least runoff and most infiltration. The roughness values , land cover and the geology when compared together with runoff pattern it is clear that alluvial soil accompanied by dense bushes and natural soil cover assures best working of natural cycle. Since urbanization does not support this combination all over, it can be planned at some pockets of urban area having alluvial soil as geological base. Similarly sandstone is good in fast infiltrating the runoff water with the help of grass and medium vegetation land cover. Basalt shows some scope of infiltration if land cover imposed on it is a dense bush or forest. Hence city parks and natural drainages with basalt base should be landscaped with dense bushes. Land cover with scanty grass and concrete does not support infiltration greatly and hence development should be proposed on such pockets with impervious base and least grass or natural cover. These observations help to decide the planning perspective based on geology and land cover. This perspective can be further confirmed with long time variations in water levels which reveal the infiltration pattern of natural cycle in urban areas.

8. CONCLUSION

Permissible and exceeding percentage values for built up and resulting runoff with four groups of land cover roughness and a broad range of built up that allows satisfactory recharge are considered as acceptable features of physical planning along with some man made efforts needed for better performance. Pervious connected areas and unconnected impervious area play vital role in intercepting the rain water and allowing the rainwater to flow in desired direction. Connected impervious areas and disconnected pervious areas play an important role in handling the runoff as BC S9 where pervious areas and impervious have combination of 25 to 55 percent connectivity. Such connecting areas can be planned in cities to ascertain the speed of runoff from different land uses. Similarly land use like residential with 40 to 50 percent are acceptable for water cycle if open spaces are left in natural state and developed with efforts with grass, bushes and trees to minimize the intensity of runoff. Infiltration gets very much affected in basalt soil as it is poor in holding runoff. Hence special land cover planning is must for this soil group. Peak runoff is largely manifest in alluvial soil and basalt soil as in BSHC S6 and BOBC S2, but alluvial if treated merely with grass and natural soil state pockets also helps in fast infiltration whereas basalt does not allow infiltration of rain so easily with normal land covers. It needs proper land use allotment and planning to work satisfactorily. Even least connected areas of impervious and pervious areas like 25 and 15 percent as in BSHC S4 have more runoff generation but since sandstone infiltrated rain water easily, peak runoff can be avoided in such areas with land use and land cover planning. Hence planning in urban areas with mostly roughness values of 0.011 to 0.017 are to be planned wisely for the resulting runoff. Thus it is concluded that natural system sustains its working till its carrying capacity is exceeded and with some planning principles and manmade efforts this capacity can be extended to support the normal working of natural system in developed conditions.

1. Runoff in urban areas varies from 25.15 percent to 88.21 percent.
2. Some catchments produce more runoff than others though having same built up percent.
3. Catchments with connected open spaces have less run off, whereas unconnected pervious areas act as interception storages at bigger scale.

4. Lineaments and fractures add to runoff or add to ground water depending upon the land cover characteristics.
5. Runoff from 5.35 to 50 percent can be manipulated with help of basic use of hydrological knowledge in planning urban landscapes.

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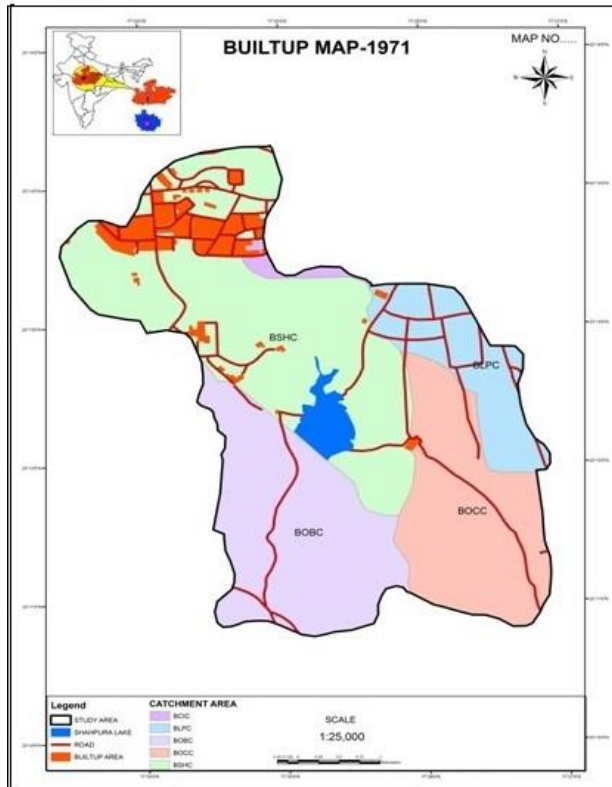
ANNEXURE A

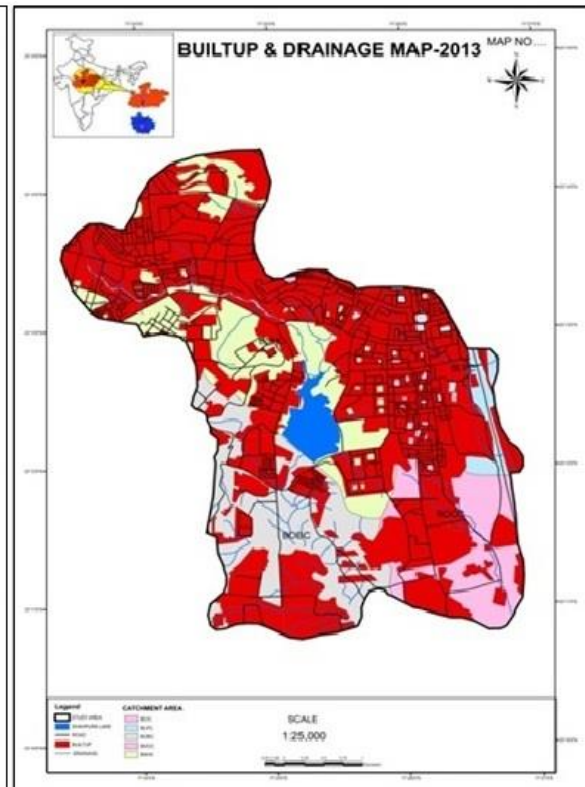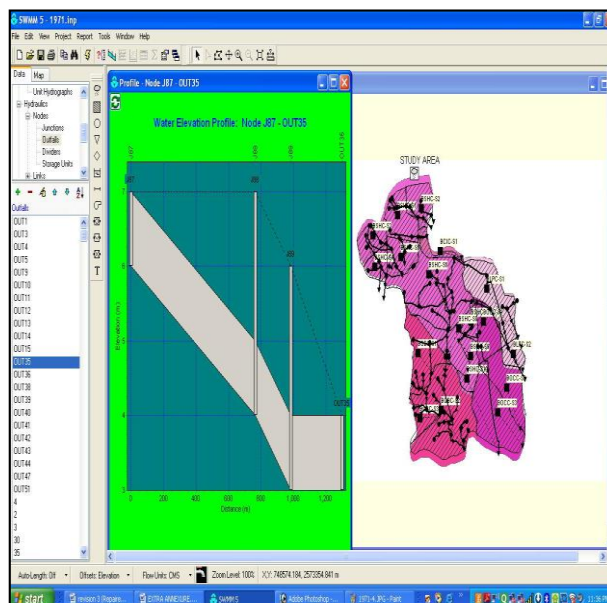Figure 1: Built up area as per GIS- 1971

Figure 2: Built up area as per GIS 2013

Snap shot 1. SWMM modeling
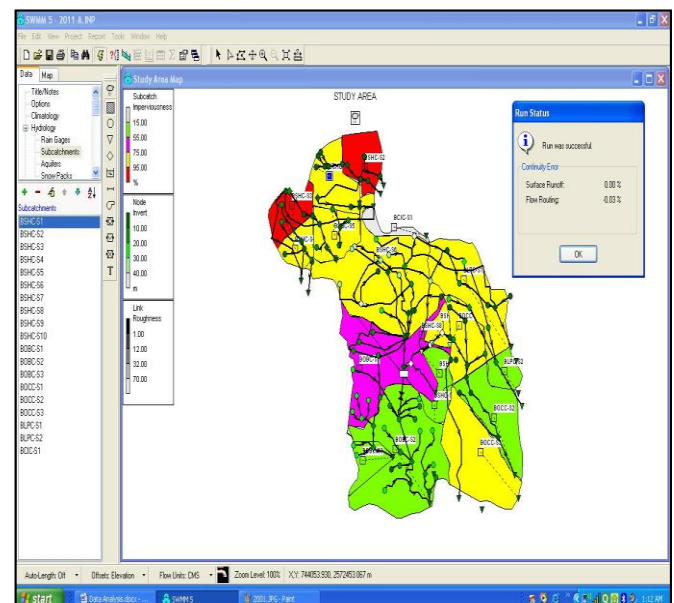
Snap shot 2. modeling

A MODEL OF EDUCATION FOR ASSISTANTS OF STUDENTS WITH DISABILITIES SUPPORTED BY INFORMATION AND COMUNICATION TECHNOLOGY

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ABSTRACT
Today's system of education is becoming more flexible for students from different under-represented groups. Possible obstacles in education can arise from age, gender, disability, language skills, low social status, income etc. All students from under-represented groups have an equal right to access to education and the subsequent labour market that such education provides. The majority of students with disabilities are included in mainstream preschools, schools and universities. Depending on the type of disability (hearing impairments, visual impairments, psychological disorders, mobility difficulties etc.), students need more or less support. This paper will explore the model of support provided by assistants for students with disabilities at different levels of education. The model includes personal teaching assistants in preschools and schools and peer-teaching assistance at the university level. The quality of training for teaching assistants in preschools and schools was evaluated using a sample of 90 assistants participating in the 20-hour course. The initial motivation of assistants was estimated by an open-ended question survey. A content analysis of teaching assistant reports shows that motivation for this job is not only current unemployment, but also the gathering of social skills, job experience and enjoyment. The results were positive, with an emphasis on the high quality of the curriculum and the usefulness of lifelong learning. Interviews with peer assistants at the university emphasised the importance of training supported by information and communication technology. Students with disabilities also need access to the internet, high quality digital learning materials and different assistive technology. Quality of support provided by assistants also depends on their training and any aversion of inclusion students with disabilities within the mainstream education system. Inclusion is good way of preparation in terms of human capital management for the future labour market. Further research will be focused on measuring the usefulness and practical implementation of the results.
Keywords: Education, Labour Market, Students with Disabilities, Teaching Assistants

1. INTRODUCTION
The inclusion of children and youth in the mainstream schools and universities is part of further career planning and inclusion in the further labour market. The national strategy of equalisation of possibilities for persons with disabilities (2007), enabling the equal right to education and employment for children, youth and adults with disabilities. There are different categories of disability that need special treatment and have different impacts at the education process (Michalík, 2012). Mental disorders are classified according to the Diagnostic and Statistical Manual of Mental Disorders (2013). The international classification of disability and handicaps

includes the following sub domains for children with intellectual impairment: sensory perception (visual and hearing perception), motor activity, laterality, sense of direction, intellectual functions, concentration, memory, phatic functions, emotions, adaptability and sociability, acting, aspiration and taking care of oneself (Michalík, 2012). The categories for students with disabilities in tertiary education are grouped into the following categories: students that are blind or visually impaired, deafness, have motor disorders, multiple disorders, chronic illness, mental disorders, learning disorders and ADHD and other disorders that could have impact their studies (Centre for Students with disabilities at the University of Zagreb, 2007).

1.1. Process of Inclusion in the Schools and Universities

The process of integration of children and youths with disabilities depends on their specific needs. The integration process differs at different levels of education. For example, the successful treatment of dyslexia is related to early identification and selection of teaching methods (Pesova *et al.*, 2014). Futher more, Muntaner *et al.* (2014) explore the elements of effective inclusion of children with chronic diseases in mainstream schools. The successful inclusion of peers with disabilities also depends on the attitudes of other children in the classes: Children that are used to have schoolmates with disabilities report more positive attitudes towards inclusion (Bebetsos *et al.*, 2014). The strategies for creating inclusive classroom depends on teaching strategies and the quality of teachers training (RahimOv *et al.*, 2011; Kurawa, 2010). The development of academic, professional and survival skills for children with disabilities needs to be part of the school curriculum and supported by competent teachers and staff. An inclusive curriculum is an element of the development of the education system (Ninlawan and Areerachakul, 2015). Secondary school students with visual impairments can be successfully integrated into mainstream school environments. The problem is that only 27% staff from counselling centres have knowledge and expertise about tools for mathematical expressions for students that are visual impaired (Regec, 2015). Kakabaraee *et al.* (2012) find that the majority of primary school teachers (90%) can't identify students with learning disorders.

Collaboration between schools and stakeholders are part of creative process of teaching and learning (Rustiadi, 2015). Inclusive teaching requires the development of inclusive schools in local community, and needs to be supported by tools and knowledge of teacher education community (Isosomppi and Leivo, 2015).

Tertiary education provides opportunity for professional and social life for students from the disadvantage groups. Students that are hearing impaired, visually impaired, have autism spectrum disorders or orthopaedic disabilities need different types of academic support. Institutions have academic and social regulations that could be helpful in their academic achievement. The quality of student support services can be improved by informing and training the staff. Services during registration period provide important information linked to fulfilling academic and social needs (Kayhan *et al.*, 2015). For example, students with psychiatric disorders in tertiary education are academically capable, but the level at which they cope with difficulties and illness symptoms can determine their academic achievement. According to research conducted by Yahaya *et al.*, (2010), those students need supported education. Furthermore, literature reviews from Belgium, Canada, France, Italy, Switzerland, UK, USA and Romania show the importance of awareness towards the needs of students with disabilities at tertiary education institutions (Vrăşmaş, 2014). The quality management of tertiary education institutions is relevant for the quality of education, innovative economy, technological progress, social development and consequent quality of life (Glushak *et al.*, 2015).

Today, many tertiary education institutions are increasingly adopting different quality standards and frameworks in order to achieve the goals and improve the quality of educational processes.

Some of these are ISO 9000 and Total Quality Management (TQM), maturity models. One of the most significant maturity model in the field of human resource management, knowledge management and organisational development is the People Capability Maturity Model (P-CMM). P-CMM is a well-documented set of practices that enables the growth of organisational workforce competencies and helps organisations to integrate workforce development with continual process improvement (Curtis, Hefley and Miller, 2009). The life cycle of process improvement includes assessment of the current level of process capability, determining the target level of process capability, prioritisation of the process improvement, as well as the implementation, monitoring and evaluation of these improvements (Wysocki, 2004, p.p.13). P-CMM provides the alignment between the workforce practices and the business objectives, determines the maturity of workforce practices and provides the program of continuous workforce development. The P-CMM can be combined with other quality methods and standards. Recently, new Capability Maturity Models (CMMs) are developed for the purpose of improving the quality of tertiary education. The planning and implementation of the best practice according to these models is very expensive and complex project for the tertiary education institutions, especially for small institutions. However, the benefits of these models for the quality of the tertiary education institutions as well as tertiary education institutions and students with disabilities are great.

The model of inclusive education for children and youth with disabilities will be explored in terms of quality and P-CMM in institutions for primary, secondary and tertiary education within the local community. Human resources management and manpower is one of the most important investments in the organisation which has an influence on organisational development (Cîmpan, 2013). There are differences in the level of awareness between human resources staff and managers that work with employees with disabilities, in terms of their knowledge and competences of recruitment of people with special needs. Employees from enterprises which do not employ people with disabilities have different knowledge of the degrees and causes of disability, suitable working times, jobs and adaptations of workstations (Polak-Sopinska *et al.*, 2015). The investment in somebody's education is recovered when a person enters the labour market and finds employment (Mariana, 2015).

1.2. The Role of the Information and Communication Technology for Students with Disabilities

Information and Communication Technology (ICT) plays an important role in the process of education because of its different aspects, such as ICT supported teaching/learning, E-learning courses, Massive Open Online Course (MOOCs), the gamification of education and so on. In other hand, ICT is important as an assistive technology, helping persons with disabilities to gain information, to communicate easier and to make education more accessible to persons with disabilities. ICT/computer can be accessible and considered as (computer) assistive technology with the help of different software such as screen magnification software, screen reader software and speech recognition software enhanced with all kinds of different input/output devices (alternative keyboards, keyboard emulating interfaces, switches…).

In today's information society, access to information represents a basic human right and a prerequisite for equality, equal opportunities. The Convention on the Rights of Persons with Disabilities (United Nations, 2006, Preamble, V) emphasises 'Recognising the importance of accessibility to the physical, social, economic and cultural environment, to health and education and to information and communication, in enabling persons with disabilities to fully enjoy all human rights and fundamental freedoms'. Web accessible information/content are in the focus of the Web Content Accessibility Guidelines (WCAG) 2.0 with a wide range of recommendations for making Web content more accessible (W3C, 2008) and ensuring that information/content is perceivable, operable, understandable and robust to all web users.

Software producers are also more and more aware of the needs of all kinds of software end users as well as the fact that software products should make information accessible. This results in more accessible software/web interfaces for gaining software functionality (in word processors, presentation tools...) which can help in producing accessible digital documents, presentations, i.e. accessible teaching/learning materials. Information and communication technology provides support for teachers and students with disabilities in achieving learning outcomes. E-learning enables students with disabilities to be included in the mainstream school system and can be implemented for different specific learning disabilities (Bjekić at al., 2014). Different software and tools such as Learning Support Assistants (LSAs) help the inclusion of pupils with complex special needs in mainstream classes (McConkey, 2011).

2. METHODOLOGY

The paper presents a model of education for teaching assistants and peer assistants that enables the inclusion of children and youth in mainstream primary, secondary and tertiary education. The overall objective of the research is to identify the elements of supportive learning for children and students with disabilities that are included in mainstream schools and universities. The specific objectives are to figure out the motivation of the teaching assistants training for their job, to examine the quality of the training in mainstream primary and secondary schools as well as at universities.

The research was divided in the two parts, according to the levels of education:

First part of the research: teaching assistants in preschools (children aged 3-7), primary schools (pupils aged 7-15 years) and secondary schools (pupils aged 15-19 years) were asked about a) their motivation for choosing the job of teaching assistants for children with disabilities and b) for feedback about the training curriculum. The initial motivation for the teaching assistant job was measured at the beginning of the training and feedback regarding to the quality of education was measured at the end of the 20 hours of training.

Second part of the research: peer assistants for students with disabilities at the Faculty (students 19 years and older) were asked about their experience in supporting and helping students with disabilities. The answers were collected through semi-structured interviews.

2.1. Respondents

Respondents at the first part of the research, that is aimed to the primary and secondary education were N=90 teaching assistants included in the training. The majority were aged 18-37 and 80% had a tertiary level of education (bachelor's or master's degree of education) and all were unemployed. 95.5% already had experience in working with children with disabilities. Respondents at the second part of research, which was conducted at the tertiary level of education, were N= 6 personal peer assistants. Interviews with peer assistants was made once a month during 4 months (one semester) of the academic year.

2.2. Measuring Instruments and Conducting the Research

During the first part of the research, two anonymous questionnaires were created: a) 'Questionnaire IM-1' included 11 open ended questions, with the purpose to identifying the motivation of the teaching assistants for their job and b) 'Questionnaire FB-2' included 11 Likert scale or open ended questions, the purpose of which was to collect feedback of the training program. At the second part of the research the semi-structured interview was designed to explore the current experience, needs for institutional adjustment, usability of information and communication technology and planned further activities for improvement. The interviewer was the coordinator for students with disabilities at the Faculty.

3. RESULTS AND INTERPRETATIONS

3.1. Preschools, Primary and Secondary Education: Quality of Education for Teaching Assistants

A group of 90 personal teaching assistants were included in the 20 hours of training. The training curriculum contents pedagogical and psychological topics, methodology of supporting inclusion and teaching. Training is made by 12 professionals form different fields of expertise.
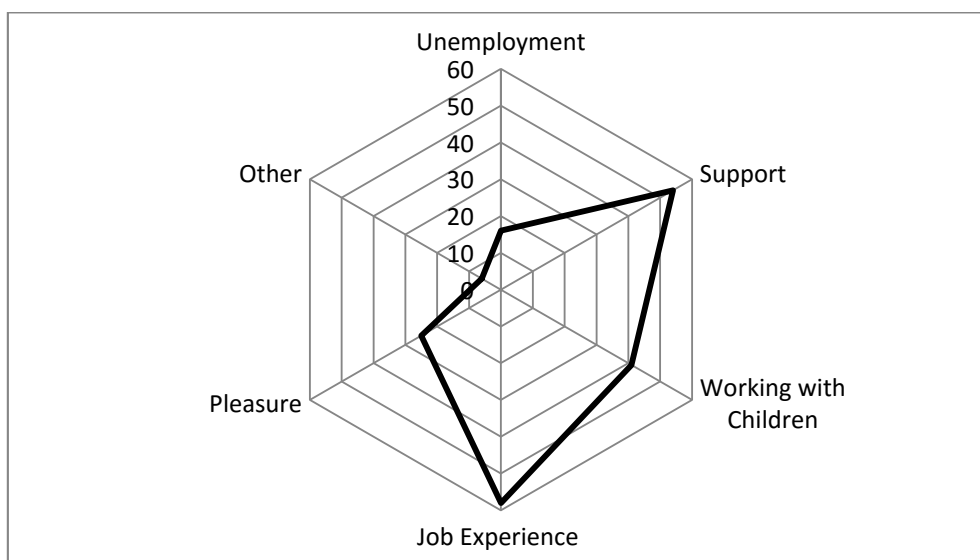
Figure 2: the Motives for Choosing the Career of Personal Teaching Assistant
(in % for N= 90)

Teaching assistants were asked about their motives for choosing this job at the beginning of the training. Although all of them were unemployed, employment was not the main reason. Only 16.13% report that unemployment is the main reason for choosing this job. The percentages of other motives (Questionnaire IM-1) for choosing the carrier of teaching assistant are presented in Figure 2

Teaching assistants were asked about their expectations of their further job. The content analyses of the open ended questions at the IM-1 questionnaire shows that the major expectations were grouped in the four categories: 1. Friendship (all answers similar to trust, good relationship, collaboration, communication...); 2. Adjustment and adaptation (answers like getting know each other, networking, acceptance...); 3. Achievement (success, independency, self-regulated learning...) and 4. Satisfaction (happiness, positive emotions, self-esteem...)

The numbers of answers that belong to the each category are presented in Figure 3. Each respondent describes at list one category. The number of answers is bigger comparing with the number of respondents, while some respondents choose two or more categories.
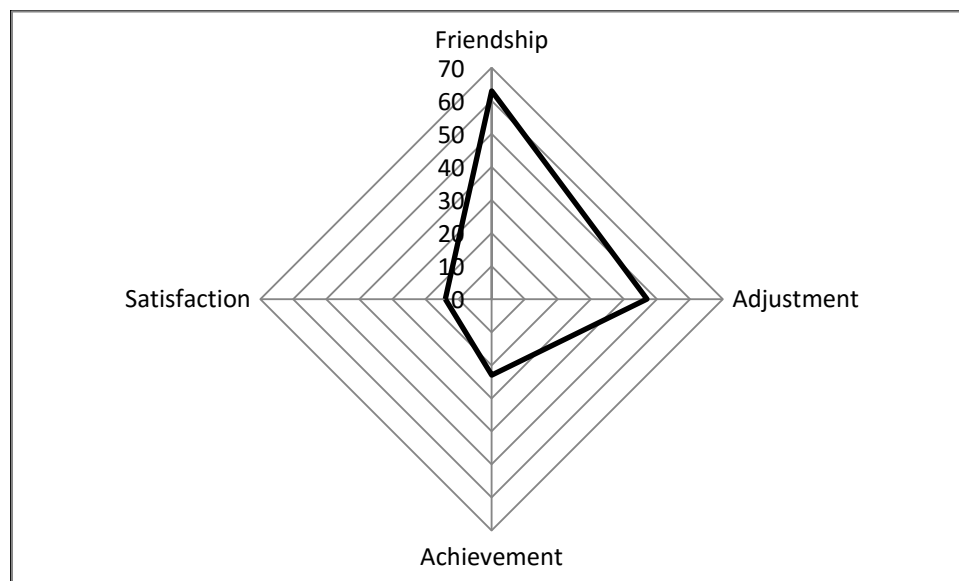
Figure 3: what Teaching Assistants Expect as the Result of their Support for Children and youth with disabilities (N=90)

It is interesting to realise that teaching assistants more often expect friendships and adjustment /adaptation of children than their own achievement or satisfaction. That could be interpreted in the terms of high awareness importance of social interactions and communication that will enable the successful learning and school achievement.
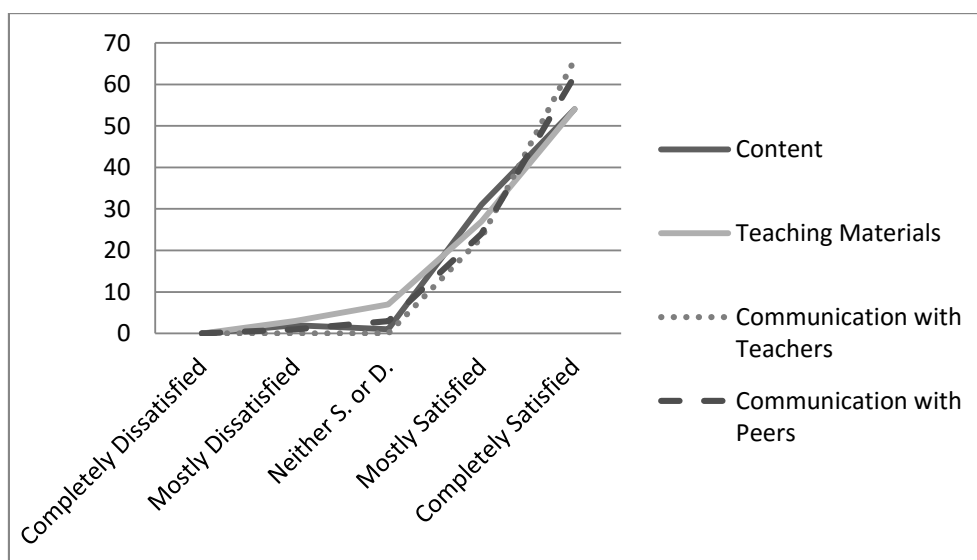
Figure 4: Teaching Assistant's Satisfaction with the Curriculum and Course Content, Teaching Materials, Communication with Teachers (Trainers) and Peers (other Teaching Assistant Colleagues) for N=90 Teaching Assistants

Legend: Access X: Likert scale feedback from 1 = Completely Dissatisfied, 2 = Mostly Dissatisfied, 3 = Neither Satisfied or Dissatisfied, 4 = Mostly Satisfied, 5 = Completely Satisfied; Access Y: Number of Respondents

After completing the training, teaching assistants were asked for feedback regarding their satisfaction with the curriculum and content of the course, teaching materials, quality of communication with teachers (trainers) and with the quality of communication with other teaching assistant's colleagues (peers). The results are presented at the Figure 4. The results presented at the Figure 4 show the positive feedback of the teaching assistants for students with disabilities regarding to the curriculum/course content. They report that the teaching materials are useful and have high quality. Respondents also very satisfied with the communication with teachers and colleagues during the course. The majority of answers are grouped at the estimates 4 (mostly satisfied) and 5 (completely satisfied). The respondents were asked if they would like to continue the training. Almost all of the teaching assistants (95.5%) would like to continue the training in the form of supervision of their teaching assistants work

Results of this research are similar to the research conducted by Bebetsos *et al.* (2014). Authors found that the successful involvement of peers with disabilities in the mainstream classes depends on the attitudes of all children in the classes. Children that are used to having schoolmates with disabilities in their classes report more positive attitudes regarding to inclusion.

3.2. Faculty Adjustment to the Needs of Students with Disabilities

In order to encourage the enrolment of students with disabilities at higher levels of education, the University established the peer support service. The additional institutional support issues were available through the education of teachers and staff, students counselling services, informing, improving accessibility, adjustment of teaching materials, enabling mobility, removing the architecture barriers...). 207 students with disabilities were studying at the University of Zagreb, which is 0.32% of the whole student body (Centre for Students with Disabilities, 2014). The majority of students with disabilities have mobility disorders (55.28%), motor disorders (21.13%), learning disorders (6.33%), were blind, visually impaired or deaf students (5.99%), have mental disorders (3.17%), chronic illness (1.76%) or multiple disorders (0.70%).

3.2.1. Personal Peer Assistants for Students with Disabilities in Institutions of Tertiary Education

A group of 6 personal assistants were selected to provide support for students with disabilities. They were also enrolled at the University course 'Peer Assistant for Students with Disabilities'. The results of interviews with peer assistants report the: 1. importance of providing education for peer assistant, other students, academic and staff; 2. the need for installing architectural improvements for mobility and orientation: handrails, elevator, door signs on Braille signs...; 3. the need for improving information and communication technology: visual impaired students use Linux operating system, screen reader software for blind or visual impaired people, *voice recognition* system for mobile devices...; 4. further activates were planned according to the interview result, suggestions of the Central Counselling centre for students with disabilities at the tertiary level, founding opportunities etc.

The majority of those suggestions were successfully implemented at the Faculty. Web accessible information/content, accessible digital learning materials as well as accessible ICT devices made education easier for students with disabilities. The potentials and benefits of ICT are important parts of education for peer assistants and students with disabilities.

3.2.2. Additional Network and Values for University Students towards Inclusion

The inclusion of students with disabilities in mainstream faculties and universities has additional value for all students, staff, academic and local community. All students were raising their awareness of accepting diversity, learning about the needs of students with disabilities and

preparing themselves for the labour market. Students were doing research with topics linked to the usage of ICT and assistive technology. They presented results at student conferences, sharing their knowledge and networking with other students in a national and international environment. For example, students completed research and wrote diploma theses which were presented at the International student poster section. This event is traditionally part of the Central European Conference on Information and Intelligent systems CECIIS. Conferences help students to establish further networks at the national and international level.

Information about institutional adjustment for students with disabilities was published in local news, web portals and on social networks, which also raised local community awareness. Usage of information and communication technology is an important element of sustainability of the project results and networking. The attitudes of university lecturers and academic persons towards students with disabilities is an important factor of inclusion. Research conducted by Costea-Bărluţiu and Rusu (2015) shows the positive attitudes of teachers towards the inclusion of students with disabilities in tertiary education, but a lack of knowledge regarding their special needs.

4. CONCLUSION

The model of collaboration between educational institutions from all levels of education includes networking with other stakeholders and partners: industry, local government and agencies for employment. Children and youth with disabilities need specific institutional adjustments regarding their specific needs, which enables their inclusion in mainstream preschools, primary schools, secondary schools and universities. This inclusion will provide learning outcomes, professional competences and social skills required for the further career development in a competitive labour market.

The elements of supportive learning environment depends on different factors: the social and professional competences of teachers and peers, community awareness, curriculum quality, access to information and communication technology and well trained personal teaching assistants and peer support for students with disabilities. These results could be compared with the results of Vreeburg Izzo (2012), who found that universally designed technology for teaching and learning is helpful in creating the student-centred learning environments. Technology can enhance the quality of tertiary education in general and is suitable for the area of Science, Technology, Engineering and Maths (STEM).

After finishing primary and secondary education, access to tertiary education for students with disabilities again provides different obstacles, such as physical barriers, material and financial matters, a lack of qualified staff for mentoring, lack of guidelines etc. Each community has its own diversity. Access to tertiary education can be improved if the diversity of each community is recognised and is taken into account at the national and international level (Mara, 2014). Networking between different institutions within the local community and the quality of their collaboration is an important factor for school achievement. Students with disabilities are building their own network with the local community, industry and institutions. High-quality human resources management could ensure a professional approach with well-trained special teachers, who will help pupils with disabilities in their process of education. Universities have an option to include volunteers and peer support for students with disabilities that will help all students in raising diversity awareness. Sharing information through local media, professional papers and scientific conferences are important elements of creating an effective learning environment for the labour market. Collaborative learning for all peers enables the successful integration of students with disabilities. Results confirm the research completed by Ismaili and Etemi (2010), who found that planning human resources and human resources management must be an element of the University's strategic objectives.

Further research will be focused at the improvement of the curriculum for personal teaching assistants and improvement of the collaborative learning for peers that support students with disabilities.

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GLOBALIZATION AND NEW STAGNATION TENDENCIES

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ABSTRACT

The paper focuses on the recent resurfacing of the question of secular stagnation and it impacts on the prospects of the global economy after the great financial crisis of 2008. Although over the recession that lasted in the US from the fourth quarter 2007 to the third quarter 2009, was followed by a relatively weak recovery, specially in Europe. Despite the differences unemployment rates are high throughout the industrialized economies with little sign that redundant workers will be reabsorbed into employment any time soon. The crisis is therefore "ongoing". It casts a considerable doubts on the prospects of the global economy. Underneath much of the discussion there seems to be the idea of a resumption of growth based on a "return to normal" scenario, which implies that growth would resume along similar lines as before the crisis. In fact the question is that of the pattern of growth on which industrialized economies will settle in and whether it will provide the conditions for an expansive transformation. On the other hand we have observed the return to a discussion of secular stagnation, prompted by Lawrence Summers comments at the 2013 IMF conference in honor of Stanley Fisher. The reemergence of what two historians of economic thought Backhouse and Boianovsky, call a "heresy" in macroeconomics suggests a new awareness on a question that almost disappeared from the economic discourse.

Keywords: Crisis, stagnation, macrodynamics, Lawrence H. Summers, advanced industrial economies and global economy

1. INTRODUCTION

The paper focuses on the recent resurfacing of the question of secular stagnation. Prompted as it appears from the severity and continuing effects of the financial crisis and the 2008-2009 recession. The term was frequently used until the 1950s combined with an important debate on the causes of stagnation. It then became much less used with periodical moments of interest in a long-term declining trend. It never completely disappeared and is back into the economic debate in 2012-2015.

Underneath much of the discussion of the crisis there seems to be the idea of a resumption of growth based on a "return to normal" scenario, which implies that growth would resume along similar lines as before the crisis. But then there would have been no crisis. In fact the question is that of the pattern of growth on which industrialized economies will settle in and whether it creates the conditions for an expansive transformation. The likely alternative is stagnation.

There is little sign that this perspective is penetrating economists' thinking and the solutions offered to re-establish long-run growth. We have observed however the return to the fore of the question of "secular stagnation" after Lawrence H. Summers comments at the 2013 IMF conference in honor of Stanley Fisher. Summers returned on the topic several times in the last two years although with so far little consequence.[29] It is open to discussion whether Summers really elaborates on the issue of secular stagnation. He is certainly trying to convince his audience that modern macro theory does not have much of a clue on what is happening and that a drastic change must occur in the understanding of the crisis and its prospects.

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[29] Views on stagnation have been recently proposed by Paul Krugman and Robert Gordon.

The paper outlines first the major features of the ongoing crisis. It argues that through different phases the possibility of a long term stagnation is indeed materializing. It then examines Summer's argument and quotes extensively his words. That is to provide the textual evidence of the reasons for the rejuvenation of the concept.

2. The ongoing crisis

Despite being "technically" over in the US in the third quarter of 2009 the crisis was followed by a weak and uneven recovery. Especially high unemployment rates are a reason of continuing concern. The crisis appears to have gone through three phases.

2.1. Financial crisis and recession

At the beginning of the first phase the crisis was mainly financial. It started in 2007 with the subprime crisis, but it did not explode until the late summer 2008 with the collapse of Lehman Brothers. The downturn was marked by the collapse of the stock market that reached its lowest point around March 2009. The most urgent task appeared to be the prevention of a complete collapse of the banking system. Meanwhile the credit crunch began. That appears to be the channel though which the crisis was transmitted to the real sector.

The generalized debt and liquidity crisis originating in the private financial sector prompted the Federal Reserve, together with other central banks, and US Treasury to intervene on a massive scale, setting aside worries about deficit and inflation.[30] At the peak of the crisis in 2009 the amount of toxic assets, potentially worthless securities and bonds, on the balance sheets of financial institutions was unclear. Nobody knew exactly the value of the portfolios they held. Uncertainty and a collapse of confidence had created a situation in which nobody was willing to lend, while firms'internal resource were drained by decreasing sales and a worsening outlook. That brought the private sector to a virtual halt.

The Fed made money easily available by lowering interest rates to unprecedented levels. That did not prevent the economy from falling into a severe recession, but it did avoid the collapse of the financial system. Indeed, financial markets have recovered (although uncertainties persist and there have been periodical corrections). The influx of government money saved the financial institutions, but rather than lending to the private sector they have returned to speculating on financial markets (the Goldman Sachs case might be the best example) and restoring their profit margins at pre-crisis levels. Efforts to regulate the sector have been notoriously weak, raising serious doubts about the regulatory framework ability to prevent another financial crisis. Furthermore, the response to the crisis facilitated a dramatic consolidation of the banking and financial sector, so that a few major player became even fewer.

Faced with this turn of events the priority became to support a failing economy by means of a fiscal stimulus to avoid a collapse of investment and employment. In Europe, where the financial crisis hit a little later, there was a similar call for government intervention directed at saving the financial system and also at supporting the real economy. In the US the stimulus, though weaker than what was needed, was more forceful.

The last act of the Bush administration, the Paulson plan to save the banks (September 2008, approximately $ 750 billion) had not helped to restart the real economy. In January 2009 the news of the "Obama New Deal" (the president himself drew a parallel with Roosevelt) referred to the new administration's plan to get the economy out of the recession. Worth approximately $ 800 billion the American Recovery and Reinvestment Plan was a combination of tax cuts (for households and firms) and Government investment. Broadly defined the spending would be concentrated in energy, health and education, with a focus on public works in infrastructure. Its

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[30] There was a short-lived but dramatic reversal of the policy stance that had argued against government intervention and supported an increasing deregulation of financial markets.

implementation helped to shorten the recession, but it certainly did not end the crisis, as the recovery was weak and uncertain.

2.2. Austerity and public debt

The crisis entered a new phase in 2010. It became the crisis of public debt. In the presence of a massive government intervention, including the fiscal stimulus, in 2010 the problem became the rising deficits of governments. Obviously not just more spending but also the standstill of the real economy drove the rapid expansion of public debt. Indeed, the debt crisis continued through what was at best a weak recovery.

In Europe the crisis of sovereign debt became the common currency crisis. The circumstances were all in place to trigger a wave of speculation against government issued bonds. Financial markets more aggressively targeted, and Central Banks provided almost unlimited liquidity, especially the countries worse hit by the crisis of the real economy in the periphery of the Eurozone. The so-called PIGS (Portugal, Ireland, Italy, Greece, Spain) are indeed the weakest economies of the Eurozone and had large deficits. Some had also large public debt.[31] In July 2011 the crisis in the Eurozone appeared deadlocked. Not only speculation continued unabated but it was fueled by the slow and uncertain response by the European institutions. That in turn reflected the conflicting interest of national economies manifested in the lack of agreement between national governments. The point appears to be that the common currency, praised as the decisive step towards integration and consequently towards prosperity across Europe became the straitjacket making the PIGS countries perfect targets for speculation. If they were to stay within the common currency they had to cut deficits and debt, otherwise they would be punished by the international financial markets.

It became increasingly clear that European institutions lacked the means or the political will to address the causes of the debt, entangled as they were in the underlying conflicts of national government. At the same time it became clear that getting out of the common currency was an event that nobody had considered, and for which there were no clear rules or institutional arrangements. Thus the uncertainty and the postponement of decisions while PIIGS countries further precipitated into the crisis. The liquidity pumped into the system by the ECB was not sufficient to contain the unfolding of the sovereign debt crisis. While pursuing the same kind of monetary policy of the Fed, it did not have the same power, and the ECB policy was less effective because the Euro zone had no political unity behind it. That called into question the very existence of the common currency with an up and down of crises and rebounds as the EU insisted on austerity measures as a condition to have access to European rescue funds.[32]

The EU governments have rapidly moved from stimulus to fiscal austerity, cutting public spending, with the usual corollary of structural adjustment policies. A well-known scenario often advocated for developing economies by the IMF during the 1990s was finally landing into "developed" Europe. But austerity can be hardly a strategy for the resumption of economic growth. It simply started what we can call the debt trap, which is likely to have long-term consequences. The debt trap has two sides. On the one hand, weak growth inflates deficits that then require rescue efforts. These come at the price of reinforced austerity measures. On the other hand, speculators anticipating that austerity measures will have a negative effects on the economy, at least in the short run, raise the cost of borrowing to the troubled countries, thereby exacerbating the fiscal problem.

The speculative attacks on sovereign debt and the common currency shifted the focus for a time from the US to Europe and from private to public debt. But the issue of the government deficit

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[31] But similar deficits and deteriorating economic growth did not have the same dire consequences for wealthier EU economies like the UK and France.

[32] First Greece then Ireland and Portugal asked the EU for aid in 2011. In June 2012 Spain asked for European support in the effort to address the financial fragility of its banks.

was making a rapid comeback in the US. In June 2010 the US government expressed its concern that austerity may result in a new depression. The administration however also faced mounting pressure from Republicans in Congress to reduce the deficit. A striking – and somewhat novel – development in the US is the commitment of the Federal Reserve to fight persisting high employment.[33] The Chairman and other top officials defended a strong and continuing expansionary monetary policy and dismissed worries about inflation as unwarranted in the current economic circumstances.

The US appeared to be the "Keynesian of last resort". Still the stimulus was much less than much less that what was needed, as Paul Krugman has repeatedly pointed out, and there was no serious debate about how government policies - particularly as regards public investment could help restart the economy.

Amid weak signs of recovery, and some positive data about employment, in April 2011 the confrontation over the government budget led to a last minute deal averting a government shut-down. The agreement included severe spending cuts that destroyed the prospects for a new fiscal stimulus. The tentative budget compromise, with $ 38 billion in cuts, was sharply criticized by the IMF.[34] It sealed for a time a precarious balance of power in the run-up to the 2012 presidential campaign.

In 2012 it was unclear whether after growth rates around 2% in 2010 and 2011 the US recovery was consolidating or loosing steam. In Europe the economic scenario was dominated by simultaneous austerity measures of national governments. The stall of Eurozone was such that a new recession and a further rise of unemployment became a possibility. The new factor was the European Central Bank determination to save the common currency. In July 2012 Chairman Mario Draghi stated that the currency will be saved "Whatever it takes". That was a not so veiled indication that the central bank would buy if necessary directly the sovereign debt issued by the weakest economies, despite the fact that it was arguably forbidden by the European Treaties. The worst of the speculative attacks on sovereign debt were stopped and financial speculation tamed. Meanwhile severe austerity measures went into effect. Such policies were put in place in several rounds in the PIGS country, and again in 2012 in Italy and Spain, but they are in fact the dominant trait of economic policy in the entire Euro-zone. Austerity was combined with renewed calls for revamping economic growth. But with stagnant private consumption and investment where is the growth to come from?

2.3. A deflationary scenario

We reach then in 2013 a third phase: The debt crisis is developing into a deflationary scenario. The overall situation is that of a weak US recovery and near- stagnation in Europe, except for Germany. To that we must add the deteriorating picture of the periphery of the Eurozone, with negative growth rates in the PIGS countries where unemployment has grown rapidly together with bitter social conflicts.

US modest growth rates and the crisis in Southern Europe, and notably the case of Greece in 2015, illustrate how deeply rooted the problem is. Austerity measures may lead to marginal

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[33] "…On its current economic trajectory the United States runs the risk of seeing millions of workers unemployed for many years …As a society, we should find that outcome unacceptable:" [since] "the ultimate purpose of economic growth is to deliver higher living standards at home" (Federal Reserve Chairman Ben S. Bernanke, *The New York Times*, November 19, 2010, p. B1-B2)

[34] "The US lacks credibility on debt, says the IMF" (*Financial Times*, April 13, 2011). The IMF argued "the US was the only advanced economy to be increasing its underlying budget deficit in 2011 at a time when its economy was growing fast enough to reduce borrowing." The same day the President delivered a radio message stating that budget cut will not break the "basic social contract" underlying programs such as Medicaid and Medicare, which are being cut under the budget deal, and will have to combine with a rise of taxes for the rich.

improvement public finances, but did not and could not revamp growth prospects.[35] In a deteriorating macro picture the conflicts between national states in Europe are exacerbated while the US economy is hardly moving ahead with the strength you would expect after such a serious and prolonged downturn. The expected raise of the interest rates by the Fed failed to materialize in September 2015 and Mario Draghi admitted hat the growth prospects in the Eurozone were not encouraging. In other words the celebrated "bazooka", i.e. the Quantitative Easing policy put into effect by the ECB at the beginning of 2015, four years after the FED, was not giving the Eurozone economy the expected lift.

This admittedly oversimplified contour of the ongoing crisis allows a tentative conclusion. In a deflationary scenario the real economy is unlikely to recover, while financial markets remain themselves volatile, with speculation and their profits the main "engine" of expansion. The sovereign debt and debt in general are left hanging over a weak expansion. How far that can go is very serious question, complicated by the not so rosy picture of the world economy and the adjustment in the Chinese economy.

The budget cuts are unlikely to succeed in bringing down debt, even less to re-start growth. But they might be effective in doing away with the welfare state, which seems to be the only achievable goal of austerity policy. The possibility of long-term stagnation is then suggested by two converging trends: *a deflationary scenario materializing in Europe; an ongoing battle over cutting the government deficit in the US and the lack of a decisive turn of policy to address the ongoing stagnation. They have to seen in the context of the absence of a possible growth scenario driven by private investment*, which is arguably the *most serious problem posed by the crisis. Indeed* the resurfacing of stagnation tendencies is to be linked to the lack of an investment drive capable of launching a new phase of transformation and the exhaustion of the previous sources of dynamism. (Gualerzi, 2013).[36]

3. SECULAR STAGNATION?
The hypothesis above has little role in today's official discourse on the crisis. However the issue of stagnation found its way into the discussion thanks to Lawrence H. Summers. As indicated above Summers first introduced the idea of secular stagnation in his comments at the 2013 IMF conference in honor of Stanley Fisher.[37]

3.1. The IMF Fourteenth Annual Research Conference in Honor of Stanley Fischer (2013)
At the beginning of his speech Summers agrees with Ben Bernanke, Stan Fischer and Ken Rogoff on "the importance of providing liquidity decisively; the importance of not allowing financial problems to languish; the importance of erecting sound and comprehensive frameworks to prevent future crises." He then defines a special role for his comments. "Were I a member of the official sector, I would discourse at some length on each of those themes … But, I'm not part of the official sector, so I'm not going to talk about any of that. I'm going to talk about something else that seems to me to be profoundly connected, and that is the nagging concern that finance is all too important to leave entirely to financiers or even to financial officials. Financial stability is indeed a necessary condition for satisfactory economic performance but it is, as those focused on finance sometimes fail to recognize, far from sufficient." So while there is no doubt "that a remarkable job was done in containing the 2007-2008 crisis"[38] the tone of his comments change when looking at the real economy issue. "Yet,

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[35] Italian Prime Minister Mario Monti in the summer of 2012, argued that it was understood that the immediate effect of austerity would be deflationary, but expansion would soon follow.

[36] See also a collection of essays (De Juan, Febrero, Marcuzzo, 2011) where competing explanations are combined with sectoral and national perspectives.

[37] A notion which, according to Summers, was rejected in Stanley Fischer's monetary theory class at MIT.

[38] He mentions the fact that despite statistical indicators suggested a macroeconomic picture worse than that of 1929 the results were quite different. The panic was rapidly overcome and financial conditions normalized. Thus

in the four years since financial normalization, the share of adults who are working has not increased at all and GDP has fallen further and further behind potential, as we would have defined it in the fall of 2009." He argues that Japan is presenting a much similar picture. "Japan's real GDP today in 2013 is little more than half of what we at the Treasury or the Fed or the World Bank or the IMF predicted in 1993."

He then introduces the idea of secular stagnation in two steps. First he recalls that both classical models and Keynesian models are about stabilization of fluctuations around a given mean. But we are looking for something else than having less volatility. "I wonder if *a set of older and much more radical ideas…that went under the phrase secular stagnation are not profoundly important in understanding Japan's experience in the 1990s, and may not be without relevance to America's experience today.*"

Although firmly rejected by Stanley Fisher these ideas are according to Summers important to explain the experience of the crisis. Why?

Despite the consensus that in the economy prior to the crisis there was "Too much easy money, too much borrowing, too much wealth", there was no great pressure on capacity utilization, unemployment was not particularly low and inflation was not a problem. Thus "even a great bubble wasn't enough to produce any excess in aggregate demand".

To get the point across he relies on a comparison with a power failure. When that is solved and electricity production restored there would be a rush in the economy to recuperate what had been lost because of lack of electricity. In a similar way when the temporary failure of the financial system was fixed up the economy should accelerate its pace simply because it had lost ground. "So, you'd actually expect that once things normalized, you'd get more GDP than you otherwise would have had, not that four years later, you'd still be having substantially less than you had before. So, there's something odd about financial normalization, if panic was our whole problem, to have continued slow growth."

The key concept in Summers's argument about stagnation is the interest rate. "So, what's an explanation that would fit both of these observations? Suppose that the short-term real interest rate that was consistent with full employment had fallen to -2% or -3% sometime in the middle of the last decade. Then, what would happen? Then, even with artificial stimulus to demand coming from all this financial imprudence, you wouldn't see any excess demand. And even with a relative resumption of normal credit conditions, you'd have a lot of difficulty getting back to full employment."

Monetary policy can still support demand when the short-term interest rates are zero, argues Summers, but not when "natural and equilibrium interest rates have fallen significantly below zero. … we all seem to agree that whereas you can keep the federal funds rate at a low level forever, it's much harder to do extraordinary measures beyond that forever; but, the underlying problem may be there forever."

That is why Summers concludes "it does seem to me that four years after the successful combating of crisis, since there's really no evidence of growth that is restoring equilibrium, one has to be concerned about a policy agenda that is doing less with monetary policy than has been done before, doing less with fiscal policy than has been done before, and taking steps whose basic purpose is to cause there to be less lending, borrowing, and inflated asset prices than there were before." This policy agenda concerns what he regards as the fundamental issue, that is to manage "an economy in which the zero nominal interest rate is a chronic and systemic inhibitor of economic activity holding our economies back below their potential."

The phantom of the Great Depression is evoked but then dismissed.

3.2. Speech at Julius-Rabinowitz Center, Princeton University, 2015

Summers has returned to the question of secular stagnation several times suggesting that his comment at the IMF conference was not just an aside or a casual reference to an important question, but rather a pressing concern. To identify the core of his argument we can compare the comments at the 2013 IMF conference with his Reflections on Secular Stagnation, one of the most recent speeches delivered at Princeton University in February 2015.

The reflections concern the "profound macroeconomic challenge of the next 20 years in the industrial world, and that is a problem of what I like to call secular stagnation, following Alvin Hansen." Summers articulates this perspective along six points. "I'm going to talk about why we're talking about secular stagnation, the dismal performance of the industrial world in recent years. I'm going to talk about the secular stagnation hypothesis, as Hansen framed it. Talk about what's the central element in that, the low level of real interest rates. Reflect on some of the challenges that have been posed to the hypothesis, and then discuss what is it to be done."

The problem is that there has be no decisive catch up in the US economic performance with respect to the situation prior to the 2007-2009 crisis. "The GDP gap is indeed smaller than it was in 2009, but that is entirely because our judgments about potential has been revised downwards, in the face of dismal performance. If anything, the picture is worse… Europe today looks very much like Japan did seven or eight years post-bubble. Demographically challenged, incipiently deflating with severe financial strains, with dysfunctional politics, and ineffective decision-making."

The picture of the crisis he argues is largely worse that expected and inconsistent with the dominant descriptions" that fall within the framework of what I would call financial network failure theory." That goes back to power failure analogy. Yes, the financial collapse was avoided, but that is only part of the story. The rest goes beyond "a traditional business cycle". To explain why "we need to think of something that's further outside the conventional sandbox" Summers recalls again that before the crisis an (excessively) expansionary fiscal and "the mother of all housing bubbles" did not result in a spectacular economic performance, nor were inflation pressures strong. More to the point an adequate economic performance was combined with an unsustainable growth of debt to disposable income.

Looking further back we find the internet bubble and then the 2001 recession. So the question Summers ask is: "How long has it been since the American economy enjoyed reasonable growth, from a reasonable unemployment rate, in a financially sustainable way?" The answer is that is has been really quite a long time, certainly more than half a generation. *That's why it seems to me that one has to contemplate macroeconomic theories of a very different kind than suggested by the conventional business sector theory."*

Indeed "something profound has happened." The evidence on falling inflation, diminishing expected inflation over the long term, even deflation suggest "we should probably think of it as at least being substantially related to demand factors".That is confirmed by the evidence of a decline of expected interest rates in the last five years. "Some of that was because, despite the recovering economy, expected inflation has come down substantially. More of it is because of market judgment about the real interest rate has come down substantially."

According to Summers "Alvin Hansen prophesied, or addressed, this kind of problem in the late 1930s when he spoke about secular stagnation" and quotes Hansen definition of the problem: "Sick recoveries which die in their infancy and depressions which feed on themselves."

Hansen was obviously wrong in the sense that what followed his words in 1939 was not secular stagnation. "But, it has always seemed to me, and this is a good example, that economists have a tendency to suppose that because the world equilibrates and is stable, that that means they must operate with models that equilibrate and are stable. That's fine if their model captures every aspect of the world, but their model should not have capture the Second World War,

should not have captured the immense financial repression that took place during the Second World War, could not have reasonably been expected to capture the various features – the baby boom, the post-war housing boom, and more – that drove the economy forward. So, whether the experience invalidated Hansen's model, or reflected the fact that variables that were exogenous in Hansen's model changed very substantially seems to me to be a quite open question." What seems clear however is that "dynamics stochastic general equilibrium is kind of irrelevant... *What you need is a theory of a big, bad, protracted thing."*

The problem is that when the interest rate is constrained – for whatever reason – the normal operation of the market will not lead to a restoration of full employment. "One can draw the picture in a different way by envisioning that investment is a function of the interest rate, and savings are a function of the interest rate. The point at which they balance at full employment, is an unattainably negative level of the nominal interest rate, and so the adjustment has to take place through a reduction in income that inhibits savings." Although not rigorously micro-founded relating the level of investment and the level of savings to the rate of interest highlights that "there has been a pronounced increase in private savings, suggesting an increase in the savings propensity, at the expense of a diminution in the investment, and also an increase in private savings, and a decrease in the level of investments."

We can therefore say that *"Secular stagnation is the phenomenon that the equilibrium level that savings are chronically in excess of investment, at reasonable interest rates."* But what are the reasons behind the change in savings and investment propensities? Summers highlights a few factors, among them demography ("This is what Hansen emphasized"), declining capital requirements ("savings can buy much more capital than it used to"), the developing world accumulating reserve in safe assets ("pushing down yields")", inflation tax interactions (putting downward pressure on the level of nominal rates).

All the above concerns the demand side. A supply side explanation of stagnation "seems hard to relate to a period of declining inflation, and a period where much of the industrial world is actually experiencing something quite close to deflation." Except for the productivity slow-down that mean less demand for investment.

Summers concludes with policy recommendations. He single out a particular role they may play. "Past fears of secular stagnation have indeed proven to be unfounded, but as I already tried to explain, that is largely because exogenous variables changed. It is certainly possible that exogenous variables will change in the future. Indeed and I hope that they will. In an important respect, that is the task of economic policy."

He favors "structural reforms" over monetary policy. The latter has a role to play but "I believe the case is much stronger for structural measures to promote private investment, and for expansionary fiscal policy." He strongly argues for infrastructure investment both for the possibility of taking advantage of low borrowing cost and the impact on GDP. These changes appear warranted since *"the most important arguably market price in our economy, the real rate of interest, is going to be substantially lower than most of us have been accustomed to."* Underneath are the fundamental forces of savings and investment and the need to restore stronger economic performance through a more appropriate investment and saving path.

4. WHY SECULAR STAGNATION

Summers reiterated these views in April 2015 when he contrasted the secular stagnation viewpoint with the debt super-cycle view put forward by Ken Rogoff and Ben Bernanke's savings glut hypothesis. He regards them as overlapping "but insofar as their nuances of difference, I prefer the secular stagnation view. "

He then returns to the policy implications of this general view of the global economy for the next decade. "Real forward rates over the 2020 to 2025 period, which should clearly be after the hangover of the financial crisis, are negative in Japan and the Euro area and barely positive

for the United States. The so-called five-year indexed bond yields are negative or barely positive. And nowhere in the G7 is market-expected inflation over a 10-year period likely to reach the two percent target."

The discomforting conclusion is that although we are more and more moving away from the crisis "market pricing (interest rates nominal, inflation rates) has actually moved in all the directions you would expect if you thought that there was a chronic excess of savings over investment." All indicators confirm that the financial crisis was overcome "And yet with interest rates of zero the United States is still likely to grow at only two percent this year. I do not see a good reason to be confident that that situation will be significantly better three years from now."

If the fundamental challenge is to absorb the savings in the global economy then policy must be redirected. "The first priority for policy should not be financial engineering in either the private sector or the public sector, but should be *a* concerted effort to identify and find the means of financing the most productive investment opportunities globally."

5. CONCLUSION

One main point of the paper is that Summers supports his new stagnation hypothesis with an assessment of the crisis. He basically argues that: a) the crisis is not over and stagnation is a clear possibility; 2) a dramatic change in policy is necessary. Further, the central issue is investment, and private investment in particular.

Summers elaborates on the reasons why we should take a stagnation perspective five years after the end of the recession. He is trying to convince his audience that the idea of stagnation is not just an afterthought or a diversion. It should be taken seriously. That concerns the nature of the crisis. It is a persistent, long-term phenomenon.

It his theoretical framework Secular stagnation is an excess of saving over investment, combined with a zero (negative) interest rate. He does say a few things about what may lay behind this situation. But they remain confined to the domain of the "exogenous forces". And yet directing policy on a new path revolves around them. What else could be behind the "a concerted effort to identify and find the means of financing the most productive investment opportunities globally"?

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THE IMPACT OF INTELLECTUAL CAPITAL ON FIRM'S DEVELOPMENT

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ABSTRACT

In today's global economy where physical presence is no longer important, and where everybody can sell and buy no matter where they are, effective communication and interaction is a key feature of continuous development. The new rules have significantly changed the way of defining enterprise - the issue of what a company owns has evolved into what the company knows and can do. Companies nowadays are successful if they have realized that investments in intellectual capital and synergy effects based on creativity, innovation and competence of its employees are the drivers of long-term growth.
Business and human life in general changes fundamentally with regard to innovation process. Every innovation works in the micro and macro environment, and they are based on developing an intellectual capital. It can be called as a driver for creating new knowledge or improving existing, with a direct impact on the business of one company, and indirectly impacting the environment in which the company exists, constantly increasing the amount of world knowledge. The main purpose of this paper is to point out the importance of developing an intellectual capital in a firm, as an asset that comprises the same importance as every other type of firm's capital for long-term business growth.
Keywords: *intellectual capital, long-term growth, innovation, firm's development*

"The best way to predict the future is to invent it" (Alan Curtis Kay, 1971.)

1. INTRODUCTION

Influenced by globalization and technological change, the way of doing business is irreversibly changed, as also the way of achieving sustainable economic growth. Technological progress is affecting every aspect from business and culture to social life and security. Driven by the process of globalization, which encompasses not only economic, but also social and political dimension, changes are "removing the world barriers", thus making geographical presence less important. Globalization in general can be defined as the process of creating a network of geographically remote participants by transmitting different flows including people, information and ideas as well as financial capital and goods. In today's global economy, physical presence is no longer important - everybody can sell and buy no matter where they are, which significantly altere the way of defining enterprise. The issue of what a company owns has evolved into what the company knows and can do. An obvious gap between firms' market value and book value underlines the fact that the source of economic value is not the production of material goods, but the creation of intellectual capital (Chen, Cheng & Hwang

2005, p. 159.). Companies nowadays are successful if they have realized that investments in intellectual capital and synergy effects based on creativity, innovation and competence of its employees are the driver of long-term growth. The objective of this study is to investigate trends in world's industries and leading companies, aiming to confirm the thesis that a company searching for success in future has to invest in intellectual capital today.

2. INTELLECTUAL CAPITAL

Firstly mentioned in the late 20th century, the theory of intellectual capital has been an exciting topic since than, diminishing the value of the material capital such as plants, machinery and money, and trying to put the value not included in the balance sheets under spotlight. This theory is considering human capital, structural capital and relational capital as an important corporate value that cannot be strictly measured, but brings profits to a company creating the added value. The main characteristic of this capital is intangibility, thanks to which it is difficult to measure and offen not taking into consideration as a driver of long-term growth among companies' leaders. Long time passed by from Schumpeter's research of the "creative destruction", a characteristic of every successful entrepreneur, which as a way of thinking is still very modern especially when considering how economies evolve. The importance of accumulating knowledge for long-term growth was presented by Paul Romer in 1986. (Romer, 1986, pp. 1002-1037). In his work he stated that human knowledge is the only production input that is not characterized by diminishing marginal revenue, because it has no known boundaries. In contrary, Romer stated that human knowledge is assumed to be a production input that has increasing marginal productivity. Human knowledge will always find ways to recombine existing product resources, restructure product process or invent a new technology for a better and more effective use of existing product inputs. If thought that way, the physical and financial capital becomes irrelevant in terms of creating new value, unless combined with intellectual capital – what adds a new value is innovation, creativity and technology. If knowledge is a resource characterized by increasing returns, it surely can be a source of long-term economic development. Acknowledging the importance of intellectual capital, Karl-Erik Sveiby was the first that recommended models for measuring the value of intellectual capital in 1997, in his work called "The New Organizational Wealth". His research was than continued by Leif Edvinsson, a Swedish economist that developed models for intellectual capital management.

2.1. What is intellectual capital?

According to Sundać and Švast, intellectual capital is a complex economic category encompassing business factors, which have not been explicitly expressed in the traditional financial statements, although they provide the added value to the organization and significantly affect long-term profitability and competitiveness of the enterprise. (Sundać & Švast, 2009, p. 35). Intellectual capital is conducted of:

    a. human capital
    b. structural capital
    c. relational capital

Human capital can be seen as the core of intellectual capital. It represents accumulated value of knowledge, skills and education among all the management and employees of a company, thus creating new value by combining innovation, imitation, adaptation and materialization (Sundać & Švast, 2009, pp. 38-40). It is considered to be the most valuable corporate asset.
Structural capital includes intellectual property and organizational structure and processes that can be measured. Intellectual property is conducted of patents, licenses, intellectual rights, software, franchises, while organizational structure encompasses business organization,

strategy, plans, documents, rools, data base and all other processes that are part of company's business (Sundać & Švast, 2009, pp. 43-45).

Relational capital is stands for the value of relations, both inside and outside the company. There are three main groups of relational capital, business networks, brand value and customer relations.

2.2. The importance of intellectual capital

The importance of intellectual capital started to increase as the paradigm shifted from traditional economy towards knowledge-based economy, which stands for production, distribution and use of information creating new knowledge. Although the importance of knowledge has always been recognized in growth theories, the success of one company has never been more dependable on innovation, research and development and other resources of intellectual capital. Due to the globalization, rapid technology development and higher consumer expectations, to be a successful company it takes more than just having a good product. Among fierce competition that characterizes today's market, innovation and intellectual capital is a source of competitive advantage for a company in so many ways, for example, improving productivity and cutting down production costs, differentiate your products and services, developing loyal customers etc. It is hardly impossible to imagine a company in future that takes no care for at least one component of intellectual capital.

2.3. Measurements of intellectual capital

Intangibility is the main characteristic of intellectual capital, and also the main reason why it is so difficult to get an exact approximation of intellectual capital's value. There are several types of indicators that can be used for measuring the intellectual capital as for example, Balanced Scorecard tool developed by Kaplan and Norton in last decade of 20th century, Intangible Assets Monitor that measures the value of companies "hidden assets", and Value added Intellectual Capital developed by Pulić in 1997, being commonly used tool for measuring the intellectual capital. Karl-Erik Sveiby, one of the intellectual capital measurement's pioneer provided a list of 34 commonly used intangible assets measuring models, grouped in four categories depending of measurement approach (Figure 1):

a. **Direct Intellectual Capital Methods -** estimate the nominal value of intangible assets by identifying its various components.
b. **Market Capitalization Methods -** calculate the difference between a company's market capitalization and its stockholders' equity as the value of its intellectual capital or intangible assets.
c. **Return on Assets Methods** - average pre-tax earnings of a company for a period of time are divided by the average tangible assets of the company. The result is a company ROA that is then compared with its industry average. The difference is multiplied by the company's average tangible assets to calculate an average annual earning from the Intangibles. Dividing the above-average earnings by the company's average cost of capital or an interest rate, one can derive an estimate of the value of its intangible assets or intellectual capital.
d. **Scorecard Methods -** the various components of intangible assets or intellectual capital are identified and indicators and indices are generated and reported in Scorecards or as graphs. Scorecard methods are similar to direct intellectual capital methods, except that no estimate is made of the nominal value of the intangible assets. A composite index may or may not be produced.

For the purpose of this article, the analysis will be based on price to book ratio (also called market to book ratio), a method of calculating the difference between a company's market and book value.
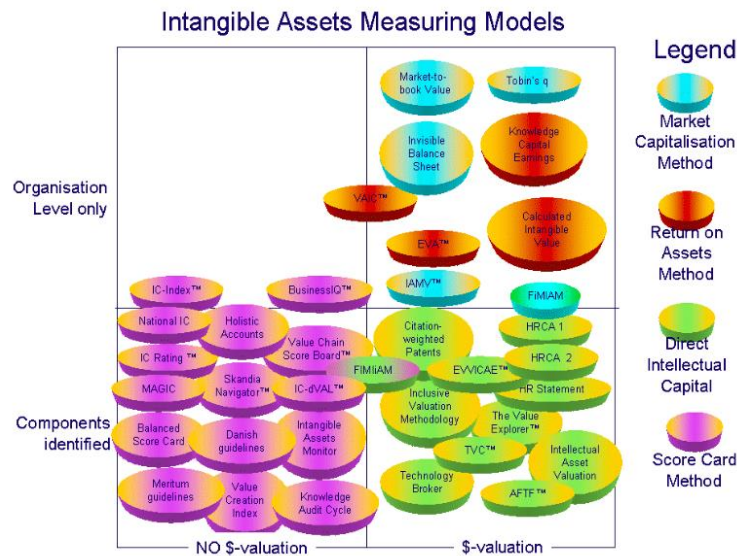
Figure 1: Intangible Assets Measuring Models (Sveiby, 2001 – 2010)

3. INDUSTRIES AND COMPANIES ECONOMIC PERFORMANCE ANALYSIS

Under market circumstances influenced by the globalization, there is a substantial change in top companies ranking measured by market capitalisation. Capital-intensive industries are trading places with knowledge-intensive industries with high market capitalization growth rates. There is a significant upwards trend in market value of industries driven by innovation as technology, finance and healthcare, and a drop or a slowdown in industries like oil&gas which is highly affected by oil price shocks, and telecommunications and consumer goods that are not yet fully recovered from the global financial crises. There are several organizations that provide service of measuring market capitalization of industries and companies then publishing top lists as Financial Times, Forbes, Fortune magazine, PricewaterhouseCoopers (PwC) etc. For this purpose, the Financial Times and PwC rankings will be used. Both measures rank companies by market capitalization, the greater the stock market value of a company, the higher it's ranking.

3.1. PwC Global Top 100 Companies

PricewaterhouseCoopers yearly publishes the list of global top 100 companies ranked by market capitalization value. Data source used for the analysis is PwC and Bloomberg. The PwC analysis identifies the sector dynamics and presents the main changes on the world level. Their analysis represents a useful source for investigating market trends and development, especially among industry sectors. In 2015, leading industries were technology, healthcare and consumer services, as mentioned before, all the sectors are highly knowledge-intense and innovation driven.

Among top ten companies with largest absolute increase in market capitalization, only one company comes from oil and gas sector, others belonging to sectors such as technology, financials, health care and consumer goods or services (Table 1).

Company	Industry	Market capitalization March 2009 ($bn)	Market capitalization March 2015 ($bn)	Change in market capitalization 2009/2015 (%)
Apple	Technology	94	725	674%
Google	Technology	110	375	242%
Berkshire Hathaway	Financials	134	357	167%
Wells Fargo & Co	Financials	60	280	364%
Microsoft Corp	Technology	163	334	104%
Novartis AG	Health care	100	267	169%
Tencent Holdings Ltd	Technology	13	178	1236%
Anheuser-Busch	Consumer Goods	44	196	346%
The Walt Disney Co	Consumer Services	34	178	429%
General Electric	Industrials	107	250	134%

Table 1: The 10 Global Top 100 companies with the largest absolute increase in market capitalization (PwC, 2015)

Since 2009, only 66 companies survived to be in the list at 2015 (PwC, 2015), which surely is resulted by effects of global financial crises. All technology companies listed among top 10 show a huge increase in their market value, which sounds even more impressive knowing that Google and Tencent are companies founded only 17 years ago. When analyzing the complete ranking by market capitalization, there are two companies from oil&gas sector, both of them showing a significant drop in rankings – in 2009 they were holding the first and second position by market capitalization, in 2015 sinking to third and sixth place and being replaced by two technology firms (Table 2).

Company	Industry	Rank March 2009	Rank March 2015	Rank +/-
Apple	Technology	33	1	32
Google	Technology	22	2	20
Exxon Mobil Corp	Oil & Gas	1	3	(2)
Berkshire Hathaway Inc	Financials	12	4	8
Microsoft Corp	Technology	6	5	1
PetroChina Co Ltd	Oil & Gas	2	6	(4)
Wells Fargo & Co	Financials	55	7	48
Johnson & Johnson	Health Care	8	8	0
Industrial & Commercial Bank of China Ltd	Financials	4	9	(5)
Novartis AG	Health Care	29	10	19

Table 2: The 10 Global Top 100 companies complete ranking by market capitalization (PwC, 2015)

3.2. Financial Times Global 500

Financial Times Global 500 is the second data source that will be used in the analysis. Their annual ranking provides valuable information about global economic situation. The data analysed by Financial Times is collected by Thomson ONE Banker, Thomson Reuters datastream and individual companies (Financial Times, 2015). According to Financial Times, healthcare equipment and services, technology hardware and equipment and general retailers are among the best performing sectors in the year to March 31 2015, while oil and gas producers, oil and gas equipment and services and mining are among the worst performing (Financial Times, 2015). These results are a confirmation of what was stated before, that leading industries in 2015 were technology, healthcare and consumer services, all the sectors that are highly knowledge-intense and innovation driven.

Due to a different methodology used during analysis, the data collected by Financial Times slightly differs from results gathered by PwC, although the differences are not affecting analysis of this work, since companies listed among top 10 of Global 500 are the same as in previous table.

The top 10 ranks for 2015 by Financial Times are as follows (Table 3):

Company	Industry	Rank March 2009	Rank March 2015	Rank +/-
Apple	Technology	33	1	32
Exxon Mobil Corp	Technology	1	2	(1)
Berkshire Hathaway Inc	Oil & Gas	12	3	9
Google	Financials	39	4	35
Microsoft Corp	Technology	6	5	1
PetroChina Co Ltd	Oil & Gas	2	6	(4)
Wells Fargo & Co	Financials	54	7	47
Johnson & Johnson	Health Care	8	8	0
Industrial & Commercial Bank of China Ltd	Financials	4	9	(5)
Novartis	Health Care	25	10	15

Table 3: The top 10 companies of Financial Times Global 500 complete ranking by market capitalization (Financial Times, 2015)

3.3. Price to book ratio

Price to book ratio (or market to book ratio) is an indicator that calculates the ratio of company's market value over the book value (expressed on the balance sheet), implying that everything left in the market value after accounting for the fixed asset must be an intangible asset (Stewart 1997, referenced by Fink, 2012, p. 70.).

According to research conducted by Sveiby and Stewart, we care able to assume that:

Intellectual capital = Market value – Book value

If a company's intellectual capital is greater than zero, than the market value is greater than the book value and the price to book ratio will be greater than one (p/b > 1).

Price to book ratio is usually lower for capital-intensive industries that requires more tangible resources for their production, and much lower that service-based companies that needs less tangibles in their doing business. It implies how much is an investor willing to pay for a share over its book value. A ratio over one implies that the market is willing to pay more than the equity per share, while the ratio under one implies that the market is willing to pay less. It is also an indicator that reflects the company's potential for creating future profits and company's growth potential. It is not uncommon for technology firms in our analysis to have very high price to book ratio, since the analysis of book value is based on accounting rules that do not measure accurately intangible goods like brand value, customer relation, business networks and other intangible aspects of intellectual capital.

Using the top 10 companies ranked by PwC and Financial Times analysis, price to book ratio was calculated for each company. The results comparing a company's current market price to its book value are as follows (table 4):

Company	Industry	Price to book ratio 2015 *Market value per share / Book Value Per Share*	Market value per share 2015 ($)	Book value per share 2015 ($)
Apple	Technology	4,74	101,42	21,40
Google	Technology	4,29	725,25	169,03
Exxon Mobil Corp	Oil & Gas	1,87	76,57	41,01
Berkshire Hathaway Inc	Financials	1,27	191.396,00	151.044,77
Microsoft Corp	Technology	5,39	52,29	9,70
PetroChina Co Ltd	Oil & Gas	0,58	59,33	102,60
Wells Fargo & Co	Financials	1,45	49,02	33,83
Johnson & Johnson	Health Care	3,74	96,75	25,86
Industrial & Commercial Bank of China Ltd	Financials	0,73	10,11	13,76
Novartis AG	Health Care	2,57	82,24	32,02

Table 4: Price to book ratio calculated by authors using Yahoo financials dataset – market value per share is the current price per share of 22ⁿᵈ of January 2016, book value per share for last available balance sheet (most recent quarter, as of Sep 30, 2015)

In case of the top ten world companies rated by Financial Times and PwC that were analysed, the price to book ratio for technology companies is relatively highest, thus implying that their intellectual capital value is very high. With it's high growth in market capitalization and high price to book ratio, it is clearly stated that intellectual-capital intensive companies generate added value that is recognized among investors and by market in general.

4. WHY IS INTELLECTUAL CAPITAL SO IMPORTANT FOR ECONOMIC DEVELOPMENT?

Influenced by globalization and technological change, intellectual capital has become the driver of long-term economic growth. It cannot be observed without also taking into consideration physical and financial capital, but unlike the traditional product inputs, it shows increasing marginal productivity. "In a world with physical limits, it is discoveries of big ideas (for example, how to make high-temperature superconductors), together with the discovery of millions of little ideas (better ways to sew a shirt) that make persistent economic growth possible. Ideas are the instructions that let us combine limited physical resources in arrangements that are ever more valuable" (Romer, 1998. p. 212). To paraphrase Romer, the most important among all production resources is intellectual capital, because physical resources can only be effectively transformed into goods and services by the good idea of a highly skilled worker or manager. In a modern post-industrial economy of today that is highly affected by technological progress, the intellectual capital is the driver for economic growth. For companies that want to be successful nowadays, it is vital to gain competitive advantage by making innovation a core business strategy, combining employers, customers and company's partners for a full synergy effect.

4.1. The Global Innovation 1000

According to PwC, "there is a clear correlation between innovation and growth. Innovation is a driver for rapid and profitable revenue growth and is recognised by the executives we interviewed as being integral to sustaining the long-term future of their business" (PwC, 2015). PwC conducted a global research to analyse a global research and development spending among companies worldwide. The analysis resulted in a study called The 2015 Global Innovation 1000, which identifies the 1000 public companies around the world that spends the most on R&D during the last fiscal year.

When analyzing the industries' spending on R&D, computing and electronics together with healthcare and auto-industry are industries that hold the trone of investing in innovation. Software and Internet industry has the highest growth rate of all the industries (Figure 2).
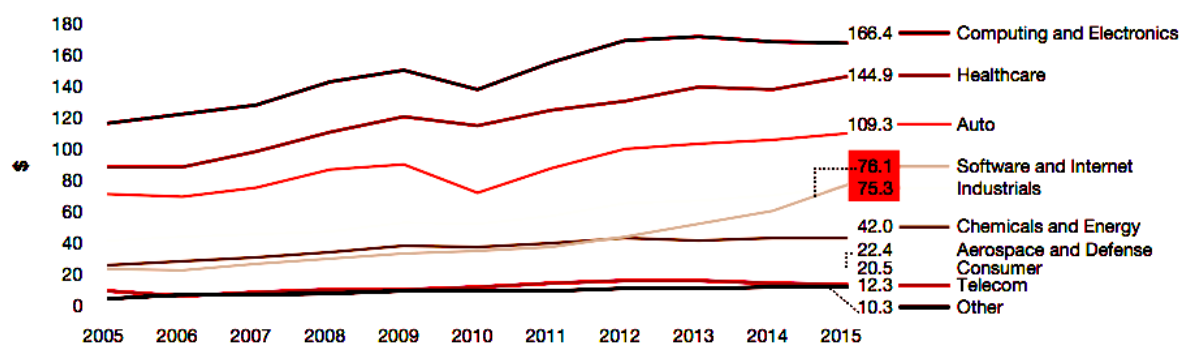

Figure 2: Corporate R&D spending by industry in US$bn (Strategy& 2015 Global Innovation 1000 analysis, Bloomberg data, Capital IQ data, 2015)

Interestingly, among companies listed as ten most successful companies by market capitalization we analysed in section three, Apple and Google are two most innovative companies. Furthermore, half of the most successful companies listed among top ten by market capitalisation are from technology or healthcare sector, as new economy knowledge-driven companies that are taking the place of representatives of traditional economies.

5. CONCLUSION

In a world filled with smartphones, tablets, phablets, social networks and all the other benefits of today's technology, a personal computer seems like something from the Stone Age. Going further in past, it is difficult to imagine how world was functioning without well-known assets that make life much easier and the communication faster. When one ask himself what is the main reason for this technological revolution, furthermore, what is the source of all technological revolutions, one answer appears naturally – human innovation and knowledge. With regard to innovation process, business and human life in general changes fundamentally constantly evolving in ways it is hard to imagine. Nowadays as economy evolved from traditional to knowledge-based, company's long-term economic development is strongly related to technological progress, ICT development and intellectual capital.

A successfull company should never stop innovating, and it would be wrong to assume that innovation is limited to a small number of companies. It depends on the engaging all the three different aspects of intellectual capital, with regard to innovation and creativity as being the most important. Those companies will be more shock-absorbent which is a valuable characteristic in this turbulent environment. The findings of this research imply there is a strong relationship between intellectual capital and firms' market value. Companies that find the right way to engage their intellectual capital resources can affect their performance in order to maximize value creation and obtain a lon-term growth.

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CHALLENGE FUNDS AND INCLUSIVE BUSINESSES – KEY TO SOCIO-ECONOMIC DEVELOPMENT?

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ABSTRACT

This paper will introduce the concept of the challenge fund mechanism, and its role, from both a private sector development (PSD) perspective as well as from the sustainable social impact angle. The paper is informed by practical experience and reflections from the point of view of a manager who manages one of the world's largest challenge funds with a capitalisation of USD 250m and 200+ investments across 23 different markets.

A challenge fund, which by nature, is a risk taking and risk-sharing PSD mechanism is used to support innovative, for-profit business ventures, which, by the virtue of being innovative, and therefore, more risky than other business ventures have restricted access to capital.

A challenge fund, in a developing or frontier market context, will invest in innovative for-profit companies that exhibit strong intentionality on social impact, i.e. they will implement the inclusive business model concept. Essentially, inclusive businesses engage low income communities in a formal way either as suppliers of raw material, such as cocoa seeds, which the company then processes, or they engage low income communities as customers who buy and consume products and services which cater to them specifically.

In this way, an inclusive business makes a profit and at the same time increases the income of low income communities. In this arrangement social impact remains sustainable because the business sees that it can make a profit by collaborating with low income communities.

A challenge fund, by financing innovative and risky SMEs doesn't only support PSD and social impact, it also creates a tested and proven deal flow of companies for more commercial investors such as private equity funds or development finance institutions such as the International Finance Corporation. Therefore, the challenge fund mechanism serves a critical function in sustainable business and social development.

Keywords: Agribusiness, challenge fund, climate change, inclusive business, inclusive finance, private sector development, social impact, sustainable development

1. INTRODUCTION

1.1. What is an enterprise challenge fund?

An enterprise challenge fund is a relatively novel mechanism in the development sector which is used, and funded by, the public sector to achieve sustainable social and economic impact. The first enterprise challenge funds initially emerged in the late 1990's and were funded by European development organisations such as DFID and SIDA as well as Australian DFAT (Brain, Gulrajani, Mitchell, 2014, p. 3). In the following years, as the enterprise challenge fund mechanism was proving successful more and more development agencies and foundations started contributing to challenge funds, most notably the Dutch government, DANIDA or the MasterCard Foundation. While the challenge fund mechanism as such does not necessarily have to be directly supporting the private sector, it may specifically target gender equity or education, very many of the challenge funds are *enterprise* challenge funds which support the development of the innovative private sector, which in turns achieves inclusive social and economic

development. One of the world's largest enterprise challenge funds is the Africa Enterprise Challenge Fund (AECF) which has raised in excess of USD 250 m since its inception in 2008.

1.2. How does it work?

An enterprise challenge fund provides concessional financing to innovative businesses across emerging and frontier markets where access to finance is prohibitively expensive or, quite simply, very difficult to access. Typically, this concessional funding is provided either as grants or soft loans with minimal interest, if any, and a long grace period. While providing concessional funding an enterprise challenge needs to realise that one of its responsibilities is to stimulate and encourage business mind-set which means that the companies shouldn't fall into the trap of believing that there's such a thing as cheap capital – therefore additional conditions are normally put in place such as a matching requirement, which means that the company will need to match awarded funding at a special ratio. Normally companies will compete with one another to obtain funding by submitting concept notes outlining the inclusive nature of their business model, and a detailed business plan with financial models and projected cash flows. The Swedish SIDA, which is one of the world's largest development agencies funds several enterprise challenge funds with the aim to support innovations in ICT, renewable energy or agribusiness (SIDA, 2012, updated 2015). Companies which are deemed to bring about the highest social impact will be awarded funding. It is very important to note that an enterprise challenge fund, like the AECF, will only award funding to for-profit business ventures which, apart from being profit-oriented, also implement the inclusive business model concept which benefits the poor. The supposition is that if businesses can make a profit by engaging poor people, either as suppliers or as consumers, and thereby create financial benefit for these communities, then the socio-economic impact will be sustainable. This impact will be further strengthened when other companies, realising the potential profit of working with low income communities, start crowding in.

1.3. What is it supposed to achieve?

An enterprise challenge fund has two overarching objectives: to support private sector development (PSD) and, through these investments in the innovative private sector, bring about inclusive social and economic development. These two objectives, or elements, are typically measured by establishing how the enterprises are doing from a business and financial perspective, and, how many poor people are benefiting by working with these businesses and by how much. These two elements, however, comprise a number of components that are very significant as they contribute to the overall success of achieving private sector development and inclusive social and economic development. One of these components is innovation. An enterprise challenge fund, in fact, very often is an innovation fund which funds innovation, i.e. something new, and as such, something that is perceived as risky and therefore *unbankable*. In order to meet Sustainable Development Goals and bring about rapid change, at scale, there needs to be innovation (Harvard Kennedy School). A disruptive innovation is something that changes the way an industry or a market operates. One of those disruptive innovations is the Kenyan M-Kopa which introduced mobile money transfers. Over a very short period of time millions of Kenyans suddenly gained access to financial services which they were previously excluded from as most Kenyans didn't qualify to open a bank account. This has since been

replicated around the world with great success. Since enterprise challenge funds are supposed to change the way a market system works they will likely fund two or three or more businesses in the same sector, rather than funding only one business which would be deemed to have the highest potential. By funding several similar businesses it is more likely to bring about a systemic change that will change an entire market system.

Closely linked to innovation, in the case of AECF, is the fund's intentionality on addressing issues related to climate change such adaptation to climate change and renewable energy. Innovation can be used successfully to strengthen resilience of rural communities to climate change by for example supporting companies that introduce improved seed varieties. Reducing the deforestation process as well as addressing health risks can achieved through the support of companies that distribute solar cook stoves.

As an enterprise challenge fund provides *cheap* capital it needs to ensure that businesses do not become excessively reliant on donor money. There needs to be a mechanism in place whereby the businesses are stimulated to, at a point in time when their innovation is proven successful, and are in need of more expansion capital, be able to access commercial funding from banks or private equity funds. This is key in ensuring that projects don't collapse as soon as donor money has been utilised.

1.4. Inclusive business

A central element of an enterprise challenge fund's underpinning philosophy, and indeed of much of modern-day development, is the notion of inclusive business. Inclusive business is a for profit enterprise which engages the so called base of the pyramid (four billion people who live on less than USD 2.5/ day) (Simanis, Hart, 2008, p.1) in a way which is beneficial to both parties. An inclusive business makes market systems work for the poor. *The central idea is that the poor are dependent on market systems for their livelihoods. Therefore changing those market systems to work more effectively and sustainably for the poor will improve their livelihoods and consequently reduce poverty* (DCED). By integrating low income individuals into the formal economy inclusive businesses make them 'visible' for the market, for other companies that gradually will start serving these communities while making a profit. *In essence, inclusive business models try to find synergies between development goals and the company's core business operations* (WBCSD).

1.5. An enterprise challenge fund's role in the development value chain

When one looks at a business development value chain the AECF emerges as a tremendously important element of it. The AECF, or any other enterprise challenge fund, doesn't compete with commercial sources of funding such as banks or investors. A study conducted and presented by Gompers and Lerner in their article (Gompers, Lerner, 2002) asserts that nearly 90% of new businesses fail within three years without venture capital support. The AECF, specifically fills the gap where commercial investors, such as venture capitalists, perceive the business venture too risky, be it because of its innovativeness, a company's lack of adequately long track record or because of systemic risks that are too high. In fact, the AECF will not award funding to a company whenever it is deemed to be able to access commercial funding. Therefore, an enterprise challenge fund doesn't distort the market. On the contrary, the AECF and other similar funds alike, in fact, are a feeder fund to commercial investors. By providing

expansion capital to innovative businesses, at an early business growth stage, the fund is 'testing' the innovation and once it becomes successful and requires further expansion capital that business becomes very attractive for commercial investors. In other words, the AECF takes a company through a growth phase where the innovation is either approved or rejected by the market. Successful 'graduates' represent a high quality pipeline for commercial investors.

2. INCLUSIVE BUSINESS MODELS IN PRACTICE

The AECF has invested in nearly 200 innovative businesses across 23 different markets which all implement the inclusive business model. It means, as was mentioned above, that the businesses need to engage smallholder farmers either as suppliers of produce, or as consumers of products or services that are designed to cater specifically to their needs. By formally becoming suppliers to a business smallholder farmers are entering the formal sector of the economy which very beneficial as they gain easier access to inputs, finance or markets. The two businesses, M-Kopa and Bioalnds, in which AECF has invested nearly USD 2m which are presented below illustrate how inclusive businesses work in practice.

2.1. M-Kopa

AECF funding was used by M-Kopa to develop and sell affordable solar powered household systems that can charge mobile phones, power light bulbs and radios (M-Kopa). The technology is 'leased' to users for a period of one year, during which time the user should be making regular payments on a daily basis. After the one year period the user becomes the owner of the system and continue using it free of charge. It is an affordable way to substitute kerosene in rural areas which lack access to the energy grid. M-Kopa uses the GSM network and mobile money transfers to collect payments from its users on a daily basis to pay. The company which was established only a few years ago in Kenya is growing exponentially with 280 000 households (M-Kopa) connected as of late 2015 and has since its establishment expanded to Tanzania and Uganda. The company is constantly developing new products and devices that can be added and connected to the system such as TVs and, possibly in the near future, also fridges or hair clippers. These add-ons are offered to loyal and predictable customers who make regular payments for the usage of the system during the first year.

This technology is transformative. Smallholder farmers, who are now able to charge their phones, can access vital mobile-based information about prices of inputs and outputs or the availability of inputs such as fertilisers or seeds. This is directly consequential to their income as they can now better plan their production and sales. The potential introduction of fridges to the system means that not only waste can be greatly reduced at household level, it also means that micro enterprises in the local market places can emerge which will be able to store food products for a longer period of time. Furthermore, once the user has acquired the system after a year of making payments they will start making very concrete savings by not having to purchase kerosene anymore. It is estimated that each household will make a saving of nearly USD 200 annually (M-Kopa).

It should be noted that M-Kopa isn't just a renewable energy company which brings savings to smallholder farmers or supports the establishment of micro enterprises. It is much more than that. More importantly, M-Kopa, in effect, is a remarkably successful financial inclusion and financial services company which brings hundreds of thousands of individuals in rural areas

into the formal economy by creating both a market for them and a financing mechanism for them to access that market. By creating a financing mechanism which relies on mobile payments the company is able to acquire clients who have always been neglected by the financial sector. By monitoring the reliability of clients M-Kopa can make reasonably accurate predictions as to whether a certain client is trustworthy enough for M-Kopa to offer them an additional device for which they will be making regular payments over a certain period of time. M-Kopa has effectively broken down the barrier of financial exclusion and transforms thousands of livelihoods. Since AECF's investment in M-Kopa the company has been very successful in attracting commercial financing.

2.2. Biolands

Biolands, since 2014 owned by Barry Callebaut, one of the world's largest producers and processors of cocoa beans, has received nearly USD 1m in funding from AECF since 2009. The funding that the company was awarded by AECF was used to expand Biolands' operations in Sierra Leone and engage, over the course of a few years, nearly 40 000 farmers as suppliers of high quality cocoa beans (AECF). Biolands' main objective with expanding their operations into Sierra Leone was to create a sustainable and consistent supply of high quality organic cocoa beans which the company would process and sell on international markets. In order to achieve that end Biolands decided to set up an out-grower scheme where they would contract large numbers of smallholder farmers which would become suppliers of cocoa beans. *Outgrower schemes, also known as contract farming, are broadly defined as binding arrangements through which a firm ensures its supply of agricultural products by individual or groups of farmers. In other words, ad hoc trade agreements are being replaced by co-ordinated commercial relations* (Felgenhauer, Wolter). As is often the case in a developing economy an off taker (i.e. a company that purchases produce from suppliers) frequently needs to assume the role of an input supplier as well to ensure consistency, both when it comes to the quality of the produce as well as the quantity and on time delivery. In this particular case Biolands had to supply farmers with quality organic seeds, training, fertilizers as well as Fair Trade certification which was helpful in Biolands becoming a supplier to Barry Callebaut. The company's effort led to the successful establishment of a large out-grower scheme with farmers benefiting from the company's business model. By 2011 the average income for the farmer had increased from approximately Leones 1 600/ lb to Leones 4 000/ lb that Biolands is paying for the improved cocoa beans (DFID, 2011, p.3). Also, in some cases the average yield has increased from 20 bags to 60 bags/ acre (AECF). Effectively, Biolands made a market system work for smallholder farmers in Sierra Leone by connecting them to the global market of cocoa beans, and by doing so, increased their incomes in a sustainable way. This is an example of an inclusive business which truly managed to transform the livelihoods of tens of thousands of people in rural Africa.

3. DISCUSSION - THE NEXT GENERATION OF ENTERPRISE CHALLENGE FUNDS

Over the past fifteen years or so the challenge fund mechanism has undergone some evolution, and, the lessons learnt and accumulated experience of supporting private sector development at the same time as maintaining focus on social impact bring us to the following reflection – what should the next generation of challenge fund look like, what issues should it address? Some of

these issues, as raised by Adam Brain et al. in the EPS Peaks publication (Brain, Gulrajani, Mitchell, 2014), include the *breadth* versus *depth* discussion, however, there are a few more angles that should be looked at, such as ensuring the development of a strong business mind-set in the funding company as well as ensuring that the business remains intent on benefiting the poor. Below follows a discussion which touches on these issues which are central to the next generation of the challenge fund mechanism.

3.1. Lessons learnt by the AECF

There are two angles to the *raison d'etre* of an enterprise challenge fund: the private sector development angle and the socio-economic impact. With regard to the private sector development angle – it is key to ensure that a challenge fund by de-risking an innovative business model at a stage when the business launches or commercialises a newly developed product or service, also referred to as the *Valley of Death* (Osawa, Miyazaki, 2006, p.91-116) does not develop a mentality of over reliance on cheap capital or aid money. The de-risking of the valley of death stage is represented on the graph below which is an adapted version of the graph presented by Osawa and Miyazaki in their article.
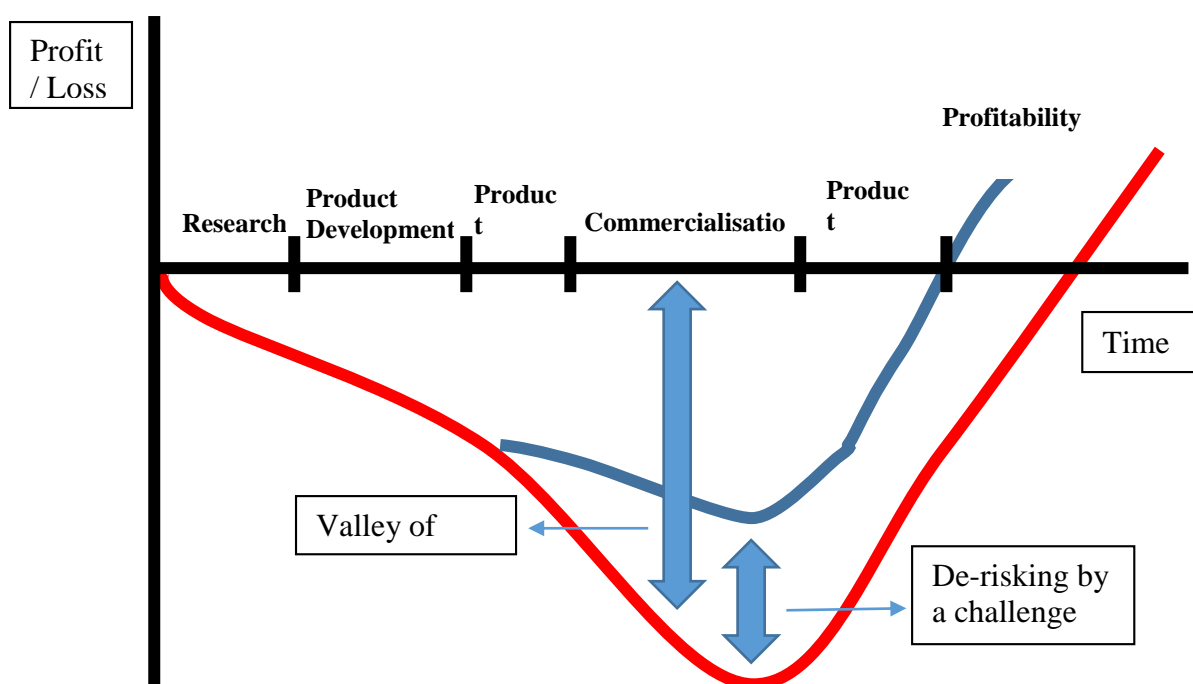
Figure 1: Adaptation of Osawa and Miyazaki, 2006

The challenge fund needs to ensure that there are mechanisms in place that will develop a strong entrepreneurial mind-set in the funded company, which will lead to the company being able to operate in a competitive business environment. This is key as the entire rationale of *using* the private sector to create sustainable socio-economic impact is that these companies, sooner rather than later, will be able to make a profit and access commercial sources of funding for further expansion. This can be achieved by being categorical about the company *having skin in the game* – that they also invest their own financial resources to match the risk taken on by the challenge fund. An additional, but equally important way on ensuring increased *professionalism*

of the funded company is to enforce various compliance requirements related to financial management, HR policies or business development strategies. All of these will make a company more agile, more competitive, and in consequence more attractive for commercial investors. The socio-economic impact is clearly a very important feature of any challenge fund, and what the fund needs to ensure is that the business, over the course of time, does not deviate from the intentionality of working with, and benefiting, low income communities. Ultimately, this is a question about how rigorously the business model has been tested *prior* to the challenge fund investment taking place. As inclusive business is a relatively novel concept some companies may struggle with fully understanding what it entails. Some companies, over time, may mutate their inclusive business model into a corporate social responsibility project which doesn't bring the company any profits. Other companies still, for a variety of reasons, may tweak their product or service in such a way that it no longer serves the low income community but instead targets a better off market segment. Again, this would defeat the purpose an enterprise challenge fund. It is therefore of utmost importance for the company to have rigorously tested their model and ensure that the company will make a profit while serving low income communities. Related to socio-economic impact is the question of whether to support companies that have a relatively small financial impact on large numbers of poor people or, rather, to support companies that will have a truly transformative impact on relatively small numbers of individuals? Possibly the answer lies in technology and innovation. Challenge funds should direct their support to companies that will not only benefit large numbers of people, albeit by relatively small amounts of money, but that will also attract other complimentary businesses into a similar space. The previously mentioned M-Kopa serves as a good example. The solar energy that their devices introduce to rural areas can trigger a significant multiplier effect with many micro enterprises emerging as a consequence of energy being accessible. It is worth noting that this transformative change was, in fact, brought about by two elements or factors or components – renewable energy and financial inclusion.

4. CONCLUSION

The enterprise challenge fund mechanism, over a course of only fifteen years, assumed a central role in the private sector development and socio-economic impact alike. This time was also an opportunity for practitioners to reflect on how this mechanism works and how it should be adjusted to serve its purpose even better in the future. It appears that with massive challenges ahead, such as considerable population growth, the enterprise challenge fund mechanism will be even more relevant in combating poverty through the support of innovative private sector. The main areas that need to be further emphasised by enterprise challenge funds are suitability and business viability of a business model, likelihood of other business crowding in to create a multiplier effect, and ultimately, the support of a smooth transition of a business initially relying on concession funding to one which can successfully attract commercial investors. When it comes to specific fields or sectors where enterprise challenge funds should focus their efforts financial services for the poor is certainly one of the main ones, alongside innovations within resilience to climate change, renewable energy and agriculture. It is key that mobile technology will play a key role in this process. To achieve this, support mechanisms will be needed, especially technical assistance, both prior to the investment as well as once the investment has taken place.

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DO LARGE RETAILERS DISPLACE SMALL INFORMAL RETAILERS? THE CASE OF A PICK N PAY STORE IN KWAMASHU, DURBAN, SOUTH AFRICA

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ABSTRACT

South Africa is characterised by high unemployment and a relatively small informal sector. This paper generates better insight into the economic relationship between formal and informal sectors of the South African economy. It investigates whether or not the development of large retailers displaces small informal retailers. The study focuses on current and former owners of informal grocery shops "spaza shops" in a township of KwaMashu, Durban. The analysis revealed that the impact of a large retailer is highly localised, with the greatest impact being on shops adjacent to the mall. Within this radius, most informal shops experience lower consumer volumes and are forced to adjust marketing strategies. These shops typically respond to supermarket entry by diversifying commodities.
Keywords: *South Africa; informal sector; grocery shops; large retailers; agglomeration economies*

1. INTRODUCTION

The persistence of high level of unemployment is widely recognised among one of the major socio-economic challenges for South Africa. The Quarterly Labour Force Survey (QLFS) results for the third quarter of 2015 show that 25.5% of the labour force is unemployed (Statistics South Africa, 2015). While this high unemployment rate has numerous roots such as lack of demand for labour by possible employers, poor education system and lack of productivity (National Treasury Department, 2011; Department of Labour, 2013), the weakness of the South African informal sector plays a key role in explaining this trend. The informal sector is indeed an important component in expanding economic participation. However, little attention has been paid to its role in fostering growth and creating employment. It is a neglected component of the economy and has not been recognised in the formal system of law. In an address to the National Council of Provinces in 2003, the former South African President Thabo Mbeki made the following statement:

> "The second economy (or the marginalised economy) is characterised by underdevelopment, contributes little to GDP [gross domestic product], contains a big percentage of our population, incorporates the poorest of our rural and urban poor, is structurally disconnected from both the first and the global economy and is incapable of self-generated growth and development" (Valodia & Devey, 2010, p. 134).

Furthermore, the country has a relatively small informal sector employment compared to other developing countries, particularly Sub-Saharan African countries (Kingdon & Knight, 2004; Valodia & Heintz, 2012; International Labour Organisation, 2013). Among the reasons for this is a growing competitive formal sector. This paper contributes to the understanding of the competitive behaviour of informal sector enterprises in a growing economy. In South Africa, the formal sector dominates the informal sector. The QLFS results for the third quarter of 2015 show that the formal sector accounted for over 10,500 of employees, while the informal sector accounted for over 2500 (Statistics South Africa, 2015). The critical issue to be examined is whether the expansion of formal sector stimulates or displaces the informal sector. In this

situation, the paper focuses on the character of competition between large retailers and their smaller counterparts, informal grocery shops. The questions raised include: Are there any links between large retailers and small grocery shops? If so, how are these two sectors linked? Do shop owners lose markets for their goods as a result of the entry of large retailers? If so, what are the dominant reasons for these changes? And how do small grocery shops respond to the entry of large retailers? The paper specifically focuses on the behaviour of informal shops in the KwaMashu area, in Durban, South Africa. It sheds light on whether and how informal shops adapt to competitive conditions. Given the limited prior research, the paper does not intend to present a definitive position, but highlights interesting findings from primary research.

The paper proceeds as follows. Section two gives a brief literature review on large-scale retail development in South Africa and theoretical framework. Section three provides the methodological framework. Section four presents the findings from the study area and gives an analysis and interpretation. The final section concludes with recommendations and summarises the main findings.

2. REVIEW OF EXTANT LITERATURE
Large retail development in emerging markets in South Africa
Commercial development has transformed the geographic structure of retailing. Since democracy, the South African retail grocery industry has seen the construction of a new retailscape. Large retailers which tended to locate in more suburban settings have also moved to second economy areas, i.e. township and rural areas. The South African Cities Network (2010) indicates that over 160 retail centres had been developed in second economy areas by 2009. This growth is expected to continue. Most often the anchor tenants in these shopping centres are national grocery chains which offer goods that are the same or similar to that offered by informal retailers. Several studies explore factors that influence large-scale retail development. It is argued that commercial development in second economy areas is driven by the economic upliftment of inhabitants moving from a lower- to middle-income class. For instance, Tagg, Tustin and Strydom (as cited in Ligthelm, 2008) indicate that the Black South African middle class increased from 2.8% to 10.5% between 1998 and 2008. The consequent increase in consumer spending has caused large retailers to increasingly focus on market expansion strategies in emerging markets, forming inbound shopping.

Other studies point out that formal industry competiveness may drive large retailers to seek new markets. It is recognised that retailing is one of the toughest and most competitive sectors. According to Terblanche (as cited in Mathenjwa, 2007, p. 11), "retail business environment is becoming increasingly hostile and unforgiving, with intense competition from domestic and foreign competitions". As a result, large retailers have started to target non-urban settings. One should take note that the development of industrial clusters is one of the focus areas in the municipal documentation. For instance, the eThekwini Municipality (as cited in Department of Provincial and Local Government & Business Trust, n.d.) indicates that the development of formal nodes and corridors attempts to bring economic opportunities closer to local communities and provides the establishment and opportunities for informal retailers to conduct businesses.

Linkages between formal and informal economic activities
In contrast to Mbeki's pronouncements (quoted above), it has been theorised in the literature that informal sector firms are linked to formal sector firms. This is explained via theories such as structuralism. The structuralist perspective argues that the informal sector is a conduit used by formal sector firms to produce and distribute goods and services, and is an inherent part and

by-product of a new emergent mode of production (Bose, 1974; Moser, 1978; Weeks as cited in Moser, 1978; Castells & Portes, 1989; Skinner, 2005; Chen, 2007; Valodia & Devey, 2012). Additionally, structuralism argues that the nature of the relationship between these sectors can be a benign or exploitative one. Considering the nature of the production system through which they are linked is vital to understand the linkages between these sectors. Some scholars have shown that the nature of the linkage varies according to the nature of the production system. Chen (as cited in Meagher, 2013, p. 6), for instance, explains that there are three broad structures to mapping formal-informal sector linkages in the economy:

> "'Open markets' involving direct exchange linkages between formal and informal firms; "subsectors" which focus attention on supply, labour and production linkages across formal-informal boundaries…; and 'global value chains', which examine linkages between lead firms and subcontractors extending across national borders".

3. RESEARCH METHODOLOGY

In order to understand the impact of large retailers in emerging markets, a sample of informal grocery shops located in KwaMashu, Durban, was interviewed. The study area is within the boundary of the eThekwini Municipality, which the municipality manages through a single administrative unit known as INK (Inanda, Ntuzuma and KwaMashu) Nodal Economic Development Project (Department of Provincial and Local Government & Business Trust, n.d.). The Nyala Centre was opened in May 2013 and houses a national chain store Pick n Pay.

In 2014, a year after the opening of the store, interviews and surveys were conducted with current and former shop owners. Prior to the fieldwork, individual meetings were held with some of the local participants to introduce the research and acquire their participation. Purposive and snowball sampling procedures based on locality size were adopted. This fieldwork was undertaken with the local participants in two phases. The first phase occurred between March and April 2014. The aim during this phase was to produce rich and detailed information regarding the market in the area. The second phase took place in July 2014, two months after the first phase. During this period the purpose was to observe changes in the market that had occurred after the first phase of the research. The sampling allowed for the selection of respondent businesses in concentric circles around the shopping centre with the application of geographic information system (GIS). Figure 1 confirms distance categories that were selected. The various residential blocks included in each of these distances were selected using the distance measure on a map created by the eThekwini Municipality Corporate GIS (2014). This approach allows a measurement of the impact of the store development on informal shops by distance from the centre. A total of 24 active and five inactive shop owners were interviewed across the distance categories.
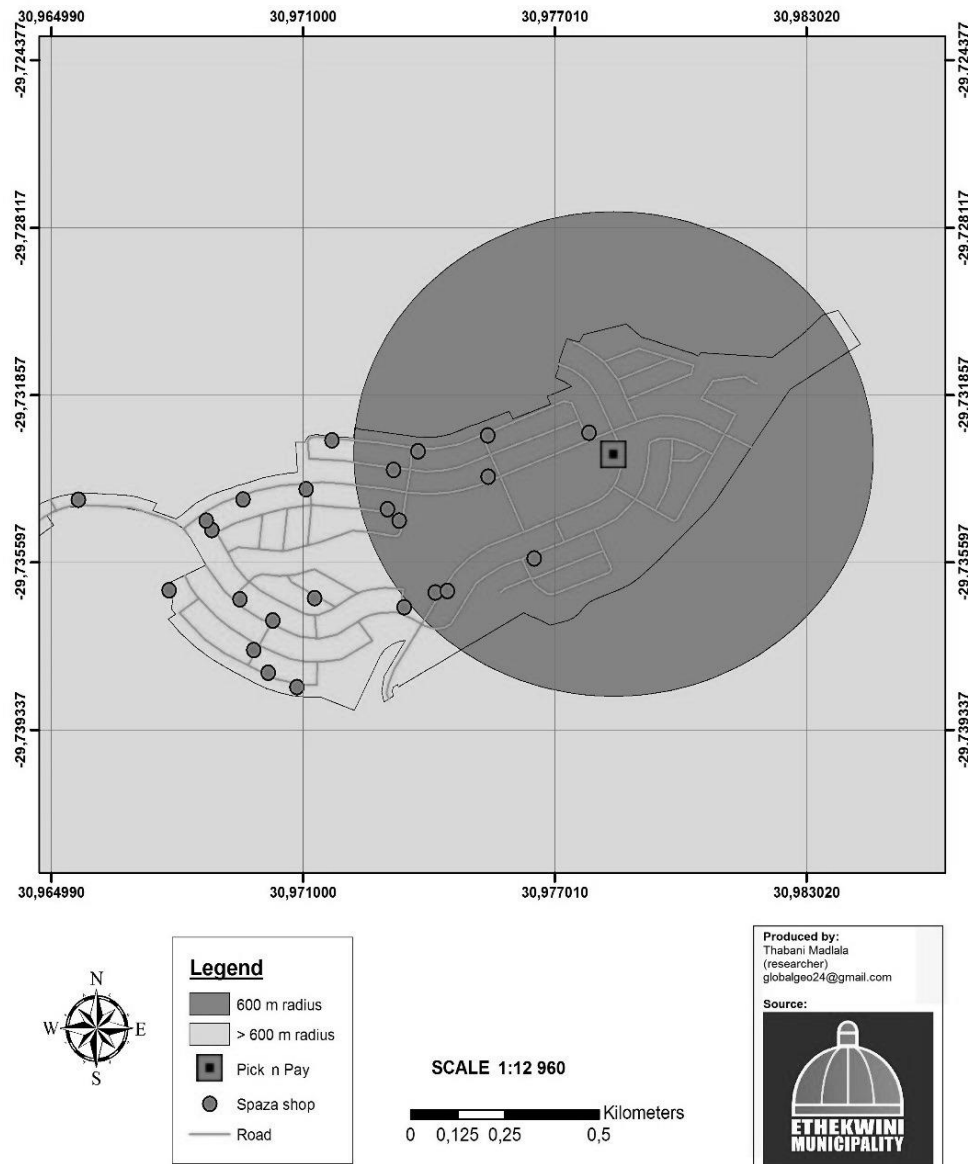
Figure 1. Sampling plan, KwaMashu, Durban (illustration by the author, data obtained from the eThekwini Municipality, 2014).

Strengths and weaknesses of the study

This study provides some interesting insights of informal retail employment in a growing South African economy. It is important, however, to note some of the limitations of the study. The study findings cannot be generalised to the entire business market because of the relatively small sample size. Furthermore, the study was carried out among informal grocery shops, which excludes other types of businesses in the informal sector. It would be advisable to conduct a similar study in an alternative area that may portray a somewhat different socio-economic structure. Also, such a study should preferably include other business sectors in addition to the retail sector addressed in this paper.

4. STUDY FINDINGS

Participants in the study were asked several questions on the impact of the Pick n Pay store on surrounding shops. These questions ranged from perceived small business mortalities to more exact questions on the decrease or increase in consumer volumes, stock movement, profitability and product range of existing individual shops.

The impact of large retail development in emerging markets
Descriptive statistics confirm a generally negative impact of the store on the surrounding informal shops. Table 1 below shows that the larger segment in close proximity to the centre indicated a dramatic decline in consumer volumes, stock movement and profitability since the opening of the store. Table 2, on the other side, shows that the larger segment far from the centre experienced only a slight decline. However, it is not known how these businesses performed prior to the entry of the store. Their performance might have been poor then too, which means that one cannot be definitive in the findings. The results of the study suggest that although there have been changes in the small business market, the negative effect of large retailers is more severe in the case of businesses in close proximity to the retail node.

Source: Field Survey (2014)
Source: Field Survey (2014)

Table 1. Perceived impact on business performance after the development of Pick n Pay (within 600 m) – March to April 2014

	Stock size			Profits			Customers		
	Number of shops/ Shopkeepers	**%**		**Number of shops/ shopkeepers**	**%**		**Number of shops/ shopkeepers**	**%**
Increased in large amount	0	0	0	0	0	0		
Increased in small amount	0	0	0	0	0	0		
The same	1	10	1	10	1	10		
Decreased in small amount	2	20	2	20	2	20		
Decreased in large amount	7	70	7	70	7	70		
Total	**10**	**100**	**10**	**100**	**10**	**100**		

Table 2. Perceived impact on business performance after the development of Pick n Pay (above 600 m) – March to April 2014

	Stock size		Profits		Customers	
	Number of shops/ shopkeepers	%	Number of shops/ shopkeepers	%	Number of shops/ shopkeepers	%
Increased in large amount	0	0	0	0	0	0
Increased in small amount	0	0	0	0	0	0
The same	3	21.43	3	21.43	3	21.43
Decreased in small amount	8	57.14	8	57.14	8	57.14
Decreased in large amount	3	21.43	3	21.43	3	21.43
Total	**14**	**100**	**14**	**100**	**14**	**100**

Having lost market sales of products in their businesses, participants were asked to determine which type of products were most affected. Most shop owners indicated that they had lost sales in bread. Table 3 shows the differences in price of commodities in the informal shop sector and the chain store. The evidence confirms that there exists a competitive product market between informal shops and large retailers. One of the participants, particularly close to the store, stated that "Sales of loaves of bread declined significantly and most end up expiring as very few customers purchase from me, resulting in financial loss. As a result, I no longer order many cases [trays] of bread from a wholesale bakery. Sometimes I buy few loaves of bread at Pick n Pay". As shown in the table, the price of a white loaf of bread, for instance, from Pick n Pay was R5.99 compared to R10 from informal shops; a price difference of R4.01. This finding indicates that the impact of the store on some shops has resulted in significant losses of sales of perishable foods and has led to some businesses limiting or severing linkages with their suppliers. Other participants indicated that they have lost market sales of refrigerated products. For instance, one reported "I do not stock fresh-milk anymore. Instead, I stock long-life milk as it requires no refrigeration". The participants further indicated that the dominant reasons for the changes resulted from a duplication of products in the area, price differences, increased levels of competition and decreased consumer volumes.

Table 3. Price comparison between informal grocery shops and a Pick n Pay store in KwaMashu – March to April 2014

Food product			Spaza shops (average)	Pick n Pay	Other large retailers (Shoprite)
Item	Weight/Mass	Brand	Price	Price	Price
1. Rice	500g	Aunt Caroline	R8	N/A or DNS	N/A or DNS
2. Rice	1kg	Aunt Caroline	R12	N/A or DNS	R10.79
3. Maize meal	1kg	Ace	R8.50	R6.79	R6.99
4. Maize meal	5kg	Ace	DNS	R28.99	R31.99
5. Fresh milk	500ml	Clover	R6	R8.29	R7.99
6. Fresh milk	1l	Clover	R12	R11.99	R11.99
7. Half-dozen eggs	-	No brand	R9	R8.99	R9.99
8. Half-white loaf	-	BB Bakeries	R5	DNS	DNS
9. Full white loaf	700g	BB Bakeries	R10	R5.99	R9.19
10. Half-brown loaf	-	BB Bakeries	R4.50	DNS	DNS
11. Full brown loaf	700g	BB Bakeries	R9.50	R5.49	R7.99
12. White sugar	250g	Huletts	R4	N/A or DNS	N/A or DNS
13. White sugar	500g	Huletts	R7	R6.49	R6.99
14. Soft-drink	330ml	Coca-Cola coke	R7	R7.49	R6.99
15. Soft-drink	2l	Coca-Cola coke	R17	R13.99	R14.89

Source: Field Survey (2014)

Notes

N/A   – not available at the time of data collection
DNS – does not stock
g   – gram
l   – litre
kg   – kilogram
ml   – millilitre

Although there is a competitive market between informal shops and large retailers, the majority of the participants reported no change in the number of shops in their immediate vicinity. However, those who reported a decline stated that "two to three shops" had been shut down since the opening of the store. Out of the five former shop owners interviewed, it was established that three shut down their businesses before the opening of the store. Their reasons were lack of business planning, employee-theft, and finding new employment. This indicates that the opening of the store had no direct or indirect role in the closure of these businesses. However, one of the participants went out of business due to loss of customers after the store opened. During the second phase of the field research, some changes were observed in the shop sector. One of the most important findings was the discovery of new shops surrounding the centre. The finding indicates that new entrants locate in a favourable position to large retailers to take advantage of passing traffic. These results reflect the importance of nodal integration. Another discovery was that prices of commodities were almost the same between these sectors. For instance, a loaf of bread (white) had increased to R10.40 from Pick n Pay compared to R11 from informal shops. It was also observed that none of the shops documented in the first phase had shut down.

Linkages between large retailers and small grocery shops
Although most of the participants indicated that the opening of the store had no benefit for their businesses, some indicated slight benefits. Reasons given by these participants who indicated positive effects included:

> "When people [consumers] find that Pick n Pay is closed [after trading-hours], they tend to buy small products from me"; "I used to source goods such as loaves of bread from large wholesalers but now I purchase them at Pick n Pay because they are cheaper"; and "Pick n Pay benefits my business as I do not have to hire a vehicle to get some goods at wholesalers. Instead, I purchase some products at Pick n Pay as it is closer to my shop".

The findings suggest that a large retailer can draw in consumers from surrounding communities and that small businesses may benefit from the exposure and to foot traffic. This shows that there is some recognition of the positives that can be gained by being around large retailers which are already drawing the desired customers as well as save time and costs.

Competitive response from informal shops to large retailers
Participants were also asked if they had included new products or services in their business since the opening of the store. Very few indicated that they had done so. Given that there are few incentives to improve business performance; one can conclude that the majority of these entrepreneurs made few dramatic adjustments to their competitive strategies and were either unwilling or unable to enact a competitive response. The businesses that adopted a competitive strategy to fight the store tended to focus on other commodities or extend their markets to sustain competitive advantage. These businesses have thus decisively shifted away from being general shops.

Although informal shops cannot compete with large retailers on price, some have assessed their strengths and weaknesses, and committed to a competitive strategy by providing merchandise mix where there is little direct competition. Some of the participants reported:

> "I have now introduced towel sales in my business, offering something different from Pick n Pay"; and "I have become a part-time tailor, producing such products as common shirts and dresses as well as sewing embroidery designs on fabric".

Take-away food business is another industry which has emerged in the informal shop sector. For instance, one of the participants opened a small take-away business in addition to her business – selling "Russian sausages" and "potato fries". According to this participant, her

intention is to build strong relationships with many of her key customers over time, which will further protect her from competitive threats.

Some shops have competed in a narrowly defined market segment with specialised offerings or in niche marketing, focusing on specific groups of consumers and the specific needs and wants of these groups. For instance, two of the participants reported that they focus on children as a niche market and have become reliant on a relatively small market. They offer products such as sweets, chips, and biscuits for this market segment. Responses to market demand included "easy to sell", "sells fast" and "goods always in demand".

Additionally, the informal shops have slight advantages because they have longer trading hours compared to large retailers. Most participants indicated that they trade between "7 am and 8 pm", whilst the store is open from "8 am to 6 pm". Furthermore, the participants allow customers to purchase goods on credit as a strategy to keep them loyal.

Discussion and conclusion

It is important to keep in mind that an entry of a large business reshapes the economic geography of grocery retailing and this is supported by scholars who place the findings in a broader academic discourse.

Differences and similarities in results and conclusions in relation to other studies

Previous studies have been conducted on the impacts of large retailers on local labour markets. The findings of the present study confirm the argument made by Ligthelm (2008) about the adverse effects of large retailers on the local labour markets of small retailers. He argues that small retailers surrounding large retailers suffer a larger loss in market share compared to those further away. The findings of the present study show that the entry of a new large store significantly impacts only those rival small businesses that operate in close proximity to a large store. Rival small businesses outside a certain radius are not significantly affected by the entry of a large store.

This paper also confirms the findings of Valodia, Davies, Altman, & Thurlow (2007), who assess the importance of the geographic concentration of industries as a source of agglomeration economies. The finding implies an increase in retail employment with new shops attributable to the opening of the chain store. The concentration of these new businesses is evidence for the existence of agglomeration economies. Although it is hard to predict, there is likely a possibility that new shops might be harmed over the long-term in the absence of clear business strategies. However, this anecdotal evidence requires better understanding and is something that will have to be addressed in future studies.

The paper has also confirmed that the entry of a chain store impacts on spatial and temporal scale in the labour market – involving interactions of businesses in a decreased spatial-temporal scale. As the store located closer to local businesses, some were able to overcome the barrier of the time and space separation, which formerly separated and isolated individual businesses. A growing preference from shop owners for goods sourced from the large retailer, situated nearby, over wholesalers (located far away) was noted. This has reduced dependence on long supply chains and the cost of moving goods. It could also be argued that the presence of the large retailer has significant impacts on time savings. Distance, therefore, plays a critical role in determining the distribution of ideas and interaction.

Recommendations and policy implications of the empirical findings

Commercial development of large retailers is one of the government's strategies to address unemployment in South Africa. There is a belief that if a large store is opened in the trade area it is going to capture a considerable amount of trade or perhaps change zoning status in order to attract small businesses. The government focuses much on large retail development which is hoped to contribute to gross domestic product. Little attention has been paid to a competitive market that exists between large retailers and their smaller counterparts. The findings of this study suggest that government needs to carefully weigh the costs and benefits of associated

with the development of large businesses. It is therefore recommended that there should be a broader understanding of spatial competition in dynamically evolving industries.

Additionally, the participants were requested to make suggestions of what the government could do to improve the relatively small informal sector enterprises in the area. They reported that the government should make efforts to assist small businesses in financial and business planning through appropriate development plans, and establishing special institutions and programmes to assist informal enterprises as they do formal ones.

5. CONCLUSION

This paper has provided some evidence to support two important predictions of the structuralist perspective. The first is that there are linkages between formal and informal sector firms in the labour market. The case of KwaMashu shows that a Pick n Pay outlet has minimal linkages with informal shops in terms of easy access to market and product distribution. The second contribution is that informal businesses may be exploited by the capitalist structure of mass merchandisers as direct competitors in a competitive environment. As is evident in the present study, large retailers and informal shops compete within the same product market. The results indicate that informal shops struggle to compete on price with larger chains. More importantly, the results indicate that the entry of a new large store significantly impacts only those rival small businesses that operate within a tight radius of the large retailer site and these small businesses in the trade area lose a comparable amount of trade. It is considered that the government sector needs to weigh the costs and benefits of commercial development in second economy areas as well as provide special institutions and programmes to assist small informal businesses.

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CERTIFICATION EFFICIENCY OF QUALITY MANAGEMENT SYSTEM IN METAL - PROCESSING INDUSTRY ACCORDING TO STANDARD ISO 9001 IN THE REPUBLIC OF CROATIA

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ABSTRACT

Implementation and certification of quality management system according to standard ISO 9001 is a voluntary process to which the companies decide for various reasons: internal or external. That is conducted by independent accredited institution through conducting audits. Audit is controlled and defined process which is carried out by qualified, professional and independent person. Regardless of all that, and although the first certification in the world was conducted more than 25 years ago, in the public and among experts, it is still possible to hear voices which question the appropriateness of conducting the certification of companies. Extensive research was conducted on the metal – processing industry in Croatia in order to:

1. *Research the impact of the implementation and certification of Quality Management System in the company*
2. *Research the level of awareness about the quality of employees*
3. *Research factors that have influence on the certification process.*

In this paper are research findings that were obtained using different statistical methods.
Keywords: *quality, certification, ISO 9001, competitiveness*

1. INTRODUCTION

Certification of Quality Management System according to ISO 9001 standard has become an essential factor on the way of achieving company's business excellence. It is associated with a change in philosophy of the company where the customer comes first and everything is subordinated to the satisfaction of his needs. The certification confirms that the company has accepted approach of achieving quality throughout entire enterprise, by the actions of all employees regardless of type of work they do. Certification leads to improvement in all aspects of the company, from increasing the level of product quality, through reducing costs to the empowerment of market position and competitive advantage.

Without certification, company has no real evaluation of QMS, which finally completes the cycle and helps businesses to further improve the quality of its system. Certifications significantly impact the further improving of the management system. It helps to maintain light pressure and a trend of needs for further improvement and for research of new areas for further development of the system.

The certificate has significant effect on enhancing the reputation of company in the public, in the market, and also influences the competitive ability of company. Certification is a process

that opens the company to the outside and with this process company sends a message to all about their serious intentions to improve the overall business. Certified companies improve their market position and build a competitive advantage over those companies that have not yet decided on the move.

Certification of the QMS according to standard ISO 9001 is voluntary process to which companies decide on for various reasons. Certification is conducted by independent accredited institution for conducting audits. Audit is controlled and defined process which is carried out by qualified, professional and independent person. Regardless of all this, and although the first certification in the world has been more than 25 years ago, it is still possible to hear voices in the public and among experts that question the appropriateness of conducting the certification of companies.
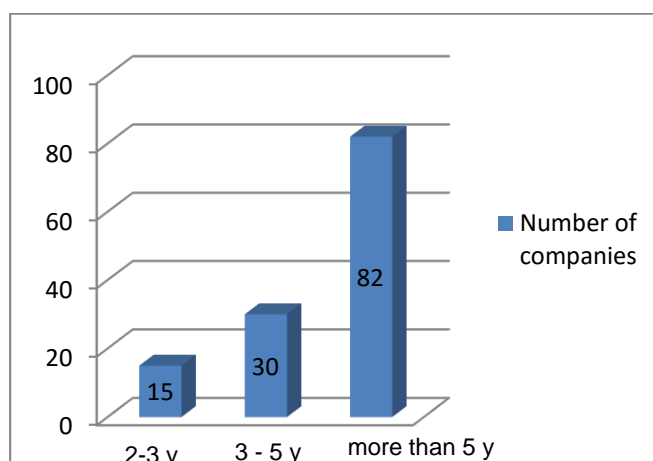

Figure 1:   Period of possession of certificates in the surveyed companies

2. RESEARCH AND DATA COLLECTION

Accordingly, the subject of survey was the stand of companies towards the actual impact of the certification process of Quality Management System according to ISO 9001 on the metal-processing industry in Croatia. The goal was to determine in what way the certification process has a positive effect on the processes within the company (internal benefit), likewise how it directly helps in positioning the company on the market and increases its visibility and improve its market position.

The study was carried out by conducting a survey on a representative sample of companies in the metal – processing industry. Surveyed companies have had the system certified for at least two years at the time of the research.

The survey consisted of three groups of data:

1. Research on the impact of the implementation and certification of QMS at the company,
2. Research of the level of awareness about the quality of employees,
3. Research of influential factors on the certification process.

The first that was carried out was the study of the impact of implementation and certification of QMS in the company. The survey was conducted on - line and respondents were mostly the QMR. Afterwards, the subject of analysis was the awareness of employees, and that study was conducted in a small number of companies with an organization structure that ensured the independence of the respondents. The aim was to analyze the range in what employees, which are not directly involved in the implementation and certification of company and are busy with their daily work, are able to understand the system and how they evaluate its impact on the company. The survey was conducted by filling out survey forms submitted by mail, given that surveyed employees did not have the possibility of on - line filling. Finally, research of the

influential factors at the certification process was conducted. In this study, in addition to QMRs were also included the auditors from certification institutions. The poll was also conducted on - line.

3. ANALYSIS AND RESULTS

After collecting the surveys we approached to statistical analysis of results. First activity was a statistical analysis of the survey results through review of the share of individual responses in the total sample. These results, its processing and graphical representation indicated that the collected data support the hypotheses. E.g., the question of whether certification of the company according to ISO 9001 has a positive effect on improving the reputation in the public, 84% of companies assessed the impact of large and very large while the positive impact on increasing the competitive ability of the company declared 66% of the respondent companies. The impact of certification on attracting new customers as large and very large was rated by 60% of businesses and 75% said the same of the process of certification to increase the reputation by the existing customers. Also, 67% of the companies declared that impact of certification of QMS on increasing customer satisfaction was high or very high.

$\chi 2$ test results show that there is no significant difference in the impact of company size on the efficiency of the certification process and the implementation of Quality Management System. Enterprises are classified by size into two groups. By analyzing the value of $\chi 2$ test there were not significant differences in the impact. $\chi 2$ test results support the hypothesis about the impact of company size on the efficiency of the certification of Quality Management Systems in only one of the 28 questions asked. In the implementation of Quality Management System the influence of the size of the company proves to be significant also in one of the 26 questions in the survey.

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Small enterprises:	5	9	20	17	5
Medium and large enterprises:	1	10	26	25	5

Output:

Reset all		Chi-square:	4.075
		degrees of freedom:	4
		p-value:	0.3959
		Yates' chi-square:	2,377
Status:	Status okay	Yates' *p*-value:	0.6667

Figure2. Example of $\chi 2$ – test conducted

Testing of the value of the arithmetic mean scores the z - test, one-way to the lower limit was conducted. As acceptance limit of positive impact was set average grade 3,5. The test results (82%) support the hypothesis about the positive impact of the implementation and certification of Management System at the company.

By applying t – test on two dependent samples it was conducted testing of differences of influence of the implementation and certification of Quality Management System in the company. The test result proves that there are no significant differences in the assessment of the effects of implementation of the Quality Management System (as a permanent process) the impact of certification (as a short-term and annually recurring process) on various aspects of business enterprises. Only for 3 factors (of 20) it was found different impacts on the company in the process of implementation in relation to the certification process, except that in one case the impact of the certification process was evaluated as more significant. These results once again support the hypothesis H_0.

The research on the awareness level about the employee quality was also conducted. The result shows a developed awareness of employees regarding the importance of the Quality System and its certification. Employees believe that certification helps to achieve a better market position and the positions with existing and potential customers. They understand modern market mechanisms and support these activities. On the other hand, they are sufficiently aware of all possibilities of Quality Management System and have critical look back at its efficiency within the company and its impact on the improvement process. The research results support the hypothesis of a side H_2.

Finally, the study of factors influencing the efficiency and effectiveness of the certification process of Quality Management Systems has been conducted. The prior ranking factor method from the standpoint of QMR's and external auditors was in the use. The most important factors that affect the certification process are determined:
- Expertise of auditors
- Professional and correct behavior of auditors
- Expertise, knowledge and quality of preparation of employees in the company for the audit.

It is particularly important to separate the factor associated with the expertise, knowledge and quality of preparation of company's employees for audit. Through this result once again is confirmed the importance of education and the impact of the awareness of the positive development of the Quality Management System as well as the impact on the result of the certification, and then the use of all the advantages and opportunities that it brings. Without education, and without raising awareness about the importance of quality and its placement on the place it deserves, will be difficult to raise the system to a higher level and to direct it towards business excellence.

4. CONCLUSION

Final overall results of the conducted study support the hypothesis. Enterprises have positively evaluated that impact of the certification process of QMS improves business processes and the reputation of company in the public and among customers, also improves its market of the company position likewise the competitive ability of enterprises. It is confirmed that the company certification has a positive effect on further improvements of the system and for the many internal and external aspects of the business.

Certification of the company according to ISO 9001 and awarding of certificate:

- Is a positive process for the company,
- Has a positive effect on increasing the competitive capabilities and on improving market position of company,
- Has a positive effect on improving public reputation,
- Improves the position of the company with customers (existing and potential)

- Equally effects on the company's positive processes like the implementation of QMS,
- Has the same effect on the improvement of QMS in small and large companies (by number of employees),
- Acts to increase customer satisfaction,
- Effect on upgrading the culture of the company,
- Apart from external equally effects on improving of internal aspects of the business: improvement of product quality, cost savings in production, reducing errors, and so on.)
- Is the process by which companies are satisfied with the quality aspects of the process of certification (certification organizations),

along with a number of other positive effects presented in the dissertation.

It has been proven that the certification process is a positive for the company, and contributes to its positioning in the market and for improvement of its market positions and competitiveness. The research results provide information that can direct the further development of the Quality Management System and activities on the path of constant improvement in the certified companies. Also they can help to those companies that have not yet decided on the implementation and certification of Quality Management Systems in making such a decision. They point them to areas where they can expect the greatest benefit, but also to the areas that can expect the most problems and the minimum efficiency of the system. In this way it can act preventively in avoiding the most common failures in the system and to increase the efficiency of the introduction of Quality Management System and the process of its certification. With this study, companies receive an overall picture about the quality of the certification process and its actual benefits.

The implementation of a Quality Management System, observed individually without certification of company, has a significant impact on improving business processes and quality. Likewise, implemented Quality Management System changes the behavior of the company to the outside in a manner that positive effects are felt in the market and among customers. However, the implementation itself without certification is uncompleted cycle and does not enable exploitation of the full potential of the system. Only the certification of company achieves the real result. Companies recognize the fact that the impact of the certification process, as short-term but repetitive processes, is as important as continuous process of implementation of the system.

Applying of scientific tools enables additional development of QMS and improvement of the system status. The survey results indicate improvements that can be applied in practice and influence the creation of value-added to the companies:

- Professionalization of QMR position in company,
- Extra money on the understanding of standard requirements and the requirements of the building model for the qualification and selection of suppliers and thus improve the procurement process as well as the impact that has the lowest score in the survey results,
- Further integration of QMS with other standards (e.g. ISO 9001, ISO 14001, etc.)
- Certification of QMS according to all requirements of standard, exclusion of certain claims (especially development) only in exceptional cases,
- The selection of consultants who do not promise the implementation of systems and certification in unrealistic (too) short deadlines,

- Selection of certification institutions according to criteria of quality of their implementation audits and auditors in order to obtain information on areas to improve QMS,
- Investing significant resources in training the management structure and all employees (from basic knowledge of the standards and quality to training of internal auditors),
- Improving the structure and quality of implementation of internal audits in companies,
- Creating a model of greater involvement of all employees in making proposals for improvement and to solve quality problems within their workplaces, and processes
- Stronger involvement of company in work of formal organizations and associations that promote quality and strengthening of activities related to quality in Croatia and giving incentives to strengthen the infrastructure and the importance of understanding the importance of quality in the Croatian society,

Analysis of results of the study indicates the need for further work on the:

- research of the level of impact of certain (ranked) factors on efficiency and effectiveness of the certification process,
- research of the differences influence of the implementation and certification of QMS to internal and external aspects of the business enterprise,
- research of the actual situation of education in the field of quality and raising awareness of need for training of all employees,
- research methods of strengthening employees motivation in finding suggestions for improvement,
- research of Quality Management representatives position,
- research into the causes for which the impact of implementation and certification of Quality Management System on the processes associated to procurement is rated as least important,
- examine parameters of quality culture of enterprise and its integration into the Quality Management System,
- development and implementation of methods for measuring the efficiency of business processes,
- more precise analysis of the impact of QMS to reducing errors and application of methods for monitoring quality costs,
- Study the impact of QMS on optimization of the number of documents and records in practice.

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THE LUCAS PARADOX AND THE HUMAN CAPITAL RESOURCE CURSE IN PHILIPPINES, INDONESIA, MALAYSIA, THAILAND AND SINGAPORE

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ABSTRACT
Lucas (1990) stated in his study that capital doesn't flow from rich to poor countries because of differences in capital per worker. The resource curse tackles the irony of why resource abundant economies tend to grow slower than those with low resources (Sachs and Warner, 1997). This study examines the connection between the Lucas Paradox and the Resource Curse between the developed and developing countries in the ASEAN based from Solow's neoclassical model and the Cobb Douglas production function. The study would like to state if a connection exists between the two phenomena and determine how they affect each other and if the Lucas Paradox and the Resource Curse exists in the Philippines, Indonesia, Malaysia, Thailand and Singapore. Developing countries are all rich in natural resources, specifically have high human capital and high human capital investments. This research also proves that an increase in education directly affects human capital stock and that age is positively related to human capital as different age groups increase human capital. It was also confirmed that human capital stock depends upon the distribution of the population between urban and rural sectors. While on the other hand the effect of the Capital per Effective worker hypothetically increases the overall Income per Effective worker but seems to be lacking in the developing countries thus proving the Lucas Paradox and the Human Capital Resource Curse are present and are interconnected with each in countries such as the Philippines, Indonesia, Malaysia, Thailand and Singapore. The lack of investments in human capital discourages capital to flow from developed to developing countries which results to slow economic growth.
Keywords: ASEAN, Human Capital, Lucas Paradox, Resource Curse

1. INTRODUCTION

It has been believed that there is a positive relationship between natural resources and economic development (Rostow, 1961; Balassa 1980) until Sachs and Warner (1997) argued that countries with high natural resource wealth tend to grow more slowly than countries with low natural resources. This paradoxical result is also known as the "resource curse" is observed in most developing countries when most resource rich countries tend to be left behind by resource-scarce countries. Sachs and Warner's work supported the resource curse thesis of Auty (1990, 2001).

Van der Ploeg (2011) mentioned that natural resources will open a lot of opportunities for economic growth and development and yet many countries are still cursed by natural resource wealth. As countries like Africa who have high resources but have a low GDP, researchers would tend to question the slow growth of their economy as there should be a positive relationship between natural resources and development. In East Asia, the countries with few raw materials such as Hong Kong, Singapore, South Korea, and Taiwan have done even better than the resource-rich ones like Indonesia, Malaysia, and Thailand. The same instance with oil-rich countries like in Nigeria, Iran, Venezuela, Kuwait, Iraq and other Organization of the Petroleum Exporting Countries (OPEC) in exploiting their resources to compete against developed countries but it just leads to the progress of oil-importing ones (Gylfason, 2001).

The modified Solow-Swan neoclassical growth model states that capital should flow from developed to developing countries. Lucas (1990) observed that the neoclassical theory does not occur presently. He also stated that developing countries tend to suffer because of low capital flows. This ideology brings us the Lucas Paradox.

The resource curse is a big issue of resource abundant economies, and they depreciate the GDP of a country. However, if a country is abundant in resources, shouldn't the economy of that country flourish? We theorize that maybe the manufacturing sector or the service sector of the economy is the weak point that maybe capital in one of those sectors has the issue. Since the Lucas Paradox speaks of capital not flowing from rich countries to poorer ones, we ask, does the Lucas Paradox result to the resource curse? We developed a hypothesis, if abundant countries are affected by the capital flows in the economy.

The original resource curse discusses more on natural resources but instead of doing the same study, this research contributes in examining whether the "curse," as theorized by Sachs and Warner (1997), holds true for measures of human capital. A lot of countries tend to monitor their natural capital especially when they have high resources that they neglect other potential assets such as education that may help the growth of the economy (Gylfason, 2001). Additionally, countries with low resources focus on their manufacturing industry. They value education or job trainings because they wish to be employed in the manufacturing sector (Sachs & Warner, 1997). Meanwhile, resource-rich nations tend to focus on their agriculture industry and neglect opportunities of education because their job does not require professional skill.

Researchers like Sachs and Warner (1997) and Gylfason (2001) stated the crowding out abilities of natural resources to human capital investment and as stated by Shao and Yang (2014), researchers like Birdsall et al. (2001) carried out comparative analysis on the negative correlation between resource abundance and human capital investments, which results to the well-known resource curse.

This research aims to examine why resource-rich economies tend to grow slower than those resource-scarce economies in the case of developed and developing countries in the ASEAN nation. This research also investigates if investment to human capital is inversely related to resource abundance and to find out if the lack of investments to human capital discourages capital flow to the resource rich economies resulting to a slow economic growth. For this purpose, we examine 5 countries (Philippines, Singapore, Indonesia, Malaysia and Thailand) from the Association of South East Asian Nations (ASEAN). We opt to study the economy of the Philippines, classified as a low middle-income country by the World Bank (2013) in their World Development Report since we are the first ones who experience the inconsistent development and growth although we have a lot of resources. We also used other developing ASEAN countries namely Indonesia, Malaysia, Thailand. We also chose to study the top ASEAN country in terms of per capita income (Table 1) and is also a developed country namely Singapore to further see why they are more prosperous than other ASEAN nations given that they have low resources. Also, from the 2011 data of International Monetary Fund (IMF) in

Table 1 Singapore has the least land area which implies that it would have less resources than other ASEAN countries since the others have a larger land area for natural resources but has the most per capita income among the ASEAN nations followed by Brunei which also follows Singapore in the least land area which somewhat gives more confirmation on the so called resource curse.

ASEAN Countries	Land Area	2011 Population	2011 Per Capita Income (USD)
Myanmar	676,578 km²	60,280,000	$832
Thailand	513,120 km²	67,091,089	$5394
Cambodia	181,035 km²	14,652,665	$931
Malaysia	329,000 km²	28,728,607	$9700
Singapore	710 km²	5,183,700	$49270
Indonesia	1,904,569 km²	248,216,193	$3508
Brunei	5,765 km²	408,786	$36583
Philippines	299,764 km²	103,775,002	$2223
Vietnam	331,210 km²	91,519,289	$1374
Laos PDR	236,800 km²	6,586,266	$1203
Total	4,478,551 km²	626,741,597	-

Table 1. Source: Asian Development Bank (2010), Central Intelligence Agency (2012), International Monetary Fund (2011)

The remainder of this study proceeds as follows: Section 2 discusses a review of related studies about the variables that we will be using. In Section 3, we present the econometric model as well as the data and method used. Results and interpretations are discussed in Section 4. Section 5 concludes with a short summary of the study and recommendations for future research.

2. LITERATURE REVIEW

2.1. Capital per effective worker to Income per Effective Worker
Lucas (1990) wanted to show the effects of human capital investment to the Cobb-Douglas Production Function. From the capital per worker he added the term "effective" to stress the impact of labor effectivity to the variable from Solow (1956) model to be elaborated in our theoretical framework.

Hypothesis 1: Investment in Capital per effective worker increases Income per Effective Worker

2.2. Human Capital per worker to Income per Effective Worker
Economies with a stable labor would presumably have an edge in economic development if their policies focus on the accumulation of human capital (Lucas, 1990). Human capital of individuals have two concepts namely education and experience of the labor market (Wasmer, 2001).

Persson and Malmber (1996) stated that human capital measured by average years of schooling affects subsequent per capita income growth positively.

Hypothesis 2: Investments in Human Capital increases Income per Effective Worker

2.3. Education to Human Capital Stock

The quality of education a worker has attained is the most marketable in the eyes of the investors. The more skilled you are, the more likely an employer would hire you (Hanson II, 1996). As stated by Canlas (2003), it is widely accepted that education is an essential cause of long-run economic growth.

Spending on education has a positive and significant direct effect on the accumulation of education and indirect effect on growth spending has a positive and significant impact on the accumulation of education (Baldacci et. al., 2008). Krueger (1968) stated that even though India and the United States had the same education-sector distribution in each age, the attainable per capita income would be lower than in US because of the distribution of age in India. Consequently, even if the age-sector distribution of Indian and American was the same, the educational attainment in India would result in a lower attainable income. Gille (2014) argued that the quality of education and income per capita has a negative relationship and that the relation is stronger in developed nations.

According to the study of Ding and Knight (2009), the average annual growth rate in China (1.5%) was faster comparing to high-income economies (1.2%) due to the growth rate of human capital. On the other hand, the average annual growth rate of China was slower than other developing countries because of the level of education which was explained by the growth rate of human capital.

As stated by Shao and Yang (2014), better-quality education can contribute to increasing the demand for educational and promoting human capital accumulation and growth.

Hypothesis 3: An increase in Education directly affects Human Capital Stock

2.4. Age to Human Capital Stock

Frosch and Tivig (2007) examine that there is an additional effect of age on innovative performance at any given level of human capital. In addition, an independent effect of age based on the (age-specific) level of exploitation abilities and motivation can control the effect of human capital on innovative performance.

Fougère et al. (2009) have observed a significant increase in the participation rate of older workers but human capital accumulation is lower for older workers. At middle age (41-44), the labour supply experience an increase and additional allocated time on work. Moreover, these individuals are more qualified and effective since they have invested more time in human capital.

Feinstein et al. (2004) states that male workers from UK who undertook work related training in ages 33–42 experienced a higher wage growth of 4–5 percent over the period 1991–2000. Skirbekk (2003) also added that older workers are getting more productive over time. Cr´epon et al. (2003) suggest to include age indicators such as mean age or different age groups for age-productivity pattern on aggregate level and use Cobb-Douglas function to explain age-heterogeneous human capital. Also, Ilmakunnas et al. (2004) include age effects to explain the stock of different types of human capital differentiated by age. According to Crespo et al. (2008; 2009); Goujon et al. (2008); Lutz and KC (2011) as most educated tends to work longer and retire at later ages, an increase in human capital will balance the declining working-age population. Hence, an increase in the human capital working-age population will lead to economic growth but also decrease it by rise in pensions upon retirement Philipov (2014).

Hypothesis 4: From the cases above, age is positively related to human capital as different age groups increase human capital.

2.5. Sectoral Distribution to Human Capital Stock

The sectoral distribution was considered as an important explanatory component in the difference between the developed and developing countries. It is also commonly held to be a factor in determining income per head. The sectoral distribution has a significant effect on attainable income. Individuals who live in an urbanized zone tend to invest in human capital than those who are living in the rural area (Krueger, 1968; Sachs & Warner, 1997)

Hypothesis 5: Human Capital Stock depends upon the distribution of the population between Urban and Rural sectors.

2.6. Sythesis

The two variables discussed in the Lucas (1990) model should affect the output per capita positively if the variables have a positive value and therefore has a direct relationship to income per capita while the 3 variables of Krueger (1968) has positive effects on human capital.

2.7. Theoretical Framework

The researchers will be using the model proposed by Lucas (1990) derived from the Cobb-Douglas Production Function.

$$y = TFPx^{\beta}h^{\gamma}$$

•y is the Income per effective worker
•TFP is intercept parameter (often called the level of technology) or Total Factor Productivity
•x is capital per effective worker
•h is human capital invested in the working population taken from the Anne Krueger and Resource Curse Model

• ϒ is the external factors that affect the human capital invested in the working population, which for the consistency with the Cobb Douglas Production Function would have the value of 0.50

• β is the external factors affecting capital per effective worker, which as of the ϒ would also have a value of 0.50

Note that by adding "effective" to the variables, Lucas (1990) stresses the effect of labor efficiency to the capital stock. The variable Capital per Effective Worker will be taken from Solow's (1956) model.

$$x = \frac{K}{L * E}$$

where
• *K* is Capital or Foreign Direct Investment
• *L* is the Working Population
• *E* is Labor Productivity

Human Capital Invested in the Working Population is the knowledge and skills invested and accumulated by the Working Population, which will be taken from Anne Krueger's Human Capital Stock Equation which would also be used for the resource curse.

$$h = f(A, E, S)$$

The researchers employ the per capita form of Krueger (1968) production function

$$h = BA^{\alpha_1} E^{\alpha_1} S^{\alpha_1}$$

where
B is the fraction of population in the labor force or the Working Population
A is Age
E is Education
S is Sectoral Distribution
α would have a value of 0.50, 0.25 and 0.25 to remain consistent with the Cobb Douglas Production Function.

Note that the value of the α value of the Education Variable is 0.50 since the researchers would want to add emphasis on Education since it is the best indicator of human capital investment, but the researchers would also show the results of changing the exponent of the other independent variables to 0.50.

From this we replace the *x* and *h* from the Cobb-Douglas Production function resulting to the formula the researchers will be using for the Lucas Paradox.

$$y = TFP(\frac{K}{L * E})^{0.50}(BA^{0.25}E^{0.50}S^{0.25})^{0.50}$$

2.8. Simulacrum
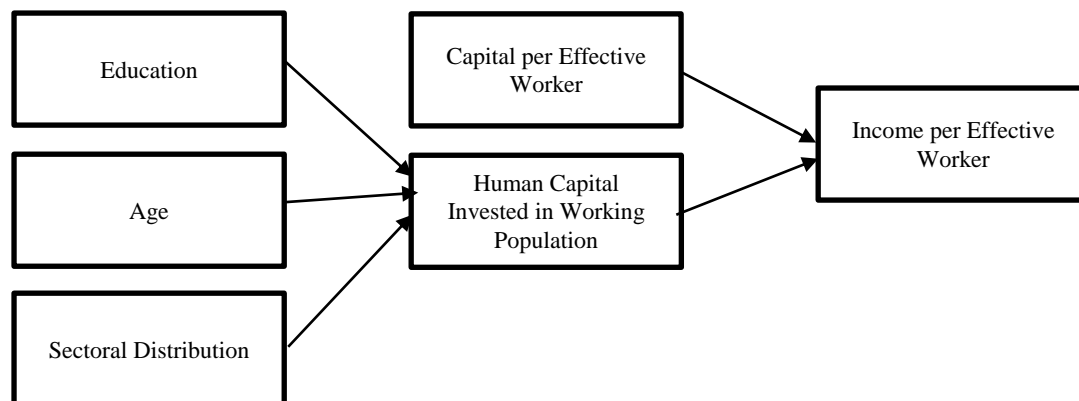
3. RESEARCH METHOD

The objective of this research is to determine if the Lucas Paradox and the Resource Curse exists in 5 ASEAN countries. The researchers also want to investigate if what Gylfason (2001) stated in his paper is true, that natural resource abundance crowds out the investment on other capital resources such as human capital result in less capital flows to developing countries. As previously stated in our theoretical framework, we will be using a modified Cobb-Douglas production function for our Lucas (1990) model.

$$y = TFP(\frac{K}{L*E})^{0.50}(BA^{0.25}E^{0.50}S^{0.25})^{0.50}$$

Our dependent variable y is the income per effective worker. The variable TFP donates an intercept added by Lucas (1990) to denote the level of technology or Total Factor Productivity. The term $\frac{K}{L*E}$ is the expanded form of our variable x taken from Solow (1956) which is capital per effective worker. The variable x explains the term capital per effective worker which gives us the measure of physical capital used by "effective" workers. The variable h would represent the effect of the Human Capital Resource Curse in the Lucas Paradox.

To measure the Resource Curse we would be interpreting the results of Krueger's (1968) human capital stock equation. We would like to check upon if investments in human capital would be a determining factor in the Resource Curse. We would be using the per-capita version of the production function.

$$h = BA^{0.25}E^{0.50}S^{0.25}$$

With the dependent variable h representing Human Capital Invested in the Working Population, the variable B represents the fraction of the population in the labor force. The variable A representing age differential since age is a determinant of productivity since different age

groups affect income per capita differently. The independent variable *E* represents education which is one of the best proxy variables to use as human capital investment and lastly the variable *S* represents the Sectoral Distribution in the Population. The Sectoral Distribution of the Population is also known as the Distribution of the population in the Rural and Urban Sectors of the economy. Sectoral Distribution is an important factor in determining the quality of human capital since the rural and urban sectors of the economy has different effects on human capital stock.

The researchers will be using the data from the Barro-Lee and World Bank Database. Figures will be obtained using 5-year intervals from 1970-2010. The researchers opt to study 1 developed ASEAN country namely Singapore and 4 developing ASEAN countries specifically Indonesia, Malaysia, Thailand and Philippines because of the completeness of their data.

4. RESULTS AND DISCUSSION

	Indonesia	Malaysia	Philippines	Singapore	Thailand
1970	31,872,751.66	3,843,896.10	14,845,433.09	1,453,673.66	14,830,203.11
1975	42,985,758.86	5,238,117.87	20,473,372.40	1,938,612.80	16,594,007.15
1980	56,081,819.32	7,321,527.55	26,536,472.68	2,622,881.56	26,841,952.10
1985	74,276,332.40	9,570,917.69	32,447,284.09	2,988,574.53	31,780,677.32
1990	96,309,475.32	11,986,441.38	42,731,754.66	3,964,340.94	44,967,457.23
1995	117,585,442.42	15,754,389.87	51,156,862.24	4,780,030.31	48,565,118.93
2000	146,224,465.39	20,970,993.27	55,991,667.05	6,121,578.46	50,828,113.49
2005	175,318,074.31	24,266,064.90	67,063,173.49	6,461,505.20	66,952,423.35
2010	227,292,455.91	30,879,086.58	75,876,276.09	9,280,542.47	80,673,534.56

Table 4.11 Human Capital Invested in the Working Population ((persons employed)*
(Education^0.5)*(Sectoral Distribution^0.25)*(Population, 15-64/100))

Table 4.11 shows Human Capital Investment on the Working Population of the selected ASEAN countries. Referring and incorporating the Anne Krueger formula for the Human Capital Resource, and be consistent with the Cobb Douglas Production Function, the researchers used the exponents with the values of 0.25, 0.25 and 0.5 for the tables 4.11, 4.21 and 4.31.

	Indonesia	Malaysia	Philippines	Singapore	Thailand
1970	15781733.74	2042073.26	7636546.81	962644.8385	7965409.093
1975	21323664.84	2769239.492	10328487.82	1291930.307	8795532.028
1980	27858848.22	3805590.749	13152947.45	1731937.609	13980927.34
1985	37871977.65	4892692.049	16409867.67	1911923.486	16210946.8
1990	50089709.97	6196926.276	21856109.71	2467757.27	22317128.94
1995	62158089.57	7996528.715	25718033.17	2844002.199	23523850.34
2000	78142216.92	10716073.13	27818787.02	3519720.249	24677045.87
2005	90709514.35	12418047.71	32764175.43	3748379.224	32180528.97

2010	115031345.8	15764102.68	36522942.29	5118196.305	39098021.95

TABLE 4.21 Emphasis on Sectoral Distribution [Sectoral Dist. ^0.5] ((persons employed)*(Education^0.25)*(sectoral distribution(urban/(rural+urban))^0.5)*(Population (15-64 % of total/100)^0.25))

TABLE 4.31 Emphasis on Age (Age ^0.5)

	Indonesia	**Malaysia**	**Philippines**	**Singapore**	**Thailand**
1970	20,994,303.16	2,279,489.98	8,516,618.28	839,635.61	10,029,649.52
1975	27,573,099.48	3,031,772.34	11,379,973.25	1,151,258.26	10,798,775.08
1980	35,042,310.13	4,114,069.23	14,388,574.63	1,574,049.53	16,871,721.98
1985	46,109,289.25	5,188,277.98	17,444,662.60	1,751,497.16	19,693,972.63
1990	59,226,588.32	6,473,391.82	22,637,752.28	2,280,608.46	27,236,057.04
1995	71,222,296.70	8,166,898.36	26,816,856.45	2,614,341.62	28,730,296.01
2000	87,022,999.63	10,753,240.01	29,205,689.39	3,233,168.32	30,096,996.42
2005	99,044,318.74	12,367,109.98	34,827,514.01	3,460,363.47	37,627,472.21
2010	123,430,261.16	15,590,978.42	39,353,492.82	4,741,382.58	44,186,075.82

TABLE 4.31 Emphasis on Age [Age ^0.5] (persons employed)*(Education^0.25)*(sectoral distribution(urban/(rural+urban))^0.5)*(Population (15-64/100)^0.25))

To be precise with the results the researchers tried all the possible combinations from the exponents. We let our independent variables of Education, Age and Sectoral Distribution all go through the 0.25, 0.25 and 0.5 exponents and checked the results of each one. Table 4.11 shows the Human Capital Resource if Education is raised to 0.5 while Age and Sectoral Distribution are both raised to 0.25. Table 4.21 shows the effect of raising the Sectoral Distribution to 0.5 while both Education and Age are 0.25. For Table 4.31, Age was the one raised to 0.5 while the Education and Sectoral Distribution was raised to 0.25.

The results in tables 4.11, 4.21 and 4.31 shows the relationship of the independent variables of Education, Age and Sectoral Distribution to the Dependent Variable of Human Capital Invested in the Working Population. The results of the Tables were all positive with only Singapore lagging behind in the Human Capital Resource. The results of Indonesia, Malaysia, Philippines and Thailand all surpass that of Singapore across all the time periods from 1970-2010 but the results remain consistent increasing across time.

While the results of the Lucas Paradox in tables 4.12, 4.22 and 4.32 tells us otherwise. The Lucas Paradox Model shows us the Income per Effective Worker of the country and the researchers used the results from Tables 4.11, 4.21 and 4.31 to determine the outcome of the dependent variable of income per effective worker. We also remained consistent with the Cobb-Douglas Production Function and used 0.5 on both the Capital per Effective Worker and the Human Capital Investment on the Working Population but the results from the tables previously stated shows that the results from tables 4.12, 4.22 and 4.23 are inversely related with the results in tables 4.11, 4.21 and 4.31. It indicates that Singapore now exceeds the Income per Effective Worker of other selected ASEAN Countries.

	Indonesia	**Malaysia**	**Philippines**	**Singapore**	**Thailand**
1970	0.047450186	0.041160933	-	0.070239536	0.033971036
1975	0.191699071	0.10542432	0.07837081	0.11914941	0.046705223
1980	0.07799611	0.187770567	0.073928664	0.261666087	0.086030629
1985	0.108520317	0.138964686	0.058104584	0.204469729	0.086368573
1990	0.199991118	0.245989871	0.150936018	0.434985853	0.302597942
1995	0.41806439	0.351325132	0.251238096	0.516226233	0.20933146
2000	-	0.2570886	0.249924726	0.766383295	0.203070455
2005	0.378010954	0.291927588	0.214872667	0.697578829	0.396441046
2010	0.492633893	0.441038398	0.17669534	1.291047161	0.428664405

Table 4.12 Lucas Paradox Model or Income per Effective Worker (Income per Effective Worker = TFP*(Capital per effective worker(FDI/Labor Productivity*Person Employed)^0.5)*(Human Capital Stock Model^0.5))

Table 4.22 (TFP*(Capital per effective worker(FDI/Labor Productivity*Person

	Indonesia	**Malaysia**	**Philippines**	**Singapore**	**Thailand**
1970	0.03338916	0.030000953	-	0.057158552	0.024896556
1975	0.135017056	0.076653754	0.055664462	0.097267085	0.034003284
1980	0.054972245	0.135374763	0.052047851	0.212629845	0.062088911
1985	0.07748985	0.099357716	0.04132128	0.163543102	0.061684829
1990	0.144228291	0.176872477	0.107945354	0.343194922	0.21317485
1995	0.303959154	0.250299034	0.178136297	0.398189413	0.145688905
2000	-	0.183776998	0.17616378	0.58112344	0.141495077
2005	0.271905167	0.20883444	0.150189215	0.531310261	0.274847665
2010	0.350461147	0.31512206	0.122589979	0.958768805	0.298420926

Employed)^0.5)*(Human Capital Stock Model^0.5))

	Indonesia	**Malaysia**	**Philippines**	**Singapore**	**Thailand**
1970	0.038510475	0.031697005	-	0.053381847	0.027936894
1975	0.153532564	0.080205004	0.058429243	0.091819038	0.037677065
1980	0.061653575	0.140754557	0.054437748	0.202706324	0.068206499
1985	0.085502742	0.102314993	0.042604209	0.156531481	0.067989342
1990	0.156831955	0.180774862	0.109858629	0.329924828	0.235498921
1995	0.325367661	0.252951348	0.181902001	0.381773618	0.161006098
2000	-	0.184095422	0.180501684	0.556965734	0.15626306
2005	0.284122629	0.20840569	0.154846132	0.510490074	0.297199439
2010	0.363030072	0.313386919	0.127251741	0.922800723	0.317244862

Table 4.32 (TFP*(Capital per effective worker(FDI/Labor Productivity*Person Employed)^0.5)*(Human Capital Stock Model^0.5))

Resource Curse was presented from the tables 4.11, 4.21 and 4.31. The countries of Indonesia, Malaysia, Philippines and Thailand are all resource-rich countries based on the stated tables. They are rich in human capital resource and all far exceeds that of Singapore but as we refer to Tables 4.12, 4.22 and 4.32 we show that those countries that are resource rich have a far lower income than that of a low resource country such as that of Singapore. We then divulge into the Lucas Paradox, in tables 4.11, 4.21 and 4.31 the researchers show to us that Indonesia, Malaysia, Philippines and Thailand are all resource rich countries. In the present, these countries are all classified as developing countries. From the previously stated tables, the expected results were that these resource rich countries would all have a high income per effective worker since these countries already have the advantage in the Human Capital Invested in the Working Population or Human Capital Stock Variable. But the results in Tables 4.12, 4.22 and 4.32 show that the countries of Indonesia, Malaysia, Philippines and Thailand are overtaken by Singapore who had a very low Human Capital Stock Value. We now then look at the other independent variable of Capital per Effective Worker and the Intercept Variable of TFP. The researchers assumes for either of these two to be the basis behind the significant change in the results and in the Lucas Paradox Model.

	Philippines	Singapore	Indonesia	Malaysia	Thailand
1970	0.4767	0.922	0.3561	0.4791	0.4155
1975	0.6572	0.961	0.4946	0.6515	0.4383
1980	0.6309	1.0809	0.5594	0.7484	0.5146
1985	0.4525	0.9978	0.5599	0.6364	0.5892
1990	0.5024	0.9687	0.5682	0.6122	0.5528
1995	0.4951	0.8798	0.6452	0.6408	0.5033
2000	0.4147	1.1614	0.3902	0.5661	0.379
2005	0.4006	1.0736	0.3976	0.6476	0.4785
2010	0.4175	1.1182	0.4071	0.6482	0.4844

TABLE 4.4 TFP level at current PPPs (USA=1) (Penn World Table 8.1)

	Indonesia	Malaysia	Philippines	Singapore	Thailand
1970	5.57073E-10	1.9202E-09	-8.388E-12	3.9924E-09	4.51E-10
1975	3.49468E-09	4.99894E-09	6.94583E-10	7.9295E-09	6.84E-10
1980	3.4664E-10	8.59777E-09	5.17442E-10	2.23432E-08	1.04E-09
1985	5.05767E-10	4.9819E-09	5.08166E-10	1.4051E-08	6.76E-10
1990	1.28632E-09	1.34697E-08	2.1122E-09	5.08628E-08	6.66E-09
1995	3.57062E-09	1.90797E-08	5.03363E-09	7.20247E-08	3.56E-09
2000	-3.54538E-09	9.83468E-09	6.48675E-09	7.1132E-08	5.65E-09
2005	5.15572E-09	8.37408E-09	4.28999E-09	6.53383E-08	1.03E-08
2010	6.4426E-09	1.49924E-08	2.36065E-09	1.43639E-07	9.71E-09

TABLE 4.5 Capital per Effective Worker (Calculated to from FDI/(Working Population*Labor Productivity))

The values from Table 4.4 indicates the Total Factor Productivity which is an intercept variable in the Lucas Paradox Model. Based on Table 4.4, Singapore, a developed and resource-scarce country has a higher Total Factor Productivity than those of the developing and resource-rich countries such as Philippines, Indonesia, Malaysia and Thailand. The values in the column of Singapore are already far above those of the other countries in the final year of 2010, having a significant lead in the values against the rest of the selected ASEAN countries. The researchers could also see in the said table that there is a great difference between the data of the former and latter countries.

As stated in the previous chapters the Lucas Paradox is the phenomenon that happens when capital doesn't flow from developed countries to developing countries. From Table 4.5 we could observe that the values of Singapore, which is a developed country far surpasses that of Indonesia, Malaysia, Philippines and Thailand which already shows us the disparity between the capitals of the developed to the developing countries. Also, the results of the data from Tables 4.11, 4.21, 4.31, 4.4 and 4.5 show the results in Tables 4.12, 4.22 and 4.32. The Income per Effective Worker of Singapore overtakes that of the others through the Intercept Variable of Total Factor Productivity and the Independent Variable Capital per Effective Worker thus proving that the Lucas Paradox exists in the ASEAN Countries.

5. CONCLUSION AND RECOMMENDATION

The aim of this research is to determine whether Lucas Paradox and the Resource Curse exist in the 5 ASEAN countries namely, Philippines, Singapore, Indonesia, Malaysia and Thailand. The researchers found out that Lucas Paradox and Resource Curse is present in the 5 ASEAN countries. The lack of investments in human capital discourages capital to flow from developed to developing countries which results to slow economic growth.

Solow (1956) and Lucas (1990) stated that investment in capital per effective worker increases income per effective worker but based on the results, the researchers found out the statement to be true but is lacking in the selected developing ASEAN countries capital per effective worker income per effective worker. On the other hand, the researchers confirmed that investments in Human Capital increases income per effective worker as previously said by Lucas (1990) and Solow (1956). This paper also supports the existing studies of Baladicci et al. (2008), Krueger (1968), Shao and Yang (2014) which says that an increase in education directly affects human capital stock. The researchers also proved that age is positively related to human capital as different age groups increase human capital similar to the statements of Frougere et al. (2009), Crespo et al. (2009) Groujon et al. (2008) Lutz & KC (2011) Philpove (2014). Krueger (1968) and Sachs and Warner (1997) stated that human capital stock depends upon the distribution of the population between urban and rural sectors and this holds true in this research.

Based on the results of this research, the researchers recommend that developing countries such as Philippines, Indonesia, Malaysia and Thailand should make ways to entice and encourage capital investments to flow from the developed countries such as Singapore. Developing countries with high resources have the potential to surpass developed countries that have fewer resources. These developing countries need intuitive policies so that capital investments from both local and foreign would flow into the country in order for them to take advantage of the high resource that it has so that they would be able to bolster themselves from a developing country to become a developed one.

Moreover, the government should make policies that would enable the economies of these resource-rich developing countries to fully utilize their resources while also being able to replenish used resources so that these countries would be able to sustain themselves and would not need to import goods but export surplus goods. In addition, maybe with the effective use of the investments the developing countries not only of the ASEAN but also of the world would be able to sustain itself and reduce the need for imports.

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APPENDIX

	Philippines	Singapore	Indonesia	Malaysia	Thailand
1970	51.01738	57.87607	53.46209	51.94138	52.50835
1975	52.40585	63.0572	54.00508	54.09191	53.98329
1980	53.67721	68.22517	55.33363	57.42514	56.81757
1985	54.97469	70.42968	57.32436	58.02938	61.19682
1990	55.92277	72.9446	59.78154	59.29244	65.27177
1995	57.08706	71.40517	62.18586	60.58766	67.3636
2000	58.25739	71.20011	64.60457	62.84131	69.45845
2005	59.49861	72.62946	65.29344	65.50805	70.13104
2010	61.00096	73.64652	66.18067	67.84787	71.90584

*Table 4.1 Population ages 15-64 (% of total) (World Bank)*
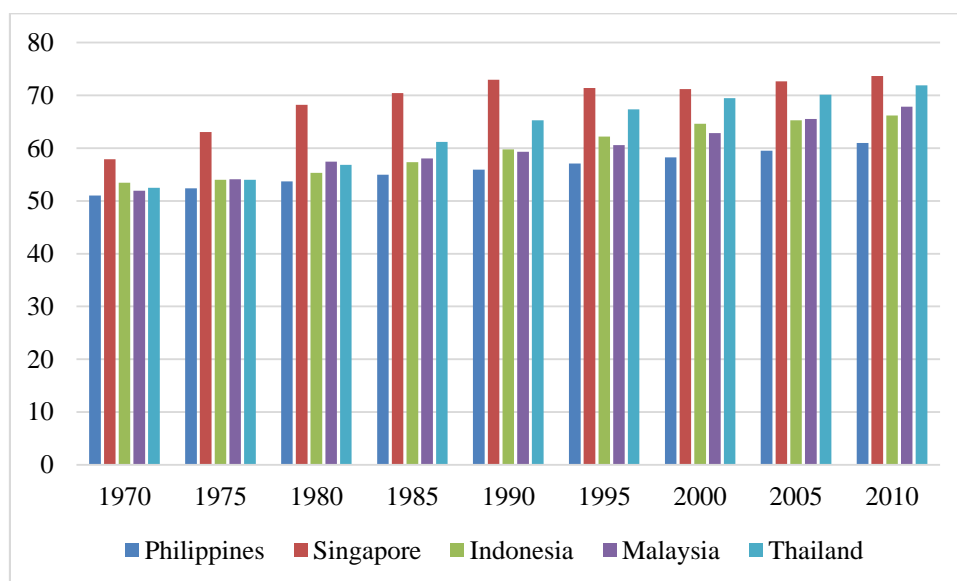
Graph 4.1 Population ages 15-64 (% of total) (World Bank)

	Philippines	Singapore	Indonesia	Malaysia	Thailand
1970	4.71	5.20	2.84	4.20	2.51
1975	5.49	5.07	3.19	4.82	3.01
1980	6.21	5.26	3.63	5.76	3.64
1985	6.58	5.97	3.86	6.72	4.15
1990	7.10	6.66	4.18	6.97	4.85
1995	7.56	7.98	4.62	8.39	5.50
2000	7.87	9.15	5.15	9.09	5.65
2005	8.18	8.83	6.42	6.41	9.71
2010	8.43	10.81	7.15	7.61	10.44

Table 4.2 Education (Barro- Lee Database)
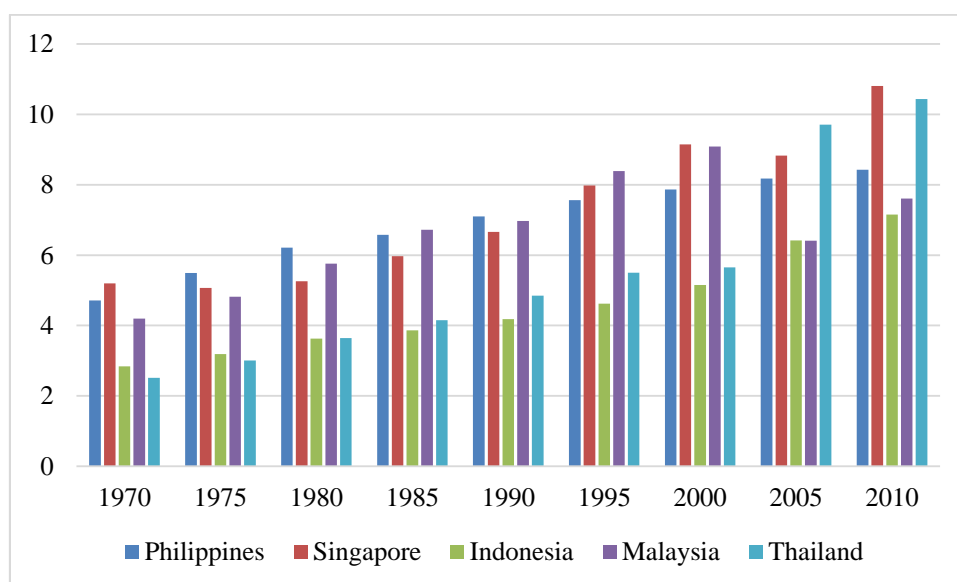
GRAPH 4.2 Education (Barro- Lee Database)

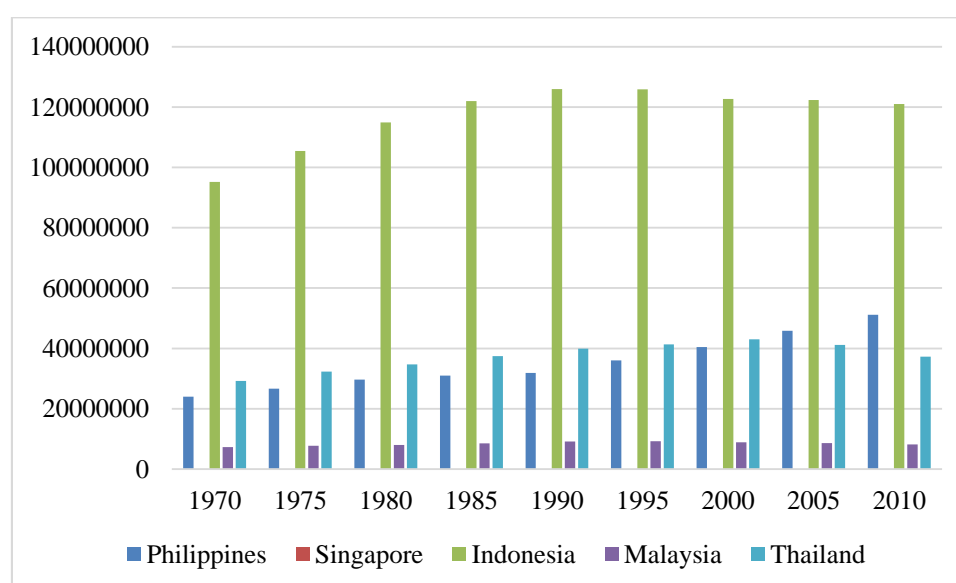|	Philippines	Singapore	Indonesia	Malaysia	Thailand
1970	11808151	2074500	19603445	3649374	7704890
1975	14684963	2262600	25251978	4635632	10057938
1980	17765406	2413900	32601271	5816257	12695002
1985	23384719	2736000	43050032	7234729	14621050
1990	30100867	3047100	55490637	9068034	16648930
1995	33612998	3524500	71054512	11541546	17943401
2000	37237944	4027900	88851211	14515479	19680061
2005	39995260	4265800	103934623	17178671	24712163
2010	42288228	5076700	120622937	19940100	29397844

Table 4.3a Urban Population (World Bank)
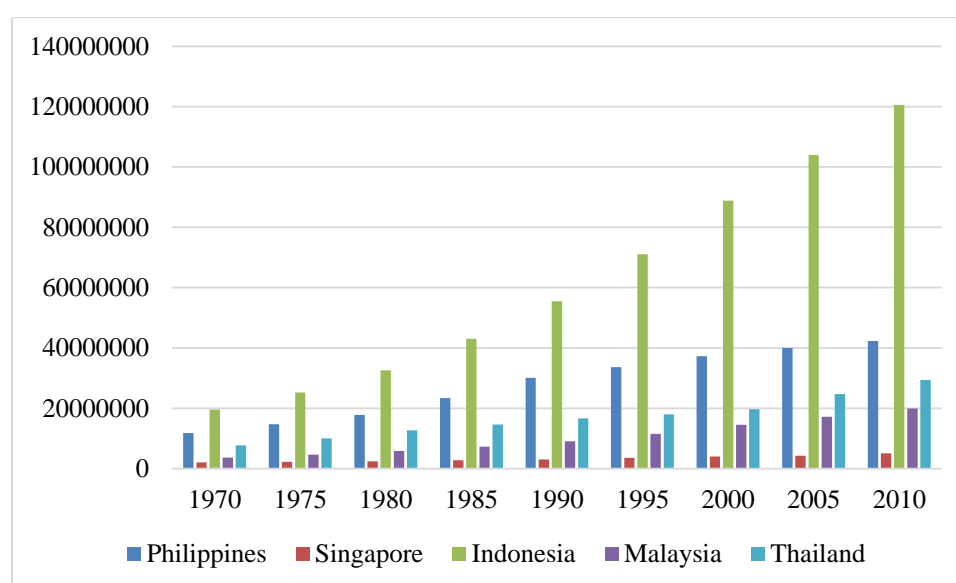
Graph 4.3a Urban Population (World Bank)

	Philippines	Singapore	Indonesia	Malaysia	Thailand
1970	23996909	0	95231336	7259260	29180024
1975	26611332	0	105472140	7676150	32277016
1980	29633026	0	114889095	8017482	34690323
1985	30940233	0	121962163	8529611	37420418
1990	31847821	0	125946184	9143063	39933894
1995	35993541	0	125903333	9183828	41322688
2000	40413904	0	122689217	8905272	43013261
2005	45825954	0	122320080	8617453	41151810
2010	51156094	0	120990189	8179400	37294180

Table 4.3b Rural Population (World Bank)

Graph 4.3b Rural Population (World Bank)

	Indonesia	**Malaysia**	**Philippines**	**Singapore**	**Thailand**
1970	0.170709996	0.334539962	0.329790007	1	0.20889
1975	0.193170001	0.376519987	0.355600012	1	0.23758
1980	0.221040003	0.420439984	0.374809994	1	0.26791
1985	0.260890003	0.458930028	0.430460003	1	0.28095
1990	0.305839998	0.49794002	0.485899992	1	0.29424
1995	0.360759999	0.556879987	0.482900005	1	0.30276
2000	0.420020002	0.619770007	0.479550004	1	0.31391
2005	0.45937	0.665940007	0.466029996	1	0.3752
2010	0.49924	0.709120006	0.452550001	1	0.4408

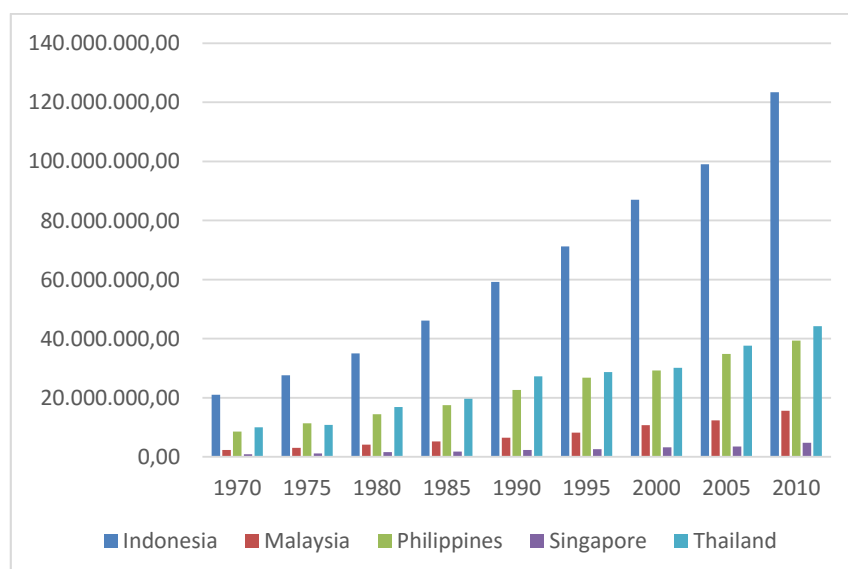*Table 4.3c Sectoral Distribution [Urban/(Urban+Rural)] (World Bank)*
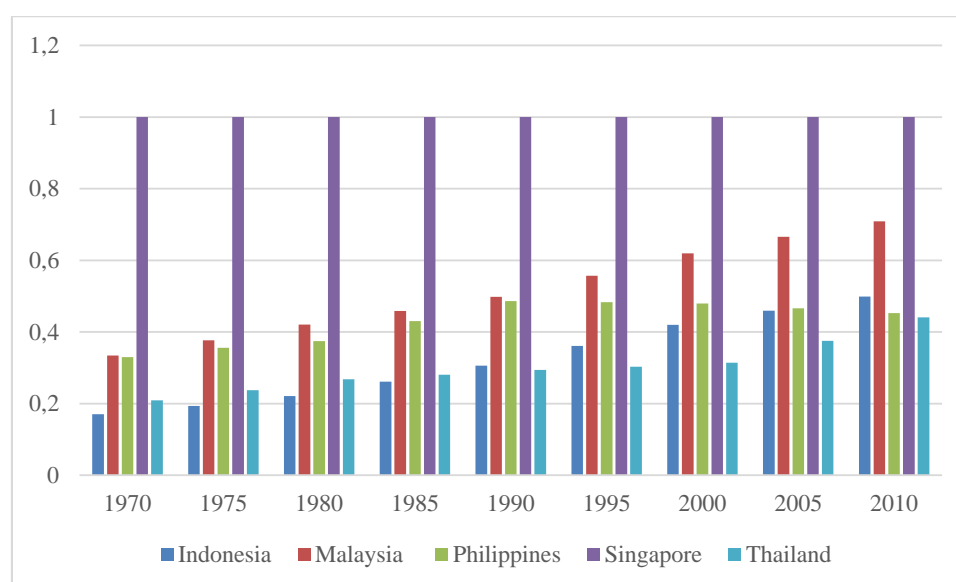
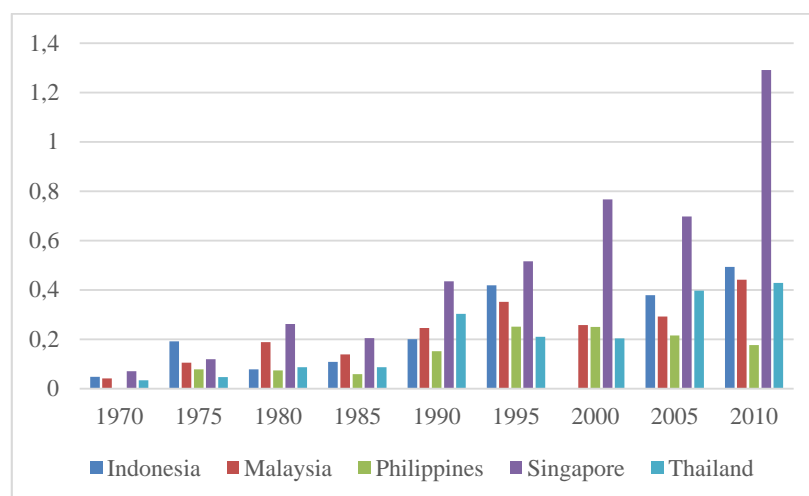*Table 4.3c Sectoral Distribution [Urban/(Urban+Rural)] (World Bank)*
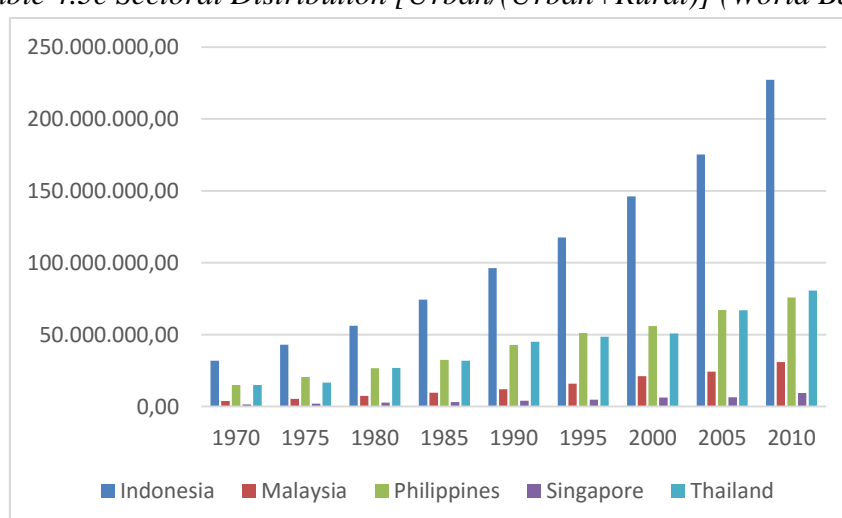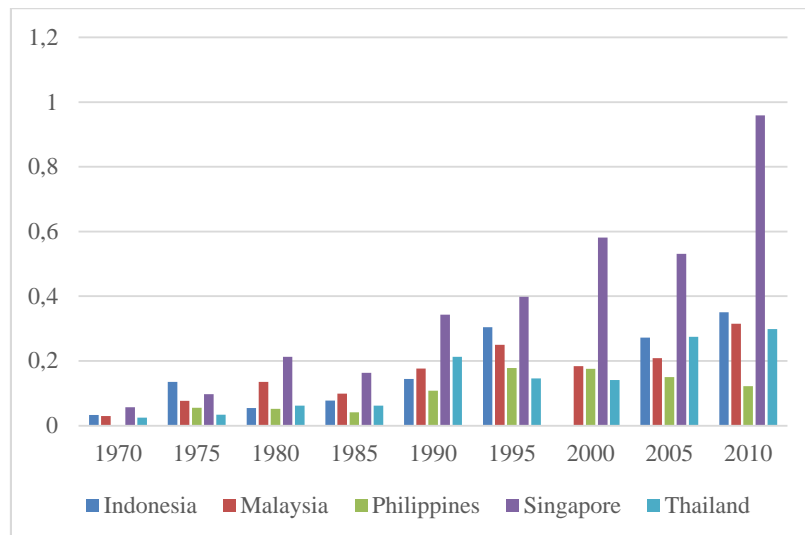

Graph 4.11 Human Capital Invested on the Working Population
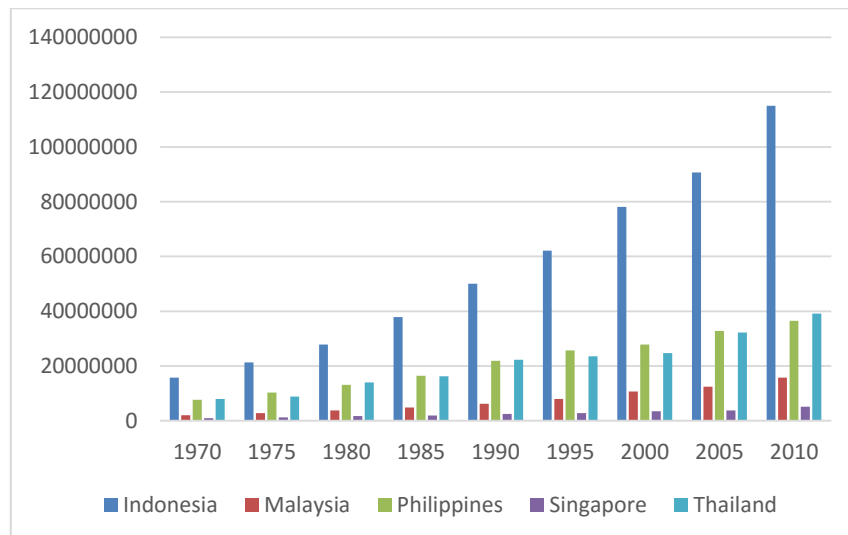
Graph 4.21 Emphasis on Sectoral Distribution (Sectoral Distribution^0.5)

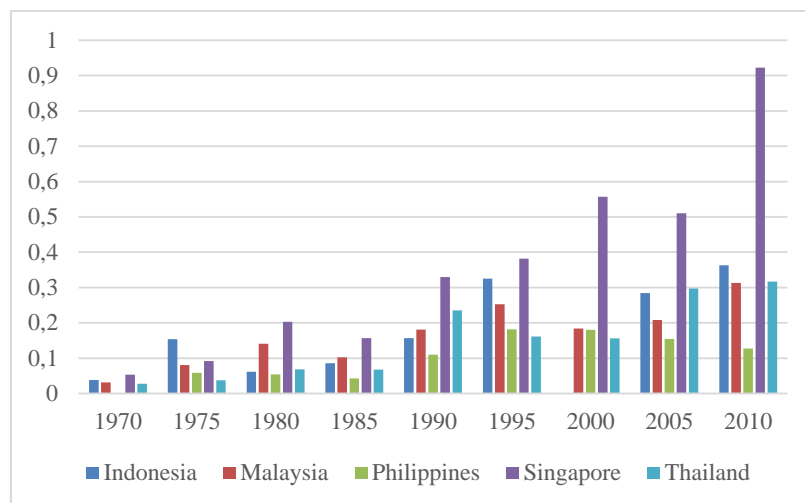
Graph 4.21 Emphasis on Sectoral Distribution (Sectoral Distribution^0.5)

Graph 4.12

198

Graph 4.22

Graph 4.32

12th International Scientific Conference on Economic and Social Development