

ROMANIAN ECONOMIC AND BUSINESS REVIEW

EDITOR

Bogdan Glăvan
Romanian American University

ASSOCIATE EDITORS

Lucian Botea
Flavia Anghel
Luminița Tulească
Iuliu Ivănescu
Romanian American University

EDITORIAL BOARD

Moisă Altăr, *Romanian American University*
Florin Bonciu, *Romanian American University*
Mohamed Latib, *DeSales University*
Galen Godbey, *DeSales University*
Anthony Evans, *European Business School*
Andras Inotai, *Institute of World Economy, Hungary Academy of Science*
Gheorghe Lepădatu, *Dimitrie Cantemir University*
Mihai Aristotel Ungureanu, *Romanian American University*
Ion Stancu, *Academy of Economic Studies*
Constantin Floricel, *Romanian American University*
George Ionescu, *Romanian American University*
Nikolay Gertchev, *European Commission*
Marcel Moldoveanu, *Institute of World Economy, Romanian Academy of Sciences*
Alex Sharland, *Barry University*
Ion Pohoacă, *Alexandru Ioan Cuza University*
Theodor Purcărea, *Romanian American University*
Nicolae Idu, *European Institute of Romania*
Cosmin Marinescu, *Academy of Economic Studies*
Ovidiu Folcuț, *Romanian American University*
Josef Sima, *University of Prague*
Laurențiu Anghel, *Academy of Economic Studies*
Ilie Vasile, *Academy of Economic Studies*
Klodiana Gorica, *University of Tirana*
Pacha Malyadri, *Osmania University*
Andreea Budacia, *Romanian American University*

Statement of Purpose

The *Romanian Economic and Business Review* (ISSN 1842-2497) intends to provide a forum for academic analysis of the economic phenomena and institutions affecting the world economy in general, and Romania, in particular. *REBE* examines a wide

variety of phenomena related to economic growth and business development and attempts to publish high quality research focusing on the role of institutions and public policy, within both a national and international context. *REBE* encourages cross-disciplinary research work of Romanian and foreign scholars.

Indexed and/or Abstracted in:

EBSCO; EconLit; ProQuest; DOAJ; Index Copernicus; RePec

Author Information

The ROMANIAN ECONOMIC AND BUSINESS REVIEW (*REBE*) is a refereed journal published four times annually by the Romanian-American University. The editors invite submissions of articles that deal with important issues in economy and business. Papers that focus on specific phenomena and events affecting Romanian economy are particularly encouraged. Because *REBE* seeks a broad audience, papers should be comprehensible beyond narrow disciplinary bounds.

Manuscripts should not exceed 8,000 words and must conform to the *REBE*'s style requirements, which are guided by The Chicago Manual of Style (14th edition). All submissions must include a cover sheet explaining the scope of the article, and including the authors' names and affiliations, telephone and e-mail address. The text should be single-spaced. References are cited with parentheses using the author/date/page style. *Example:* (Marcus, 2005, p. 74). Authors should use footnotes, not endnotes to add only short comments. Bibliography should include only references cited in the text, in the alphabetical order of authors. An abstract of no more than 200 words should be included.

Submission of a paper implies that the paper will not be submitted for publication to another journal unless rejected by the *REBE* editor or withdrawn by the author, and that it is an original work. All submissions should be sent to the journal Editor:

Dr. Bogdan Glăvan
Romanian-American University
Bulevardul Expoziției nr. 1B
București

E-mail: bogdan.n.glavan@gmail.com

Subscription rates:
Institutions - \$100/year
Individuals - \$30/year

ROMANIAN ECONOMIC AND BUSINESS REVIEW

SPRING 2016

VOLUME 11

NUMBER 1



ISSN 1842 – 2497

ROMANIAN ECONOMIC AND BUSINESS REVIEW

CONTENTS

SANDIP SARKER, ARIFUZZAMAN KHAN, REZWAN MAHMOOD	<i>DOMESTIC CREDIT, SCHOOL ENROLLMENT & HI-TECH EXPORTS IN BANGLADESH</i>	7
MARIO BOGDANOVIĆ	<i>MANIPULATION OF HUMAN MIND AS DOMINANT STRATEGY IN ACHIEVING TAX COMPLIANCE</i>	24
ALIREZA KHORAKIAN, YAGHOOB MAHARATI, ELAHE NASERINEJAD	<i>A COMPARISON OF THE IMPACTS OF MANAGERIAL FLEXIBILITY AND FIT OF REQUIRED FLEXIBILITY ON CUSTOMER SATISFACTION: BANKS AND FINANCIAL INSTITUTES</i>	51
SEKEN MACHMUD, IWAN SIDHARTA	<i>THE ROLE OF PUBLIC PRIVATE PARTNERSHIP IN WEST JAVA, INDONESIA</i>	67

Domestic Credit, School Enrollment & Hi-Tech Exports in Bangladesh

Sandip SARKER¹
Arifuzzaman KHAN²
Rezwan MAHMOOD³

Abstract

This paper examines the relationship among hi-tech exports, school enrollment (tertiary) and domestic credit to private sector in Bangladesh through co-integration and vector error correction model (VECM) over the period 1989 to 2014. Given the high sustainability of hi-tech exports we want to examine whether increase in domestic credit to private sector as well as increase in school enrollment (tertiary) affects hi-tech exports in Bangladesh in the long run or not. The Johansen co-integration tests indicate that all the variables are co-integrated with two co-integrating vector. The VECM long run causality model indicates that there is a long run causality running from school enrollment tertiary and domestic credit to private sector to Hi-Tech exports in Bangladesh. However in the short run no causal relationships have been found among the variables. The implication of our findings is that in Bangladesh if we provide a good education to our people and then provide credit facilities to them, it is very likely that our Hi-Tech exports volume will be increased in the long run. This result can also provide important policy suggestion to the policy makers who are working for sustainable development in the area of exporting items in Bangladesh.

Key words: Hi-Tech exports, Credit, school enrollment, Bangladesh, sustainable development, VECM.

JEL Classification: C22, F14, E51, I23.

¹ Independent Researcher & Banking Professional, Email: sandip0735@gmail.com

² Central Banker, Email: arif.ku.business@gmail.com

³ Banking Professional, Email: rez.mahmood@gmail.com

* * *

This paper was presented by Mr. Sandip Sarker at 2nd International Conference on South Asian Economic Development, organized by Faculty of Economics, South Asian University, New Delhi, India on February 18-19, 2016.

1. Background of the Study:

Bangladesh is gaining prominence as one of the emerging economies in south Asia with a growth rate of 6% over the course of the last six years. One of the key items in total aggregated output is export, with a contribution of almost 19.80% of GDP in the fiscal year 2014-15. From the various commodities such as fish and shrimp, jute goods, leather, raw jute, the readymade garments sector was the highest contributor towards increased exports in Bangladesh. Thus the top exporting item of Bangladesh is readymade garments. Bangladesh takes pride in this sector that has been earning billions of dollars as export earnings and creating jobs for millions of people in the country. However, whether readymade garments exporting will be sustainable or not remains in question. The garments industry has a competitive edge of being a labor intensive industry. Due to its cheap labor, Bangladesh has been an attractive market for both EU and USA. However as the country develops the price of labor will increase alongside. So the question arises as to whether buyers will still be attracted to Bangladesh as labor price increases. It is probable that buyers will move towards other cheaper labor countries. Therefore Bangladesh needs to focus on more sustainable export oriented items. In this regard, hi-technology exports can be more sustainable. Sustainable economic growth means a rate of growth which can be maintained without creating other significant economic problems, especially for future generations. Bangladesh has made rapid progress in the technological sector over the past few years. The value of high technology exports as a percentage of manufacturing exports is also an upward trend. Having high technology sectors and competency in exporting high value added, high technology products are considered as one of these important factors for an economy (Gökmen & Turen, 2013). High technology competency is considered as one of the powerful forces of economic development, particularly in those countries that are involved in export-led growth strategies (Hobday, 2001). The key goals of today's rapidly growing countries that are trying to compete in new and high technology segments of

industries are increasing the share of high technology products and enhancing productivity. (Sara et al., 2012). Statistics show that high-tech manufacturing has been the fastest growing area of world trade and now accounts for over one fifth of total trade (UNDP, 2001). In the future, high technology industries will be the primary source of wealth generation, as opposed to the resource, labor and capital-intensive industries that dominated the twentieth century (Reich, 1991). Many countries have now embarked on technology-based development. New Silicon Valleys have begun to sprout in many parts of the world. A major factor contributing to technological advancement across several nations is investment in R&D and human capital formation (Gani, 2009). Credit also plays a vital role in international trade. Feenstra, Lu, and Yi (2011) showed that credit constraints reduce exports on the extensive margin, a result supported by data on Chinese firms. Firms are more likely to be exporting or importing if they enjoy lower credit constraints. Similarly education plays a crucial role for the development of a nation. According to (Psacharopoulos, 1994), investment in higher education generally provides a higher return in the form of innovation and development. Previous studies on hi-tech exports did not find any relationship among school enrollment & domestic credit to private sector and hi-tech exports. Therefore our study has attempted to identify the relationship among school enrollment tertiary, domestic credit to private sector and hi-tech exports in Bangladesh using Vector Error Correction Model. The rationale behind this study is whether our high-tech exports volume increases as the percentage of domestic credit to private sector and school enrollment tertiary increases. The finding of this study is that it will provide a direction to the policymakers regarding our hi-tech exports issue.

2. Literature Review:

High technology is often used to refer to firms and industries whose products or services embody advanced and innovative technologies. Such firms have in common a dependence on advanced scientific and technological expertise and are often identified by high research and development expenditures (Keeble & Wilkinson, 2000). High technology exports are products with high research and development intensity such as computers, pharmaceuticals, scientific instruments, electrical machinery, consumer electronics, software, transportation electronics and military and civil aerospace products. Information technology (IT) goods such as electronic data processing

equipment, software, electronic components and telecommunications equipment are also part of the high technology products (WDI, 2015). The world trade has increasingly becoming a trade in hi-tech products. Share of developing countries in hi-tech exports have also shown a dramatic progress; 8% in 1983 to near about 23% in 1997 (Mani, 2000). High technology exports volume is known as one of the final products for commercialization of national innovation capability (Furman et al., 2002). Several studies have identified positive relationship between hi-tech exports and other economics performance (Zhang, 2007; Falk, 2009). Most of the previous studies have emphasised R & D expenditure as well as foreign direct investment to increase the share of hi-tech exports. (Gökmen & Turen, 2013). (Sara et al., 2012) studied over the relationship between innovative capability of a country and share of high-technology products in its exports of manufactured goods. They believe that innovative capability is an important factor in a country's ability to design, produce and export high technology products. Belay, (2005) studied over the determinants of levels of high technology exports on a sample of 55 developed and developing countries. He found that inward foreign direct investment has a significant and positive effect on high technology exports. Additionally national technological infrastructure contributes to enhance high technology exports. (Gökmen & Turen, 2013) stressed the importance of technology transfer to have more hi-tech export volume. Therefore more foreign direct investment is necessary. They believe Capability to manufacture and export high technology products in today's competitive global markets basically is an indication of innovation power of a country. Tebaldi (2011) in his panel data study explored that human capital, FDI inflows, and trade openness have a positive and significant impact on high-tech exports. Gani (2009) explored that high technology exports have been a determining factor in per capita economic growth in countries with higher levels of technological achievement. Similarly, Connolly (2003) provides empirical evidence that high technology goods imports from developed countries not only positively affects domestic innovation, but also leads to increased GDP growth as higher quality capital goods are used in domestic production. Salmon and Shaver (2005) have shown that exporting is associated with innovation, as exporters are more likely to access diverse knowledge about competing products and customer preferences through export intermediaries, customer feedback and other foreign agents, thus facilitating innovation. In "The Global Competitiveness Report 2008-2009" the

World Economic Forum concluded that in the long-run a country's competitive standing can only be expanded with technological innovation (Sala-I-Martin et al., 2008). Further Porter (1990) mentioned that in the long run, a nation's higher order competitive advantage can be built only with innovation. A nation's firms must use technical innovation to develop cutting-edge products and processes. In the study of (Levy, 1998; Keeble and Wilkinson, 2000) the role of universities is also mentioned as an important source of knowledge and spillovers to innovative activity of small and medium-sized firms, thus triggering steady growth in the development of high technology.

Most of the previous studies represent important first steps in explaining the factors that affect hi-tech exports. However there is a need for an in-depth examination of important other relevant factors that influence high technology exports to address any policy implications. We add value to the existing literature of exports by adding other variables such as domestic credit to private sector and school enrollment tertiary.

3. Data, Model & Methodology:

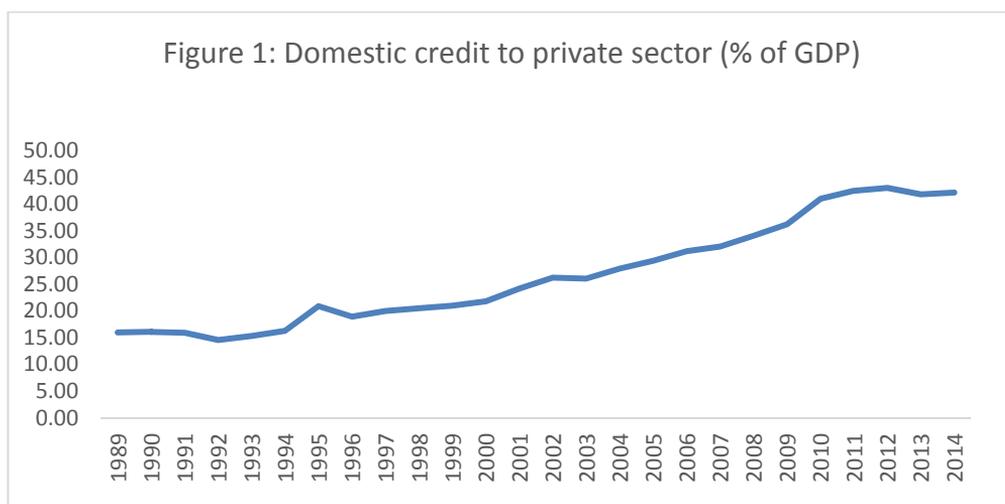
3.1 Data:

'Table 1' presents descriptive statistics for the variables employed in the study. 'Figure 1, 2 & 3' presents the time series of each of the variables in graphical form. In this study our dependent variable is Hi-Tech exports and independent variables are domestic credit in private sector and school enrollment (tertiary). Here a hi-tech export is measured as percentage of total manufacturing exports. High-technology exports are products with high R&D intensity, such as in aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery. On the other hand domestic credit to private sector is measured as percentage of GDP. Domestic credit to private sector refers to financial resources provided to the private sector by financial corporations, such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable, that establish a claim for repayment. Finally school enrollment tertiary is measured as percentage of gross. The total enrollment in tertiary education regardless of age, expressed as a percentage of the total population of the five-year age group following on from secondary school leaving. Data has been collected from world development indicators of World Bank data sheet from 1989 to 2014.

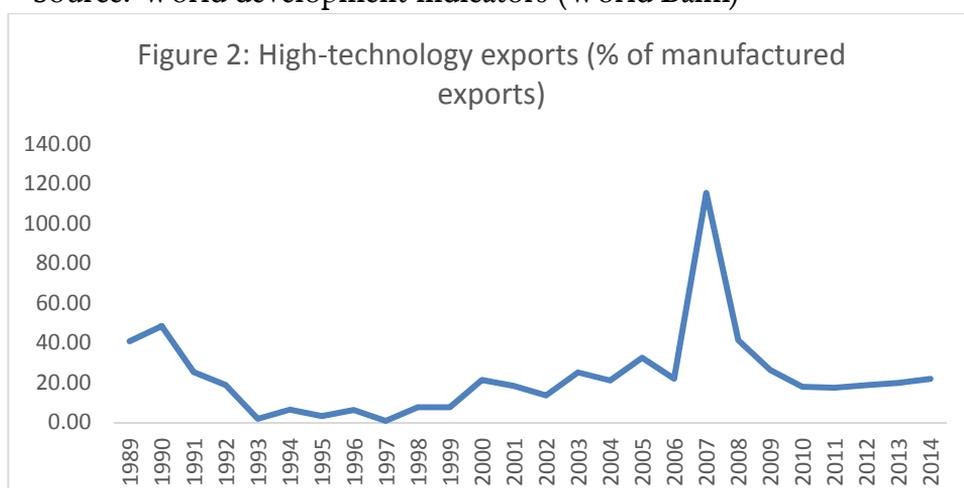
Table 1: Descriptive Statistics

Variables	Mean	Median	Skewness	Kurtosis
Hi-Tech Exports	23.05	19.31	2.966662	11.60174
Domestic credit	26.72	25.11	0.474892	-1.14169
School Enrollment	6.72	5.9	0.876538	-0.43939

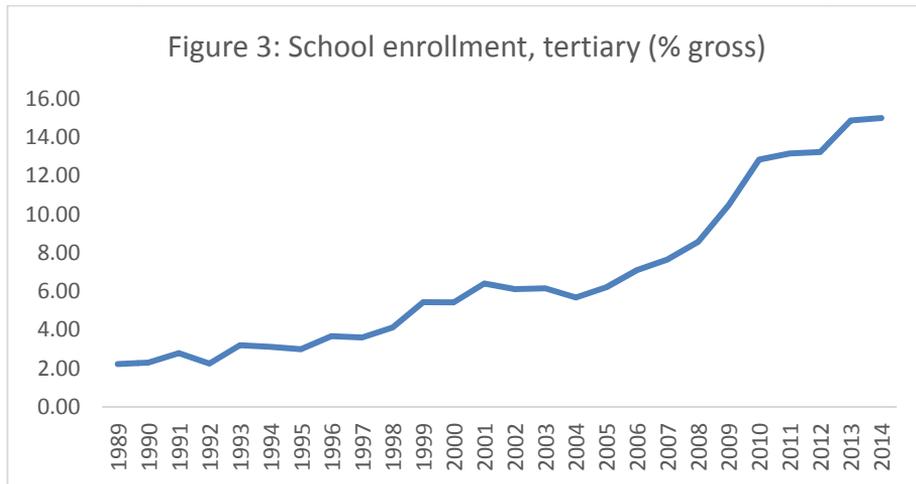
Source: Author's calculation from World Bank data



Source: World development indicators (World Bank)



Source: World development indicators (World Bank)



Source: World development indicators (World Bank)

3.2 Econometric Modeling Strategy:

The econometric modeling strategy proceeds in several steps, consistent with previous studies. The unit root test is carried out to check the stationarity of the variables as financial and macro variables are well known for their non stationarity. The Augmented Dickey Fuller (ADF) test is then carried out to detect the existence of unit root and as a result of which, some of the variables are found to be non-stationary and thus could not be regressed unless made stationary. The null hypothesis for the ADF unit root test is that the variable has a unit root against the alternative of stationarity. We performed the ADF tests based on the following model:

$$\Delta y_t = \alpha + \beta t + \gamma y_{t-1} + \delta_1 \Delta y_{t-1} + \dots + \delta_{p-1} \Delta y_{t-p+1} + \epsilon_t,$$

Moreover Phillips-Perron Test has also been employed to verify the unit root test result along with ADF unit root test.

Therefore, the cointegration test is run to find out possible linear combinations of the variables which could be considered stationary. To test for cointegration we use the maximum likelihood test developed by Johansen and Juselius (1990). We use the AIC to determine lag length. Johansen and Juselius multivariate cointegration equation is given below:

$$\Delta \mathbf{X}_t = \sum_{i=1}^p \Gamma_i \Delta \mathbf{X}_{t-i} + \Pi \mathbf{X}_{t-1} + \Omega_t$$

Once the variables are found to be cointegrated, then Vector Error Correction model (VECM) can be employed to identify the long run and short run causality running from our variables. The long-run multivariate models are as follows:

$$\mathbf{Y}_t = \alpha + \beta_1 \text{DC}_t + \beta_2 \text{SE}_t + \mathbf{u}_t$$

Where Y_t = hi-tech exports, DC_t = Domestic credit to private sector, SE_t = School enrollment tertiary, u_t = error terms

If there is a long run relationship between the series, shocks will result in disequilibrium in the short-run before the series return to their long-run equilibrium. The short run model corresponding is as follows:

$$\Delta HTE_t = \sum \beta_i \Delta HTE_{t-i} + \sum \alpha_i \Delta DCP_{t-i} + \sum \alpha_i \Delta SE_{t-1} + \epsilon_{it}$$

Where, HTE = High-Tech exports, DCP = Domestic credit to private sector & SE = school enrollment

4. Results:

Initially, we opted for ADF test to check the datasets and we observed that the datasets were non-stationary at level. However, in first difference, we found both the series become stationary ('Table 2'). So it became possible for us to investigate the existence of a long-run relationship within a Johansen cointegration testing framework.

Table 2: Augmented Dickey-Fuller Unit Root Test

Variables	Level	First Difference
	t-statistic	t-statistic
Hi-Tech Exports	-3.495623	-7.384751
Domestic credit	-2.512380	-4.538845
School Enrollment	-1.130041	-4.787454

Phillips-Perron Unit Root Test result (table 3) also suggest that all the variables are non-stationary at their level. However they become stationary in their first difference.

Table 3: Phillips-Perron Unit Root Test

Variables	Level	First Difference
	t-statistic	t-statistic
Hi-Tech Exports	-3.439821	-7.897339
Domestic credit	-2.512380	-4.538845
School Enrollment	-1.130041	-4.787454

In Johansen's method, both the Eigen value statistics and Trace statistics can be used to determine whether variables are cointegrated or not. To trace out the presence of cointegration, we could rely on both Trace statistics and Eigen value. From the Trace statistics (table 4), it was found that all variables have been cointegrated at 5% level where the null hypothesis is rejected indicating long-term association between the variables. Further Maximum Eigenvalue statistics indicates that there is at least one cointegrating equation. As all variables are cointegrated, we can run VECM model.

Table 4: Johansen Cointegration Test Result

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.758464	44.62220	29.79707	0.0005
At most 1 *	0.423199	16.20745	15.49471	0.0890
At most 2 *	0.229036	5.202280	3.841466	0.0225

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.758464	28.41475	21.13162	0.0040
At most 1	0.423199	11.00517	14.26460	0.1540
At most 2 *	0.229036	5.202280	3.841466	0.0225

'Table 5' portrays the method for lag selection model. Here we used VAR lag order selection criteria to determine the number of lag in our model. We used Akaike information criterion (AIC) to select the number of lag. The rule is lower the AIC better the model. Therefore we have selected lag 1.

Table 5: Lag selection model

Lag	LogL	LR	FPE	AIC	SC	HQ
1	-152.3307	NA	2051.405*	16.13307*	16.58115*	16.22054*
2	-150.8674	2.048592	4583.542	16.88674	17.78290	17.06168
3	-138.2856	13.83997	3726.155	16.52856	17.87280	16.79097
4	-133.8435	3.553684	8346.545	16.98435	18.77667	17.33423
5	-119.4087	7.217413	10561.47	16.44087	18.68127	16.87822

„Table 6’ shows the VECM long run causality model. Here C (1) represents the speed of the adjustments towards long run equilibrium. We see that our C (1) is negative and is also significant which indicates that there is long run causality running from domestic credit to private sector and School enrollment tertiary to hi-tech exports. Further we can say that domestic credit to private sector and school enrollment tertiary has influence on our dependent variable hi-tech exports in the long run.

Table 6: VECM Long Run Causality result

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-1.466807	0.413295	-3.549053	0.0023
C(2)	0.068994	0.244514	0.282166	0.7810
C(3)	3.045325	2.764057	1.101759	0.2851
C(4)	2.147045	6.097582	0.352114	0.7288
C(5)	1.139173	5.767784	0.197506	0.8456
R-squared	0.697024	Mean dependent var		1.091870
Adjusted R-squared	0.629696	S.D. dependent var		45.31532
S.E. of regression	27.57555	Akaike info criterion		9.661396
Sum squared resid	13687.40	Schwarz criterion		9.908243
Log likelihood	-106.1061	Hannan-Quinn criter.		9.723478
F-statistic	10.35267	Durbin-Watson stat		2.131800
Prob(F-statistic)	0.000156			

Now we want to estimate whether there is any short run causality or not among our variables. To do this we use wald statistics test result. ‘Table 7’ shows short run causality result between Domestic Credit to Private sector and Hi-Tech Exports. Result says that there is no short run causality between Domestic Credit to Private sector and Hi-Tech Exports since chi-square value is more than 5%.

Table 7: Short Run Causality between Domestic Credit to Private sector and Hi-Tech Exports

Wald Test:

Test Statistic	Value	df	Probability
t-statistic	1.101759	18	0.2851
F-statistic	1.213873	(1, 18)	0.2851
Chi-square	1.213873	1	0.2706

‘Table 8’ shows short run causality result between School Enrollment (Tertiary) and Hi-Tech Exports. Result says that there is no short run causality between School Enrollment (Tertiary) and Hi-Tech Exports since chi-square value is more than 5%.

Table 8: Short Run Causality between School Enrollment (Tertiary) and Hi-Tech Exports

Wald Test:

Test Statistic	Value	df	Probability
t-statistic	0.352114	18	0.7288
F-statistic	0.123984	(1, 18)	0.7288
Chi-square	0.123984	1	0.7248

Now we want to examine whether our model where Hi-Tech Exports is the dependent variable has any statistical error or not. Here our value of R^2 is

70% which is high. Our F statistics is also significant which a good sign of our model. Breusch-Godfrey's LM Test ('Table 9') indicates that there is no serial-correlation in our model. Further Breusch-Pagan-Godfrey's Heteroskedasticity Test ('Table 10') indicates that this model does not have Heteroskedasticity.

Table 9: Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

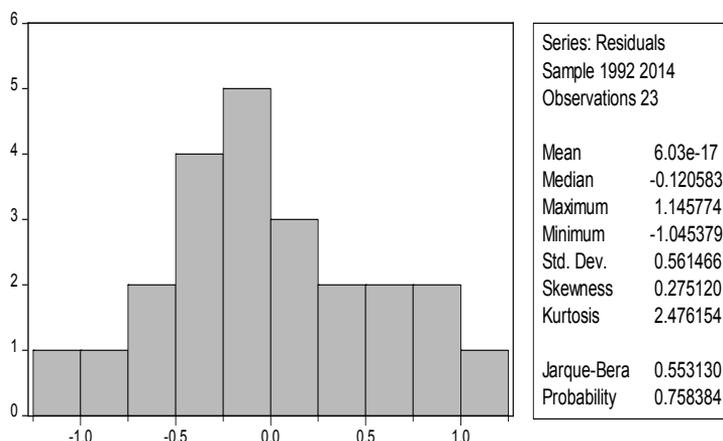
F-statistic	1.145669	Prob. F(1,17)	0.2994
Obs*R-squared	1.452159	Prob. Chi-Square(1)	0.2282

Table 10: Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.142082	Prob. F(6,16)	0.9881
Obs*R-squared	1.163468	Prob. Chi-Square(6)	0.9787
Scaled explained SS	3.170262	Prob. Chi-Square(6)	0.7872

Moreover residual of our model is found to be normally distributed ('figure 4'). At the same time stability statistics in 'figure 4' indicates that our model is stable or in other words our dependent variable Hi-Tech exports have stability.



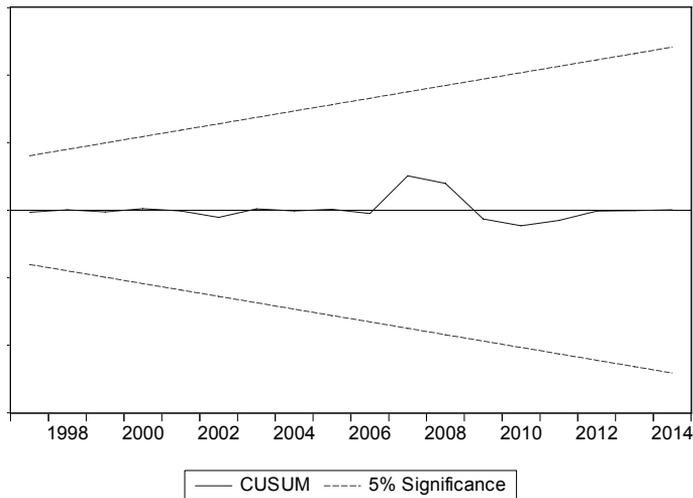


Figure 4: Normality & Stability Test

4.1 Result of Impulse Response:

'Figure 6' displays the impulse response for hi-tech exports to generalize one standard deviation fundamental innovation. It helps to trace out the responsiveness of the dependent variables in the VECM to shocks to each of the variables. The first figure shows that if we give positive shock of one standard deviation to hi-tech exports then hi-tech exports will gradually go down and after one and half year it becomes negative and again positive after third year. Then if we give positive shock of one standard deviation to domestic credit to private sector, then hi-tech will become negative from the very beginning. Then if we give positive shock of one standard deviation to school enrollment (tertiary), then hi-tech exports will also be negative from the beginning to the eighth year.

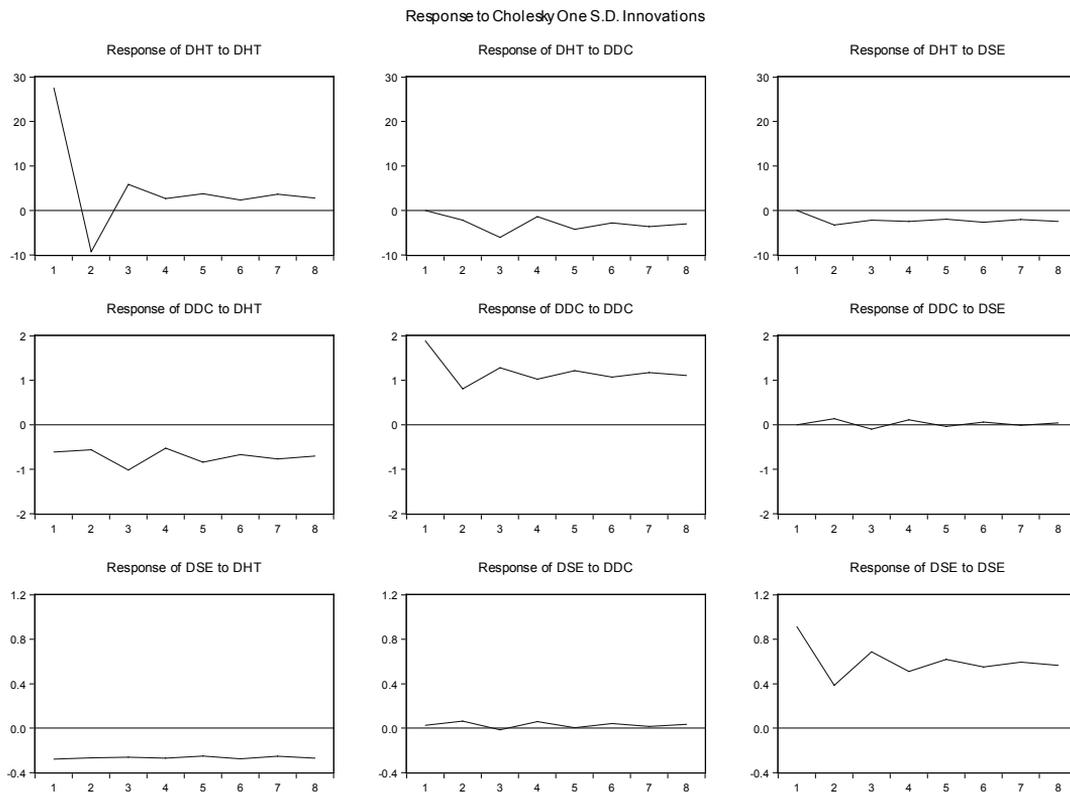


Figure 6: impulse response result

4.2 Result of Variance Decomposition:

As impulse response function does not show the extent of the relationships between variables. Therefore, in order to judge the relative strength of different influences on a given variable, we conducted variance decomposition analysis. 'Table 11' shows Variance Decomposition of Hi-tech exports. Here in the short runs (year 3) impulse or innovation or shock to hi-tech exports accounts for 93.93% variation of the fluctuation of hi-tech exports (own shock). At the same time shock to domestic credit to private sector can cause 4.41% variation to the fluctuation of hi-tech exports. Finally shock to school enrollment (tertiary) can cause 1.65% variation to the fluctuation of hi-tech exports. However in the long runs (year 10) shock to hi-tech exports accounts for 84.97% variation of the fluctuation of hi-tech exports (own shock). At the same time shock to domestic credit to private sector can cause 10.22% variation to the fluctuation of hi-tech exports. Finally shock to school enrollment (tertiary) can cause 4.80% variation to the fluctuation of hi-tech

exports in the long run. Therefore among major demographic determinants of hi-tech exports, we can conclude that school enrollment (tertiary) as well as domestic credit to private sector might explain the major variations along with hi-tech exports itself.

Table 11: Variance Decomposition of Hi-Tech Exports

Period	S.E.	DHT	DDC	DSE
1	27.57555	100.0000	0.000000	0.000000
2	29.36266	98.21434	0.543322	1.242338
3	30.62403	93.93260	4.412389	1.655008
4	30.87229	93.17570	4.546132	2.278170
5	31.44948	91.21019	6.199745	2.590066
6	31.77159	89.90650	6.861079	3.232421
7	32.25161	88.52617	7.929691	3.544136
8	32.61063	87.31589	8.635054	4.049060
9	33.03151	86.08956	9.525232	4.385206
10	33.40469	84.97042	10.22505	4.804528

5. Concluding Remarks & Policy Recommendations:

The aim of this study is to determine the relationship among hi-tech exports, school enrollment and domestic credit to private sector in Bangladesh from a time series data. We found long run relationship running from school enrollment tertiary and domestic credit to private sector to hi-tech exports. The study has contributed to the economic literature by identifying those variables that affects hi-tech exports in Bangladesh in the long run. The result of this study has clearly given an indication to the policy makers who are working over how to increase hi-tech exports in Bangladesh. If the government wants to increase its hi-tech exports volume, it needs to focus on its financial sector as well that provides credit to private our sector. In addition to this government should also emphasize on progression of restructuring our tertiary educational system. Bangladesh is doing well in exporting pharmaceuticals items. According

to Export Promotion Bureau (EPB) pharmaceuticals exports were reached \$42.4 million in the FY'14. The target for the FY'15 has been set at \$73.02 million. At the same time Bangladesh is also doing well in IT outsourcing. According to Export Promotion Bureau Bangladesh experienced a 52.43% growth in software exporting in the FY14. Bangladesh earned a record \$109.10 million by exporting computer services, which is 2.95% higher compared to \$106 million in FY 2013-14. The software exports basically include computer data processing as well as hosting services, computer consultancy service, and export of computer software and so on. Therefore a strong initiative by the government can help Bangladesh to further develop hi-tech exports items and therefore achieve sustainability in the long run. However our study has conducted with three variables only. Therefore the study recommends that future research should consider to model with more alternative possible determinants of high technology exports. Moreover cross country analysis may be done and data set may be widened by using other countries' data, in order to enhance the explanatory power of panel data analysis.

References:

- Belay. S. (2005). Determinants of levels of high technology exports an empirical investigation. *Advances in Competitiveness Research*, 13 (1), 63-83.
- Connolly, M. (2003). The dual nature of trade: measuring its impact on imitation and growth. *Journal of Development Economics*, 72 (1), 31-56.
- Falk, M. (2009). High-tech exports and economic growth in industrialized countries. *Applied Economics Letters*, 16 (10-12), 1025– 1028.
- Feenstra, R., C., Li. Z., & Yu., M. (2011), Exports and Credit Constraints under Incomplete Information: Theory and Evidence from China,” *NBER Working Paper No. 16940*.
- Gani. A. (2009). Technological Achievement, High Technology Exports and Growth. *Journal of Comparative International Management*, 12 (2), 31-47.
- Gökmen. Y., & Turen. U. (2013). The Determinants of High Technology Exports Volume: A Panel Data Analysis of EU-15 Countries. *International Journal of Management, Economics and Social Sciences*. 2 (3), 217-232.
- Hobday, M. (2001). The electronics industries of the Asia- Pacific: exploiting international production networks for economic development, *Asian-Pacific Economic Literature*, 15, 13-29.

Johansen, S., Juselius, K. (1990). Maximum likelihood estimation and inference on cointegration, with applications to the demand for money. *Oxford Bulletin of Economics and Statistics* 52: 169-210.

Keeble, D. & F. Wilkinson, eds. (2000). High technology clusters, networking and collective learning in Europe. Aldershot: Ashgate.

Levy, N. (1998). Managing high technology and renovation. NJ: Prentice Hall.

Mani. S. (2000). Exports of High Technology Products from Developing Countries: Is it Real or a Statistical Artifact. *United Nations University*, Discussion Paper 2000-1.

Porter, M. (1990). The Competitive Advantage of Nations. New York, Free Press.

Psacharopoulos, G. (1994). Returns to Investment in Education: A Global Update. *World Development*, 22 (9), 1325-1343.

Reich, R. (1991). The work of nations: Preparing ourselves for the 21st century capitalism. *Human Resource Management*, 30 (4), 535-538.

Sala-I-Martin, X., Blanke, J., Drzeniek-Hanouz, M., Geiger, T., & Mia, I., & Paua, F. (2008). The Global Competitiveness Index: Prioritizing the Economic Policy Agenda. The Global Competitiveness Report 2008-2009, World Economic Forum, Geneva, Switzerland, 2008.

Salmon, R., and Shaver, J. (2005). Learning by Exporting: New Insights from Examining Firm Innovation. *Journal of Economics & Management Strategy*, 14, 431-460.

Sara, T.S., Jackson, F.H. & Upchurch, L.T. (2012). Role of Innovation in Hi-Tech-Exports of a Nation, *International Journal of Business and Management*, 7 (7), 85-93.

Tebaldi, E. (2011) The Determinants of High-Technology Exports: A Panel Data Analysis. *Atlantic Economic Journal*, 39, 343-353.

Tebaldi, E. (2011). The Determinants of High-Technology Exports: A Panel Data Analysis. *Atlantic Economic Journal*, 39 (4), 343-353.

The World Bank, World Development Indicators (2015). Country: Bangladesh [bgd_Country_en_excel_v2]. Retrieved from: <http://data.worldbank.org/country/bangladesh>

United Nations Development Programme. 2001. Human Development Report. New York: United Nations.

World Economic Forum. (2008). The Global Competitiveness Report 2008-2009. Geneva, Switzerland.

Zhang, K. H. (2007). Determinants of complex exports: Evidence from cross-country data for 1985–1998. *International Economics*, 60 (1), 111-122.

Manipulation of human mind as dominant strategy in achieving tax compliance

Mario BOGDANOVIĆ

*Trust is good but control is always better.
Anders de la Motte (2013b)*

Abstract

Effective management is not possible without a certain ideology (socialization) to facilitate the achievement of a superior meaningful goal, where manipulation often occurs as technique / strategy of achievement. The purpose of this paper is to show techniques in achieving tax compliance, to determine the existing manifestation of manipulation, to discuss the ethics of these techniques and to offer alternative techniques in solving tax compliance. The first aim of this paper is to indicate effective possibilities of achieving willingness to unpopular action (tax compliance) by means of a number of manipulative strategies / techniques. The second aim of this paper is to discuss the ethical justification of application of manipulation strategies / techniques and the necessity of application of ethically friendly techniques. The third aim of this paper is to offer solutions for achieving ethically correct tax compliance. The main method used in this paper is a method of personal and collective experience in collecting data on manipulations, analysis, synthesis, insight and reasoning. Paper results showed:

a) In reality, there are numerous forms of manipulations of human mind that are used / can be used to achieve tax compliance that is explained in detail in this paper.

b) The resistance of some citizens to the income tax could be reduced by eliminating sense of injustice and manipulation and thus strengthen tax morale.

c) By introducing some non-manipulation techniques and thus creating ethical social climate and culture (e.g. the transparency of public expenditure, increase of meaningfulness and justification in taxpaying, conscious resistance to manipulation, promotion of spiritual values of truth and proper behavior - creation of the so-called atmosphere of psychological contract), decrease of resistance to income tax is possible.

Key words: Human mind manipulation management; strategies / techniques of manipulation; tax morale; tax compliance; tax compliance strategies / techniques

JEL Classification: H10, H30.

1. Introduction

Taxpaying is generally more or less unpopular in all socio-economic systems as it indicates the exploitation of privileged layer that makes the state and the legal system at the expense of underprivileged social groups. The history shows that the most important resource that results in exceptional power is controlling of other human beings (taxpayers), i.e. achieving that other people work for the elite (state and legal system) (Bastaić & Krizman, 1976). In his way, tax liability has the character of coercion or economic violence, despite the fact that a portion of money raised is spent on socially acceptable purposes. Specifically by the Okun's principle of "punctured tub" (Samuelson & Nordhaus, 1993), as well as by the principle of redistribution of budget managed by the elites (politicians), only part of the raised money is spent in generally accepted purposes, while the rest is spent on antisocial purposes such as enrichment of privileged social groups and financing of acquisition of new power (e.g., elections and wars).

Very often those who have power are not interested in development (Galal, 2012) and justice. To allow smooth governance and facilitate financing through tax revenues, often various justifications and ideology of distribution are reached for, along with the fact that to date no society has failed to address this issue, but there are more or less acceptable ideological principles (Visković, 1981).

Traditional wisdom about tax collection says that "the goose should be plucked, but with as little quack."¹ Illustration of this is given in Figure 1.

¹ This principle has well known formula: „When you take (tax), take a lot and quiet, and when you give (back from the collected tax amount), give little and laud“. (Popov, 2015). It is obviously that this is kind of manipulation.

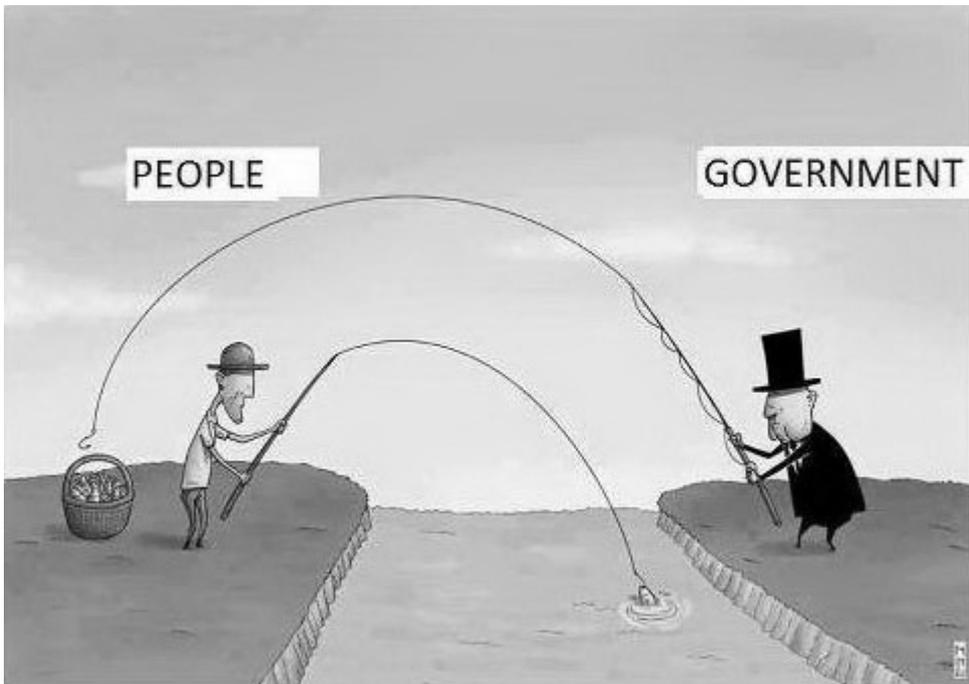


Figure 1. Tax compliance metaphor

As it can be seen in the figure above, taxpayer willingness is essential for the government (the personification of the figure on the right side) to be able to collect the same. Without willingness it wouldn't be effectively possible to carry out this process, because it would be confined to a purely and bluntly violence like "money or your life" (which was a feature of the tax collection in primitive societies, for example, slave-ownership socio-economic formation, and in the manner of a Mafia).

Taxes in general violate the law of free association. They force some associate with others in the absence of full agreement. If it is present the forcible use of one person to serve the purpose of another we can talk about form of slavery, although it sounds far-fetched in any way shape or form to equate taxation and slavery. But it is difficult to deny what they have in common: forced association. So the taxpayer must associate with the government. He must pay "palimony" fees. Such are the results when free association is abrogated (Block, 2015., p.166- 168).

The main question referred to in the above illustration is: "What is happening or about to happen in the mind of taxpayer (Fisher in the picture on the left side) to / be willing / agree to a tax provision of State (Government)? Could this willingness be achieved in only manipulative or non-manipulative way too?"

In order for social group - elite that maintains the state and legal system to achieve minimum resistance and tax evasion, historically the most effective proved human mind manipulations. In that way, tax moral and willingness grow with satisfaction, with income, patriotism, trust in government, religiosity but also decreases with increase of income (Schneider, 2015).

Manipulation as a term generally determines the human subordinate to manipulator's goals as manipulative instrument for achieving one's goals. Ideal manipulation represents such instrumentalization in which manipulated thinks that he works for himself, for his own goals, and actually works for manipulator and manipulator's goals. In fact, it's about influencing someone's behaviour, citing someone to do something (consciously or unconsciously), out of a free zone, voluntary and / or conscious decision and / or outside the zone of full information and knowledge (symmetric information). Therefore, manipulation as term has ethically negative connotation as it confronts the idea of free will, as one of top-level purposes of human existence, since neither goal in itself (ethically / valuable) is not separable from means of realization, especially if it occurred manipulative or involuntary, which is why the manipulation is increasingly seen as a behaviour that should be avoided because it is ethically controversial.

Leading, directing, managerial control, and especially motivating often has characteristics of human mind manipulations, because it is assumed that for the effective achievement of goals (e.g., effective tax collection) a certain indoctrination (ideology) is required, that can be effectively applied by human mind manipulations. But of course, from ethical point of view, none indoctrination (socialization) is questionable and democratic decision-making of free minded in this sphere is often not desirable. Delicate tax feasibility situation presents not only theoretically ideal situation in which the elite and commoners (citizens) act together in the same direction to achieve a common goal, assuming the goal identity on a relation between the state-politicians-citizens. Completely real situations are probable in which politicians have their own goals that are somewhat or completely different from those of state (socio-economic and international) as well as of the citizens' objectives or other

stakeholders (e.g. international lenders and supranational organization).² In these situations, the easiest way is to reach for manipulation techniques, to come up with the money or "force" the desired behaviour (e.g. taxpaying).

A situation in which objectives of citizens partly or totally differ from politician or government objectives is also very likely, resulting in specific behavioural response that can also be manipulative. In a battle for supremacy / power, manipulations are very often "silent weapons for a quiet war", as is the international policy "a continuation of war by other means".

In general, manipulative behaviour (cheating, lying, deception, hypocrisy, "spin" and management of stupidity) is not sustainable in a long term (permanent and above all people in society), and it is less applicable when intelligent, informed (educated) and liberalized are to be managed. Manipulative behaviours that are easily identified should be avoided in situations where intelligent and creative involvement of all citizens of society (so called society of knowledge and intelligent society) is included, because they are immediately disclosed, that produces distrust and destroys unity (social arrangement becomes difficult) with negative behavioural responses, adverse to social efficacy that is taxes compliance. Therefore, in a situation of sufficient civil intelligence and information, manipulation becomes exposed or recognized sooner or later, resulting in reduced confidence and reduced willingness to tax compliance.

The basic goal of this paper is to list and classify scientific manipulative strategies and techniques that have been observed in socio-economic and organizational world, especially viewing the sources of this subject, but also on the basis of personal and collective experiences, and thus provide an answer to the question: "How to achieve tax compliance?" In response, the goal is to offer ethically acceptable answers that are not of manipulative nature. Therefore, an additional objective of this paper is to critically discuss manipulative techniques and offer an alternative.

Manipulation could be considered as a dark side of social and economic life (even in goal of socially justified tax collection), besides positive effects (such as a particular socialization / indoctrination that takes place in creation of effective social climate / culture easily turning into its opposite - morally decadent social climate / culture - where the truth is "morally squeamish"). Therefore additional goal of this paper is to offer solutions for reduction of

² This is obvious by examples of politicians who have abused their position to achieve personal gain.

social and organizational phenomena to functional (acceptable) level. The main hypotheses of this paper are:

H₁ In creating effective tax compliance process, various taxpayer manipulation techniques are used.

H₂ It is possible to reduce income tax (by tax form and tax amount) resistance in one part of citizens by eliminating a sense of injustice and manipulation.

H₃ It is possible to reduce income tax resistance by introducing non-manipulative techniques that empower tax moral.

All three hypotheses are confirmed by insight-based methodology that uses reflection about empirical evidence, literature review and personal experience that synthesise the facts about manipulations.

2. Human mind manipulation as general management strategy

Human mind manipulations are found in many areas of social, political, economic, business, and also the private lives of people and developed animals.³ In human world, manipulations are focused towards target acquisition of human behaviour and therefore could be considered as control strategy in socio-economic and organizational life. However, when a desired objective and targeted human behaviour can not be reached or it is slow, difficult and expensive, manipulation remains as a form of subtle scam that can occur in several forms, such as machiavellianism, "spin", management of stupidity, management impressions, lie and clear (blunt) fraud, compliance-noncompliance, withholding vital information, emphasis of information in favour of manipulator's idea, threat, intimidation, retaliation and similar manifestations. Very common manifestation of manipulation are promises that are not intended to be accomplished and are not even realized in real life, but had intention of luring on an action (for example, luring voters to vote a certain political option without any intention to carry out promises; luring entrepreneur to entrepreneurial activity with promises of cheap resources of business combination; recruitment of potential employees with false promises of working conditions and promotion in order to be hired by the organization;

³ Mutual primate (monkey) manipulations are also known when they mislead each other or manipulate to achieve personal benefits (food). This paper does not deal with manipulations of primates and other animals but private life manipulations of people who have their own biological (genetic) origin. As scientific curiosity, only animals with high intellectual abilities are capable of manipulation, therefore "Smarter you are, easier you will cheat someone".

recruitment of students to study at a particular university with a subtle promise of providing high-quality marketable skills that will allow a good future life; recruitment on marriage (living together) with a variety of subtle promises of happiness; recruitment in playing games of chance with the promise of high score, solicitation to purchase products / services by failing to disclose relevant information on characteristics or conditions of use, recruitment on obedient paying of all taxes, etc.). The conclusion is that there are numerous manipulations in all spheres of social, organizational and private life, and experience tells us that their frequency is not negligible. Hyper intelligent and very manipulative are thus socially very dangerous (Anders de la Motte, 2013), because they usually manipulate good people with best intentions and deceive them to achieve their own hidden agenda.

Manipulations examined in this paper originate in social and private life. Manipulations in private life probably have their biological (genetic) cause and this paper will not address them.

To achieve tax compliance, that is the subject of this paper, different types of social manipulation are important, addressed as hereafter:

- a) Manipulations directed towards tax compliance increase;
- b) Manipulations indirectly directed towards tax compliance increase (derived from general social manipulations);
- c) Other manipulation techniques (present in organizational life), that are applied / could be applied to tax compliance increase.

2.1. Manipulations directed towards tax compliance increase

There are two basic ways of direct human behaviour manipulations in increasing tax compliance.

This approach stems from seeking of the policy which will enable formalization of undeclared work (specific tax form). There have been distinguished two broad approaches towards undeclared work: a deterrence approach which seeks to engender compliance by detecting and punishing noncompliance, and an enabling approach which aims to encourage compliance by either preventing business or people from engaging in undeclared work from the outset; providing incentives to enable the transfer of undeclared work into the declared realm, or facilitating commitment to „tax morale“.

In the area of general tax compliance, the following techniques can be distinguished:

A) To scare the taxpayer with a fine, loss (security, freedom, real estate, personal or family health) or a clear threat. This is the so-called Mafia or "racket" model in which the taxpayer pays to avoid violence and violation. This model clearly shows that tax is undoubtedly an economic violence. It can be justified by providing protection against other bullies (e.g. Mafia protects its "payers" not to become victims of similar bullies, just as the state protects its taxpayers from other countries, i.e. not to pay taxes elsewhere). At that point the state should have mechanisms and institutions of coercion (police, army, prison institutions).

B) To assure that tax is "moral obligation" for a better society, so that taxpayers create primarily good for itself by regular taxpaying, not just the elite. Such manipulation is a presumption of non-formal psychological contract that in abstract should contain action and counteraction, although by definition a tax is one-way obligation that does not constitute a counter-claim. In this technique, the following achievement strategies are possible:

B1) To oblige people to pay taxes using the legal system (to convince people that what is legal is right). Indoctrination in a way that what is legal is moral / honest - can be achieved by tax compliance to their masters (state and legal system). Actually in a common ordered world LEGITIMACY = ILLUSION OF INTEGRITY due to various deficits, mostly because of general disagreements, specific and special interests (Visković, 1981) and quite common is the fact that what is legal is neither proper nor fair. This indoctrination can be achieved through public school system by explaining how moral it is to pay taxes for a better society, better people, state and human welfare. There is also, an old manipulative technique "Divide and conquer". To be specific, it turns taxpayers against each other. There is a typical resistance of dependent people e.g. on budget, or privileged groups of society who became passionate defenders of the same system being budget financed.

B2) In order to be convinced of rightness of taxpaying, it is necessary to achieve transparency in spending budget money, for its justification not to be suspicious. It could be fabricated (false) reports so it could disguise, conceal the real truth of spending budget resources. Specifically, taxpaying by itself isn't ethical activity since tax could be spent on unethical purposes (e.g. oppression, mistreatment and killing of other people and nations). If public expenditure

transparency is complete, manipulation in this case comes down to writing "fabricated" reports and enforcing such reports of those who compile them, which may be half-true or totally false.

B3) It is possible that public expenditure is spent properly dedicated, fair and transparently and truthfully reported to the taxpayer, that was not the case so far, because taxpayers worldwide do not know exactly what for is the tax money spent on.

B4) To convince people (by indoctrination of fear) that the information on public expenditure is not necessary for "divine" nature of the governing (as the "king" and "elite" spend tax revenues through state, it is their personal right and subjects, i.e. taxpayers, have no right to inspect).

C) To reduce or completely eliminate the possibility for taxpaying through technical solutions (for example, a well-known fiscalisation in Croatia where invoicing through fiscal cash register is electronically linked to the tax administration). This is possible by creating such system, for example in some forms of direct tax deductions from wages, payment of income tax / value added tax for goods and services that are difficult to avoid because it is already included in the final price. Technical disablement of taxpaying is a matter of social innovation type of technology, and question of ethics remains in such solutions because they do not increase tax compliance, but still have the character of economic violence.

These techniques are actually standard arsenal of present conditional tax compliance. In addition to these techniques, there are general strategies, techniques that are discussed in broader context of social manipulation, also which can help in increasing compliance to specific forms of taxes and introduction of new taxes.⁴

2.2. Manipulations directed towards tax compliance increase

Conquest and retention of government authority / power of dominant over subdominant social groups is regularly held by some form of manipulations in order to justify a privileged position, and in order to extract specific target behaviour. Noam Chomsky writes about such human manipulations techniques / strategies, and indicates ten techniques and

⁴ For example, in Croatia, some of these techniques are applied to introduction of real estate taxes, a tax form generally not well accepted in population.

strategies (see more online resources on human manipulation strategies / techniques Noam Chomsky, all accessed 08th June 2015.):

1. **Diverting attention** (method "engages irrelevant to make important escape the attention"). People's attention should be diverted from important to irrelevant problems. Pre-employing of minds by "flooding" with irrelevant information makes it possible to achieve so that people have no time to think and acquire basic knowledge of the system and understanding of the world (such as watching TV where news are fabricated, and in a flood of irrelevant information the possibility of resolving the important from unimportant or less important is reduced). People find it important how much of one kind of tax has to be paid, but the flood of information reduces the sense of importance making resistance more difficult. Similar techniques can be conducted through online media so to control the flow of information (En. Buzz) in the right direction. The best way to establish information flow control is: a) to start a rumour; b) to clean negative buzz (finding and destroying everything that someone does not want to see in the vastness of internet information); c) to initiate pile of information channels in order to block out opponents; d) to switch the focus from an event until the situation is resolved (Anders de la Motte, 2013b).

2. **Creating problem** (method of "problem-reaction-solution"). Problem should be created, so some people react to it. For example, it is possible to cause and transfer fear, threat and violence to make public easily accept restrictions of freedom, income, or social security system components, as well as introduction of new taxes. A good concrete example (of manipulation) is to create perception of economic crisis and lack of money in human mind (regardless of the real state), so that such mental image becomes accepted as a "necessary evil" for which mitigation (for example) is quite reasonable to reduce social rights, raise taxes, introduce a new tax form, or some other form of restriction.

3. **Gradual change** (method of "small steps"). For people (the taxpayers) to agree to an unacceptable measure, it should be introduced very gradually, by method of small steps, for months or years. Long term implementation of resistance allows unawareness about unwanted change while changes in a short time would most probably create resistance. This is commonly used for introduction of e.g. real estate taxes in Croatia.

4. **Disposal** (method of "announcing long before implementation so that people get used to the idea of an undesired change). People need to be prepared,

because it is easier to accept future than current sacrifice, also people believe that "tomorrow will be better", and their sacrifice won't be necessary. This increases the likelihood of adjusting to the idea of change and eventually accepting with indifference (and without undesired resistance). This is commonly used for the introduction of e.g. real estate taxes in Croatia.

5. **Use of children voice** (method of ("abroad by applying infantile tones"). This results in suppression of critical thinking and feeling as stronger suggestible effect on people.

6. **Abuse of emotion** (method of "intimidation"). Critical awareness should be replaced by emotional impulses (fear / coercion, anger, concern, desire, accepting ideas) and so induce desired behaviour. For example, emotionally engage all funded by the public budget to agitate and advocate government's tax policy.

7. **Keeping in ignorance** (method of hiding technology and methods that are used for human control and enslavement). Manipulation mechanism understanding should be prevented for example, reducing the quality of education at lower layers or general population that needs to be manipulated. Knowledge of how to completely avoid or pay significantly lower taxes, generally have rich elite. The elite find it undesirable that all citizens have that knowledge because it would substantially reduce tax revenue, as for example escape in tax oases that tolerates even the intolerant USA towards tax evasion (Tyrala, 2015).

8. **Glorification of stupidity and mediocrity** (method of spreading stupidity, vulgarity and ignorance). The public should be encouraged in accepting mediocrity. It is necessary to convince people that it is good ("in" and fashionable) to be stupid, vulgar and ignorant. At the same time, resistance towards culture, art and science should be induced. The goal is to reduce the possibility that someone thinks differently and that it is possible to avoid taxpaying or significantly reduced, e.g. by escape in tax oases.

9. **Creating a sense of guilt** (method of lowering people's self-esteem by creating feeling of guilt). Every individual needs to be convinced of being responsible of it's own and sole misfortune, failure due to it's faulty intelligence, disability and lack of effort. If individuals are assured, they will not act because they will blame themselves for the failure that leads to a depressive state. In that way, they will give up the search for causes of their position and rebel against the system and rebel against unfair taxation, because if there is no action, there is no revolution.

10. **Abuse of knowledge** (method of hiding control knowledge of biology, neurobiology and practical psychology of an average person). The system and the ruling elite have advanced human knowledge about body and mind. That way, the system has more control and a greater power over individual than individual has over himself. There is a greater gap in the knowledge of public and ruling elite. The fact is that rich, powerful people (managers and other elite) or do not pay, or pay disproportionately lower tax than poor people, and it has been proven that payment of taxes decreases with an increase in wealth (Schneider, 2015). Escape in tax oases and secret abroad accounts are possible only to rich people who have knowledge about it.

General known social manipulation techniques that elite as manipulators apply in socio-economic life are applied around the world, not just in the most developed countries, and are becoming prominent in tax compliance.

2.3. Other types of human mind manipulation in function of achieving tax compliance

In human resource management at the level of organizational life, management manipulations are the most widespread manifestations of organisational manipulation. Their goals are:

- a) to facilitate people management (business leadership) because most people tend to resist being managed and to facilitate the process of motivation;
- b) to facilitate the control of people, because confidence is often not enough;
- c) to achieve some personal managerial objectives;
- d) to overcome the crisis when there is not much time, and the situation requires an urgent response (for example to create an artificial sense of unity in order to overcome the external threat).

The author is not familiar with the existence of any classification or list of forms of manipulation present in organizational life, especially not on the level of the management-employees relationship. Moreover, there is no classification and a list of manipulative techniques derived from those forms that facilitate tax compliance. The aim of such manipulation is psychological debilitation of a person in order to make him more easily manageable, and in the context of this paper to make him more disposed to pay taxes.

The following list of organizational manipulation with their explanations was generated by the author and is based on communication with employees from different Croatian organizations:

1. "You're not good enough; you will always have something missing!" - you have to work, to learn, in order to reach an acceptable level, but in reality you will never reach that level. You always lack something. There is a marked resemblance to Noam Chomsky's ninth manipulation (Creating a sense of guilt). Humiliated, depressed person will show less resistance to paying taxes.

2. "Material reward for me, and mental prize for you!" (professional development, happiness and psychological satisfaction resulting from good work). Motivation research has shown that a material reward works better for manual labour than for jobs with the dominant creative and intellectual component. However, this is true of operating personnel. The management and the authorities are uncritically rewarded mainly by material compensation, although research has explicitly shown that the amount of management compensation is not related to their productivity. This manipulation goes so far as to treat separately the motivation of ordinary workers from that of managerial motivation (which is reduced mainly to material management compensation) in management textbooks. This creates an atmosphere that taxpayers should be happy to pay taxes because they are doing the right thing.

3. This is the so-called Manipulation by waiting with the slogan "Wait, wait, take it easy!" Wait, be patient for another year, and then you'll be promoted, you'll get a better salary, everything will be solved when times get better, when there's money, when the XY situation is resolved. You just keep working hard and do not worry about it. We're with you. It is clear that employees who are "put on hold" will never accomplish the desirable situation and will thus be manipulated into obedience. Obedience in one area is then generalized to the area of tax compliance.

4. Manipulation by compatibility of objectives that can be accomplished by slogan: "If you work for me (the manipulator) you'll be fine, because what's good for me is also good for you (the manipulated)." Be happy to work for me because I'm good and honest. Otherwise, you're nothing. Asking to work for someone else is treason and asking to be dismissed. This manipulation is generalized to the notion that working in order to pay taxes is good and morally correct.

5. "Do believe that everything you do at work and elsewhere would not be possible without my / our managerial / government support and kindness."

Do realize that I (management / government) control whether your work will succeed or fail. You cannot do anything on your own so listen and follow your management, i.e. me. This manipulation is generalized to conditioning: "Without paying taxes to your masters your survival is not possible. Therefore, it is fully justified to pay taxes without resistance."

6. Pressure on group opinion and team spirit that is internalized in the slogan: "If everyone is in favour you cannot be against, because majority cannot be mistaken, and you as individual cannot be cleverer than the whole management. Therefore, agree with us and convince yourself that this is your opinion too." This is actually a demonstration of the well-known Ash experiment where, as a result of social pressure, most people agree with the manager (boss) even though everyone knows that he is wrong. "Those of you who think, should think of what and how" is an informal slogan of this manipulation that contains a hidden threat. This manipulation internalizes the belief: "If all taxpayers, colleagues and people pay, you cannot be an exception!"

7. Threat, revenge, for example: "Do realize that if you do something I don't like (regardless of whether it's good for the organization) it will be punished by a reprisal and a setup (trap) that will cause you a lot of problems. So watch what you're doing and how you are doing it because if you run afoul of me you cannot survive, neither here nor in any other organization. We are all part of the same network!" This internalizes the belief that tax evasion leads to a penalty, so it is better to pay and thus avoid it.

8. „Quod licet Iovi non licet bovi!“⁵ "Explanation: "Other employees are also going through a difficult period, and they are skilled and hard-working. So what are you asking for? What is true for other lower operating employees is true for you too. You're not the authority, management, the owner, ranking high in the hierarchy and the status to ask for such informal status rights. Be aware of your position and situation and "keep low profile". "The fact that some people do not pay taxes, manage to avoid it or pay disproportionately little has its justification in the fact that they hold higher positions in the hierarchy and are not subject to the same obligations as their subordinates.

9. "If you think you've been caused offence, or your rights have been violated, you can take it to the court or give in your notice and look for another job. If you do not like our business and managerial ethics and

⁵ This Latin saying indicates the presence of a double standard and means that one is permitted to one person or group is not permitted to everyone. It can be translated as: "Gods may do what cattle may not."

organizational climate / culture you don't need to work for our organization and management. We dictate the rules and set the climate and culture of the organization to which you have to adapt, regardless of whether it is right or not." The implications for tax compliance: "The tax should be paid as it was said, and if you do not like it you are free to move out of state and chose another place to live."

10. "It's a pie in the sky." Explanation: "Promises serve as motivational bait - and they are not there to be met! If you believe in them, then you're stupid and naive. And you're certainly not ready for promotion to a managerial position. The fact that it was promised that taxes would be spent for the common good, transparently and with the minimum outflow, and it is being spent for the good of the elite, non-transparently, and with large outflows on unproductive purposes and for purposes which you do not agree with, is not a reason for you not to pay taxes but it is time for you to embrace the fact as a subordinate."

11. "We appreciate loyalty, obedience, compliance with hidden desires, needs, and vanities of management. Read between the lines. Do not be stupid and make sure you understand the ambiguous messages sent by management (the so-called signals). Understand that you are a subject who, regardless of whether the taxes are justified or unjustified, moral or immoral you have to pay them and that is a sign of loyalty to the state in which you live."

12. "Take on managerial responsibility and give the management credit for achievements, as this is how it should be. Sometime you might be rewarded for that. Do not think, however, that because you solve problems it should necessarily be your merit and that the awards will follow spontaneously. If you're looking for something we do not like you will be denounced and rejected if necessary and maybe even in spite of it. Pay taxes, and the government (elite) will be given credit for any possible improvements in the organization / society and not the subjects (tax payers) because that is normal. If necessary, it is possible that you will be sacrificed for a higher purpose, regardless of the current obedience and regular tax payments."

13. "Give up your ethical principles, integrity, truth, and honesty for higher organizational team interest." "At home everybody is entitled to think what they want, but not in our organization!" "Everyone should accept the opinion of management. The public opinion of the elite (government) should be everyone's opinion, including the attitude towards tax payment."

14. "Your manager psyche is of key importance; your status and your destiny depend on it. Get good understanding of the informal status of all managers, their private life, desires, needs, and try to please them in every possible way, including not asking the "unnecessary questions" that they might find boring. Ambiguous e-mails, non-verbal messages and signals should be read and understood in the context of the informal facts. If something needs to be done, and is not legal or moral, do it the way your manager wants it. It is not your wishes and needs that are important but those of your manager. The needs and wishes of the state and the legal system (the elite) are important, and not yours, so you need to adjust to it (be obsequious), i.e. pay the tax!"

15. "Being a toady and sycophant, a sleek spokesman, is not only desirable but an absolutely necessary feature for getting promoted in our organization. Do not imagine that it is enough to be productive and creative, to have good professional relationship with management, based on work, order, discipline, proper treatment / honesty. Be always ready to deliver extra services, regardless of their moral dimension. Do everything your manager likes, do everything the elites require from you (be obsequious), i.e. pay the taxes."

16. "The organizational life is a difficult and arduous struggle (as a life in the jungle), you can succeed/survive only if you stick with your manager - so be always at his disposal and you will benefit. You can only survive if you pay taxes."

17. "Be obedient and loyal, approve of and agree with the wishes and opinions of your management and properly socialized colleagues. Do not accidentally show open-mindedness and self-initiative, especially not by opposing what is required by those positioned higher in the hierarchy. Watch what you're doing, or you will face reprisal. Thus internalized obedience is generalized to tax payment."

18. The internalization of the idea that "Cheaters and murderers rule the world." You can benefit from your intelligence, knowledge, and personality only if you're a bigger scoundrel. The ability of cheating and manipulation of others is crucial for climbing the hierarchy ladder. Internalization of the belief reduces the willingness to pay taxes for higher executive positions, but fearing higher hierarchical positions the tax compliance is manifested up to a certain level of hierarchy.

19. "What the management says and communicates to you is true and, as we have agreed, the concept of unlawfulness does not exist in our environment.

The truth is what suits us and not how things really are. If something suits us to be true - it will be true, and if does not suit us - it will not be true. What's right and what's true is what the superior says to be right or true. Taxes are to be paid as has been established by the elites, i.e. the Government."

20. "We do not talk about things that do not suit us. We only speak nicely about our management and organization. The one who expresses his opinion and attitude, who questions the opinion and attitude of management, or, God forbid, dares to whistle, is dead for us. It's an unskilled idler, a bad colleague and person unworthy of life. In science and higher education that is: a bad teacher, unskilled professional, bad scientists, bad colleague and person. Even if you do not agree with paying taxes you do not talk about it. You should not urge others not to pay taxes because tax evasion is immoral and illegal."

21. Arrogance. "I am your God and you shall have no other Gods before me! You depend on me thoroughly, so you are obliged to give me everything - your complete self mentally, but also morally and physically. You are obliged to give everything (your life too, if necessary, e.g. in war time) to your masters (the state and legal system). Therefore, tax payment should not be much of a problem."

The above managerial organizational manipulations can also be present as manipulation of citizens for the purpose of paying taxes, the aim of which is psychologically debilitating man in order to break his resistance to injustice. Mental managerial manipulations in organizational life represent the dark side because few can find a justification (the ethical dilemma of whether it is justified to use manipulation in order to prevent a greater evil, and when and to what extent it is justified to apply it is a debatable issue). The leadership that applies the above described manipulations generates interpersonal alienation (people start seeing enemies in other people), distrust and quasi-collectiveness. A person who experiences injustice and manipulation finds it easier to agree on paying taxes as just one of many life's injustices.

3. How to increase willingness to pay taxes in accordance with the general knowledge of psychology of man?

In tackling the issue of how to model the desired behaviour, psychology offers several answers (strategies):

a) *Punishing unwanted behaviour* (in this regard it is well known what kind of aversive stimulus is needed to dissuade someone from a certain behaviour). Research on the subject of what should be a stimulus in order to minimize the likelihood of recurrence of unwanted behaviour has found that the stimulus should be as strong and as repulsive as possible. Gradual punishment has not proved to be so efficient (Čudina-Obradović, 1991).

b) *Rewarding the desired behaviour* increases the likelihood of recurrence of such behaviour. It is possible to achieve that the very act of paying taxes becomes a self-rewarding experience. This, however, is not possible without a certain ideology, manipulation, because a rational and non-manipulated intelligent human mind finds it difficult to accept that paying taxes (to work for someone without the aliquot counterpart obligations) is a reward and not a punishment. A person can psychologically accept that he has been awarded and not punished, but it is a matter of mental manipulation. Another way is for a person to feel positive emotions when he has paid taxes (e.g. a sense of pride, satisfaction), to be convinced that he doing a good thing and that he is, therefore, a good person can be a self-rewarding experience.

c) **Manipulation of happiness in a way that manipulated think they work for their own good** and that they are rewarded, but actually work for someone else's good (pays tax that primarily serves the controlling elite / manipulators, and not their needs and well-being). How to justify taxes and their extent? There are two possibilities:

c1) to make taxpaying perceived as bearable, socially necessary and acceptable by mental manipulation, (of course the tax itself shouldn't really be unbearably high and the tax forms rationally justified), while simultaneously evaders of such "reasonable tax" to be frightened by a fine.

c2) to make tax evasion morally unacceptable to people and therefore make not paying impossible even to think about to people, or that breaking the law regarding the tax become (psychologically) unthinkable, not out of fear but on moral imperative (internalized values). The internalization of ethical values (e.g. the truth, proper behaviour, love, peace and non-violence) is possible from preschool to adulthood (cf. Bogdanović, 2012). According to this model, people

would rather pay tax (tax compliance) because of the moral imperative, i.e. moral consciousness and conscience that prevents nonpayment of tax.

Possible factors influencing tax morale in different directions (increasing it or decreasing it) are: intelligence, moral ideology, a social environment that encourages the payment of taxes (e.g. patriotism and religion), various factors of personality (e.g. altruism increases tax morale, while psychopathy, machiavellianism, narcissism, and sadism reduce tax morale), administrative procedures and conduct of tax authority towards taxpayers (e.g. "Bad and inhuman" treatment reduce tax morale). For precise determination of influential factors, their direction and strength in creating tax morale, further research is needed because this knowledge as author knows is missing.

4. Increase of tax compliance by nonmanipulative strategies: creating ethical climate and culture

As author knows, literature does not provide a way for tax compliance increase that is not based on manipulative techniques / strategies. Moreover, manipulation and hypocrisy (hypocrisy/ conversion) are rarely treated as ethical problems that need to be solved, but it is often tacitly supported by historical examples to date (Pupavac, 2006).⁶ Detected manipulations of deception and lie of politicians often do not get sanctioned, even when they are all manifested. In addition to ethically handled manipulations, intolerable are manipulations when manipulated are unaware, because the stimulus is at an unconscious level (e.g. marketing through subliminal messages).

Ethical programs for creating ethical social climate should also include anti-manipulative values, so that manipulative / fraudulent behaviour is condemned and punished. Thus, the implementation of high ethical public life standards could take into account not only individual (elite), but also interests of all citizens. One way is to introduce a socially moral philosophy which is anti-machiavellian, or anti-manipulative and which should be expanded as ethical climate / culture.

⁶ Personal authors' experience of the organizational life of Republic of Croatia shows that manipulation is often considered socially acceptable behaviour and testifies primarily about intelligence of manipulators. Therefore, corruption in the name of intelligence is ignored, and according to that prejudice intelligent and rulers manipulate (in accordance with paraphrased thoughts of Miroslav Krleža, that intelligent crooks and murderers rule the world, "cheating" is a normal human behaviour), while dumb subjects are manipulated, because it's a "natural" state of affairs.

Actually, the best social practises should be considered those that are appropriate from an ethical point of view, that is those who avoid unequal and unfair (manipulative) treatment, and are in the same relation (harmonized) with generally accepted values, for example empirical values of positive psychology accepted in all cultures and all times (from Rijaveć & Miljković 2006 to Peterson & Seligman, 2003).⁷

For combat against manipulation of any kind, essential is creating ethical social climate and culture in which manipulation is totally unacceptable. For creation of social climate and culture there are two important moments:

- a) recognition and rejection of manipulations
- b) promotion of values of truth and proper behaviour

4.1. Empowering taxpayers in identifying and rejecting manipulations - ethics as an instrument of responsible tax behaviour

Even the awareness of manipulations changes the general ethical philosophy which is significant and important predictor of ethical behaviour (Chudziska-Czupala, 2013). That is why this paper describes various forms of manipulation. For raising the level of ethical behaviour in public life, it is important that citizens become aware of manipulations and the fact that such behaviour is not conducive to social cohesion (elite and commoners). The manipulated, deceived people who are aware of that are not satisfied citizens.⁸ Two strategies could be mentioned in the context of strengthening the manipulation awareness and their rejection, which could and should be used in social life (paraphrased Zimbardo, 2007, chapter 16), within opposition of extremely unethical (evil) behaviour of the manipulator:

(1) *Be careful in interpreting the messages / information you receive.* Do not be deluded (deceived) by messages that emphasize what the sender / potential manipulator wants to sell. Ask yourself what the message sender exactly wants and what is most likely to be achieved with that information.

⁷ Virtues of positive psychology are: 1) wisdom and knowledge; 2) boldness; 3) humanity; 4) justice; 5) temperance; 6) transcendence (Rijaveć & Miljković, 2006).

⁸ In fact it is clear that no one consciously likes to be deceived or manipulated, that hardly anyone wants to maintain relations of exchange with manipulators, because of the objective fear to be played and harmed from such a relationship.

(2) *Refuse to be manipulated so as to join the activity that is completely morally strange for a promise of potential illusory usefulness.* Do not sacrifice personal, civil, business ethics and freedom for security, which is an illusion. Refuse to give up your freedom, even smaller rights, integrity or smaller part of your freedom for promise of security, because the sacrifice of rights / freedom is real and urgent, and the security is just an illusion. Promises of security at the cost of sacrificing ethics, law, privacy and freedom are a step in unethical manipulative side.

4.2. Truth and just behaviours as creators of tax compliance

Important implications for social ethics and tax compliance can be found in the so-called spirituality management. Spirituality management based on values states two basic ways to combat manipulations:

- a) Truth;
- b) Justified (moral) behaviour.

4.2.1. By means of the truth against manipulation

Truth is the foundation of morality. Ability and motivation to accept and communicate the truth (harmony between the reality and reflection about them) is crucial human value. According Jack Hawley (Hawley according Lučić, 2013, 49-50), truth is the most important thing, because when any system is in the truth, every problems resolves automatically (alone with himself) on natural way. Because of that, truth is fundamental for survival of any system, so it can be considered more important then capital, work, strategy, or anything else. Untruth or suppressed truth is deeply incorporated in contemporary life, because untruth or hiding the truth is often the means for achieving someone goal. Also untruth or missing the truth are the means of manipulations by which is wanted to achieve domination under other people- what is misuse of the truth. Truth manipulation has the goal to achieve the people are manipulated and so manipulator can easy achieve his own goal. In spite of that fact for management evolution it is necessary the awareness in the truth and internalization of truth as key value category –on the civilization level.

In the internalization of the truth value it is needed the involvement of institutional system. The key managerial question is how to block that untruth or eliding the truth become the key principle of managerial acting and

behaviour, because it often brings to the managerial benefit, but on non-functional level damages the society. The truth should be educated by known behavioural principles and create the situation that untruth/lie is not beneficial („In lie are the short legs“!), but also is punished if it brings to the damages for others. Only by truth is possible the real battle against all kind of manipulations.

4.2.2. By means of correct (moral) behaviour against manipulations

Integrity, justice in achieving the goals, not making damage the other, is also important in prevention and fight against every manipulation. Behaviours such raven the resources from the other, discredit of other to achieve some personal gains or advantage, also are „fertile soil“ for manipulations. Correct behaviour is deep morality in human thoughts, feelings and behaviour. This means that people (even elites) should behave maximal human and to the benefit of each human being, regardless of his material, social, educational and/or other status. It is pathology of management if it thinks that it makes a great good only by the fact that it does no damages and evil.

Doing things right can be clearly seen in relationships with others. Correct behaviour is behaviour which do not delay, do not complicate and do not harm to others. Misusing of „correct doing“ principle often depicts unethical situation, violence, miserable interpersonal relationships, low quality and productivity, animosity and alienation (other people are perceived as enemies) what is extremely favourable milieu for „bad“ climate and culture, and culture of untruth and manipulation. Correct doing is value that is opposite to manipulation behaviour.

5. Critical review and paper limits

This paper shows various manipulative ways of tax compliance. Although this paper primarily engages in manipulations in context of tax compliance, one much wider practical and essential question remains: "Is there a possible world without manipulation in a world where manipulation is commonly accepted strategy with a whole set of techniques at all levels?"

Also, the big question of today's society is: "Why to be moral when it is not functional?", and "Why to use less functional ethical non-manipulative techniques then"? However, lie, deception and manipulation besides means of

resistance, are also means of good / successful life. Benefit is easiest to achieve by wickedness (fraud, manipulation of others), and living on account of others. The problem is not in nowadays society and man of science, but in morality (abuse of knowledge and science). Manipulators abuse knowledge and science for their selfish and immoral purposes, and if needed, show it as a concern for common good, higher interests, or necessity imposed by the situation. That way hypocrisy became primary manipulators' characteristic.

Therefore, there are people and institutions who deceive everyone around them (machiavellianism), easily sacrificing others for their own goals. Many elite (politicians) representatives are superb actors who pretend to be good people but actually enjoy the power and play with other people by manipulating. To achieve something by manipulating became common, but rare ask: "Is it right"? If it is not right, why is it necessary? Even more rare are questions about relationship between the necessary and proper behaviour (for example, if it is not right, is it necessary for taxpayers to pay debts made by the elite for their own purpose of enrichment?).

Given that most people live in a lie greater part of their life (TV media made it possible in greater part, that provides biggest opportunities for fraud and manipulation because ideologies are easiest to sell in that way), part of the truth became unacceptable (cf. MATRIX film), so the truth changes and substitutes lie (manipulation) because it seems acceptable for life, which greatly facilitates all other forms of manipulation. Limitations of nonmanipulative strategies are also mentioned in this paper, because such strategies include climate and culture change of society which is time consuming and difficult process.

One of the largest deceptions and manipulations is spreading of belief that individuals (citizens) can not change anything in this world, in order to numb, not to question, not to investigate so nothing in the area of manipulation can be done, because the manipulation as such is permanent and unchangeable category.

6. Conclusion

Human mind manipulation is a dominant strategy in achieving tax compliance. This is evident from the fact of numerous existing techniques of manipulation that are divided in this paper into:

- a) direct manipulation techniques for achieving tax compliance (3 basic techniques and 4 subtechniques)
- b) indirect general social manipulation strategies for achieving tax compliance (10 strategies)
- c) other manipulation techniques for achieving tax compliance (21 techniques of organizational life)

All hypotheses are confirmed, so following can be answered:

- a) While creating tax compliance, various manipulation techniques are used, described in more detail in this paper.
- b) It is possible to reduce income tax (tax form and tax amount) resistance in one part of citizens by eliminating a sense of injustice and manipulation and thereby strengthen tax morale.
- c) By introduction of some nonmanipulative techniques that create ethical social climate and culture tax resistance can be reduced, for example transparency of spending budget resources, increase of meaningfulness and justification of taxpaying, conscious resistance to manipulations, promotion of spiritual values of truth and proper behaviour.

The paper discusses ethically unjustified manipulative techniques and recommends techniques that are closer to ethical approach. In such ethical approach, essential strategy questions of manipulation / ethics techniques remained inconclusive:

- 1) "Is there a possible world without manipulation in a world where manipulation is commonly accepted strategy with a whole set of techniques at all levels"?
- 2) "Why to be moral when it is not functional?", and "Why to use less functional ethical non-manipulative techniques then"?

Although no decisive and ultimate answer to these fundamental questions is given, the author believes that the society welfare should strive for social and ethical climate and culture that will put out manipulation as unethical category outside an acceptable framework of social life, and therefore tax compliance should come from ethical awareness and need, not by human mind manipulation.⁹ Ethical considerations find it important to answer the question:

⁹ Old Chinese saying indicate that the state have more benefit from justice than from taxes.

"Is it acceptable to achieve tax compliance by manipulation of taxpayers, or is it acceptable to pay taxes based on a moral compliance?", or "is technical solution for achieving the goal of tax compliance only important while ethical way is irrelevant?"

Finally, the conclusion is that today's elites and systems dominantly use manipulative techniques to achieve tax compliance, and it is genuinely because it is more effective technique of non-manipulative techniques / strategies. Arguably and unanswered remains the question whether manipulation it is necessary if it is not right?

References

Bastaić, K., Krizman, B. (1976). *Opća povijest države i prava* [General history of the state and law]. Zagreb, Informator.

Black, P. J. (2013). The Dark Triad and interpersonal assessment of vulnerability: Cues used and accuracy. *Master thesis*. Faculty of graduate study in Psychology University of British Columbia.

Block, W. (2015). On slavery and libertarianism. *Journal of Economic and Social Thought*. Vol. 2. Issue 3 (September), p. 161-174. Available on www.kspjournals.org.

Bogdanović, M.(2014). Deviant management values (Dark Triad) by Croatian management students. 7th International Conference on the School of Economics and Business in Sarajevo, Sarajevo 13th-14th October 2014., Bosnia and Herzegovina, Conference Proceedings, p. 226-242.

Bogdanović, M. (2013). Economic development in transition economies: What and how is needed to be improved in the area of social values? , In: 2nd REDETE 2012 *Conference, International Scientific Conference: „Economic Development and Entrepreneurship in Transition Economies: A Search For New Paradigms“*, Conference Proceedings Banja Luka October 25.-27. 2012.(managing editors Jovo Ateljević, Dragana Došenović), Banja Luka: Faculty of Economics 2013.- p. 291-305.

Bogdanović, M. (2005). Svidanje i prepoznavanje afektivnog materijala u različitim uvjetima prezentacije [Attraction and recognition in different conditions of presentation]. *Društvena istraživanja-Social research*, 77, p. 483-508.

Buble, M. (2006). *Management* [Management]. Split: Ekonomski fakultet Sveučilišta u Splitu.

Chopra, R. (2013). *A Narcissist, a Psychopath and a Machiavellian Walk into a Bar...* Posted by psychometricsforum on June 23, 2013. Accessed 13. July 2014.

Chudziska-Czupala, A. (2013). Ethical Ideology as a Predictor of Ethical Decision Making, *The International Journal of Management and Business*, Vol. 4., Issue 1, June 2013, p. 82-104.

Čudina-Obradović, M. (1991). Motivativno djelovanje kazne i nagrade [Motivational impact of punishment and award]. In: Kolesarić, V., Krizmanić, M., Petz, B. (ur.) Uvod u psihologiju: suvremena znanstvena i primjenjena psihologija [Introduction into psychology: modern scientific and applied psychology], Grafički zavod Hrvatske, Bjelovar, p. 137-174.

De la Motte, A. (2013a). [*plijen*] [engl. Bubble]. Zagreb: Znanje d.o.o.

De la Motte, A. (2013b). [*mamac*] [engl. Buzz]. Zagreb: Znanje d.o.o.

Galal, A.A. (2012). In: *Arab development challenges report 2011: Toward the developmental state in the Arab region. United Nations Development Programme, Cairo*. Accessed 22. 08. 2015 on: http://www.arabstates.undp.org/content/dam/rbas/report/Advocacy_Report_Cover.pdf

Lučić, M. (2013). *Istina je najvažnija: Intervju s Jackom Hawleyem*. [Truth is the most important: Interview with Jack Hawley], qLife, 45-58.

Popov, L. (2015). *Državi ne dugujete ama baš ništa* [You own nothing to your state]. From <http://www.index.hr/vijesti/clanak/drzavi-ne-dugujete-ama-bas-nista/846896.aspx>. Accessed 08. October 2015.

Pupavac, D. (2006). *Etika za menadžere*, [Ethics for managers] Rijeka: Veleučilište u Rijeci.

Rijavec, M., Miljković, D. (2006). *Psihologija pozitivne osobe: Tko su dobri ljudi?* [Psychology of positive good person: Who are the good people?], Zagreb: IEP-D2.

Samuelson, P., Nordhaus, W. (1993). *Ekonomija*. [Economy] Zagreb: Mate d.o.o.

Schneider, F. (2015). The Morals of (Not) Paying Taxes and Receiving Benefits: Economic, Institutional and Psychological Factors. *Marie Curie IAPP Conference-Zagreb: Tackling Undeclared Work-Asymmetry between Formal and Informal institution-presentation*. 01. 09. 2015. Zagreb, Croatia-presentation.

Tyrala, M. (2015). USA and its (un)Changing Role in the Regulatory Struggles Against Tax Havens. *Marie Curie IAPP Summer School for Multiple Moralities and Shadow Economies in Post-socialism*. 29.-31.08. 2015., Zagreb, Croatia-presentation

Yatzeck, E. (2012). Beware the Dark Triad: Your Worst Change Management Nightmare. *Pragmatic Agilist*. Retrived July 28, 2013. From <http://pagilista.blogspot.ae/2012/12/beware-dark-triad-your-worst-change.html> Accessed 13. July.2014.

Visković, N. (1981). Pojam prava: prilog integralnoj teoriji prava. [Definition of law: contribution to the integral law theory] Logos:Split.

Zimbardo, P. (2007). *The Lucifer Effect: Understanding How Good People Turn Evil*, New York: Random House Trade Paperback Edition.

<http://akuzativ.com/teme/337-noam-chomsky-10-strategija-medijske-manipulacije> (08.06.2015.)

<http://www.6yka.com/novost/15833/comski-deset-strategija-manipulacije-ljudima> (08.06.2015.)

http://www.centar-angel.hr/HR/Zanimljivosti_Chomsky.php (08.06.2015.)

<https://www.youtube.com/watch?v=b5XqM0b-bDQ> (08.06.2015.)

Matrix-film. [Well known movies Matrix]

A comparison of the impacts of managerial flexibility and fit of required flexibility on customer satisfaction: banks and financial institutes

Alireza KHORAKIAN*,
Yaghoob MAHARATI**,
Elahe NASERINEJAD***

Abstract

Today, organizations are seeking for new methods to increase customer satisfaction and gain competitive advantages to survive in a competitive environment. One of the methods of gaining competitive advantage is flexibility that helps organizations to respond changes in customer demands, competitor organizations and technology. It should be noted that, environmental conditions are diverse for different industries. This study indicates that the level of flexibility in organizations largely depends on environmental conditions. This is an applied-casual survey. All of the 38 banks and financial institutes of the city of Mashhad (Iran), as the most important service organizations constitute the population of this study. The effect of flexibility dimensions (functional, structural, and strategic) on customer satisfaction with the fit of required flexibility dimensions are compared. The findings indicate that the effect of fit of required flexibility on all the three dimensions is greater than the effect of management flexibility.

Keywords: Customer satisfaction, Fit of required flexibility, Service organizations

JEL Code Classification: C83, G21, M10

* Assistant professor, Faculty of Economic and Administrative Sciences, Ferdowsi University of Mashhad (FUM), Mashhad, Iran, a.khorakian@um.ac.ir

Corresponding author - Address: Ferdowsi University of Mashhad (FUM) campus, Azadi Sq., Mashhad, Khorasan Razavi, Iran. P.O. Box: 9177948974 - Tel: +98 51 3880 5360 - Fax: +98 51 3881 1243

** Assistant professor, Faculty of Economic and Administrative Sciences, Ferdowsi University of Mashhad (FUM), Mashhad, Iran, maharati@um.ac.ir - Tel: +98 51 3880 5360

*** PhD student, Faculty of Economic and Administrative Sciences, Ferdowsi University of Mashhad (FUM), Mashhad, Iran, el.na@stu.um.ac.ir - Tel: +98 935 772 7195

1. Introduction

In the modern economy, service section plays a major role, and this role is rapidly expanding (Fazli, 2011, Marcinik, 2013). This role is so important that even in industrial organizations, service is considered as the organization's key to success (Xu, et al, 2011). Thus, competition in service section is leading the economic world in 21st century (Javalgi, et al, 2005). One of the most important organizations in the field of service is banks and financial institutes. The role of these organizations is so clear that no incorporation can be found which does not use their services. Therefore, an increase in the performance of banks and financial institutes has an especial priority. It should be mentioned that measuring customer satisfaction provides a suitable feedback for organizational performance. Modern managerial sciences also consider customer satisfaction as the major standard for performance and a major reason for an organization to achieve benefits (Oliver, 1980). Customer satisfaction is a level of service that a customer wishes to receive (Shahlayeemoghadam, 2010; Rod, et al, 2009). The aim of this research is to find a way for increasing customer satisfaction with bank services.

Service activities have certain characteristics such as intangibility and customer's participation in the process of production. This characteristic of service activities leads to a more active environment and increased competition (Xu, et al, 2011). Another characteristic of these activities is simultaneous production and use which happens through contacting customers. Thus, in this process, time and performance are vital, and a customer expects services without delay; this means that service organizations should be able to respond to the changes in active environment. In other words, they should be flexible (Donald, 2001; Zhang, et al, 2005). This should be taken into account that flexibility highly depends on the environment of the organization. An inactive environment needs less flexibility, but in an active and competitive environment, organizations should have more flexibility to control conditions (Richter, Sadek, Steven, 2010; Verdu, et al, 2004; Donald, 2001).

It should be noted that service section has a major share in Gross Domestic Production (GDP) and employment in a country (Marciniak, 2013; Visintin & Rapaccini, 2009). In Iran, also this section in comparison with industrial and agricultural sections has the greatest share in employment and GDP, and it is predicted to increase in future (Saljooghi, 2013; Ghazanfari, 2011). So it has an important role in the economy.

As there exists high uncertainty in service industry, flexibility is a very important competition weapon in service businesses (Ozgenel, Ozashin, Acar, Zehir, 2013; Visintin & Rapaccini, 2009). Thus, successful service organizations are those, which are able to adapt and respond to changes in the quantity and quality of demands through activeness (Donald, 2001). By investigating banks and financial institutes in Iran, it can be concluded that attracting and satisfying customers and improving organizational performance have been the concerns of many of these organizations (Nazemi, Mortazavi & Rahati, 2005). For example, Melli Bank (Iran's national bank) in order to do marketing and improve their quality, first of all have investigated on the advantages of their organization in domestic market. Refah Bank (welfare bank) also looks for factors which lead to the success of efficient branches to create a model for other branches. Saderat Bank (Export bank) is also looking for some strategies for attracting customers. Thus, customer satisfaction and organizational success are among those issues which have attracted the attention of these organizations making others active to keep up with them.

It should be mentioned that rapid changes in customers' expectations, competition and technology create an uncertain environment for organizations, which requires flexibility as the main solution (Richter, et al, 2010; Zhang, et al, 2003). Nowadays, flexibility has become one of the most important advantages for service organization (Arias Aranda, 2003). Through flexibility, organizations can respond to customers' needs which lead to customer satisfaction (Zhang, et al, 2005). By measuring customers' needs, it would be possible to evaluate organizational performance, and find their advantages and disadvantages. Also measuring customer satisfaction would create responsibility in frontline employees and this will encourage staff to have higher performances (Mihelis, et al, 2001). Organizations, who value customer satisfaction, have great fame, seeking to improve customer satisfaction and win their loyalty (Zhang, et al, 2005). In a study on Iranian banks, attracting and satisfying customers have high value for them (Nazemi, et al, 2005).

It should be noted that organizational flexibility is related to the characteristics of organizational environment. Managers should know the nature of their organization environment, and design and plan organizational structures and strategies accordingly (Richter, et al, 2010; Visintin & Rapaccini, 2009). In this paper, various impacts of managerial flexibility and the fit of required flexibility over customer satisfaction have been investigated at three levels: functional, structural and strategic. This study has been carried out to

analyze the statue of Iranian banks. Moreover, this will help bank managers to clarify the extent of flexibility of their organization. Through measuring the impact of this factor over customer satisfaction, they would be able to evaluate their own efficiency and find their advantages and disadvantages. The findings of this article can help managers to design organizational structure and strategy in the field of organizational flexibility.

2. Theoretical framework

2.1. Customer satisfaction

In investigating the performance of service organizations, the speed and reliability of services should be considered, as they can affect customer satisfaction (Xu, et al, 2011) and measuring customer satisfaction is one of the common methods to study organizational performance which is a combination of subjective and objective components. Satisfaction is the result of realizing user goals, and when a customer's expected product or service is properly provided, they will feel pleasure and happiness (Oliver, 1980). In another explanation, when a customer is satisfied with the service or product that he/she has received, it is because it has the same or higher value than its prices (Zhang, et al, 2003) or that service or product is worth its price (Zhang, et al, 2005). Nowadays, in the developed countries, customer satisfaction has become one of the most important economic factors (Shahlayeemoghadam, 2010).

Johnston (1995) has investigated customer satisfaction in service organization. He also studied banks, finding that there are some components in organizations which lead to satisfaction or dissatisfaction of bank customers, with the main resources of this satisfaction being accuracy, accountability, attention and warm treatment of the staff (Johnston, 1995). Mihelis et al (2001) in another research investigated the factors affecting customer satisfaction of banks. They introduced five major variables for measuring customer satisfaction, bank employees (including characteristics such as skills, knowledge, accountability, rapport with customers and so on), products (presented services and products such as variability, costs, refundable payments, special services, and so on), bank image (bank fame and credit, technological advantages, fulfilling future needs of customers), services (organization appearance, waiting time, the complexity of presented services and information to customers), accessibility (including the number of bank branches and the situation of these branches) (Mihelis, et al, 2001).

2.2. Flexibility

Flexibility also shows the ability of organization in adapting to changing environment and instability of business (Xu, et al, 2011) as well as the ability of an organization in encountering uncertainty, and meeting the needs of customers with low rate of error (Visintin & Rapaccini, 2009; Verdu, et al, 2004). Flexibility allows an organization to change the nature of its services to respond customer needs and take over its rivals (Dibrell, Craig, Neubaum, 2013; Fazli, 2011). Flexibility in services includes offering new services in delivery systems with high speed, rapid adjustment of the capacity, development of specific services, change management in service combination, and time management in delivery system. Thus, the major goal of service flexibility is improving time and quality of allocated resources to prevent the utilization of people and resources when they are not needed (Visintin & Rapaccini, 2009). Volldebra (1998) presents the categorization of organizational flexibility based on managerial abilities. According to him, managerial responsibilities have two dimensions: variability and speed. Variability refers to a company's ability to adapt to environmental needs. Speed also refers to the use of this ability in an appropriate time. According to these two dimensions, three kinds of flexibility can be identified: functional flexibility (low variability, high speed), structural flexibility (high variability, low speed), and strategic flexibility (high variability, high speed) (Volldebra, 1998). Functional flexibility is the ability to manage reactions to known and daily environmental changes, such as changes in production capacity or changes in inventory. Structural flexibility is the ability to adapt the structures and existing processes with changing environmental conditions. It includes a vast managerial capability, but these capabilities are achieved very slowly. Strategic flexibility is the ability of managing unknown changes with long-term results that should be addressed fast. As these flexibilities are fostered by managers in organizations, they are called managerial flexibility (Verdu, et al, 2004).

3. Research Background

It should be noted that while there has been vast researches on flexibility (Corrêa & Gustavo, 1994; Visintin & Rapaccini, 2009; Xu, et al, 2011), but there are few researches on the factors affecting flexibility in service section

(Corrêa & Gustavo, 1994; Visintin & Rapaccini, 2009; Verdu, et al, 2004). Thus, it seems that a comparison between producers of goods and services would be a proper departure point for investigating service flexibility (AriasAranda, 2003) and through studying subjective literature on production flexibility, it can be associated with service flexibility (Donald, 2001). As such, most researches in the field of service flexibility have used an approved model of production flexibility (Verdu, et al, 2004). For example, Aranda (2003) investigated the relationship between organizational functional strategy and performance with flexibility as a mediating variable in service organization. In this study, he used the flexibility dimensions investigated in service organization, concluding that flexibility leads to an increase in efficiency of organizational performance (AriasAranda, 2003). In another research, Harvey et al (1997) investigated flexible trends in bank services based on information from service organizations, finding that business traditional patterns have faced serious competition. This competition often is the result of change in customer needs and services instability (Harvey, et al, 1997).

The study of Zhang et al. (2002) on flexibility and customer satisfaction in service organization shows that there is a positive and significant relationship between these two variables (Zhang, et al, 2002). Verdu et al. (2004) used the model measuring the aspects of production flexibility to compare the performance of service organization with production organization. They firstly differentiated between required flexibility and real flexibility. The former, which is determined based on organization environment, conditions, and internal and external situations, governs in an organization. The latter is the flexibility created by a manager in an organization, which is the same as managerial flexibility. They found that measuring the fit of required flexibility is a better predictor of organizational performance than the real flexibility, with this model of measuring performance in service organization and production organization yielding the same results. Thus, they can be used in both organizations (Verdu, et al, 2004).

Given the integral role of banks in the economy of a country (Motameni, et al, 2010; Zehir, Ozgenel, Ozsahin, 2013), this research deals with the ways of increasing customer satisfaction with this organization based on environmental conditions. As discussed earlier, managerial flexibility has three functional, structural and strategic dimensions. In this study, the impact of each dimension on customer satisfaction has been measured, with each of these dimensions being compared to required flexibility, and the impact of fit of required

flexibility by managerial flexibility on customer satisfaction in each dimension has been examined.

4. Research Hypothesis

As pointed in the research background, the following research hypotheses are presented:

1. Fit of functional flexibility is a better predictor of customer satisfaction than functional flexibility.
2. Fit of structural flexibility is a better predictor of customer satisfaction than structural flexibility.
3. Fit of strategic flexibility is a better predictor of customer satisfaction than strategic flexibility.

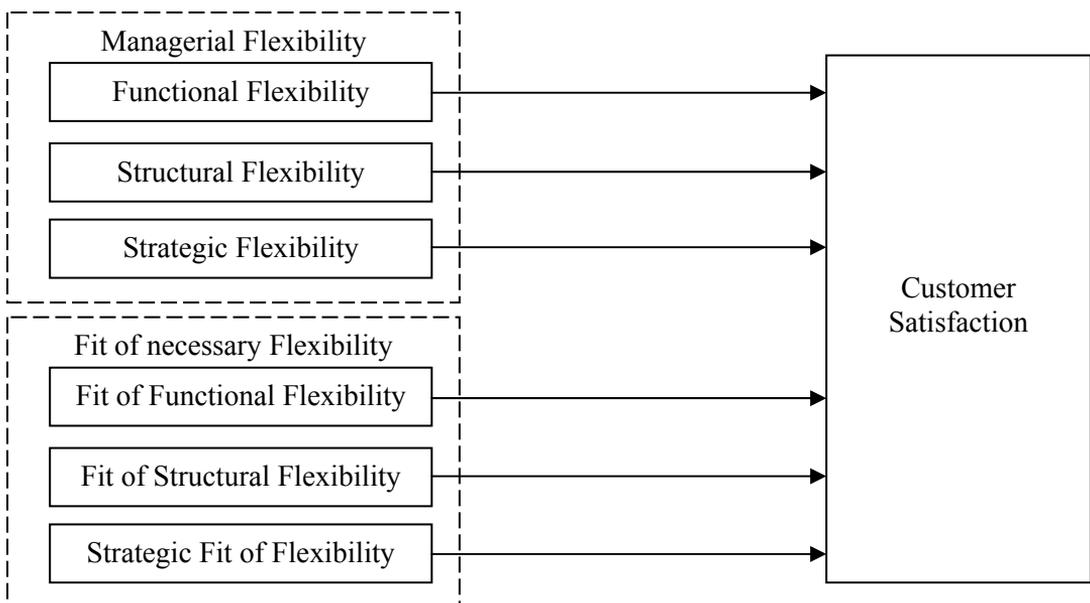


Figure 1- Research Conceptual Model

5. Research Methodology

5.1. Research Methodology

This is an applied research with a descriptive data gathering method, which is casual regarding the relation between research variables. The main research method was a survey, which allows the generalization of results. Research variables are: managerial flexibility and fit of required flexibility as independent variables and customer satisfaction as dependent variable.

5.2. Data Gathering Tools

Two questionnaires were used for data gathering. The first questionnaire consists of two sections. The first section includes 18 items, which measures required flexibility of the organization. The second section includes 18 items which determine the extent of real flexibility. Each section contains three types of questions, with each six questions investigating one of the dimensions of flexibility (functional, structural, strategic) in the field of bank industry. A 5-point Likert scale was used to answer the questions (1= strongly disagree, 5= strongly agree). A comparison of these two clarifies the gap between flexibility in organization and fit of required flexibility. Bank managers answered the questions based on their understanding of the status of studied variables. This questionnaire was designed by Verdu (2004) (Verdu, et al., 2004). The second questionnaire is related to customer satisfaction, which was designed by Mihelis et al. (2001). In this questionnaire, customer satisfaction with bank performance is investigated from five perspectives of employees, products, mental image, services and accessibility (Mihelis, et al. 2001).

5.3. Reliability and Validity of Research Instrument

Content reliability and structure as well as instrument reliability have been always significant. Although the tools used in this research were standard questionnaires derived from reliable resources, to investigate content reliability, acquire greater certainty, localize their content and adapt the items with the real environment of Iranian banks, the questionnaires was translated two times and then some professors of management faculty, bank experts, and management students working in banks evaluated them and necessary changes

were made. Structure reliability was investigated by factor analyses and SPSS software. As for the factor analysis, it should be considered that existing data can be used for the analysis. To do so, Bartlet Test and KMO index were used. If the value of KMO index is near one, the data are suitable for factorial analysis, otherwise (usually less than 0.5) the results of factor analysis for the given data would not be reliable. As shown in table 1, for all of the structures, this value is higher than 0.5. Bartlet Test investigates whether factor analysis is proper for identifying structure, and the value of its sign should be less than 5%. This value for all of the structures of the study was less than 5%. After that KMO index was being identified proper, and significance of Bartlet Test, load factors were investigated. If load factor for one item was less than 0.5, that item would be removed (Pallant, 2009). In Table 1, the number of omitted items for each dimension and variables is shown. Also the reliability of the implemented tools was evaluated using Cronbach's Alpha. As can be seen in the last two columns of Table 1, Cronbach's Alpha for all dimensions and variables was more than 0.7 (Nunnally, 1978), and it can be concluded that the tools had acceptable reliability.

Variable	Aspects	KMO	Bartlet	Determined Variance	Number of Omitted Items	Cronbach's Alpha for Aspects
Managerial Flexibility	Functional	0.517	0.000	54.89	2	0.710
	Structural	0.614	0.000	33.84	2	0.789
	Strategic	0.801	0.000	41.67	3	0.741

Variable	Aspects	KMO	Bartlet	Determined Variance	Number of Omitted Items	Cronbach's Alpha for Aspects
Fit of Required Flexibility	Functional	0.899	0.000	36.71	0	0.812
	Structural	0.892	0.000	51.58	0	0.710
	Strategic	0.798	0.000	55.89	0	0.721
Customer satisfaction	-	0.754	0.000	67.58	2	0.825

Table1- The Results of Investigating Research Tools Reliability and Validity (P value < 0.05)

5.4. Population, Sampling Method, and Size of Sample

The statistical population of the research consists of two groups. First group includes the president and vice president of banks and financial institutes. As discussed in 2.5, two questionnaires were used to measure flexibility. These questionnaires were sent to main branch of each bank and institute, and finally 76 questionnaires were returned. Also for investigating the second group (the customers of banks and financial institutes), some customers of each bank were asked to fill out the questionnaire. Thus, finally, from 38 branches of banks and financial institutes, 100 questionnaires were gathered.

5.5. Data Analysis Method

There are a variety of methods to analyze the data with respect to their nature and research goal. In this research, Regression Analysis was used to analyze the data and test the hypotheses using WarpPLS software. In the first phase, the significant relationship between managerial flexibility and fit of flexibility with customer satisfaction was tested (Table 2). Then the intensity of this relationship was evaluated (Table 3). In the last phase, a comparison was made between the type and intensity of the relationship.

P-Value	Managerial Flexibility			Fit of Required Flexibility		
	Functional	Structural	Strategic	Functional	Structural	Strategic
Customer satisfaction	0.027	0.032	0.022	0.006	0.016	0.000

Table 3- Results of Investigating the Intensity of Relations (beta) (P-Value < 0.05)

Path Coefficients	Managerial Flexibility			Fit of Required Flexibility		
	Functional	Structural	Strategic	Functional	Structural	Strategic
Customer satisfaction	0.285	0.235	0.264	0.356	0.309	0.444

Table 2- Results of Investigating the Significant Relationship among the given Variables (P Value < 0.05)

6. Research Findings

To evaluate the level of significance of relationships, P-value was calculated for each relationship. If P-value was less than 0.05, the significant relationship between variables was approved. As shown in Table 2, this

coefficient for all of the relationships was less than 0.05, thereby indicating the existence of a relationship between all research independent variables and customer satisfaction. In order to compare the degree of effectiveness of managerial flexibility and fit of flexibility on customer satisfaction, Beta coefficient was calculated for each relation. In functional flexibility, the intensity of fit of flexibility ($\beta = 0.356$) was more than managerial flexibility ($\beta = 0.285$). Thus the first hypothesis was confirmed. As for the structural flexibility, the intensity of fit of flexibility ($\beta = 0.309$) was higher than managerial flexibility ($\beta = 0.235$). Therefore, the second hypothesis was confirmed. In strategic flexibility, also the intensity of fit of flexibility ($\beta = 0.444$) was more than managerial flexibility ($\beta = 0.264$). Thus, the third hypothesis was also approved.

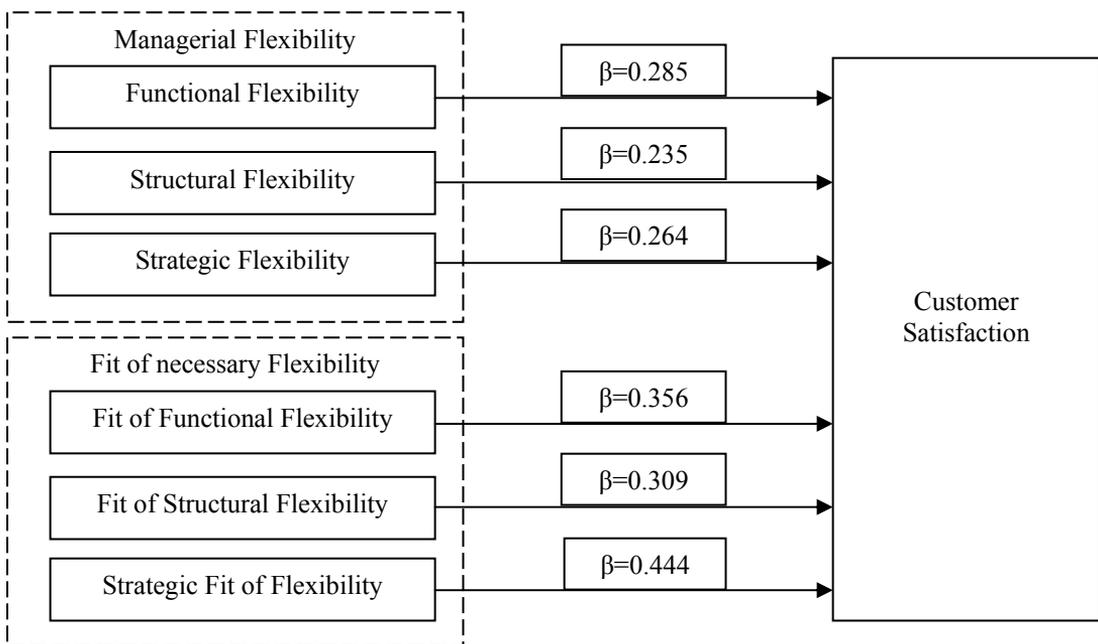


Figure 2. Research Findings

7. Discussion, Conclusion, and Suggestions

In today's competitive world, attracting customer satisfaction is one of the major strategies of successful organizations, and keeping customers satisfied is an issue that has been noticed by almost all organizations. This research also

seeks to find a way of increasing customer satisfaction with banks and financial institutes. It should be mentioned that these organizations have an integral role in the economic cycle of each country. Although there have not been enough studies on the flexibility of service organization in comparison with production organization, this research has attempted to use the most related studies to investigate the issue. Most researchers have approved that flexibility is necessary for an organization (Arias Aranda, 2003; Rod, et al., 2009; Verdu, et al., 2004; Visintin and Rapaccini, 2009; Vollbrda, 1998; Zhang, et al., 2003; Zhang, Vonderembse, Lim, 2005). However, the concept of fit of required flexibility in Iranian organizations especially in service section has not been sufficiently addressed.

In the fit of required flexibility, this issue is emphasized that the value of required flexibility for each organization is determined by internal and external variables. Lawrence and Lorsch (1967) and Burns and Stalker (1961) also found that in a static environment, organization structures should be mechanical, while in an active environment, organic structures are needed (Burns, Stalker, 1961; Lawrence, Lorsch, 1967). The fit of required flexibility (functional, structural, strategic) reveals that manager should foster flexibility according to environmental conditions and organization needs. An organization may be less flexible than other organizations with respect to functional, structural and strategic flexibility, but it may be more efficient in its evaluation and perception of the environment. This suggests that performance is not bound to the flexibility. On the other hand, too much flexibility may cause problems for an organization. In this case, the level of flexibility in the organization is higher than the environmental needs, thereby increasing the expenses of the organization. Sometimes, organization flexibility is less than the environmental need. In this situation, the fit of required flexibility will not be enough for the organization, thus leaves a negative impact on the organization performance.

As mentioned earlier, Verdu et al. (2004) investigated this issue in production organization, and their results are consistent with ours. They also showed that the impact of the fit of required flexibility on organizational performance was more than mere flexibility (Verdu, et al., 2004).

As each organization tries to have more satisfied customers, an organization that manages to win its customers satisfaction would be more successful. This research has investigated the increase in customer satisfaction through flexibility of an organization. This study was applied to banks, financial institutes, and other organizations. It sought to determine aspects of

flexibility and those conditions which needed more or less flexibility to win the customer satisfaction. Managers can discover the aspects of flexibility in their organization through the variables that investigate the dimensions of flexibility. Determining the required flexibility is one of the vital responsibilities of organizations, which help them to better adapt to the environment. Managers and consultants of successful organizations in each industry pay more attention to the variables which clarify the extent of required flexibility, and in this way they can estimate the degree of required flexibility. In the next step, they should evaluate their organization with respect to those variables. Through this comparison, they can reach the fit of required flexibility. The lower is the distance between these two variables, the fit of required flexibility would be more complete. It is worth mentioning that this evaluation should be done at different time intervals, the length of which is determined by the industry type, managers and consultants' attention.

In conclusion, it is suggested that this study be conducted in other services and manufacturing organizations of Iran; also to investigate the impact of fit of flexibility on other organizational variables such as performance.

References

- Acar, A.Zafer; Zehir, Cemal; Ozgenel, Nurhan; Ozsahin, Mehtap. 2013. "The effects of customer and entrepreneurial orientations on individual service performance in banking sector". *Social and Behavioral Sciences* 99: 526 – 535.
- Arias Aranda, Daniel. 2003. "Service operations strategy, flexibility and performance in engineering consulting firms". *International Journal of Operations & Production Management* 23(11): 1401 – 1421.
- Burns, T.; Stalker, G.M. 1961. *The Management of Innovation*. London: Tavistock,.
- Cingoz, Ayse, Akdogan, A. Asuman. 2013. "Strategic flexibility, environmental dynamism, and innovation performance: An empirical study". *Social and Behavioral Sciences* 99: 582 – 589.
- Corrêa, Henrique Luiz; Gustavo N. Giansesi, Irineu. 1994. "Service operations flexibility". Published in the Proceedings of the *International Conference of the European Operations Management Association*.
- Dibrell, Clay; Craig, Justin B.; Neubaum, Donald O. 2013. "Linking the formal strategic planning process, planning flexibility, and innovativeness to

firm performance". *Journal of Business Research*, Available online 31 October 2013

Donald.E, Simmons. 2001. "Field service management: A classification scheme and study of server flexibility". accepted and submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Operation Management in the Graduate School of Binghamton University State University of New York

Fazli, Idris. 2011. "Applying the rigid flexibility model in a service setting: A case-study of AirAsia". Online, accessed on February 01, 2012

Ghazanfari, Mahdi. 2011. "Share of services in Iran's economy is more than 50%". online, accessed on August 21, 2013

Harvey J.; Lefebvre, L.A.; Lefebvre, E. 1997. "Flexibility and technology in services: a conceptual model". *International Journal of Operations & Production Management* 17(21): 29 – 45.

Javalgi, Raj; Whipple, Thomas; Ghosh, Amit. 2005. "Market orientation, strategic flexibility, and performance: implications for service providers". *Journal of Services Marketing*.19(4): 212 -221.

Johnston, Robert. 1995. "The determinants of service quality: satisfiers and dissatisfiers". *International Journal of Service Industry Management* 6(5): 53-71.

Karaesmen, F.; Duyn Schouten, F.A. van der; Wassenhove, L.N. van. 1998. "Dedication versus flexibility in field service operation" *Center for Economic Research* 9824: 21-31.

Lawrence, P.R.;Lorsch, J.W. 1967. *Organization and Environment: Managing Differentiation and Integration*. Harvard Business School Press, Boston, MA.

Marciniak, Robert. 2013. "Measuring Service Satisfaction in Shared Service Organizations" *Social and Behavioral Sciences* 81: 217 – 223.

Mihelis, G.; Grigoroudis, E.; Siskos, Y.; Politis, Y.; Malandrakis, Y. 2001. "Customer satisfaction measurement in the private bank sector" *European Journal of Operational Research*, 130: 347 -360.

Motameni, Alireza; Javadzade, Mohammad; Tizfahm, Mahdi. 2010. "Assessing strategic performance of banks" *Strategic management review* 1: 141-159.

Nazemi, Shamsodin; Mortazavi, Saeed;Rahati, Toktam. 2005. "Role of new services of banks in attracting customers and improve the efficacy of banks (Case study: Sepah Bank of Mashad)". *Human and social Science of Mazandaran University* 19: 97-122.

Nunnally, J. C. 1978. *Psychometric Theory*. 2nd ed. New York: McGraw-Hill.

Oliver, R.L. 1980. "A cognitive model of the antecedents and consequences of satisfaction decisions" *Journal of Marketing Research* 17: 460-469.

Pallant, J. 2009. *Spss survival manual, a step by step guide to data analysis using spss for windows (version 15)* Third edition, Alen Xuniwn.

Richter, Alexander; Sadek, Tim; Steven, Marion. 2010. "Flexibility in industrial product-service systems and use-oriented business models". *Journal of Manufacturing Science and Technology* 3(2): 128-134.

Rod, M., Ashill, N.; Carruthers, J. 2009. "An examination of the relationship between service quality dimensions, overall internet banking service quality and customer satisfaction: A New Zealand study" *Journal of Marketing Intelligence and Planning* 27(1): 103 – 126.

Saljooghi, Khosro. 2013. "The 45% share of services in Iran's economy", online, accessed on September 25, 2013.

Shahlayemoghadam, Afshin. 2010. "How to keep customers satisfied" online, accessed on October 26, 2013.

Verdu-Jover, A. J.; Llorens-Montes, F. J.; Garcia-Morales, V. J. 2004. "The concept of fit in services flexibility research: an empirical approach" *International Journal of Service Industry Management* 15(5): 499-514.

Visintin, Filippo; Rapaccini, Mario. 2009. "Flexibility in field services: A conceptual model" *Revista de Administração Faces Journal* 8(4): 80-97.

Vollbrda, H.W. 1998. *Building the flexible firm: how to remain competitive*. New York: Oxford University Press.

Xu, Xuan-Guo; Han, Wen-Min; Ye, Tao-Feng. 2011. "Flexibility of service-oriented manufacturing: A literature review". *African Journal of Business Management* 5(35): 13534-13540.

Zhang, Qingyu; Vonderembse, Mark A.; Lim, Jeon-Su. 2003. "Manufacturing flexibility: defining and analyzing relationships among competence, capability, and customer satisfaction". *Journal of Operations Management* 21(2): 173-191.

Zhang, Qingyu; Vonderembse, Mark A.; Lim, Jeon-Su. 2005. "Logistics flexibility and its impact on customer satisfaction". *The International Journal of Logistics Management* 16(1): 71-95.

Role of public private partnership in West Java, Indonesia

Senen MACHMUD,
Iwan SIDHARTA*

Abstract

The purpose of this paper is to analyze and develop policy recommendations implementation sources of development funding that come from the PPP in West Java in an effort to improve the optimization of the utilization of these funds. The method used was qualitative research with emphasis on four main aspects, namely: institutional analysis and the stakeholders involved, regulation and policy analysis, implementation and analysis of the shape and pattern analysis of sources of funding. This research shows that in terms of funding, the banking institutions are still major stakeholders in the financing of PPP implementation in West Java, Indonesia that has experienced improvement in the regulation of the sector by the government. However, there are still obstacles in the implementation of PPP and limited alternative sources of financing of PPP in in West Java Indonesia. To optimize the sources of development in funding primarily coming from the PPP scheme in achieving development goals in West Java Indonesia can be done by collaborated of stakeholder.

Keywords: infrastructure, sectoral planning, public capital, social responsibility

JEL Classification: H540, O210, M140

* Senen Machmud is at School of Economic Pasundan, Bandung, Indonesia. E-mail address: senenmachmud@stiepas.ac.id

Iwan Sidharta is at School of Economic Pasundan, Bandung, Indonesia. E-mail address: i_sidh@stiepas.ac.id

1. Introduction

Text of the introduction. No more than 15 lines. 12 points, TNR, justify. Present your paper: indicate your topic, make clear what your points are, show the structure of the paper.

Papers are subject to anonymous judgments of two independent referees. The minimum number of pages (including figures, tables, bibliography, notes, appendices) is 5. Any paper of less than 5 pages will not be accepted. Pages will not be numbered. The papers will be typed according with these guidelines.

Every organization, which is either large or small organization, and either government or non government, will almost certainly need funds to organize all activities run by the organization. In Indonesia, local government budgets in most areas are still very limited, whereas local community needs are increasing each year, causing problems in the financial management of the local government. The problems that arise are issues of regional development financing in developing regions. The pattern of development of financing in local governments still relies on the budget sourced from conventional funds, such as taxes and levies. Government still prefers to increase local revenue to overcome the limitations of development of funds.

West Java Province is a province that is very dynamic, with a very large number of people reaching more than 44 million in 2014. The big population would require the provision of a very large development funds in order to stimulate economic growth and to improve the welfare of the people of West Java. It requires more investment in some vital areas, such as infrastructure, facilities and infrastructure in the public interest and other liabilities which are well organized, basic services in health care, education, social welfare and other basic services dealing with community. This is in line with the policy for development of West Java in the upcoming years that will put more emphasis on improving the quality and equity of education, health and productivity to increase human resources in West Java; enhancing the development ability of the economy to increase prosperity for the people of West Java; improving the quality and quantity of infrastructure of the region; balancing control capacity of the environment and improvement of disaster mitigation and implementation of good governance.

Realizing the limited ability of local governments to fund its development needs in West Java, West Java Provincial Government developed several strategies, including; (1) giving priority to development financing in sectors that

support the improvement of people's welfare as well as the financing of investment in strategic sectors; (2) optimizing the local government revenue both from tax and non-tax and allowing more grants; (3) optimizing the expenditure/state spending by making the programs and targets/objectives more focused and increasing the effectiveness and efficiency of the technical activities; and (4) enhancing development cooperation by involving the community.

In order to increase participation from public, business community, and non-governmental organizations in achieving development goals of West Java, the government attempts to optimize the activities of various stakeholders development by using other sources of funding not from the Budget area, while the State Budget comes primarily from the banking and business circles, as well as taking advantage of direct foreign investors. In the effort to utilize the funding sources, the government seeks to strengthen the regulatory and institutional financial institutions, including banking institutions and non-banks. The government also seeks to optimize investment activities by building partnership with both private sectors and government to become more focused as has been scheduled in the Development Plan. To that end, better cooperation between governments and the private sectors will lead to a more systematic and continuous need to be developed and optimized, including through PPP scheme.

PPP defines the relationship between the role of government policies and the established rules, and provides licensing services. Meanwhile for the private sector, cooperation will encourage the role of the party to provide the conducive environment for a region as an investment destination, the inclusion of related agencies as well as the need for transparency in relation to the licensing, and the added value that can be obtained from the local economy. PPP scheme can be an alternative in achieving regional development objectives with limited financial condition. In accordance with the concept of PPP, the government's role is expected to support the activities undertaken by the private sector in the development of public facilities. By doing relationship management, it can provide more value in accordance with PPP scheme (Zou et al, 2014).

The PPP scheme is expected to be an alternative to the provision of infrastructure which has been hampered as a result of the limited availability of funds. The analysis focuses mainly on the size of the potential implementation of the cooperation in the future that refers to recommendations. Development

of infrastructure must be carried out in details by combining multiple patterns of development funding given each financing scheme has disadvantages. Combining several financing scheme is expected to minimize stuck on construction due to problems on financing. In addition, the government should also pay attention to critical factors in ensuring the passage of the PPP scheme (Yang et al., 2009). Based on research results of Chan et al. (2010), there are several principles that need to be considered for successful implementation of a PPP scheme, namely equitable allocation of risk, a strong private sector, a judicious government control, a transparent and efficient procurement process, project economic viability, adequate legal framework and stable political environment and financial markets. Ke et al (2010) conducted a study in connection with preferred risk in PPP schemes by risk ratings based on public sector and private sector. Similarly, a study conducted by Chan et al. (2011) classifies risk assessment and allocation based public and private sectors. Research conducted by Chou et al. (2012) on the implementation of high-speed rail with the PPP scheme can be done based on the experience of previous PPP management. Moreover a study conducted by Tang et al. (2013) ranked critical success factors based on the literature implemented in Australia. The critical success factors are divided into four main factors, namely procurement, stakeholders, risk and finance. Nonetheless, it needs to observe the current PPP scheme as the private sector cannot manage risk, are less efficient and use low cost (Medda, 2007).

Based on the description of the problems mentioned above, it is necessary to conduct further research on utilization of other funding sources for development in West Java through the implementation of the PPP scheme. The objectives of this study are to analyze and develop policy recommendations for sources of development funding derived from the implementation of PPP scheme in West Java in an effort to improve the optimization and the utilization of these funds. Based on these objectives, the primary goal of this study is to optimize the sources of development in funding primarily coming from the PPP scheme in achieving development goals in West Java.

The scope of this study is focused on the identification and analysis of the sources of development funding sourced from PPP scheme through: (1) Identification and analysis of policies, institutions and stakeholders, implementation, as well as the sources and patterns of financing in the implementation of the PPP scheme; and (2) formulation of policy

recommendations related to the implementation of the PPP scheme that is optimal and sustainable.

2. Literature Review

2.1 Public Private Partnership

Public Private Partnership is collaboration in the provision of infrastructure (such as the provision of toll roads, electric energy, drinking water and sanitation) between the government, central government, and local government (Provincial, District/Municipal) and private partner enterprises, both entities in domestic scale or foreign business entities. The collaboration includes the construction work to build, improvement of management and maintenance of infrastructure in order to improve the quantity and quality of public services (Bappenas, 2009).

The need for the PPP in Infrastructure Development is because, according to the calculations presented by Bappenas, Indonesia needs a minimum of infrastructure financing of 5 -7 %of gross domestic product growth in 2014. Thus, by using these calculations, the estimated infrastructure needs are based on a minimum 5 % of GDP in 2010-2014. The capacity of the government budget is very limited, which has included the Special Allocation Fund managed by the regional government. Meanwhile, financing infrastructure projects through other funding sources such as investment from enterprise and private sectors, and local funding through the budget are still limited.

Therefore, the infrastructure projects of PPP scheme should continue to be developed, which can be used as an alternative to infrastructure financing in Indonesia, because this PPP scheme allows the government to withdraw the participation of the private sectors, both domestic and abroad. The government in the provision of public infrastructure is not always able to provide their own funding, thus it is necessary to engage the private sectors to support the government in implementing its public obligations. As a consequence, the burden of the government in terms of investment costs can be reduced, more efficient use of assets, and the allocation of certain risks can be transferred to the private sector.

PPP scheme involving the private individual sector was growing rapidly in the United Kingdom in the period between the years 1980 - 1990 (Li et al,

2005) and continued to show an increasing trend (Tang et al, 2010). Based on PPP Book 2010-2015, there are 19 projects offered under the PPP with estimated project cost US\$ 5,220.23 million. The type of infrastructure projects of PPP scheme include: transport infrastructure, road infrastructure, irrigation infrastructure, water infrastructure, sewage infrastructure, telecommunications and informatics infrastructure, power infrastructure and oil and gas infrastructure. In many other countries, the PPP scheme can also serve as alternative financing of public infrastructure, such as the development of education and health facilities. PPP forms can be categorized into Build-Own-Operate (BOO), Buy-Build-Operate (BBO), and Build-Operate-Transfer (BOT). The more varying development models of public private partnership are tailored to their needs.

2.2 Critical Success Factors for PPP

Results of research conducted by Chan et al. (2010) if compared with research by Li et al. (2005) based on the results of grouping success factors in implementing PPP schemes in the countries of China and the United Kingdom have similar factor with different rank.

It cannot be ignored in the implementation of the PPP scheme is a matter of risk assessment and allocation. Based on research conducted by Chan et al (2011) there were 15 risk allocation that need to be noticed by the government namely: (1) government corruption, (2) government intervention, (3) nationalization/expropriation, (4) public credit, (5) political/public opposition, (6) imperfect law and supervision system, (7) legislation change, (8) poor public decision-making process, (9) land acquisition, (10) delay in project approvals and permits, (11) market competition (uniqueness), (12) lack of supporting infrastructure, (13) inadequate competition for tender, (14) force majeure, and (15) change in tax regulation.

While the research conducted by Cheung et al (2012) found that the factors that influence in mainland China are as follows; (1) Stable macro-economic condition, (2) Favorable legal framework, (3) Sound economic policy, (4) Available financial market, (5) Multi-benefit objectives, (6) Appropriate risk allocation and risk sharing, (7) Commitment and responsibility of public and private sectors, (8) Project technical feasibility, (9) Shared authority between public and private sectors, (10) Political support, (11) Well organized and committed public agency, (12) Competitive procurement process (enough

potential bidders in the process), (13) Transparency procurement process (process is made open and public), (14) Government involvement by providing guarantee, (15) Thorough and realistic assessment of the cost and benefits.

With Critical Success Factors, government in concern is expected to initiate their steps by considering the results of studies on Critical Success Factors before implementing the PPP scheme. Besides Critical Success Factors in the PPP scheme, the government and private sectors will need to know the risks they face in implementing PPP projects.

According to Ke et al (2010) risk faced by the government are as follows; (1) Expropriation and nationalization, (2) Government's reliability, (3) Government's intervention, (4) Poor political decision-making, (4) Land acquisition, (5) Corruption, (6) Approval and permit, (7) Supporting facilities risk, (8) Uncompetitive, (8) Project Competition, (9) Change in law (10) Tax regulation changes, (11) Immature juristic system. Furthermore, according to Ke et al (2010) risk allocation share by government and public such as; (1) Public/political opposition, (2) Tariff change, (3) Force majeure, (4) Payment risk, (5) Environmental protection, (6) Insufficient financial, (7) Subjective evaluation, (8) Improper contracts, (9) Inflation, (10) Foreign exchange and convertibility, (11) Ground/weather conditions, (12) Market demand change, (13) Third party reliability, (14) Interest rate.

3. Research Methodology

The methodology made to PPP was a qualitative analysis. Qualitative research was used because it could reveal the real events in the field and also could expose hidden values of this study. The resources consisted of local governments, private businesses and the public. Intentionally, the qualitative research examine specific, detailed, and in-depth information about certain problems by gathering as much information as possible in order to reveal the phenomenon that becomes the basis for the selection of the approach (Strauss and Carbin, 2000; Bogdan and Taylor, 2002).

A quantitative approach can direct research to get answers ontologically about the meaning and urgency of cooperation for the government in carrying out the functions within the constellation of social changes that happen. The questions addressed in this study sought to be separated clearly various administrative act that is adjacent or coincide with partnerships such as

coordination, cooperation and so on. The research would also question the value and strategic importance of partnership to all actors involved especially in the perspective of the government as the policy maker. In addition, this study also led to the epistemological aspect to get answers about the methodological limitations for government activity conducted together called a partnership. This methodological limitation is important for policy formulation for the partnership as a model of government policy should be clear, the position in the administration system and also the measurement of output and the outcome for the government, private and public sectors. This study was also directed to axiological aspects to get answers about the benefits of co-operation as a government administrative action against the increase of government performance in implementing the tasks of development and community service.

For checking validity of the data and obtaining natural findings, some criteria set by Lincoln and Guba (1995) were used, namely credibility, transferability, dependability, and confirmability. To check the degree of confidence, triangulation among members and peers were conducted. Triangulation used included data sources and methods. Transferability as an empirical question depends on the similarity between the sender's and recipient's context. To perform the transferability, this study sought and collected the empirical occurrence of contexts sharing some similarities. Thus, the researcher was responsible for providing sufficient descriptive data. This was done by preparing a thick description. With this technique, the results can be seen as carefully as possible to describe the context in which the research was conducted with reference to the research problem. Dependence is the criterion for assessing whether or not the research process meets the quality specified. The way to establish the research process can be through the dependability audit by internal and external auditors to assess the activities conducted by researchers. Confirmability is the criteria for assessing the quality of research results with an emphasis on tracking data, information and interpretation that are supported by materials.

There are several methods used to collect data, namely Literature Review and Interview with the policy maker. Analysis used in the study was done through a qualitative approach, with four main aspects, namely analysis of institutions and stakeholders involved; analysis of regulations and policies; analysis of the shape execution; and analysis of sources and funding patterns.

4. Result

Regional Development Funding Policy

Regional development funding policy is the government's effort to improve financial accountability. To that end, the government continues to improve the quality of planning and budgeting each year so that it can be used more efficiently for providing benefits for the entire community. A limited source of fiscal revenue-source has put the region in a professional asset management at the position that is very potential to support local government revenue. Hence, non- budget funds, such as the state budget, grants, funds of private partnerships, non-governmental as well as the contribution of businesses through the Corporate Social Responsibility (CSR) are some of potential sources of revenue to overcome the burden of regional development spending.

Budgeting policy is established to maintain macroeconomic stability, stimulate the economic growth of the region in accordance with the financial capacity of the region, aimed at restoring fiscal sustainability which can provide certainty of fiscal management in the future. The steps taken by the government in an effort to maintain fiscal sustainability are lowering the budget deficit gradually towards a balanced condition or even surplus, improvement of optimal management of budget financing that is efficient, and effective. Local revenue is right to be recognized as an addition to net asset value in the period concerned. Local revenues are grouped into: a) Revenue, which is earnings of harvested areas based on local regulations in accordance with the laws, b) Balance funds, which are funds coming from fund revenues and expenditures of national budget allocated to the regions to finance the needs of the region, c) Other revenues authorized areas including grants, emergency funds, taxes from provincial to district/city, the adjustment fund and special autonomy, as well as financial assistance from the province or from other local governments.

Based on data from the period of 2013-2015, the overall revenues of West Java Province showed an increase, while the fund balance showed a tendency to decrease. It is a sign that we need to make efforts to find breakthrough of alternative sources of revenue that have great potential to be further developed into a fixed source of revenue, thus reducing dependence on revenues from local taxes that are limited.

Table 1: Actual and Projected Revenue West Java Province Year 2013 – 2015

No	Description	Total (Rp billion)		
		2013	2014	Projected 2015
	Total Revenues	19.238	22.290	23.914
1.	Local revenues	12.360	15.017	15.851
2.	Fiscal balance transfer	2.951	3.261	2.528
3.	Another income	3.927	4.012	5.534

Source: RDPB, 2015.

When studying the tendency of regional income realization of the period 2013-2014 and the target of 2015, it is seen that there are various increases. Achievement through 2014 is supported by a stable regional economic condition and the success in making efforts to increase the income of local intensification significantly. However, given the increase in revenue is strongly influenced by the economic conditions of society, there should be efforts to increase revenue more intensively, accompanied by an increase in public services as well as more active intensive/extensive. It is expected in 2015, the local revenue of West Java province increases quite significantly.

Local Revenue Policies for Fiscal Year 2016 is an estimate of measurement nationally and has both assurance and legal basis; it aims at improving the local revenue of the local sectors such as taxes, retribution, and fund balance. Efforts undertaken by local governments to raise local revenues are strengthening institutions, intensification of income, coordination and calculations joint-regional for the allocation of the revenue sources of the fund that is both balance and non balance, increasing the dividend of enterprises, increasing taxes and levies; and improving as well as optimizing the management of regional assets in a professional manner.

Guided by the principles of budgeting

Budget is planned by the performance-oriented approach to the achievement, considering the input job performance of each regional organization in the execution of their duties and functions. It aims to increase the accountability of budget planning and ensure the effectiveness and

efficiency of budget spending on programs / activities. Local spending is all regions liabilities recognized as a reduction of net asset value in the relevant fiscal year period. Basically, there are two types of expenditure, namely: indirect expenditures and direct expenditure. Based on the analysis and estimates of the sources of income as well as the realization of local and regional revenue projection of two years, the policy direction of spending areas, as well as revenues and expenditures, are described in table as follows:

Table 2: Actual and Projected Revenue West Java Province Year 2013 – 2015

No	Desc	Total (Rp billion)		
		2013	2014	Projected 2015
1.	Indirect expenditures	14.724	16.959	19.626
2.	Direct expenditure	3.672	3.958	5.126
	Expenditure	18.396	20.918	24.753

Source: RDPB, 2015.

Sources and Development Funding Scheme

Funding areas include financing reception area and the area of financing expenditure. Receipt of financing regional policy arises because the amount of expenditure is greater than revenues so that there is a deficit. Source of revenue comes from the area of financing and the remaining budget, a transfer from the reserve fund, preceding sale of local resources separated, regional lending acceptance, acceptance return, lending revenue regional accounts. The regulation of regional financing expenses is under lied by the case of excessive budget. Expenditures for financing such areas are intended for the establishment of the reserve fund, investment (equity participation and the purchase of securities/shares), debt principal payments, lending region, and time calculation.

Results of the analysis and forecasts of revenue sources of regional financing and realization as well as the projected revenues and expenditures of local financing in two years, the projections in the plan as well as one year plan in order to formulate the policy direction of the management of local financing are presented in the table as follows:

Table 3: Actual and Projected Revenue West Java Province Year 2013 – 2015

o	Desc	Total (Rp billion)		
		2013	2014	Projected 2015
.	Revenues	2.935	3.495	1.400
.	Expenditure	189	459	500
	Net Expenditure	2.746	3.036	900

Source: RDPB, 2015.

Financing for development has been previously discussed and requires the effort to identify the ability of financing involving the government and the private sector so as to give a correct picture for the medium long-term development planning, as well as the short-term one. The identification should be accompanied by a fiscal policy that will be applied according to the specified planning period. Furthermore, the prioritization of development activities to be conducted should be prepared based on the identification of those skills. Sources of financing can generally be divided into public and private financing sources. Sources of government financing is also called the government resource envelope, while the private sector is a source of funding of all financial resources that do not come from the local government revenues which are included in the budget, such as from banks, insurance agencies and financial institutions. In addition, the private sector can work with government to create an investment or other public services. In this case, the source of funding remains a clear split between the government and private sectors to meet the needs of the infrastructure as a support for the economy into one of the main targets. Infrastructure financing needs are expected to be very large but it cannot be met by the government itself. The private sector is expected to play a role in meeting infrastructure needs. Therefore, we need a clear policy regarding the distribution of the role of government and the private sector in meeting the needs of the infrastructure investment costs.

Sources of non APBD Development Financing, West Java

Regional budget ability to finance the construction for infrastructure development is very limited, whereas economic growth is highly dependent on the development of adequate infrastructure. Therefore, the division of roles with the private sector in development is very important in achieving regional development objectives. In this effort, a deep understanding of the situation and potential sources of funding coming from the private sector in financing activities of private parties and cooperation activities offered by the government is required. Narrative sources and non-budget funding scheme will be based on a clear distinction between the source and funding schemes, so that these two terms can be used appropriately.

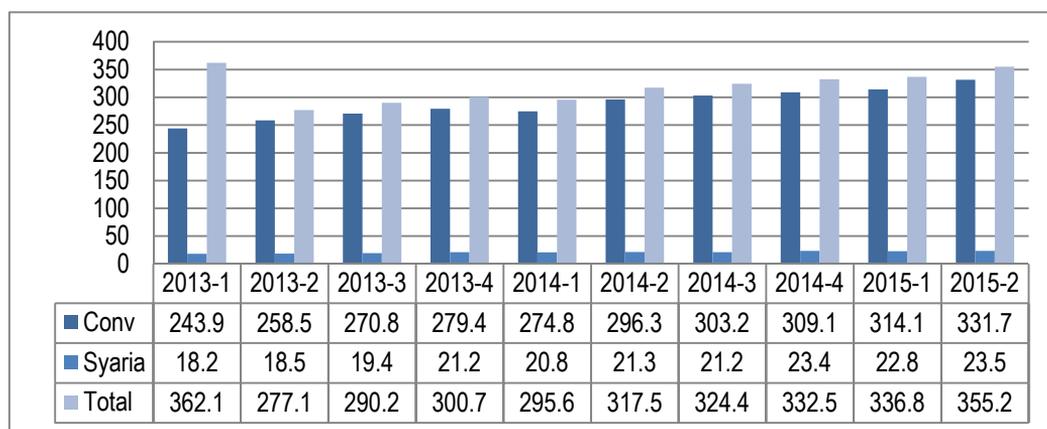
The main funding sources can be distinguished as a source of funds from personal or individual, corporation, government, and non-profit institutions. The components of the source of these funds are the main sources of funding that can be used for local development. The main potential source of funds is estimated to be very large and can be measured from the difference in the productive age consumption and income net of others, such as load consumption of children, groups of people who do not work, and the elderly population. Changes in the age structure of the population are to anticipate aging of the people and the economic uncertainty of the future. Thus, the difference between consumption and income is expected to be enlarged because of the attitude of precautionary savings and imperfect foresight. In this case, the potential accumulation of assets that can be used for investments continues to increase as the productive age group will continue to try to improve the economy's ability to finance their retirement. In this case, it is necessary for the mobilization of the potential of this major source of funding that can be utilized more effectively. In addition to the potential funds from individuals, the major funding source can also come from the corporation or company as an important part of the regional development. Government can be categorized as a major funding source if the government acts as a direct funder in certain activities. Nevertheless, the government can also act as a source of intermediary funds that channels funds from individuals or from companies in the form of taxes or other levies for later use in the construction. This can be realized by developing other sources of income, namely Corporate Social Responsibility (CSR) and loans or grants that go to the province of West Java. The CSR budget allocation as follows;

Table 4: Actual and Projected Revenue West Java Province Year 2013 – 2015

No	Desc	Total (Rp billion)		
		2012	2013	2014
1.	Regional Owned Enterprises	2.6	13.2	18.3
2.	State-Owned Enterprises	27.4	72	93.6
3.	DCI/FCI	1.7	50.3	26.4
	Total	31.7	135.5	138.3

Source: RDPB, 2015.

In addition to the government as an intermediary source of funds, financial institution or other intermediary institutions are also capable of mobilizing the major funding sources. The existence of financial institutions has been regulated in several laws and other government regulations. The financial institutions to raise funds from the public for use in productive activities can generate financial returns or as an intermediary institution in an effort to save funds that would be used for other program at any given time.



Source: BI, 2015.

Figure 1 - Third Party Funds Banking Sector Years 2013-2015 (Rp billion)

A strong financial sector is needed to boost economic growth and alleviate poverty. For that reason, we need a strong synergy with complementary

banking sector and financial institutions non-banking that are key elements in the financial system.

Formulation and Implementation of PPP Analysis

The ability of private companies to reduce costs, shorten supply, as well as to manage the constructions and facilities more efficiently, causing PPP to offer value for money in comparison with the construction of the same facilities that are managed by the government directly. If the PPP involves the government in the form of policies and underwriting, the PPP scheme allows the government to optimize the allocation of the available budget. One challenge is when the implementation of the PPP is conducted in other sectors other than infrastructure. Countries that have a lot of experiences of dealing with PPP scheme in general have tried to implement the PPP scheme in different sectors. The cooperation is conducted across sectors: infrastructure, economic and social, including water supply facilities, garbage, and transportation, as well as social infrastructure, especially the provision of education, health, and housing. The implementation of PPP in various sectors need to consider policy strategies, approaches, and political strategy that can accommodate the uniqueness of the cooperation.

Shortage of infrastructure facilities impact productivity and profits firms due to high transaction costs. As with other areas, the government of West Java Province faces the same problems in the provision of public services and the limited financial resources that are owned by the government cannot fulfil the high demand. In this case, the government is a party that is responsible directly in building public facilities. Meanwhile, demand for investment funds and a basic service are much greater than the government's ability to finance it, in this case through the local government budget.

Institutional and Regulatory Aspects

PPP development in Indonesia intensively started before 1990 with the provision of electricity, roads, and highway construction. Along with the more intense needs of infrastructure, especially roads, water, electricity, and ports, the government issued regulations that governed cooperation in these sectors. However, development of the infrastructure was hampered after the economic crisis in 1997. As a result, there was the decline in the ability of governments, and also the private sector was getting less interested in financing infrastructure development, so much of the infrastructure was neglected, particularly in

regions outside Java, like Indonesia East Region. The economic crisis has brought impact not only to the global economy but also to the political and institutional system in the country. At the same time, the Indonesian government also seeks to gradually decentralize the various aspects of the local government level, particularly the municipal level. This is a challenge in the implementation of PPP, particularly in terms of the division of authority between central and local government in infrastructure development and other basic facilities. There is need for a clear commitment from institutional and regulatory aspects that PPP schemes can work well. According to Kanning and Vogler (2008) the ineffectiveness of the PPP scheme is due to the lack of attitude of stakeholders toward the social norms prevailing in the country.

Aspects of Implementation

Some problems found in the implementation of PPP are related to:

a) Preparation of the concept in determining the successful implementation of PPP projects in the future. However, the capacity of human resources in preparing PPP activity is considered weak. In this case, there is the need for a special institution that handles both developments of human resource capacity and consultations in the preparation of the activities that will be implemented;

b) To identify the pattern of cooperation and government support clearly requires much time. Private parties reveal that the government does not dare to give the necessary support, in terms of providing either financial, political or macroeconomic stability;

c) Phase of provision of land continues to face constraints because costs are relatively large and require a specific approach to the land owners. Government support is needed in this stage;

d) Managing risk is considered more burdensome by private parties. Meanwhile, risk management arrangements are still not effectively implemented so that discussion about the risks often faces obstacles that could hinder the completion of the implementation of the PPP.

Zhang (2005), states the factors that define the success of a PPP are concession projects, risk factors, and uncertainties faced by many PPP projects. The same opinion is delivered by Cheung et al. (2012). How modeling concession periods of PPP do projects and test the best scenarios that optimize public and private interests together were studied by Kumaraswamy & Anvuur, (2008). In addition to considering the investment and operational aspects, we

should keep in mind that modeling the concession period also take into consideration other factors, such as risks and uncertainties, complexity of the project, as well as the lack of capital.

Aspects of PPP Funding Sources and Patterns

The bank or other funders are strongly involved in the transaction process of public private partnership (PPP). In search of the source of funding, it involves loans to banks or other funding sources. The regional government can provide guarantee for the fund borrowed. In addition, the government provides support in the implementation of investment cooperation. To strengthen infrastructure financing, government must do much effort to support the financing through arranging budget for the infrastructure fund.

5. Conclusion

The following conclusions are drawn according to an analysis based on four aspects that influence the implementation of the PPP: institutional, regulatory and policy implementation, as well as the sources and patterns of financing.

1. Institutional Aspects

Party stakeholders are involved in the implementation of PPP among regional governments, NGO, banking, non-banking, community, and others. In terms of financing, banking institutions are still major stakeholders in financing the implementation of PPP in West Java. Meanwhile, potential funding from non-banking institutions still needs to be studied because there are many regulations that restrict the use of funds from non-banking institutions, especially pension and insurance institutions.

2. Policies and Regulatory Aspects

Policies and regulations related to the implementation of PPP have been set up in several sector and cross-sector regulations. Therefore, in an effort to increase the efficiency of the implementation of the PPP, there is the need for government support, the auction process, adding value to unsolicited project, and setting the transfer of shares.

3. Aspects of Implementation

Some obstacles met in the implementation of PPP are related with: preparation of project concepts which determine the successful implementation

of PPP in the future, identification of clear patterns of cooperation and government support that need much time, the stage of the provision of land continue to face constraints because costs are relatively large and require many attempts to approach the land owners, and the management of risk is considered more burdensome by private parties.

4. Aspects of Funding Sources and Patterns

Private parties or companies are still more reliant on banks in funding PPP and financing since self-financing is only about 30 percent of the project running. Financing of PPP on infrastructure construction costs are relative to the period of the loan, whereas the source of funds from banks still sometimes mismatches with type of loan and the type of savings available, and the limited alternative sources of financing for basic infrastructure outside sources of funding the government and banks.

Recommendation

- For Institutional Aspects, to strengthen institutional PPP, the role of local governments must be expanded in the implementation of the PPP the concept and establishment must be hanced in an effort to facilitate and monitor PPP projects.

- For Aspects of Policy and Regulation, there is the need to clarify the authority of the central government in the implementation of PPP, to develop policies to strengthen the PPP activity planning, as well as the preparation of the national medium term development plan that states clearly the role of government and the private sector in development funding.

- For Implementation Aspects, the preparation of PPP can be strengthened through improvement of PPP executive capacity and widen the development of PPP implementation; it also needs to strengthen the role of government in the implementation of PPP by clearly defining the government to guarantee the planning of an activity that is in harmony with the PPP timeframe development planning.

- Aspects of Funding Sources and Patterns mean government policies are needed to bridge the short term or medium and long term funding needed to optimize the mobilization of the source of banking funds. The government should issue a policy that can provide convenience in using resources from the non-banking sector.

To optimize the sources of development in funding primarily coming from the PPP scheme in achieving development goals in West Java Indonesia can be done by collaborated of stakeholder.

References

Bank of Indonesia, 2015, 'Studi of Economic and Finanace Regional West Java Province II 2015', <http://www.bi.go.id/id/publikasi/kajian-ekonomi-regional/jabar/Pages/Kajian-Ejkonomi-dan-Kuangan-Regional-Provinsi-Jawa-Barat-Triwulan-II-2015.aspx>

Bank of Indonesia, 2014, 'Studi of Economic and Finanace Regional West Java Province II 2014', <http://www.bi.go.id/id/publikasi/kajian-ekonomi-regional/jabar/Pages/Kajian-Ekonomi-dan-Kuangan-Regional-Provinsi-Jawa-Barat-Triwulan-II-2014.aspx>

Bappeda, 2015, 'Local Government Development Plan West Java Indonesia 2016',

Bogdan, R., and Taylor, S. J., 1992, 'Pengantar Metoda Penelitian Kualitatif suatu Pendekatan Fenomenologis Terhadap Ilmu – Ilmu Sosial, alih bahasa: Arief Furchan', Usaha Nasional, Surabaya, Indonesia.

Chan, A. P. C., Lam, P. T. I., Chan, D. W. M., Cheung, E., Ke, Y., 2010, 'Critical Success Factors for PPPs in Infrastructure Developments: Chinese Perspective', *Journal of Construction Engineering and Management*, May, pp. 484-494. DOI: 10.1061/(ASCE)CO.1943-7862.0000152

Chan, A. P. C., Yeung, J. F. Y., Yu, C. C. P., Wang, S. Q., Ke, Y., 2011, 'Empirical Study of Risk Assesment and Allocation of Public-Private Partnership', *Journal of Management in Engineering*, July, pp. 137-148. DOI: 10.1061/(ASCE)ME.1943-5479.0000049.

Cheung, E., Chan, A. P. C., Lam, P. T. I., Chan, D. W. M., Ke, Y., 2012, 'A Comparative Study of Critical Success Factors for Public Private Partnerships (PPP) between Mainland China and the Hong Kong Special Administrative Region', *Facilities - Special Issue on Facility Management Development*, 30(13/14), pp. 647-666.

Chou, JS., Tserng, H. P., Lin, C., Yeh, CP., 2012, 'Critical factors and risk allocation for PPP policy: Comparison between HSR and general infrastructure projects', *Transport Policy*, 22, pp. 26-48.

Jamali, D., 2004, 'Success and failure mechanisms of public private partnerships (PPPs) in developing countries: insights from the Lebanese context', *International Journal of Public Sector Management*, 17(5), pp. 414-30.

Jefferies, M., 2006, 'Critical success factors of public private sector partnerships a case study of the Sydney SuperDome', *Engineering, Construction and Architectural Management*, 13(5), 451-462.

Jefferies, M., Gameson, R., Rowlinson, S., 2002, 'Critical success factors of the BOOT procurement system: reflections from the Stadium Australia case study', *Engineering Construction and Architectural Management*, 9(4), pp. 352.

Kanning, U. P., and Vogler, S., 2008, 'Determinants of the implementation of facility management in German communes', *Facilities*, 26(10), pp. 418-425.

Kanter, R. M., 1999, 'From spare change to real change', *Harvard Business Review*, 77(2), 122-132.

Ke, Y., Wang, S.Q., Chan, A. P. C., Lam, P. T. I., 2009, 'Preferred risk allocation in China's public-private partnership (PPP) projects', *International Journal of Project Management*, 18, pp. 482-492.

Kumaraswamy, M. M., and Anvuur, A. M., 2008, 'Selecting sustainable teams for PPP projects', *Building and Environment*, 43(6), pp. 999-1009.

Li, B., Akintoye, A., Edwards, P. J., Hardcastle, C., 2005, 'The allocation of risk in PPP/PFI construction projects in the UK', *Int. J. Proj. Manage.*, 23(1), pp. 25-35.

Li, B., Akintoye, A., Edwards, P.J., Hardcastle, C., 2005, 'Critical success factors for PPP/PFI projects in the UK construction industry', *Construction Management and Economics*, 23(5), pp. 459-471.

Lincoln, Y. S. and Guba, E. G., 1985, 'Naturalistic Inquiry', Sage Publications. Newbury Park, CA.

Medda, F., 2007, 'A game theory approach for the allocation of risks in transport public private partnerships', *International Journal of Project Management*, 25(3), pp. 213-218.

Public Private Partnership, 2014, 'Infrastructure Project in Indonesia 2010-2014', National Development Planning Agency. Jakarta, Indonesia.

Public Private Partnership, 2015, 'Infrastructure Project in Indonesia 2015' National Development Planning Agency, Jakarta, Indonesia.

Qiao, L., Wang, S. Q., Tiong, R. L. K., Chan T. S., 2001, 'Framework for Critical Success Factors of BOT Projects in China', *Journal of Project Finance*, 7(1), pp. 53.

Regional Development Planning Board (RDPB), 2015, 'Local Government Development Plan West Java Indonesia 2016', http://bappeda.jabarpov.go.id/index.php/subMenu/dokumen/dokumen_rencana/detaildorencana/512/30.

Stein, S. W., 1995, 'Construction Financing and BOT projects' *International Business Lawyer. International Bar Association*, 23(4), pp. 173-180.

Strauss, A., and Carbin, J., 2003, 'Dasar – Dasar Penelitian Kualitatif : Tata Langkah Dan Teknik – Teknik Teoritisasi Data, terj. Muhammad Shodiq dan Imam Muttaqien', Pustaka Pelajar, Yogyakarta, Indonesia.

Tang, L., Shen, Q., Cheng, E.W.L., 2010, 'A review of studies on public-private partnership projects in the construction industry', *International Journal of Project Management*, 28(7), pp. 683–694.

Tang, LiYaning, Shen, Qiping, Skitmore, Martin, Cheng, Eddie W. L., 2013, 'Ranked critical factors in PPP briefings', *Journal of Management in Engineering*, 29(2), pp. 164-171. [http://dx.doi.org/10.1061/\(ASCE\)ME.1943-5479.0000131](http://dx.doi.org/10.1061/(ASCE)ME.1943-5479.0000131)

Yang, J., Shen, G. Q., Ho, M., Drew, D. S., Chan, A. P. C., 2009, 'Exploring Critical Success Factors for Stakeholder Management in Construction Project', *Journal of Civil Engineering and Management*, 15(4), pp. 337-348. DOI: 10.3846/1392-3730.2009.15.337-348.

Zhang, W. R., Wang, S. Q., Tiong, R. L. K., Ting, S. K., Ashley, D., 1998, 'Risk Management of Shanghai's Privately Financed Yan'an Donglu Tunnels', *Engineering Construction and Architectural Management*, 5(4), pp. 399-409.

Zhang, X., 2005, 'Critical Success Factors for public-private partnerships in infrastructure development', *Journal of Construction Engineering and Management*, 131(1), pp. 3-14.

Zhang, X. Q., 2005, 'Critical Success Factors for Public-Private Partnerships in Infrastructure Development', *Journal of Construction Engineering and Management*, 131(1), pp. 3-14.

Zou, W., Kumaraswamy, MM., Chung, KHJ., Wong, JMW., 2014, 'Identifying the critical success factors for relationship management in PPP projects', *International Journal of Project Management*, 32(2), pp. 265–274. DOI: 10.1016/j.ijproman.2013.05.004