OURNAL of Applied Economic Sciences



Volume X Issue 8(38)

Winter 2015

ISSN-L 1843 - 6110 ISSN 2393 - 5162

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Journal of Applied Economic Sciences

ISSN-L	1843 - 6110
ISSN	2393 – 5162

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Monetary Policy Dynamics and the Stock Market Movements: Empirical Evidence from Nigeria

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Abstract

The contributions of the stock market to economic growth can never be over-emphasized. In this paper, we used the Autoregressive Distributed Lag bound testing estimation techniques to examine the existence of any relationship between monetary policy instruments and the stock market in Nigeria based on the data sourced from 1985 to 2013. From the results obtained, it can be deduced that monetary policy instruments significantly exerts on stock market behaviour in Nigeria. We recommends that policy makers should put in place policies that aimed at adjusting the interest rate upward, reduce or at best keep at constant the money supply growth rate, increase the net credit to the private sector and manipulate the exchange rate regime so as to boost stock market.

Keywords: Stock market, monetary policy, ARDL, interest rate, Nigeria.

JEL Classification: C32, C92, E37, E44, E52, E62, G15. G12.

Introduction

The monetary policy rule of the monetary economists provides the framework through which monetary authority influences the behavior of the economy, the stock market inclusive (Bernanke and Gertler (1999), Cecchetti (2008), Goodhart (2001), Hussain (2011), Chortareas and Noikokyris (2014), Janseh and Tsai (2010), Kurov (2010), Fischbacher et al. (2013), Laopodis, (2013)). The ability of the monetary authority to influence the behavior of the stock market through its various instruments have been documented in literature for the developed economies (Bernanke and Kuttner (2005), Gurkaynak, Sack and Swanson (2005), Rigobon and Sack (2004), Thorbecke (1997), Bredin et al. (2007), Chortareas and Noikokyris (2014)) with very scanty evidence from emerging economies, most especially Nigeria. Given the scanty availability of literature on the relationship between monetary policy instruments and stock market behavior from emerging economies such as Nigeria, this study tends to examine if any relationship exists between the stock market and the fluctuations in monetary policy instruments in Nigeria. In other words, does stock market responds to monetary policy actions in Nigeria? If yes, what policy instrument(s) significantly influences stock market behavior in Nigeria? Answering these questions is important to virtually all the stakeholders in the economy most especially the monetary authority on the one hand, and the market practitioners on the other hand. For the monetary authority, the knowledge of this relationship will help in making policies that will enhance the growth and development of the stock market by identifying the core instruments that most influences the behaviour of stock prices. Market practitioners (both local and foreign investors) on the other hand, will find the result of the relationship useful as it will aid in making hedging strategies against fluctuations in the monetary policy instruments that can negatively exert on stock market prices.

The rest of the paper is structured as follows: Section Two (2) provides both the theoretical and empirical review of the existing literature, Section Three (3) deals with the methodology, Section Four (4) interprets the results while Section Five (5) concludes and makes recommendations for policy implementation.

Conclusion and recommendations for policy implementation

In this study, we examined the relationship between the All Share Index and some selected monetary policy instruments in Nigeria. The ARDL estimation techniques was employed to test cointegration among the variables using annual data sourced from 1985-2013. From our results, it can be deduced that strong evidence abound against the null hypothesis of unit roots in most series investigated. The ARDL procedure also indicates an existence of a stable long run equilibrium relationship between the All Share Index and the selected monetary policy instruments.

Furthermore, the result of the error correction coefficient Ect_{t-1} has the expected signs and is highly significant at 1% level of significance; this indicates an existence of a speed of adjustment of about 44.11% back to equilibrium in the long term from short term disequilibrium position. We also conducted stability test for the coefficient of the error correction model by applying the CUSUM and CUSUMQ stability tests, the results of these tests show that the plot lies within the range of stability. Finally, from the results, it can be deduced that (as evidence from the long term co-efficient of the monetary policy instruments), monetary policy instruments significantly exerts on stock market behaviour in Nigeria. Our results are in line with earlier findings of Bekhet and Matar (2013) for Jordan, Belke and Beckman (2014) for US and UK, Tang *et al.* (2013) for China.

Based on the results of the findings, which among others shows an inverse relationship between stock market returns and broad money supply (M2); positive relationship between stock prices and each of exchange rate, Net Credit to the Private sector and interest rate, the study recommends that in order to achieve sustained growth in stock market returns, monetary policy makers should adjust interest rate upward, reduce or at best keep at constant the money supply growth rate.

In conclusion, we recommend that further research should investigate the impact other variables such as Required Reserve Ratio (RRR), fiscal policy instruments and the effects of the interactions between fiscal and monetary policy instruments on the All Share Index.

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Formation of a Steady Social and Economic Framework of the Region

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Abstract

The purpose of the article consists in justification of theoretical and conceptual basis of formation of a steady and balanced social and economic framework of the region based on the rational use of the capacity of all its territories, both central, and peripheral. In the article the poly-component structure of the stability and equilibrium of the social and economic framework of the region which basic elements are integration, structural and resource ones has been proved. Taking into account the enclosure of the concepts "social and economic framework - rational branch structure - import substitution - national security" the conceptual provisions of the mechanism of regional social and economic strategy trends aimed at the development of links between territories for the implementation of projects of non-raw material import substitution have been formulated. The conclusion is drawn on the need of creating dynamic stable design of a social and economic framework of the region for ensuring rational import substitution in non-raw material sector which is expressed not in the mechanical reduction of a share of raw branches in LRT and the direction of regional resources in ineffective projects of industrial production, but in the formation of rational proportions of development of raw and non-raw sectors in economy and social sphere, forming finished reproduction chains in the region.

Keywords: equilibrium, region, social and economic framework, stability.

JEL Classification: O21, R12.

Introduction

The priority of the regional aspect in the formation of a new model of the Russian economy management in the current external economic landscape is defined considerably by the greater mobility of mesolevel systems in practical realization of federal strategic and program solutions. The value of import substitution in non-raw spheres amplified by the influence of external factors attracts scientific interest to the research of formation of social and economic framework of the region providing stability, coordination and equilibrium of regional development in these directions. This fact defines methodological and practical importance of specification of theoretical, methodological and conceptual basis of functioning of the regionally adapted mechanism of support of decision-making, directed on the creation of a steady social and economic framework of the region as a multicomponent structure.

Restrictions and recommendations

Considering the problem of formation of the social and economic framework of the non-raw development of the region through a prism of its multicomponent structure, it is possible to draw a conclusion that the administrative influences directed on implementation of structural changes in economy and social sphere of the region should affect all the components of system, and development of separate components has to be coordinated and balanced. Otherwise limitation on one of structurally functional components creates obstacles for social and economic development of the region as a system due to general system properties of the regional economy. Thus, stability of the framework of non-raw development of the region is defined by the balanced development of the following main components: realization of the resource potential of the region; structural changes in the regional social and economic system; administrative influences providing target directivity, coordination of the development of the nod elements, as well as links and relations between them.

The above mentioned aspects define the need for the accounting of the historically developed under the influence of natural and geographical regularities and the principles allocation of productive forces of the framework structure of the region from the point of view of gradual adaptation of its dynamic design to external and intrasystem challenges. At the same time, the existing regional structure developing in the conditions of macroeconomic imperatives of non-raw import substitution model, forms contents, vector and force of managing influences for the realization of these strategies.

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Does Minimum Wage Policy Help Poor Workers? Evidence from Indonesia

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Abstract

The objective of this study is to examine the effects of minimum wage policy on poverty of workers in Indonesia. Using National Labour Force Survey (Sakernas) data of 2011-13, specifically, this study examines how the minimum wage policy affects the probability of worker categorized as poor or non- poor. The finding shows that an increase in the minimum wage generally decreases the probability of workers being categorized as poor. Nevertheless, the significant impact is found specifically on workers living in urban areas only, suggesting that the minimum wage policy is not an effective instrument to improve the standards of living of workers living in the rural areas.

Keywords: minimum wage, poverty, Indonesia, Sakernas, Probit, urban areas.

JEL Classification: J31, I32.

Introduction

The minimum wage policy is one of the most important policies relating to the employment in Indonesia. The main objectives of this minimum wage policy basically are: (1) to provide a decent payment to workers (especially for those with low level of earnings), which, in turn, is expected to provide a positive effect on the improvement of business productivity and economic condition in general, and (2) as a mean to determine the lowest earning or the basic wage which is decent based on the need of workers, employers' ability, regional economic condition, and the business location (Widarti 2006). Therefore, the minimum wage is not only used as a basic wage or the lowest earning given to the workers but it is also expected to have implication on the increase of all workers' standard of living.

Some important studies dealing with the effects of minimum wage policy in Indonesia have been conducted such as Rama (2001), Suryahadi *et al.* (2003), and Pratomo (2010 and 2011). Rama (2001), for example, found that an increase in minimum wage in Indonesia decreases the level of employment and reduces investment particularly in the urban areas. Suryahadi *et al.* (2003) showed a comprehensive result where there are several groups who benefit from minimum wage policy and some others of the opposite condition due to this minimum wage increase. They confirmed specifically that an increase in minimum wage will raise the white collar employment, but in contrast, an increase in minimum wage will decrease female employment, youth employment, and workers with low educational background. Female workers, youths, and low educated workers are often considered as a group which is vulnerable to any changes in the minimum wage policy.

In addition, Pratomo (2010), similarly to Gindling and Terrell (2005) in Costa Rica, showed that there is a tendency of workers negatively affected by the minimum wage policy and workers specifically will move from the formal sector employment to the informal sector employment with a lower quality of working environment and lower earnings. Meanwhile, Sugiyarto and Endriga (2008) using the industrial rate data of 2003-2004, showed that the minimum wage policy negatively influenced less educated workers, while the worst impact is experienced by workers in small enterprises.

Unlike the previous studies, the objective of this study is to examine the effects of minimum wage policy on the poverty level of workers in Indonesia. The study conducted by Card and Krueger (1995) in several states in the US is one of the most important studies focusing on the effect of minimum wage policy on poverty. As mentioned by Card and Krueger (1995), the impact of the minimum wage policy on poverty is actually not too significant. The reason is because approximately two-third of workers in productive age at that time of study in the US case does not work in formal sectors which are not affected by the minimum wage policy. In fact, the minimum wage policy is only binding to the formal sector. However, Card and Krueger (1995) have succeeded in showing that the increase in minimum wage in America between 1989 and 1991 reduced the poverty level especially in the states which have a significant effect on the average wage.

The second important study is the one conducted by Neumark and Wascher (1997) who also did a case study in the United States. By employing panel data method between states in America, Neumark and Wascher (1997) showed that the effect of minimum wage policy is quite varied. On the one side, it is found that an increase in minimum wage has succeeded in helping many poor families to have better life or escape from the poverty, while on the other side the minimum wage increase elevates the probability of non-poor families to live in poverty. Ironically, in fact, the number of families who become poor after the rise of minimum wage is bigger than the number of those who are freed from poverty although the difference is not statistically significant.

For the case of developing countries, there have not been many studies concerning on the effect of minimum wage policy on poverty. One of the most important studies in developing country which is used as a reference for this present study is the one conducted by Gindling and Terrell (2008) who attempt to see the effect of minimum wage increase on poverty in Honduras. They found that the rise of minimum wage reduces the poverty mainly of the workers at large scale private sectors. However, the minimum wage rise does not have an important effect on workers of small and medium enterprises (where many of them are not covered by the minimum wage policy), as well as the public sector. In other words, the finding in Honduras demonstrated that the minimum wage has become an effective instrument to overcome poverty especially in formal sectors and workers in large scale companies.

Looking back on the main purpose of the arrangement of minimum wage policy, it is clear that it aims to improve the living standards of workers especially those who are at the bottom level (at the lowest level) of their wage distribution. Thus, it is indirectly expected that poor workers who are usually at the lowest distribution of earnings can increase their living standards with the rise of their family's income through the increase of minimum wage. However, the problem is not that simple. A continuous raise of minimum wage and being above the market equilibrium's level, the employment is predicted will also decline which eventually impacts on the increasing number of unemployment and the worsening of poverty.

With the segmented condition of Indonesian labor market, *i.e.* consisting of labor market for the formal and informal sector, the effect of the minimum wage policy becomes more complex. In Indonesian case, the minimum wage policy will bring an indirect effect on the informal sector where there are many workers or people categorized as poor. Therefore, it is possible that the minimum wage policy (which is mostly implemented to the formal sector) turns out to be not effective to reduce poverty (since poverty is mostly found in informal sector), although workers at the bottom level usually categorized as poor or vulnerable to poverty. It is even predicted that the minimum wage policy, which, almost certainly, keeps increasing every year will, in fact, elevate poverty especially if employers respond the policy by increasing the price of their products, thereby causing inflation. Based on these phenomena, it is important to examine the effect of minimum wage policy on poverty especially for workers in Indonesia.

According to Gindling and Terrell (2008), if the minimum wage is much above the poverty line, the minimum wage normally does not have significant effect on the decreasing in poverty since the policy will be mainly enjoyed by middle class workers instead of the lowest class. However, it is not very clear what the ideal ratio (based on literatures) between minimum wage and poverty line is, in order to see the minimum wage which can affect the poverty level.

As a comparison, in Guyana for instance, the minimum wage is 6.5 times as much as the poverty line which makes it a country with the highest difference between minimum wage and poverty line. As predicted, the minimum wage in this country does not have any significant effect on decreasing poverty. At the medium level, for example, there is Chile with a minimum wage 3.8 times higher than the poverty line and Honduras with the minimum wage 3.5 times its poverty line. In these two countries, minimum wage significantly decreases poverty level. Meanwhile, in Indonesia, the ratio between the minimum wage and the poverty line is approximately 4.04 (own calculation). This number is in between Chile/Honduras and Guyana; therefore, there is a potential that the minimum wage policy might have a significant effect on the reduction of poverty.

The rest of this paper is as follows. In the second section, the research methodology will be explained. The following section contains the empirical results and discussion. As for the final section, this paper presents the conclusion.

Conclusion

From the findings, it can be concluded that an increase in the minimum wage generally decreases the probability of workers to be categorized as poor. Nevertheless, the significant impact is specifically found on workers residing in the urban areas. It demonstrates that the minimum wage seems not an effective instrument to improve the standards of living of workers living in the rural areas.

There are several implications of the policy that the government policy in formulating and determining the minimum wage of the concerned region should be carefully conducted, and not a single policy but has to be followed by poverty alleviation policy such as the improvement of human resources, i.e. workers from both formal sectors and informal sectors. It is also necessary to arrange a policy integrated from various lines of agencies in the level of province as well as municipalities which is aimed at increasing the access, most importantly, to such basic services as health, education, and economic activity.

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The Impact of Competition among Suppliers on Procurement Results – Public Procurement is no Exception

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Abstract

Electronic reverse auctions, having the ability to decrease the prices of products, have grown popular in the procurement communities in recent times and this trend is expected to continue. Electronic reverse auctions are very much dependent on the market conditions and the literature emphasizes the importance of the number of bidders participating in the auction for the result of the auction. Within the paper, we provide the evidence on the impact of competition among suppliers taking part within electronic reverse auctions on the efficiency of the tender. We support the existing studies by evidence provided on recent sample of public procurement data using linear regression.

Keywords: procurement, efficiency, competition, electronic reverse auction.

JEL Classification: C33, D44.

Electronic reverse auction increasing the efficiency of procurement

The rise of the Internet and various forms of web applications has affected almost all aspects of the business (Swaminathan a Tayur 2008). A lot of organizations are aware of the possibility to improve on the organization of internal processes (Delina 2012, Soltes and Gavurova 2013, Soltes and Gavurova 2015, Ştefănescu *et al.* 2009). In this regard, rising importance of electronic procurement (Lancioni *et al.* 2003) within supply chains can be identified.

Electronic reverse auctions, being one of the most powerful negotiation mechanisms within electronic procurement, have grown popular in the procurement communities in recent times and this trend is expected to continue (Jap 2002, Beall *et al.* 2003, Schoenherr and Mabert 2007). In general, electronic reverse auction is a dynamic environment in which suppliers can compete/bid against each other. Winner is the one who offered the lowest price. In the auction, suppliers are under pressure to react on the competing supplier's bid. This results in a lower final price for the buyer. Since the entire process is online, electronic auctions are understood to increase transparency and speed comparing to the traditional purchase methods. Beal *et al.* (2003) provided the following definition on electronic reverse auctions: In its simplest form, the electronic reverse auction is online, real-time ongoing, dynamic auction between the purchase organization and a group of pre-qualified suppliers who compete against each other in order to obtain a contract for goods or services. These goods and services are clearly specified by criteria such as design, quantity, required quality, delivery conditions and other related terms and conditions.

Electronic reverse auctions provide great number of benefits when comparing to the traditional negotiation. Several authors have mentioned as the main advantage significant reduction of the purchase price (Brunelli 2000, Hannon 2001, Janke and Kubacka 2013). Cost savings per unit of output range from 5-40% (Tully 2000), gross savings are in the range 15-20% (Cohn 2000) - these numbers are all the more significant because manufacturers typically spend up to 55% of sales prices for the purchase of materials (goods and services) needed for production. (Monczka *et al.* 2002)

In addition to direct costs savings, there are also other benefits such as shorter product cycle for both, buyers and suppliers, a larger supplier base for buyers, access to the new markets for suppliers, reduction of geographical barriers, information transparency, visible prices and generally higher competitiveness, productivity and efficiency of the buying process. (Beall *et al.* 2003, Carter *et al.* 2004, Smeltzer and Carr 2002)

Conclusion

Within the paper, building upon previous studies, we verified the impact of competition among suppliers taking part within electronic reverse auctions on the level of contract price resulting from the tender in the environment of Slovak public procurement. Based on the results obtained, we can say, that this assumption holds – meaning the higher the number of competitors and bids, the higher is the psychological pressure on suppliers, and the higher is the price decrease from initial price in competition to contract price. Therefore, we do not reject our working hypothesis: Higher competition among suppliers leads to decrease in the product price within electronic reverse auction, what provides the supportive evidence for previous studies devoted to this topic (Beall *et al.* 2003, Schoenherr and Maber 2007, Major 2007, Singer *et al.* 2009), which emphasize the importance of the number of participants as one of the factors guaranteeing the lower prices.

Beyond this, the results shows the price movement in the electronic reverse auction is not merely related to level of competition, what might be explained by suppliers' propensity to start the auction competition with inflated prices?

However, many open questions still remain in this topic – some of them with ability to be solved having in mind the data available. In this context, it would be very interesting to understand, how stable this relationship is over time, or for different product families.

Acknowledgement

This paper is the result of the and the Project VEGA No. 1/0922/15 "Barriers and utilization possibilities of Pre-Commercial Procurement (PCP) approach in innovation public procurement in Slovak Republic", and activities realized within project implementation of "University Science Park TECHNICOM for Innovation Applications Supported by Knowledge Technology", ITMS: 26220220182, supported by the Research & Development Operational Programme funded by the ERDF - the activity "Trust Building Services in Electronic Business Relations".

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Job Satisfaction and Socio-Demographic Nexus: An Examination of Business Link Employees in England

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Abstract

The paper investigates the effects of age, gender and length of service on job satisfaction at work place. The cross-sectional study was conducted by utilizing the "the Job Satisfaction Survey". 25 out of 42 Business Links in England selected at random for this study where 14 out of 25 Links participated in the study that constituted a total sample of 101 employees with a response rate of 30.8%. A three-way ANOVA statistical tool was used to test the strength of relationship. While the socio-demographic factors were adjusted for each other; length of service in the present job was found to be significantly negatively related with the satisfaction level of promotion and female employees were found to be significantly more satisfied than male counterparts with fringe benefit. The findings have invaluable policy implications for business executives as well as policy-makers, particularly for those interested in the management of the Business Links.

Keywords: job satisfaction, age, length of service, gender, business link, England.

JEL Classification: O15, M2, Z13.

Introduction

Job satisfaction is commonly defined as the extent to which people like their work within the global economic labour market. Its numerous dimensions and their causations have become a popular subject of interests among researchers in business and social sciences for the last 50 years (see for example, Hamermesh 2001, Lydon and Chevalier 2002, Bryson *et al.* 2003, Crossman and Abou-Zaki 2003, Ibrahim *et al.* 2004, Crossman and Harris 2006). Traditionally employees are thought to be the most effective, precious or important resource to an organisation, but often their job satisfaction is ignored at workplace. Study shows that dissatisfaction with the present job may be one of the predominant reasons for a move to a new job (Burdett and Mortensen 1998) and in many cases less satisfied employees are more likely to have quit their jobs (Lydon and Chevalier 2002). On the other hand, it has also been well documented that a satisfied workforce is a productive one and successful organisations are very much aware of it (Roznowski and Hulin 1992, Hamermesh and Biddle 1994). As work is a major part of one's life, there can be a positive effect on the rest of an individual's life and thus be collectively beneficial for employer as well as for the society as a whole.

Job satisfaction is related to intrinsic and extrinsic factors but also to the socio-demographic characteristics of the employee such as age, gender, length of service, and rank/job level. Research has been carried out in these areas for quite some time for example, according to Davis factors such as age, gender, work status and seniority did not show significant impact on overall job satisfaction in the USA (Davis 2004). Ellickson (2002) showed that age was found to have no significant association with overall job satisfaction levels of municipal government employees. On the other hand, in a Malaysian study on small and medium industries respondents were generally satisfied with their working environment and job (Abdullah *et al.* 2007). Secondly, previous studies have indicated the relationship between length of service and level of job satisfaction (Ibrahim *et al.* 2004). Using meta-analysis on 21 independent studies Brush *et al.* 1987). Studies that reported on the impact of the interaction between age and tenure on job satisfaction are relatively few (Lee and Wilbur 1985, Luthans and Thomas 1989, Sarker *et al.* 2003). Sarker *et al.* (2003) reported that among hotel employees, age is not significantly associated with overall job satisfaction but the tenure is and the effect of tenure on job satisfaction is

significantly modified by age. Thirdly, Burke and McKeen (1994) have reported success factors for women in the early stages of their management careers. Finally, it has been found that rank / job level is positively correlated with job satisfaction. (Ellickson 2002, Cranny *et al.* 1992)

Despite all these efforts a significant gap in the research is identified where little analysis has been carried out on combining all these factors, with specific reference to gender, age and length of service as they are so inextricably linked. It is therefore necessary to examine whether job satisfaction as a whole or any of its facets vary significantly according to gender, age, or length of service while they are adjusted for the effect of each other. Thus the study aims to assess whether the socio-demographic characteristics (age, gender, tenure and rank) of the employees are, by themselves, associated with job satisfaction or whether it is due to the confounding effect of ageing or the interaction among them. The rest of the paper is organised as follows. In section 2, the relevant literature on job satisfaction is reviewed. Section 3 deals with sampling design, survey instrument and data collection procedures. The results of statistical analysis are presented in section 4 followed by a brief discussion and conclusion in section 5.

Discussion and conclusion

The aim of this study has been to examine the effects of age, length of service (LoS) and gender on the job satisfaction of employees in Business Links throughout the country. In total, responses from 101 employees were analysed and details can be found on this link <u>www.businesslink.org</u> (Business link UK 2007). Length of service in present job was not found to be significant on overall job satisfaction. This result is consistent with Oshagbemi (2000) who found that in the first 10 years of working in the present university the mean job satisfaction remains unchanged.

A negative correlation was identified between length of service in present job and also job satisfaction for males. Most of the males within Business Links are in advisory or management positions. Also, the vast majority of them has come from commercial backgrounds or has run their own businesses, which operate significantly differently, to Public Sector Organisations. It can be suggested that the increased bureaucracy accounts for the increasing dissatisfaction.

However, a U-shaped curve is identified for females (Figures 2 and 3). Although Job Satisfaction increases after 5 years of service, a look back at Table 1 shows that only 14 respondents had served for more than six years. If we use an average proportion of 60% females (established from Table 1) this means that only seven or eight females make up the positive end of the U-shape. Clearly this is not enough to make a generalisation and these results should be treated with caution.

However, when length of service was examined with respect to the facets of job satisfaction after controlling for age and gender, satisfaction with promotion was found to be significantly negatively related (see, Table 5 and Figure 2). However, the literature review shows that no study was found to have looked at the effect of Length of Service on the facets of job satisfaction after controlling for age and gender.

There is a negative relationship between job satisfaction with length of service in the present job which is highly significant due to significant dissatisfaction with Pay, Promotion, Contingent Rewards and Operating Procedures with the increase of Length of Service (see Table 4). However, age and gender were not controlled for these results and as such less emphasis has to be given to these as compared to the result mentioned above where promotion was still found to be significant having controlled for age and gender.

There is an apparent negative relationship between Length of Service within the Business Consultancy Industry (BCI) and Job Satisfaction for females but no discernible trend can be identified for the male respondents. This result is supported by the literature as Simpson who reports that women holding the MBA degree continue to be less successful than men counterparts in regard to salary and career advancements (Simpson 1995, 1996).

When length of service and gender were controlled for, age did not show a significant effect on overall job satisfaction (Table 5). However, when the data were split up into male and female respondents, a U-shaped curve for job satisfaction was observed with respect to age, for males whilst a positive linear relationship was found for females, however these were not tested in this paper.

Gender was found to have insignificant effect on overall job satisfaction when length of service and age were controlled for. However, females in general were more satisfied than males but not significantly even when age and length of service were not controlled for. It was revealed that females were significantly more satisfied with fringe benefits than males irrespective of their age and Length of Service in the present job (Figure 3). This could be due to the fact that females in general having less financial responsibilities; thus they do not feel dissatisfied with fewer fringe benefits compared to male counterparts.

This study reveals that males in the advisory rank are more satisfied than females; this is perhaps why there are, in general, more male Business Advisors than female. Also of interest is that women are much more satisfied than men when working in Support Services. This may also be the reason why more women are found working as Secretaries, Personal Assistants and in Administration posts than men. Rank, however, was not found to be significantly related to overall job satisfaction. The interaction effects among age, length of service in the present job and gender were also considered (see Table 5) as some of the interaction effects were justified in the literature review. However, none of the interaction effects were found to be significant.

The economic climate can have a major effect on the results. If the economic situation of the respondents is relatively bad then according to Maslow's theory, the lower level needs become the priority above higher level needs such as belonging and self-esteem. In such situations, job satisfaction will, in general, be higher as expectations are lowered. The opposite can also be true, i.e., job satisfaction decreases as the economic situation of the respondents improves. Applying this theory to international economies, higher job satisfaction could be expected from respondents in similar jobs but in developing economies compared to respondents in

developed economies. If this is correct then the results obtained from this study, that in general, job satisfaction with promotion decreases as length of service increases, could suggest a buoyant economy.

A counter argument to this is that in a relatively poor economy, other factors are also influencing job satisfaction such as morale and autonomy may also come into play. If there is low organisational morale, due to significant organisational change, as is currently happening with Business Link, or if there is low national morale due to the onset of recession, then people in general will have raised concerns of job security, thus lowering job satisfaction and effecting the results.

None of the socio-demographic factors were significantly related to overall job satisfaction, while they were controlled for each other. However, length of service in the present job was found significantly negatively related with the satisfaction level of promotion. Age was found to be non-significantly related with the satisfaction level of any one of the facets of job satisfaction mainly due to small sample size (only 12 respondents are found to be over the age of 55 years). In general, female employees were more satisfied than their male counterparts, although it was not statistically significant partly due to small sample size. However, female employees were significantly more satisfied than male with fringe benefits. In conclusion, socio-demographic characteristics of the employee are significantly related at least with the satisfaction level of some of the facets of job satisfaction. The length of service does have an impact and what it tells us is that in the context of public sector cuts, longer serving staff has a more negative outlook on work.

A number of important issues have been identified in the present study which has obvious policy implications on how Business Links are to be closely monitored as well as effectively managed in modern world. The predominant issues identified being promotion, gender and bureaucracy.

The dissatisfaction found with promotion as length of service increases has implications for management as this essentially means that employees are dissatisfied with their prospects for promotion as time goes by. With respect to rank, junior staff members were more dissatisfied than support staff due to their aspirations. The danger for Business Link is that if these expectations are not met, then staff will leave and find employment elsewhere. Thus becoming a potential staff retention problem and Business Link will be seen as a springboard to other opportunities and will be used by employees as such. This is supported by most theories of turnover which view it as the result of employee job dissatisfaction e.g., Bluedorn (1982) and Mobley *et al.* (1979). Past studies have been reasonably consistent in showing a correlation between job satisfaction and turnover e.g., Davis (2004) and Crampton and Wagner (1994). Spector (1997) stated a causal link between the two i.e., job dissatisfaction leads to lower turnover. Also, Nicholson and Miljus (1972) concluded in their own studies that promotion and salary policies and administrative practices appear to be at the very heart of the turnover problem. This final reference seems to fit exactly with the interpretation of the results of this study and re-emphasises the importance of dealing with this issue.

Females were significantly more satisfied with the fringe benefits available than males and were more satisfied overall (although not significantly). However, the facet analysis allows management to interrogate which aspects of the job are dissatisfying to whom and thus gives management the opportunity to develop strategies which will cater for the employees' needs. It is, however, too costly in terms of time and other resources to try and satisfy everyone, therefore management needs to negotiate a balance. One way to do this is to involve a representative sample of the employees in a process where they can assist management in developing suitable strategies to increase satisfaction in the highlighted areas. This will give the employees ownership of the issue and demonstrate that management is willing to address the issue.

As Business Link is a Government organisation, it cannot fundamentally change the way it works as principally Government directs it. However, it can invest and implement systems designed to take the strain of the majority of bureaucracy required by the reporting requirements of the Government. This will aid satisfaction with Operating Procedures which has been highlighted as having a negative relationship with Length of Service although not significantly.

A number of respondents sought reconfirmation of confidentiality of information indicating that respondents might have little hesitance to completing and returning the questionnaires and hence the lower response rate. However, despite the low response rate, we do not think that our sample is not representative to the Business Links in England and is fairly small in numbers.

The reasons for U-shaped relationship between the age and overall job satisfaction among female employees and linear relationship for male employees need to be examined in future studies. Further in depth (possibly qualitative) study is necessary to find out the reasons why females are significantly more satisfied with

fringe benefits than males. To get a complete picture other factors like morale, autonomy and income level also need to be considered.

Acknowledgements

We are thankful to Dr. Alf Crossman, School of Management, and University of Surrey for his supervisory contribution to the project. The authors would like to express their gratitude to Professor Thomas Lange of Middlesex University Business School for his suggestions on an earlier version of the manuscript. We are also grateful to the participants of the study for their contributions.

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Productivity and Accounting Profitability in Omani listed Companies: An Empirical Study for a Period 2010-2014

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Abstract

This study analyzed the relationship between productivity and profitability in industrial, finance and services sectors in Sultanate of Oman. The data were collected from the annual reports of the 48 industrial, 29 finance and 32 services companies listed on Muscat Securities Market for 5 years from 2010-2014.

This study tested two models for the effect of productivity on profitability. The productivity is measured by the relationships between cost of sales and number of staff (Total, Omani and Expatriate), while profitability is measured by two independent proxies; net operating income (NOP) in the first model and return on assets (ROA) in the second one. The results of the correlation indicated that the correlations of independent variables of productivity are statistically insignificant at 5% with NOP in the industrial sector while the regression analysis in the industrial sector is significant at 5%.

In the second model the correlations are statistically insignificant at 5% with ROA in all three sectors. Also, the regression analysis in the three sectors is insignificant at 5%.

Keywords: productivity, Omani productivity, expatriate productivity, net operating profit, return on assets.

JEL Classification: D23, E24, M41.

Introduction

There are several researchers who try to clarify and propose the effects of productivity on profitability of a firm. In general, the term profitability is more often defined as the link between inputs and outputs in a certain organization (system). Productivity can be computed or calculated from single, multiple and total-factor opinion (views). The single measures symbolize the link between outputs and equipment, labor or ability space. Multiple measures like the relationship between outputs and employment in addition to materials. The total factor productivity measure includes all probable factors of production into a scheme. On the counterpart, the term profitability shows the potential to often make profits over the finite period of time. As result, there are many ratios that conceal this consequence, for example, the ratio of outputs divided by inputs (such as revenue divided by cost) or of outcomes divided by outcomes (such as profit over revenue or revenue from rework over revenue). The two terms productivity and profitability are part of the basic seven performance standards (innovation, effectiveness, quality of work life, efficiency and quality) in which a firm needs to evaluated, analyzed and measured. Basically, the characteristic to become more profitable is productivity whereas influences from productivity twig from quality of work life and other residual performance criteria. Figure 1 explains the connections among the seven performance standards.





Figure 1- The Interlink between 7 Performance Standards

For long years back, the industrial, finance and services sectors in Sultanate of Oman have been facing fluctuations (ups and downs) in the achievement (performance) as per profitability and productivity. Thus, it is essential to explore the performance of these sectors and test how they can achieve the targeted aims and operational expertise.

The aim of this study is to examine the relationship between the productivity and accounting profitability in terms of return of assets and net operating profit. The study consists of five sections. Theoretical issues and productivity in Oman discussed in the first section. The second section presents the literature review. In the third section, the study presents the model, data and methodology used in this study. Sections four and five provide results of the analysis, and finally, in section six; the study presents the summary and conclusions.

Conclusions

This study examined the relationship between the productivity and accounting profitability in terms of return of assets and net operating profit. In this study, the productivity is measured by the relationships between cost of sales and number of staff in three sectors. We use the same proxy for productivity to facilitate the comparison between the three sectors. Two models were tested for the effect of productivity and profitability. In the first model, the study tested the relationship between productivity and net operating profit while the second one was tested the relationship between productivity and return on assets.

There are 115 companies in three sectors listed in (MSM) during the period of this study. 47 companies in industrial sector; 36 companies in services sector and 32 companies in finance sector. Data of this study was collected from financial statements as secondary sources for a period of five years 2010-2014. Accounting and productivity information were collected from MSM database. The methodology of the study is a content analysis of annual reports of a sample 108 companies out of 115 (93.9%).

In the first model, the results of study in the industrial sector indicate that the R-square supports the significance of regression where the model is dependable. The model of regression is significant at 1% because the Sig. of F-Value (0.000) is less than 1%. In this case, there is at least one variable in the model does have an impact on the NOP. The coefficients of P, O and E are significant at 5% because the Sig. of T-value is less than 5%.

The regression analysis in the finance and services sectors is insignificant at 5%. The coefficient of determination is equal to 14.4%% and 4.5% respectively. The R-squares are not supporting the significance of regression where the model is not dependable.

In the second model, the results of the correlation showed that the correlations of independent variables P, O, and E are statistically insignificant at 5% with ROA in all three sectors. Also, the regression analysis in the three sectors is insignificant at 5%. The coefficient of determination is equal to 1.5%, 14.5% and 9.3% respectively. The R-squares are not supporting the significance of regression where the model is not dependable.

The ANOVA analysis showed that there are differences between the sectors regarding the total productivity and expatriate productivity at 0.01 level of significant. In the total productivity and the expatriate productivity, the differences are between finance and industrial sectors. Schaffe analysis observed that the differences are for the finance sector.

The findings of this study are consistent with results of most of previous studies. Owyong (1997), Kouser *et al.* (2012), Alsughayir (2013) and Anwarul Islam and Zaman (2013) are concluded that the productivity can serve as an indicator to improve the productivity. This is true but may be only in the industrial sector because there is a positive relationship between productivity and profitability. Also, Anwarul Islam and Zaman (2013) indicated that the productivity in the banks has effect on the profitability but this is not consistent with our findings in this sector. This is because the banks in Oman are less in number (about 20% of number of companies in the finance sector) and most of them are new.

This study has certain limitations. Firstly, it uses only one measure of productivity which is monetary measure. Our models are depending on the accounting information provided by accounting system which isolated all other external information such as price inflation. Secondly, because this study is employed the accounting data, this might have some effects on the findings that are caused by the diversity of accounting practices.

We will improve the paper in two aspects in the future. First, the econometric models will be refined in the future work through adding some other measures of productivity, in order to solve the bias due to endogenous variables. Second, cross- sectional studies on the relationship between the productivity and profitability may helpful in improving the productivity practices in GCC countries in general and specifically in Oman.

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Factors affecting Tax Income Revenues in the Visegrad Countries. An Empirical Evidence based on Regression Analysis

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Abstract:

The paper provides evidence on the latest empirical research of domestic and foreign sources that determine tax revenues in the particular V4 countries. The income tax is an important source of governmental budget that is affected by a numerous economic, social, and political factors, whereby the degree of the influence may vary according to the intensity of the relation between variables. We applied the OLS regression to identify and evaluate the relationship between exogenous determinants and revenue from income tax, the estimates of the examined parameters of the model and validate the theory on the correlation in the V4 countries during the period 2000 - 2013. The regression model results indicate differences in statistical significance determinants in the V4 countries, while at the same time correspond with existing investigations and findings of other authors.

Keywords: income tax, OLS regression, determinants of tax revenues, Visegrad countries.

JEL Classification: C51, C52, G12, G32.

Introduction

Tax is a variable that is also changing in time. To follow this aspect we also need to consider the influence of particular factors affecting tax. The issue of tax revenue determination is currently often a topic of discussion, specifically due to fiscal consolidation. The fiscal consolidation can be interconnected with the concurrent improvement of actual law and establishment of new tax law to increase tax revenues from the state budget perspective. Inflow of tax revenues has been influencing by a number of determinants. Considering their character the determinants can be divided into economic, social, political, legal, demographical, socio-historical, or even technological aspects as reviewed by Castro and Camarillo 2014, Karagöz 2013, Hansson, Porter and Williams 2012, Gupta 2007, Klazar 2003, Kubátová 2012, Bayer 2011, Kubátová and Říhová 2009, Raisová 2012. Total volume of tax returns is the result of large number of different determinants interact each other. Their influence may be reflected directly through tax structure itself, or indirectly through the behaviour of

taxpayers. The actual factors are very specific and dynamic phenomena that are constantly evolving and interacting (Bayer 2011, Mura and Buleca 2012). The degree of influence may vary according to the intensity of the relation between the variables. Either the different variables affect the tax revenue with varied impact during a particular period or the same variable may affect with different intensity across different periods. Subject of review of domestic and foreign researchers is to explore the important determinants of tax revenue and their components in different countries, using different explanatory variables based on cross section as well as time series data a different methodology.

Conclusion

Tax and taxation is a continuing issue because money earned by the state is realized thanks to taxation. A specific role plays personal and corporate income tax, which is very large and complex issue even because the legislation and condition of governing income tax is often modified to achieve macroeconomic objectives of the economy. Generally, taxes are one of the most popular tools by which the government of each economy can influence and manage the economic development in the country. The income tax is an important source of governmental budget that is affected by a numerous economic, social, and political factors, whereby the degree of the influence may vary according to the intensity of the relation between variables. Taxes are used for financing the costs of public goods what can bring large positive externalities if there is not enough supply by the private sector. In our paper we applied the OLS regression to identify and evaluate the relationship between exogenous determinants and revenue from income tax in the V4 countries during the period 2000 - 2013. The regression model results indicate differences in statistical significance determinants in the V4 countries, while at the same time correspond with existing investigations and findings of other authors. We see the dominant influence of demographic factors in all analysed countries, specifically the total employment or the number of economic active population. Demographic factors are the most important variables in the context of tax revenues, particularly due to the current increasing trend of population aging in the world. There is also visible a negative effect of emigration, specifically in Poland. From the perspective of income tax revenue the current immigration wave in the EU countries can be seen as a specific opportunity in long-term period, which significantly differ from the current Visegrad group countries position. Very detail overview of immigration and its benefits is presented in a paper of Kahanec and Zimmermann (2009) who highlighted positive economic effects of immigration that can enhance demographic characteristics of V4 countries in short run and improve economic perspectives and conditions in long-run. An interesting fact is that six factors like for instance gross domestic product per capita, overall GDP, export corporate income tax rate are not statistically significant and are not affecting income tax revenues in the Visegrad countries significantly.

Acknowledgements

This contribution was supported by the Scientific Grant Agency of Ministry of Education, Science, Research and Sport of the Slovak Republic and the Slovak Academy of Sciences under the grant No. VEGA 1/0607/16 and VEGA 1/0967/15.

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Workflow Systems as a Tool for Small and Medium Size Enterprises Business Processes Management

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Abstract

Workflow Systems become a useful tool that any SMEs may choose to use in the business processes support. The article is the result of a thorough literature review regarding workflow systems, a new and very interesting theme. Taking in count thee static and dynamic aspects of a workflow system and their advantages we applied the technology on a data structure regarding Romanian SMEs. The data structure contains financial-economic information of a representative sample of Romanian SMES, such as return of investments, turnover, and net profit, number of employees, current assets, fixed assets, inventories, receivables, debts, total capital, total incomes, and total expenses. In our case study we created a workflow system for the Romanian SMEs interaction in a Network Business Environment. The workflow surprise the: order - invoice reference - product delivery - payment registration - sending invoice process between two SMEs. Through our case study we showed how important is to use this technology in processing data, rather than using a general programming language (e.g. Java, C++) or any ORM tool (e.g. Hibernate).

Keywords: workflow systems, business processes, Romanian SMEs, network business environment.

JEL Classification: M15.

Introduction

In the era of big data all the specialists recommend to support business processes by workflow systems than by databases or data warehouses. After a literature review, in articles and books available on international databases, such as Web of Science, EBSCOhost, IS journals and IS conference proceedings we found out that the aim of workflow systems is to support business processes and that is a better tool for tracking and analysing the workflow process between SMEs as member of the same digital network environment. A business process consists of a sequence of tasks. Workflow management system (WFMSs) uses databases and maps the dynamic workflow engine to rules of an active database system. WFMSs provide an environment to define and execute complex processes that are frequent in urgent computing and science scenarios. In our article we studied the methodologies of implementing data based workflow systems and demonstrate how to create one for the Romanian SMEs.

Conclusion

In the current economic context Romanian SMEs face a big competition due globalization process, the lack of financial resources, the lack of information and the wide spread of technologies. To answer all these problems they have to form a network business environment that offer them access of innovative information and technology, marketing and financial counselling services, protection of intellectual property and other benefices as I detailed in (Tonis 2015). The SMEs in this environment develop different partnerships, with specific business rules as we shown Petri Net Simulator developed and described in (Pistol 2015). The workflow of the business process in this environment is modelled by a workflow system as we demonstrate in our paper. It is more efficient use these technology because it allows changing the status of SMEs orders as the process requires, jumping from one node to another, rather than using a general programming language (e.g. Java, C++) and any ORM tool (e.g. Hibernate).

In our paper we describe the workflow system designed for Romanian SMEs that form a network business environment in order to sustain the business processes between network members.

Acknowledgements

The work has been funded by the Sectoral Operational Programme Human Resources Development 2007-2013 of the Ministry of European Funds through the Financial Agreement POSDRU/159/1.5/S/134398.

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APPENDIX 1

CREATE [OR REPLACE] TRIGGER trigger_name BEFORE UPDATE ON table_name [FOR EACH ROW]

DECLARE

-- variable declarations

BEGIN -- trigger code

EXCEPTION

WHEN ...

-- exception handling

END;

APPENDIX 2

CREATE TABLE "IMMWFMS"."NODES"

 ("ID" NUMBER NOT NULL ENABLE, "TYPE" NUMBER, "VALUE" VARCHAR2(20 BYTE), "RETURN" NUMBER
) SEGMENT CREATION IMMEDIATE PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255 NOCOMPRESS LOGGING STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645 PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1 BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT) TABLESPACE "USERS";

Insert into "IMMWFMS"."NODES" (ID,TYPE,VALUE,RETURN) values (1,1,NULL,2); Insert into "IMMWFMS"."NODES" (ID,TYPE,VALUE,RETURN) values (2,2,'IDFACT=1',3); Insert into "IMMWFMS"."NODES" (ID,TYPE,VALUE,RETURN) values (3,3,'S.IDPRODUS=1',4); Insert into "IMMWFMS"."NODES" (ID,TYPE,VALUE,RETURN) values (4,3,'C.IDCONT=1',5); Insert into "IMMWFMS"."NODES" (ID,TYPE,VALUE,RETURN) values (5,2,'IDFACT=2',0);

APPENDIX 3

SET SERVEROUTPUT ON

declare cursor mycrs is select * from nodes; total number(9):=0; fstring varchar2(50); begin for rec in mycrs loop if (rec.type=1) then execute immediate ('INSERT INTO IMMWFMS.COMENZI (IDCOMANDA, CUI, DATA, IDSTARE, CUICLIENT, IDPROD) VALUES (5, 13446570, TO_DATE('2014-08-28 00:00:00', 'YYYY-MM-DD HH24:MI:SS'), 1, 16402241, 1) ') end if if (rec.type=2) then fstring := 'SELECT IDFACT,CUI,NRFACT,SERIE,DATA,TOTAL,TVA,PROFORMA FROM FACTURA WHERE '|| rec.value; execute immediate (fstring) into fstring; dbms_output.put_line(fstring); end if if (rec.type=3) then fstring := 'UPDATE STOCURI S SET S.TOTAL=S.TOTAL - (SELECT CZ.CANT FROM CZ WHERE S.IDPRODUS=CZ.IDPROD) WHERE '|| rec.value; execute immediate (fstring); end if if (rec.type=4) then fstring := ' UPDATE CONT C SET C.RULAJ=C.RULAJ+(SELECT CZ.CANT * CZ.PRET FROM COMENZI CZ WHERE C.IDCOMANDA=CZ.IDCOMANDA) WHERE '|| rec.value; execute immediate (fstring); end if if (rec.type=5) then fstring := 'SELECT IDFACT,CUI,NRFACT,SERIE,DATA,TOTAL,TVA,PROFORMA FROM FACTURA WHERE '|| rec.value; execute immediate (fstring) into fstring; dbms_output.put_line(fstring); end if end loop; end;

Industrial Cluster Development in Thailand: There is still a Long Road Ahead

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Abstract

This paper aims to study and analyse the performance of industrial cluster development during the fiscal year of 2012, and proposes stages and indicators for an industrial cluster life cycle to guide more appropriate policy for further enhancement of industrial cluster development. The support of industrial clusters improves their competitiveness and also raises productivity in terms of increased sales, cost reduction, and creativity. The performance of industrial cluster development is financially and economically feasible. The industrial cluster life cycle should take an average of 19.14 years: 2.90, 4.43, 6.76, and 5.05 years for initial, developing, mature, and transformation stages, respectively.

The essential factors for success in the initial and developing stages of an industrial cluster life cycle are awareness, structure, trust, knowledge, innovation, and cluster goals. Meanwhile, factors indicating the structure, innovation, trust, awareness, knowledge, and goals of clusters are crucial factors which need to be examined for success in the mature and transformation stages of the industrial cluster life cycle.

Keywords: industrial cluster development evaluation, industrial cluster life cycle.

JEL Classification: 011, 021, 025.

Introduction

In Thailand, industrial cluster development was formally initiated during the Ninth National Economic and Social Development Plan (1999–2004). It was stated under the seventh strategy of the plan that the managerial system of SMEs should be promoted through industrial clusters and networks such as linkage with industrial enterprise production, training in management and technology, and increased investment in research and development to enhance their competitiveness. The Department of Industrial Promotion (DIP), Ministry of Industry, is the major government agency responsible for the implementation of this plan, and has supported the development of more than 200 industrial clusters. At the present time, industrial clusters are still a major part of government development policy, especially those in the ten special economic zones due to start in 2015, and also included in the Twelfth National Economic and Social Development Plan (2016–2020). Despite continual government promotion, industrial clusters in Thailand are still far behind in development. The clusters face various problems: including collaboration among cluster members, inappropriate guidelines for development, and a lack of knowledgeable supportive government officers and consultants.

More importantly, it is still doubtful how long each stage of industrial cluster development should take. For this reason, at the end of each fiscal year, the DIP has to conduct a performance evaluation of its industrial cluster support. This paper presents the results of such evaluation for the fiscal year 2012 consisting of two main objectives: (1) to investigate the existing status and development performance of the industrial cluster, and (2) to propose the life cycle of the industrial cluster and essential key performance indicators for each stage, in order to guide further policy for appropriate enhancement of industrial cluster development.

The remainder of this paper will tackle the following topics. Section 2 describes the concept relating to industrial clusters and related methodologies. Section 3 presents a brief background of supported industrial clusters, performance evaluation results together with developmental contribution and efficiency. Section 4 elaborates on the assessment of the stages in industrial cluster life cycle development using success key performance indicators. Finally, Section 5 discusses and documents the topic conclusions.

Discussions and conclusions

The results of competitive analysis show that supported industrial clusters are small and medium scale enterprises, mostly concentrated in the food sector. Based on such findings, six strategies and policy guidelines are suggested for the development of industrial cluster as follows:

- Strengthening of industrial clusters via: (a) encouragement for activities to enhance the understanding of industrial cluster and continual development of the relationship with trust and member participation: (b) provision of courses for industrial cluster leaders, community leaders, officers and personnel at district and provincial level to broaden their understanding to boost collaboration in the cluster development process; and (c) encouragement for fundamental cluster activities such as collective production and marketing and more linkages between various clusters or creating industrial cluster networks.
- Creation and promotion of market opportunities via: (a) organization of national trade exhibitions of industrial cluster products; and (b) encouragement for market research of products for each cluster.
- Development of sustainable and integrated industrial clusters via conducting research on supportive possibilities of various organizations relevant to production, marketing, funding, and development of technology and innovation.
- Development of human resources via: (a) organization of workshops on business management; (b) training for workers in production processes; and (c) studying specific aspects of industrial cluster development to be summarised into manuals, for example, a manual for collaborative production, marketing, technological development and innovation.
- Development of industrial technologies and innovations by conducting workshops and field trips for industrial clusters in similar sectors.
- Monitoring and evaluation of industrial cluster development projects via: (a) knowledge development in the planning process; (b) development of indicators classified by stages in the industrial cluster life cycle; and (c) database development.

In conclusion, industrial cluster development in Thailand still has a long way to go, as well as plenty of room for development, depending on the selection of industrial cluster for development, various developmental approaches, industrial cluster life cycles, performance self-assessment, monitoring, evaluation, etc. Additionally, key success indicators in terms of endogenous, exogenous, soft, and hard factors should be further classified for investigation and policy recommendation. Last but not least, government infrastructure may be one of the most influential factors. However, this paper provides findings, practical implications of its original value, and limitations as follows:

Research limitations

This study has certain limitations in relation to generalisation, but the statistical tools applied to characterise the industrial cluster stages of development are proven to be valid. In view of this, further research on self-assessment for effectiveness and efficiency is suggested in order to strengthen the real industrial cluster development in Thailand.

Findings

The results reveal that the life cycle of all types of industrial cluster development is an average of 19.14 years. There are different key success indicators for comparing the first two agglomeration and emerging stages, and the developing stage with the last two mature and transformational stages. This paper also identifies some of the key success indicators in each stage.

Practical implications

The proposed approach provides a good basis for self-assessment of the industrial cluster development performance. This can also help both researchers and practitioners in deciding how best to improve the development of each industrial cluster.

Originality/value

This research is an attempt to propose a period for industrial cluster life cycles and length of the four development stages. This also helps in developing recommendations for improving strategies. In addition, the key success performance indicators are essential for self-assessment of each industrial cluster depending on their life cycle stage. Recommendations are also made for improving cluster performance. The findings should also prove

useful to guide agencies towards more appropriate policies and measures for strengthening, monitoring, and evaluation of industrial cluster development.

Acknowledgements

This research was funded by the DIP, Ministry of Industry, as part of the monitoring and evaluation process for industrial cluster development during the fiscal year 2012. The authors would like to thank all participants for their time and provided information, and all those who facilitated the research. This paper states the authors' personal views, and does not necessarily reflect those of the DIP.

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Tax Competition Phenomenon among ASEAN Member Countries

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Abstract

Globalization has attracted the economists to examine the concept of tax competition. This research is conducted in order to review tax competition in the ASEAN member countries during the period 1990 – 2012 due to corporate tax rate reduction phenomenon. Scope of this research is corporate income tax in six ASEAN member states, namely Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam, which are sufficient to represent ASEAN. This research uses a quantitative methods approach, starting from quantitative descriptive analysis of statutory corporate income tax rate, calculation of the effective rate of corporate income tax – both Effective Marginal Tax Rate (EMTR) and Effective Average Tax Rate (EATR) – based on the Devereux's formula, and revenue shifting of corporate income tax to other taxes are considered to cover corporate income tax revenue reduction. Based on the result, this research does not find any sufficient evidence regarding indications of tax competition in the ASEAN region.

Keywords: tax competition, effective marginal tax rate, effective average tax rate.

JEL Classification: H2.

Introduction

Globalization has increased the international economic activities, such as trade, investment, activity of multinational company, and capital mobility (Campbell 2009). One of the advantages of globalization is the economic activities become smoother because of the loss of tariff and non-tariff barriers in trade and investment. Investment allows a country to intensify economic activities, employment opportunities, national income, and the prosperity of its citizens. With the increasing of economic activities, it provides a comprehensively profitable potential for the investors (McGee 2004). In an open economic system with high capital mobility, Tax policies have essential effects of cash flow, as could be seen when countries compete each other by conducting corporate income tax rate reduction to attract investment. (Viard 2008)

The emergence of globalization drives a country to pay attention to the tax system by making adjustment through tax reform in order to intensify fiscal climate which has implication on investment. According to the research conducted by World Bank in 2012, with survey data from 183 countries, it could be concluded that the tax payment pattern ranks the third position as a consideration by investors for planning investment in a country. This research only reviewed tax aspect in a country, meanwhile other factors were not reviewed, with the idea from company perspective, the effective tax rate has a role in determining selected location for investment.

Conclusion

The research concludes that there is no sufficient evidence that indicates tax competition among the ASEAN-6 member states. The conclusions obtained from several aspects, with the results as follows.

During the research period (1990 - 2012), a phenomenon of statutory corporate income tax rate reduction in ASEAN-6 member states. Exceptions apply to Philippines as a country that increased tax rate from 30% to 35% in 2006-2008, even if at the end it decreased and back to normal (30%). However, this rate could not indicate that there was a tax competition among the ASEAN-6 member states because there was no convergence rate and also the higher rate range from 17% (Singapore) to 30% (Philippines).

Based on forward looking approach on EMTR and EATR in Devereux and Griffith formula, obtained the result that the average corporate income tax rate reduction in ASEAN-6 member states was with volatile movement. There was no convergence value, despite a significant decrease. Therefore, based on the calculation of EMTR and EATR during 1990-2012, this research does not find any sufficient evidence that indicates the existence of tax competition between ASEAN-6 member states.

In a backward looking approach, the indication of tax competition could be seen from the transfer of corporate income tax revenue to the other taxes such as Personal Income Tax and Goods and Services Tax, in the context of government revenue recovery. The purpose of revenue recovery is to cover the lacking of tax revenue due to the corporate income tax rate reduction conducted by Singapore by increasing the tax rate on goods and services. In another five member states, the income tax rate is not followed by a tax revenue reduction, so there is no transfer to another tax. In a backward-looking approach, could not be seen any sufficient evidence of tax competition in the ASEAN region.

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Organizational Productivity and Absorptive Capacity: A Conceptual Modeling

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Abstract

This paper aims to design a mathematical model for organizational absorptive capacity, which is both deterministic and directional. Banking on maximization conditions, time duration needed for an organization to shift from exploration to exploitation and vice versa, has been determined. Using simultaneous differential equation matrix, effects of absorptive capacity constituents on marginal productivity of organization have been analyzed. The model depicts relationship of organizational memory, revenue stream, time taken for creating the knowledge base with their respective elasticities with organizational absorptive capacity, and respective productivities of organizational capital and capability alongside organizational absorptive capacity, considering knowledge exploration and exploitation phases.

Keywords: organizational memory, absorptive capacity, optimization, productivity.

JEL Classification: C50, M12, M50.

Introduction

While talking about organizational learning and effectiveness, absorptive capacity of the organization plays the major role. Various dimensions of organizational absorptive capacity add to the organizational productivity (Chen and Ching 2004). Organizational learning is a continuous process which works in spiral connectivity with organizational productivity (Carayannis 1999). The ups and downs in the history of organizational productivity add to organizational memory, which in turn adds to the absorptive capacity of the organization (Chou 2005). The process adds to the organizational learning as well. This learning process can occur in two ways depending on the environment: by exploiting the existing knowledge and by exploring new knowledge (Van Den Bosch, Volberda and De Boer 1999). At the nascent level, the organizational environment is turbulent and it goes for exploration. Once the practices are standardized and are in place, it goes for exploiting the existing knowledge. But in both the cases, organizational learning takes place. This will in turn affect the profitability and productivity of the organization.

It is not always possible for a firm to hold a monopoly position in industry. In order to sustain in the competition, the firms must continue innovation. Absorptive capacity provides firm with the capability to acquire, assimilate and transform new knowledge with a view to keep the innovation moving (Cohen and Levinthal 1990). Innovation drives the market power possessed by any firm (Kamien and Schwartz 1975). If we look at the existing body of literature, several studies have been done on the relationship between firm innovation and absorptive capacity. Tsai (2001) discussed about position of business unit in a network with a view to defining capability of a firm in terms of its absorptive capacity and innovation. Argote, McEvily and Reagans (2003) talk about the knowledge transactions for expansion of knowledge base. Exponential temporal growth of organizational memory was discussed by Michael and Palandjian (2004). Price elasticity of end product in driving innovation and absorptive capacity was discussed by Lane and Lubatkin (1998). Revenue generation by the way of innovation driving absorptive capacity was discussed by Stock, Greis and Fischer (2001).

The literature on organizational productivity and absorptive capacity also reflects upon some of the important factors. Girma (2005) discusses about exploitation driver of productivity and the role of absorptive capacity. The relationship between absorptive capacity and dynamic capability building via R&D was discussed by Zahra and George (2002). Participation in knowledge creation and transfer also drives to build up profitable absorptive capacity (Jansen, Van Den Bosch and Volberda 2005). Knowledge exploration and knowledge exploitation are used complementarily in any organization in order to build up capability (Lichtenthaler 2009). Hence for a profitable absorptive capacity building, both the processes must be used in cyclical order. (Uotila *et al.* 2009)

In this paper, we are going to design a mathematical model for absorptive capacity on the basis of the parameters discussed so far. The model is two-fold in nature. In the deterministic part of the model, the absorptive capacity will be designed in terms of the various deterministic factors. On the other hand, directional part of the model will show the nature of absorptive capacity effect in three different scenarios: knowledge exploration, knowledge exploitation and combination of both. In the first part of the model development, analysis of the aforementioned factors will be discussed. In the second part of the model development, the directional analysis of these factors will be discussed

Conclusion

So far the model for absorptive capacity and organizational productivity is developed. Since this kind of model development is new and innovative in the existing body of literature, it has its own implication over existing empirical and qualitative researches on this area. In terms of quantitative conceptual model development, it is reliable and valid, as it incorporates the predefined parameters which were well discussed by previous researchers. However, this model has some limitations, which in turn poses the scope for future research:

- Probabilistic modelling of knowledge exploration,
- Incorporating time value of money by enabling inflation factor,
- Considering discrete time analysis, and
- Considering real life organizational data with a view to testing the model.

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An Unobserved Components Model Approach to the Relationship between Real Gross Domestic Product and Unemployment for Cyprus

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Abstract

This empirical study employs a bivariate unobserved components model to estimate the permanent and transitory movements in real GDP and the unemployment rate and the relationships between them, using information from observable aggregates for the economy of Cyprus. The main motivation for quantifying this relationship is the absence of any measure for the Okun's law that can be used to evaluate the effects of macroeconomic policy. The results suggest that both the transitory movements in Cypriot output and unemployment rate are critical for explaining overall fluctuations. The estimated Okun's coefficient for transitory movements implies that a 1% change in transitory unemployment causes 1.73% change in transitory real GDP in the opposite direction.

Keywords: unobserved components, business cycle, trend GDP, cyclical unemployment, Cypriot economy.

JEL Classifications: C32, E23, E24, E32.

Introduction

Unobserved Components Models (UCM) has been used for an analysis of many macroeconomic time series that can be decomposed into permanent, or trend, movements and transitory movements in the series of various countries. Sinclair (2009) showed that there is an important relationship between the permanent and transitory movements in U.S. output and the unemployment rate, as specified by Okun's law. Okun's law is an empirically observed relationship linking unemployment to losses in a country's production. In Okun's original statement of his law, a 3% increase in output corresponds to a 1% decline in the rate of unemployment; a .5% increase in labor force participation; a .5% increase in hours worked per employee; and a 1% increase in output per hours worked (labor productivity).

From the viewpoint of time series analysis, the estimation of the relationship between the two requires the decomposition of the observed output and unemployment series into the non-stationary permanent and the stationary transitory component. In many studies a variety of detrending techniques is used to carry out the trend-cycle decomposition. In the current study, a bivariate correlated unobserved components model (UCM), used in Sinclair (2009), is employed for decomposing output (measured as real GDP) and the unemployment rate for Cyprus into the permanent and transitory components and investigating the relationships between the two using information from observable aggregates and presents results for the economy of Cyprus. The model was developed by Sinclair (2009) as a two series extension of the correlated UCM as proposed by Morley, Nelson and Zivot (2003). Similar multivariate UCM has been applied to macroeconomic variables for single individual economies such as the US (Morley 2007, Sinclair 2009) and Canada (Basistha 2007) and for groups of countries like Eurozone aggregates (Xiaoshan and Mills 2012).

As Harvey and Jaeger (1993) argue, this class of models provides a useful framework as they "are explicitly based on the stochastic properties of the data". They are based on interpretable and well-defined models for the individual components, are very flexible in accommodating peculiar features of the time series and can be scrutinized by rigorous tests. The correlated UCM can distinguish cross-series correlations driven by the relationships between permanent shocks, caused by real shocks, from those between transitory movements, caused by changes in aggregate demand or monetary shocks. It does not require any prior transformation or detrending of the data and places fewer restrictions among the series than other models. In particular, this approach combines the detrending and correlation estimation into a single stage which improves both the estimates of the trend and cycle as well as the estimates of the correlations. Furthermore, this model nests many of the common detrending methods (Harvey and Trimbur 2003) and is thus more general than selecting a more restrictive model.

The bivariate correlated UCM simultaneously decomposes each series into a permanent component and a stationary transitory component. The permanent component is assumed to be a process of random walk with drift (Stock and Watson 1998) in order to capture the long term potential (or steady-state level) output of the economy. The transitory component, defined as real GDP deviations from the permanent trend, is assumed to be stationary following a second order autoregressive process, or AR (2). In this way the model can identify the correlation of the shocks to permanent and transitory components of each series. This is particularly important for macroeconomic fluctuations of developing countries such as Cyprus, which may not experience typical traditional business cycle fluctuations.

This paper is divided into four sections. Section (2) briefly introduces the relationship between output and unemployment and the unobserved components model (UCM) in time series. Section (3) presents the application of UCM and the empirical results from the first quarter of 2004 to the first quarter of 2013. The final section provides the concluding remarks.

Conclusion

The main motivation for this empirical study is the absence of any numerical measure regarding the relationship between output and the unemployment rate in Cyprus. Knowledge about this relationship is extremely useful in terms of macroeconomic policy. This study jointly estimated the permanent and transitory movements in Cypriot output and the unemployment rate as well as the relationships between them. The estimated components, assuming both series have random walk components, suggest that both real GDP and the unemployment rate have highly variable movements in their permanent components that look similar to the series themselves. Moreover, due to innovative changes the permanent component and the transitory component are negatively correlated for both output and the unemployment rate. Therefore it would be inappropriate to treat these components as independent. Finally, the negative correlation between the transitory components of to real GDP and the unemployment rate of -1.73 indicates that real GDP and the unemployment rate are even more strongly linked through their transitory movements than through their permanent ones.

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The Development Design of Knowledge Quality Based on Knowledge Networking and Cross-Functional Integration towards SMES' Innovative Performance

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Abstract

This study is based on research gap and business phenomena, such as the big amount and varies knowledge quality concepts, study controversy of cross-functional collaboration relations towards performance. Besides, there is no consistency in cross-functional collaboration relations. The findings of the previous researches show that the innovation of SME is still 'follower'. The findings of this research show that the main priority of the development model of SME innovative performance in Central Java by enhancing the intrinsic knowledge quality with the indicators of accuracy, objectivity, dynamism/update and believability.

Keywords: innovative performance, contextual knowledge quality, intrinsic knowledge quality, follow-up knowledge quality cross-function integration, knowledge networking.

JEL Classification: D8, J5, L2.

Introduction

The existence of knowledge economy has required a creation of new generation of organization which should utilize specific knowledge to acquire global competitiveness (Constantine 2013). Carmen Cabello-Medina (2011) states that the importance of human capital for innovation becomes the attention of researches, especially dealing with elements and processes which improve the organizational innovation and performance. The study of Hsu (2007) shows that small industries likely to be unable to achieve innovativeness. Organization with skillful and knowledgeable human resource has higher human capital and more likely to generate knowledge, make right decision, and has better innovativeness. (Hitt *et al.* 2006)

Knowledge is the main resource and value source for an organization. The knowledge quality helps the company to optimize the works, products and services development, decrease the expenses and increase the selling. Then, (Dong 2010) explains that the concept of knowledge quality is plenty and varied. However, the organization is acquired to enhance the knowledge quality by cross-functional collaboration.

Cross-functional collaboration is an important component for the continuity of an organization that aims to win the competition by optimizing the functions within the organization meticulously. The study of Song (2000) concludes that cross-functional collaboration has impact on performance. However, the study of Menon, et al (1999) state that cross-functional collaboration does not impact the performance. Besides, there is no inconsistent on cross-functional collaboration, for instance Tsai (2002) explains that cross-functional collaboration in social interaction, and Lin *et al.* (2010) conceptualize it as communication, problem solving, and satisfying relation.

Therefore, it requires raw understanding about cross-functional collaboration in order to stimulate the enhancement of knowledge quality and innovative performance. Based on the above research gaps and business phenomena, this study examines the development design of knowledge quality based on cross-functional collaboration and knowledge networking towards SMEs' innovative performance.

Conclusion

Various significant supports from hypotheses testing had answered the research problems which resulted 5 developments of knowledge quality that can realize advanced innovative performance, such as: First, steps of the development design of innovative performance were done by enhancing intrinsic knowledge quality with indicators of accuracy, objectivity, dynamics/up-date, and trustable. Second, steps of the development design of innovative performance were done by increasing follow-up knowledge quality with indicators of adaptation, applicable to improve duties and provide capacity to react with the circumstances. Third, steps of the development design of innovative performance were done by cross-functional integration through knowledge quality (i.e. intrinsic knowledge quality, contextual knowledge quality, and follow-up knowledge quality), with the indicators of cross-functional collaboration involvement, cross-functional collaboration guality, and crossfunctional collaboration harmony. Fourth, steps of the development design of innovative performance were done by knowledge networking through knowledge quality (i.e. intrinsic knowledge quality, contextual knowledge quality, and follow-up knowledge quality), with the indicators of easiness in acquiring knowledge, easiness to access external resource, having usable contacts and external feedbacks. Fifth, steps of the development design of innovative performance were done by enhancing contextual knowledge quality with the indicators of adding value in decision making, adding value in team operation, giving competitive advantage, and relevant with the duties.

Managerial Implication

Based on the findings in this research, the managerial implication priorities of development design of knowledge quality based on cross-functional collaboration and knowledge networking towards SMEs innovative performance is as follows:

• *Knowledge Networking.* The indicator 'easiness in acquiring knowledge' has the lowest index among other indicators. Thus, the management develops the networking quality by realizing the quality of communication, trust, and commitment on the consensus. By that process, it will trigger the easiness in acquiring knowledge required.

Cross-Functional Integration. The management quality of cross-functional collaboration requires disclosure and communication inter function in an attempt of giving feedback to the environment. Problems exist in a function can be helped to analyze and solve by the other functions professionally and conceptually. So as for unsolved problems of a party can be discussed and solved through coordination among functions within a company. This step needs to be implemented in the company culture, so the employees will not be introvert, afraid of taking initiatives, and afraid of taking risks.

• *Knowledge Quality.* Accuracy in knowledge requires a high learning orientation, shown by: a) knowing new things, b) training, c) getting feedback from customers, and d) continually doing development. Learning orientation is used as a self-control strategy which is able to help the development of HR's skills and abilities as well as knowledge that can improve the performance.

Innovative Performance. The frequency of product replacement requires transformation of innovation core in the external networking because production network with superior knowledge which transfer mechanism among the users, suppliers, and creators will be able to beat the production networking with less effective knowledge distribution routine. To create new/better products, the company should relocate the resource, combine new resource/existing resource both inside /outside with new ways.

Limitation and future research agenda

The result of full model SEM showed that the model was suitable/ fit with the data used. However, there were 2 suitability testing that marginally accepted, such as Goodness of Fit Index (GFI= 0.853), and Adjusted Goodness of Fit Index (AGFI = 0.814). The result of AMOS Software testing showed that in the leverage of knowledge networking and cross-functional integration towards contextual knowledge quality, the Squared Multiple Correlations was 14%, and then in the leverage of knowledge networking and cross-functional integration towards contextual knowledge quality, the Squared Multiple Correlations was 7.5%. In the innovative performance which is influenced by intrinsic knowledge quality, contextual knowledge quality, and follow-up knowledge quality, Squared Multiple Correlations was 18. 2%. The three Squared Multiple Correlations have low qualification.

The Future Research Agenda. Organizational culture is an integrated pattern of human behavior which relates to problems in adaptation and integration of internal and external conditions. Therefore, organizational

culture takes role in the development process of knowledge quality in an attempt to enhance innovative performance. Thus, further study about organizational culture in the development process of innovative performance in an interesting research area. Then, based on the limitation of the three Squared Multiple Correlations which have low qualification is a black box and an interesting research area.

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ISSN 2393 - 5162

ISSN - L 1843-6110