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CONTENTS

The Perception of the Accounting Students on the Image of the Accountant and the Accounting Profession

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Abstract
This study aims to present the perception of the accounting students on the accountant image and the accounting profession, thus contributing to a better understanding of the option for the field of accounting and the motivations for choosing this profession. The paper consists of the following parts: introduction, literature review, research methodology, research findings, conclusions and bibliography. The accounting profession must be aligned to the current conditions the Romanian accounting system is going through to harmonize to the IFRS and European regulations and the development of information technologies and the transition to digital era. The role of the accountant changes from a simple digit operator to a modern one. This will be part of the managerial team, provide strategic and financial advice and effective solutions for the proper functioning of the organization, the modern stereotype involving creativity in the accounting activities. The research aims at understanding the role of the accounting profession as a social identity and as a

social phenomenon and the implications for academia and professional bodies.

Keywords: accountant image, accounting profession, IT technology, Cloud Accounting, skills

Introduction

The accounting profession is in competition with other professions, so it is important to analyze how the image is perceived in society, the challenges it faces as well the future trends and prospects. The accounting profession is facing new challenges for the growing number of companies of all types, there are more and more financial transactions, stock exchange activity increases, there are phenomena of re-engineering and bankruptcies. The image of the profession is very important, as it has an effect on the social position, the attractiveness of the profession and the role the members of this profession will have in the society. It is important to research which is the image of the accountant in the today's society, in order to establish a point of view in determining marketing strategies and training strategies in this area. The future of the accounting profession is aimed at students and young economists from economic colleges who wish to pursue accounting. They need to know what the prospects of the accounting profession are, the challenges in the present context of international trade expansion and development of IT systems. The IT skills are particularly important because most of the accountant's work is in front of the computer. If a professional accountant did not have IT skills it would be like fisherman without the rod.

The future professional accountants must be aware of the qualities and characteristics that a good accountant should have, such as a sense of responsibility, honesty, ethics and professional conduct, confidentiality, integrity, attention to detail, thoroughness and determination.

Literature review

At national and international level we meet a number of studies concerned with the image of the accountant and the accounting profession and the implications for professional bodies and academia.

Olimid and Calu (2006) conduct an empirical research on the values of the accounting profession. As a result of the empirical

research, the authors conclude that the accountants' values are limited to prudence, transparency and uniformity. Ionaşcu (2006) addresses the accounting profession in relation to business and society seen from a postmodern perspective.

Following an empirical research carried out by Albu and Albu (2009), they concluded that the accountant picture will change in the future due to the belief of 75.32% of the respondents surveyed (the survey includes a study on the image of the accounting profession in Romania, being completed by 50 accounting students, undergraduate and master's level and 17 professional accountants). Albu and Albu (2009b, p.10) consider a number of "factors that are deemed to cause this change: economic and organizational environment, technical progress, the application of IFRS and the emphasis on professional judgment and focus on professional ethics."

Albu (2013) identifies and analyzes the main factors influencing the recent evolution of the Romanian accounting profession in order to explore some emerging trends. An important place in the study is given to professional bodies that have contributed and continue to contribute to change the image and development of the accounting profession.

Tiron (2014, p. 9) considers that "the development of the profession in terms of small and medium offices requires answers to tough challenges, such as the effect of globalization, the emergence of professional networking, internationalization of the profession and of course, the question on solutions that could be adopted to overcome them is open, the involvement of national and international professional bodies to support the work of this group of professional accountants."

One of the objectives of professional bodies is to continuously promote the principle of lifelong education through lifelong learning which helps in providing high quality professional services and the development of accounting profession. Leuştean and Boyere (2009, p. 13) believe that "the reason for the development and diversification of these forms of education (formal, non-formal and informal) and professional training lies in the growing of the relevance of skills acquired by participants in the labor market". Also referring to the educational approach of sustainable development, Leuştean and Boyere (2009, p.13) state that "the involvement of the accounting profession to achieve these strategic objectives will ensure, on medium and long term, a high economic growth and, consequently, a significant reduction of economic and social disparities between Romania and the other EU

Member States". Albu (2013, p. 549) argues that "national professional bodies should consider themselves in competition with the international ones, in order to result mimetic and normative isomorphism which would be of benefit for the local profession". The role and the importance of professional bodies are raised by (Bunget, et al., 2009) through a study that covers an overview of the evolution of the accounting profession in Romania.

Albu et al. (2014) provides an overview of the students' perceptions on the image of the accounting profession in Romania. The study examines the students' perceptions of the roles and skills of the professional accountant and a number of issues relating to the position of the accounting profession in society and the labor market. The accounting profession in Romania is compared with other professions. The study results confirm the importance of the traditional role of the accountant in tax and financial reporting. However, the role of organizational support and communication and the strategic support are perceived as important. The students interviewed consider that the most important skills are related to working with numbers, but attention is paid to the acquisition of "soft" skills (communication, teamwork). The important position in the society is the most important factor chosen by the students interviewed when they decided to opt for the accounting profession and the job stability has the lowest importance among the factors investigated.

Albu (2012) makes a study on the image and role of the accountant in terms of managers, students and accountants. The general stereotype attached to the Romanian accountant is that of a man who works with figures and works in a rigidly uniform field. Albu (2012, p.10) believes that "however, accounting is not associated only with numbers, but it also requires interaction, teamwork and creativity. This image has some "nuances" in terms of social groups: for students, the profession is more prestigious and ethical, for professionals it requires flexibility/creativity, profit-oriented and as a decision-support. For the SMEs managers, accounting is a bureaucrat, but in large entities the accountant is an analyst and consultant."

Referring to the accounting profession Badiu (2012, p.11) believes that it "should be able to combine technical skills (which are essential) with social, human skills. Without them it is almost impossible to provide customers the right experience in the sense that

they understand and love. If we successfully combine these two skills, the accounting profession will flourish."

An important role on the image of the accountant is played by the skills, competencies that the professional must have for the activity. In the literature we find a number of studies that address the issue of skills, competencies held by accountants. Among the authors with preoccupations in the area of skills are: Burnett, Friedman and Yang (2008), Kavanagh, Drennam (2008), Wells, Gerbic, Kranenburg and Bygrave (2009), Matiş, Cuzdriorean, Vladu (2011), Klibi and Oussii (2013), Yu, Churyk and Chang (2013). The authors aforementioned analyze soft skills and hard skills. In the literature we find a number of studies addressing the issue of the image and the role of the accountant in Romania (Albu et al., 2011 a, b, c, d).

In the current context of economic globalization, the development of information systems, the transmission speed and their movements, the speed in decision making and the managerial flexibility in managing financial and accounting activities are becoming increasingly important. Since the last decade the IT technologies have developed and continuously improved, there is the need for a new approach to the computerization of the accounting system, which will have a positive impact on business development. We are witnessing today the adoption of Cloud Accounting technologies which represent an accounting application that can be accessed from anywhere where there is internet connection, without the need to install and manage their own servers.

According to the report "The Cloud Takes Shape" conducted by KPMG in December 2012 in connection with the implementation and adoption of Cloud technologies worldwide, attended by 674 CEOs from 16 countries it has been found that "more than half of the responding organizations already work in Cloud, and 70% of those with experience in the Cloud website say that these technologies have already provided significant cost reductions and optimizations."

Following an empirical research of the possibility of moving to Cloud some typical operations specific to the flow accounting process, Ionescu et. al. (2014, p.15) concludes that "on-line accounting will change the accounting profession and will lead to a considerable improvement in the conduct of financial activities, the interaction with the clients and the efficiency of response to their needs". The results of this study show that most of the stages of the flow accounting

processing can move on Cloud and some of these may be left under the control of customers in certain well-defined circumstances. Ionescu, et. al. (2014, p.15) state that "with the new technology an accountant can provide real-time reports and consulting services on business profitability, cost analysis and support for decision making".

Research methodology

The paper looks at the way in which a group of accounting students perceives the image of accountant and the accounting profession in the context of harmonizing the Romanian accounting System to the European and international accounting referential, information technology development and the transition to the digital era. Data was gathered by means of a questionnaire distributed to 120 students and master students in accounting at the Faculty of Economics of "Aurel Vlaicu" University of Arad.

The questionnaire contains two types of questions:
- general questions, their role being to provide a more complete picture on the profile of respondents;
- questions concerning the students' perception about the image of the accountant and the accounting profession in the context of development of information technologies and the transition to the digital age.

Within the general questions we sought to emphasize:
- the status of respondents from the Faculty of Economics of "Aurel Vlaicu" University of Arad;
- the gender of the respondents.

From the 120 students and master students interviewed, 90 are women and 30 are men.

The second part of the questionnaire includes a series of ten questions which analyzes the image and perception of professional accountants regarding the image and the accounting profession.
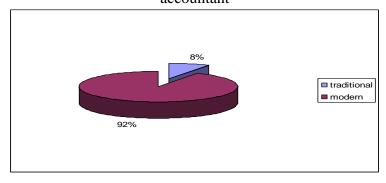
To achieve this objective, we intend to examine:

• the perception of the professional accountants regarding the image of the accountant in the current context of harmonizing the Romanian accounting system to IFRS and European regulations, the development of information technologies and the transition to the digital age;

• the perception of professional accountants regarding the accounting profession in the current context of harmonizing the Romanian accounting system to IFRS and European regulations, the development of information technologies and the transition to the digital age.

Research findings

In the current conditions, the image and the tasks of the accountant must undergo a series of changes. As it is shown in figure no. 1, a percentage of 92% of those surveyed believe that with the development of information technologies and the transition to the digital age, the focus will move from the traditional role to the modern role of the accountant.

Figure no. 1. The respondents' perception regarding the image of the accountant

Source: the author's own creation, based on the questionnaire answers

Thus, the accountant should be seen as an active member in the management team, having a number of important roles such as: developing accounting policies and accounting procedures, accounting data analysis and interpretation, financial and strategic consulting, providing efficient solutions for the proper functioning of the

organization involved in writing and management of European funded projects, organization of management control.

Carnegie and Napier (2010) discuss two stereotypes about the traditional role of the accountant. It is the traditional image pertaining to working with figures and the modern role that requires creativity in the accounting activities, and also social interaction.

As seen in figure nr. 2, a percentage of 79% of students surveyed believe that at present, the Romanian accountant is perceived as a simple accounting data operator concerned with the preparation of tax returns, financial statements preparation. That means he has a role related to fiscal management and financial reporting.

Figure no. 2. The respondents' actual perception on the image of the accountant

Source: the author's own creation based on the questionnaire answers

Badiu (2012, p. 7) believes that "the image perceived is very important because it acts as the first impression a client has on the accountant, the business and professional services." Thus, the confidence is affected and also even the tariff is influenced. The image is directly proportional to the tariff. The higher the tariff, the more respect the customer has, even if on a subconscious level and vice versa. When asked "who do the accounting professionals work for?" it can be seen that 62% of the students surveyed believe that the accountants work for the interests of the company, 24% believe that they work for the state and 34% for self-interest. There is a high interest for understanding the image that the accounting profession has in particular

for those wishing to become members of the profession. We consider in this regard the students who chose accounting at economic faculties and who show a high interest in relation to the opportunities offered by the accounting profession. In this view, a number of attributes, such as labor market integration, professional development dynamics, stability and job security, opportunities for further development, opportunities related to salary and the status and prestige offered by this profession were taken into consideration.

Investigating on a five-point Likert scale (1 disagrees, 5-strongly agree) the respondents' perception on the image of the accounting profession, we get the following results (Table no.1):

Table no. 1. The respondents' perception on the image of accounting profession

Perception on the accounting profession	Average
The accounting profession provides chances to integrate within the labour market	1.16
The accounting profession provides the stability of a job	1.15
The accounting profession provides substantial financial gains	0.74
The accounting profession provides a status and prestige in society	1.36
The accounting profession provides opportunities to work in a team	1.10
The accounting profession provides opportunities to be independent if I start up my own business	1.30
The accounting profession provides long, medium and short term professional development opportunities	1.24
The accounting profession provides a flexible working programme and enough time for family	0.5
The accounting profession provides the security of the workplace	1.25

Source: the author's own creation based on the questionnaire answers

The respondents believe that the most important factor in choosing the accounting profession is the status and prestige in society,

followed by the possibilities of independence if they start up their own business and the job security.

There are a number of criteria underlying finding a job in the field of accounting. For this, we had in view the previous experience in accounting, the level of qualification obtained (bachelor/master/doctoral/post doctoral), the performance of the candidate during the interview, the age of the candidate, the lifelong training courses attended by the candidate as well as the skills. The respondents classified these criteria in terms of the importance given (from 1 the least important to 5 very important) and the results obtained are shown in the table below (table no. 2):

Table no. 2. Criteria underlying the finding of a job in the field of accounting

Criteria underlying the finding of a job in the field of accounting	Average
Previous experience in the field of accounting	4.05
The qualification level obtained and the skills acquired as a result of this qualification	3.49
The performance of the candidate during the recruitment interview	3.54
The age of the candidate	2.73
Lifelong training courses, workshops the candidate attended	1.88

Source: the author's own creation based on the questionnaire answers

It appears that in order to find a job in accounting, students have the perception that employers consider very important the experience previous employment, followed by the candidate's performance in the job interview, the candidate's qualifications and skills acquired, the age and the last held training courses, workshops attended by the candidate. The roles the accountants have in their activity relate to the skills expected from them. The respondents have classified the skills in terms of importance given (from 1 least important, to 5 very important) and the results are shown in the table below (table no. 3):
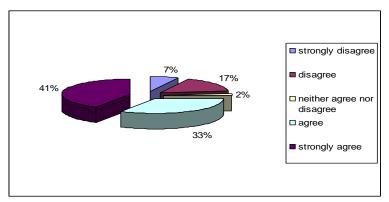
Table no. 3. Skills attributed to the accountant

Skills	Average
Skills regarding written and verbal communication in Romanian and in a foreign language	2.79
Technical skills (accounting, taxation, expertise, management control, management etc)	4.10
Skills to work in a team	2.65
IT skills	3.82
Personal qualities (perseverance, integrity, objectivity, confidentiality, resistance to stress, calm, meticulosity, attention to details)	3.59
Organizational skills (decision making, problem solving, coordination and planning, time management, prioritizing)	2.67

Source: the author's own creation based on the questionnaire answers
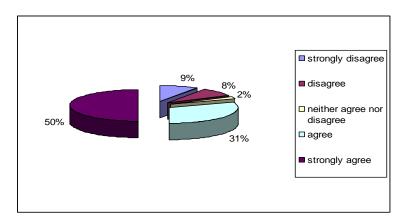
The respondents give greater importance to hard skills than soft skills. They consider that the most important skills are related to technical skills and abilities in IT. The respondents attach an important role to the personal qualities an accountant should have. When asked if the company managers and accountants are ready to implement the Clod Accounting technologies using a five-point Likert scale (1 disagree, 5-strongly agree), their assessments are presented in the graphs below (Figures no. 3 and 4).

Figure no. 3. The perception on the way in which the company managers will be ready to implement Cloud Accounting technologies

Source: the author's own creation based on the questionnaire answers

Figure no. 4. The perception on the way in which the company accountants will be ready to implement Clod Accounting technologies
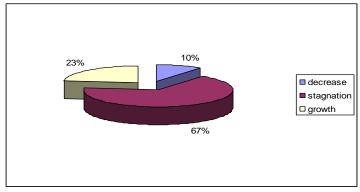
Source: the author's own creation based on the questionnaire answers

74% of those surveyed believe that the managers of firms are ready to implement the technology for Cloud Accounting (41% strongly agree and 33% agree) and 81% of those surveyed believe that the

accountants of firms are prepared to implement the technology for Cloud Accounting (50% strongly agree and 31% agree).

Lately we have been witnessing the development of information technologies in view of diversifying and increasing the information that must be processed by accountants and published through a series of statements. This requires the fast processing of the information. Considering this, the implementation of the Cloud Accounting technologies come to help the accountants in their work. Yet let's not forget that IT technology cannot replace the judgment and expertise of the accountants. Asked about the current dynamics of the development of the accounting profession compared with all other occupations present on the labour market, 67% of respondents believe that the dynamics of the profession is in stagnation, 23% of respondents believe that the current dynamics of the accounting profession is growing compared to other professions and only 10% think it is decreasing (Figure no. 5).

Figure no. 5. The current dynamics of the development of the accounting profession compared to the set of all other occupations present on the labour market
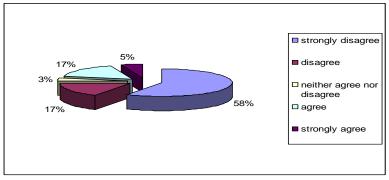
Source: the author's own creation based on the questionnaire answers

The respondents are asked about the way in which the general public perceives the accounting profession and the image of the accountant.

As it can be seen in figure no. 6, over 50% of those surveyed believe that the general public does not fully realize the value and

importance of the role that the accountant plays in the society and the accounting profession (58% totally disagree and 17% disagree).
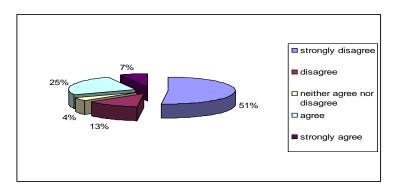
Figure no. 6. The perception of the public on the importance and role that the accountant has in the society

Source: the author's own creation based on the questionnaire answers

As it can be seen in Figure 7, 64% of those surveyed believe that the general public does not realize the true value and importance of the role that the accountant plays in society (51% totally disagree and 13% disagree).

Figure no. 7. The perception of the public on the importance and role that the accounting profession has in the society

Source: the author's own creation based on the questionnaire answers

The majority of those surveyed believes that professional bodies are permanently involved to help to improve the image of the accountant and the accounting profession for the public to realize the true importance and value these have.

Conclusions

In today's business internationalization, globalization phenomena worldwide, information technology development and the transition to the digital age, the accountant will turn into from a man of numbers into an actor of the business environment involved in consulting, analysis and strategic business planning. The professional bodies and academics will have to get involved to manage the transformation from the traditional role to a modern role adapted to the current requirements of the business environment. The students who have chosen accounting in the faculties of economics will be the future members of the accounting profession. The results of the study show that they have a certain well defined perception on the image of the accounting profession and the image of the accountant both in the current context and as future prospects.

The respondents of the survey believe that the most important factor in choosing the accounting profession is the status and the prestige in society, a result that is in line with previous research. The experience prior employment, followed by the candidate's performance in the job interview is the main criteria chosen by the students surveyed in terms of finding a job in accounting. An important role of the accountant's professional identity is represented by the skills, the skills necessary to conduct business within the accounting profession. The respondents of the survey attach more importance to hard skills than soft skills; the most important skills mentioned being those related to technical skills and IT skills. An important score is given also to personal qualities an accountant should have. In the current context of information systems development and the transition to the digital era, the preparation of firms and accountant to implement the Cloud Accounting technologies is essential given the diversity of information and their rapid processing.

The perception about the current dynamics of the development of the accounting profession in relation to all the other professions in the labor market is that of stagnation. The results of the study confirm that the students surveyed are concerned with the accounting profession and

the image the accountant has in society. They perceive that the general public does not realize the true value of the accounting profession and of the job of accountant. The accounting profession is particularly important as it contributes to the achievement of strategic objectives of social-economic development of a country, to the economic growth and process of sustainable development. Professional bodies have a crucial role and permanently contribute to improve the image of the accounting profession so that accountant does not have a marginal role in the society.

Although the findings of the study are limited due to the fact that the target group was made up of only the accounting students of a single university, however some of these results are in line with previous literature. Therefore, we believe that this study gives a valid perspective on how the students surveyed perceive the accounting profession and its members.

In the future we intend to obtain more information and much more relevant conclusions relating this issue, by resorting to econometric calculations. Also, we plan to extend the study by expanding the target group with the accounting students and master students of other universities in the country and abroad.

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Contract Farming: Conceptual Framework and Indian Panorama

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Abstract
This paper deals with conceptual framework of contract farming and portrays Indian scenario especially after announcement of National Agricultural Policy (2000) which encouraged private participation through contract farming. The conception of contract farming is not new in India, but it gets momentum in the era of agricultural globalization, as an alternative method of farming. The study reveals that while contract farming can be effective in introducing new technologies and providing external inputs to farmers, danger lies in firms extending technologies that bring financial benefits in the short-term but result in negative long-term health and environmental impacts. Contract farming is not appropriate for all types of crops. To have a significant poverty impact, crops produced under contract farming should be labour-intensive rather than input-intensive and should be appropriate for production on small plots of land. Since the contracting company is financially stronger than individual farmers, the terms of the contract may go against the farmers. Herein the government will have to come forward.

Introduction

The majority of poor people in the world lives in rural areas and is dependent on agriculture for their livelihoods and sustenance. Nevertheless, the agricultural sector has often been neglected as an important mechanism for reducing poverty and promoting development (World Bank, 2008; United Nations, 2009). Agriculture is an age-old means of livelihood for millions of Indians and its structure underwent rapid changes during the nineties both due to the pressure of commercialisation and increased dependence on trade. This was fuelled by many overt and covert changes in the sector, but diversification of crops along with the advent of WTO and liberalisation policies were the main players in the structural change. During post economic reforms period (1991), Indian agriculture is facing a complex situation, more than ever before. In consequence of that contribution of agriculture and allied sector to GDP has declined over the years. The contribution of agricultural sector to GDP has declined from 30.3 per cent in 1993-1994 to 13.9 per cent in 2013-2014, though 67 per cent of total Indian population still depends on agriculture. Parenthetically, in the era of globalization and liberalization, growth of agricultural sector has declined from 9.6 per cent in 1996-1997 to 6.2 per cent in 1998-1999 and further to 4.6 per cent in 2013-2014 (CSO, 2013-2014). This drift clearly indicates that Indian economic reforms process has not boosted the agriculture sector. Agriculture in India is not just an industry but is a way of life; it provides sufficient employment basically in rural area and also provides agricultural inputs to the agriculture based food industries. Timely and adequate quantity of good quality agricultural inputs is a *sine qua non* for smooth functioning of the agro industries. This underlying paradox of the Indian agricultural scenario has given birth to the concept of contract farming, which promises to provide a proper linkage between the farm and market, promote high degree of competition at the supply and market end and minimize intermediaries in order to increase farmers' income.

Contract Farming was recommended in the McKinsey Report submitted to the Govt. of West Bengal during the tenure of the Left

Front. India's National Agricultural Policy (2000) states, "Private sector participation will be promoted through contract farming and land leasing arrangements to allow accelerated technology transfer, capital inflow and assured market for crop production, especially of oilseeds, cotton and horticultural crops". In view of the recent decision of the Govt. of India permitting entry of FDI in multi-brand retail sector, contract farming has become relevant. The colonial period saw the introduction of cash crops such as tea, coffee, and rubber, poppy and indigo in various parts of the country, mostly through a central expatriate-owned estate surrounded by small out growers' model. Indian Tobacco Company (ITC) introduced cultivation of Virginia tobacco in Coastal Andhra Pradesh in the 1920's incorporating most elements of a fair contract farming system and met with good farmer response. This was replaced by auctions in 1984. The Pepsico introduced tomato cultivation in Punjab in the 1990's under farming to obtain inputs for its paste-manufacturing facility established as a pre-condition to its entry in to India. This was sold to Hindustan Lever in 2000, which had earlier acquired the Kissan Karnataka. Big corporate houses such as Hindustan Lever, Pepsi Foods, A.V. Thomas, Daburs, Thapars, Marico, Godrej, Mahindra, Wimco, SAB miller etc. undertake contract farming for many crops apart from several small players (Ashokan and Singh, 2003). Contract Farming was the strategy of choice for almost all food processing projects contemplated in the 1980's and 1990's. Contract Farming is again vogue, and even tried for bulk production of subsistence crops, such as paddy rice, maize and wheat. Contract Farming is now considered to be a corrective to market imperfections and serving a useful purpose in India in its own limited sphere. Contract Farming has been promoted in the recent three decades as an institutional innovation to improve agricultural performance in less developed countries. This system was accepted and used as one of the promising institutional frameworks for the delivery of price incentives, technology and other agricultural inputs. Local Governments, private local firms, Multinational companies, some international aid and lending agencies etc have been involved in these contract farming schemes (Glover, 1994).

Review of Literature
Contract farming is an interesting meadow of research of social science especially in agricultural economics. Many experts, scholars,

researchers and academicians have induced to conduct their research work on this field. In this phase, an attempt has been made to review some of the existing literature on contract farming conducted in different countries in the world, and also in India.

SPICE (2003) research examines that to establish an agrarian economy that ensures food and nutrition security to a population of over a billion, raw material for its expanding industrial base, surpluses for exports, and a fair and equitable rewarding system for the farming community, 'commitment driven' contract farming is no doubt a viable alternative farming model, which provides assured and reliable input service to farmers and desired farm produce to the contracting firms.

In his research paper, Sukhpal Singh (2005) concludes by drawing a lesson for agribusiness policy for contract farming to play an effective role in agricultural development in the state.

Sunanda (2005) recommends in her study that the Government should play the role of a facilitator and not that of a regulator in developing and promoting a healthy system of farmer-corporate relationship for mutual benefit

Swain (2007) opines that contract farming can change the cropping pattern of agriculture and farmer can earn more income, which leads to develop the economy.

According to Sununtar Setboonsarng (2008) success of contract farming may be dependent on sound managerial skills and the demonstration of corporate social responsibility and cultural understanding on the part of the firm.

Martin Prowse (2008) identified that there are also risks associated with contract farming and suggests that such risks can be reduced if a greater focus is put on strengthening market-oriented producer organisations and creating mechanisms for resolving disputes between farmers and firms.

Jos Bijman (2008) proves that contract farming is becoming more important for international food chain, rise super markets, supply chain management (quality, logistics, information).

Namrata Acharya (2012) expressed in her article that contract farming under the name of collaborative or partnership farming, is gaining popularity among farmers in West Bengal.

Jayati Ghosh (2013) warned in her article that relying only on contract framing to solve the current agrarian problems in the country is futile. Instead, if it is not properly controlled and regulated and if it adds

to the reneging of responsibility by state actors, it is likely to intensify such problems.

Sita Ram and R. C. Kumawat (2013) evaluated contract farming as a way of providing earlier access to credit, input, information and technology and product markets for the small scale farming structure. Contract farming might also be seen as a way or as a part of rural development and promoted to improve agricultural performance especially in Third World Countries.

For successful implementation of contract farming Preetinder Kaur (2014) recommends that there should be proper co-ordination between farmers and firm then both will be acted in organised manner and advisable for sides.

Discussing about the problems and prospects of contract farming in India, Joydeb Sarkhel (2014) apprehended that since the company is financially stronger than individual farmers the terms of the contract may go against the farmers.

Objective

The objective of this paper is to analyse the theoretical aspects of contract farming and status of contract farming in India. In order to do that, the author will discuss about the definition of contract farming, the importance of contract farming, models of contract farming, advantages and disadvantages of farmers and sponsors, few successful cases, problems of contract farming in India, government's responsibility etc.

The final section summarizes recommendations for the successful promotion of contract farming in India as a strategy for alternative method of farming in the context of agricultural globalization

Methodology

This theoretical study is purely based on the information collected from different sources like websites, articles published in reputed national and international journals, news papers and reputed reference books related to this field. Phase wise discussion of different aspects relating to contract farming in India has been done to realise the objectives of the study. Finally the author reaches to the conclusion and recommends something for better implementation of contract farming.

Contract Farming

Agricultural production carried out according to an agreement between a buyer and farmers, which establishes conditions for the production and marketing of a farm product or products. Usually, the farmer agrees to provide agreed quantities of a specific agricultural product that should meet the quality standards of the purchaser and be supplied at the time determined by the purchaser as a result the purchaser gets a guaranteed, steady supply of produce. Consecutively, the purchaser commits to purchase the product and, in some cases, to support production through supply of farm inputs, land preparation and the provision of technical advice. Contract farming is an agreement between one and more farmer(s) and a contractor for the production and supply of agricultural products under forward agreements frequently at predetermined prices (FAO, 2001). It is a system for the production and supply of agricultural or horticultural produce under forward contracts between farmers and contracting company. The essence of such an arrangement is the commitment of the farmer to provide an agricultural commodity of a certain type, at a time and a price, and in the quantity required by a known and committed contracting company. Contract farming is a contract between a farmer and a purchaser established in advance of the growing season for a specific quantity, quality and date of delivery of an agricultural output at a price or price formula fixed in advance. The contract provides the farmer with the assured sale of the crop and at times provides for technical assistance, credit, services, or inputs from the purchaser (Binswanger et al., 1995). Thus, under contract farming the contractor supplies all the inputs while the farmer supplies land and labor.

Importance

Contract farming is an alternative method of farming, very useful in developing country like India. Farmer suffers from the problem of assured market, again agro-based and food industry requires inputs of good quality agricultural produce. Contract farming builds a bridge between the farm and the industry to fulfill their needs. It also provides a linkage between agriculture and processing industries. Private investment in agriculture will increase through contract farming and in consequence of that financial burden of central and state

governments will be reduced. Farmers find a steady source of income through contract farming, not only that it will generate gainful employment in rural areas. Contract farming is needed to bring about a market focus in terms of crop selection by Indian farmers and to trim down migration of labor from rural areas to urban areas.
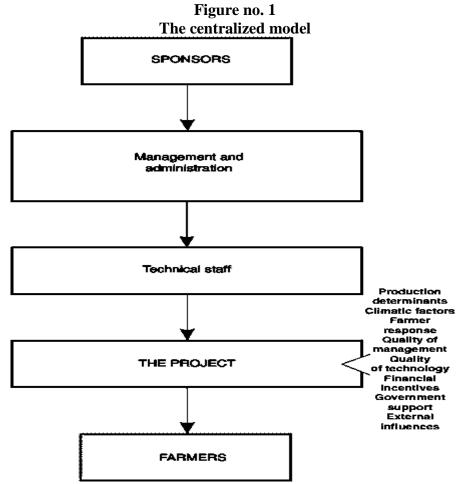
Models
Centralized model

This is a vertically coordinated model where the contracting company provides support to the production of the crop by smallholder farmers, purchases the crop from the farmers, and then processes, packages and markets the product, thereby tightly controlling its quality (fig. no.1). This can be used for crops such as tobacco, cotton, barley, sugar cane, banana, coffee, tea, cocoa and rubber. This may involve thousands of farmers but the level of involvement of the contracting company in supporting production may vary. In India, a tomato processing factory in the Punjab was transferred in 1997 from one multinational company to another. The previous owners had supplied seed, supervised production and harvesting operations and provided technical advice when needed, but the new owners only provided seeds. In the Philippines, a vegetable canning company operating close to Manila decided to cease advancing fertilizer and chemicals to its contract farmers because these were being diverted to other crops and farmers were also making extra-contractual sales. The company changed to a policy of supplying only seeds unless it was convinced of the farmer's honesty. Centralised model of contract farming is very common in Africa, popularly known as "outgrower" scheme.

Nucleus Estate model

The British-based Commonwealth Development Corporation (CDC) was a pioneer of the nucleus estate model. Nucleus estates are a variation of the centralized model. In this case the contracting company also owns and manages an estate plantation which is usually close to a processing plant and the estate is often fairly large in order to provide some guarantee of throughput for the plant. This model is mainly used for tree crops, but can also be used for, e.g., fresh vegetables and fruits for export. A common approach is for the sponsors to commence with a pilot estate then, after a trial period, introduce to farmers (sometimes called "satellite" growers) the technology and management techniques

of the particular crop. Nucleus estates have often been used in Indonesia and Papua New Guinea, for oil palm and other crops.

Figure no. 1
The centralized model

SPONSORS

Management and administration

Technical staff

THE PROJECT

Production determinants
Climatic factors
Farmer response
Quality of management
Quality of technology
Financial incentives
Government support
External influences

FARMERS
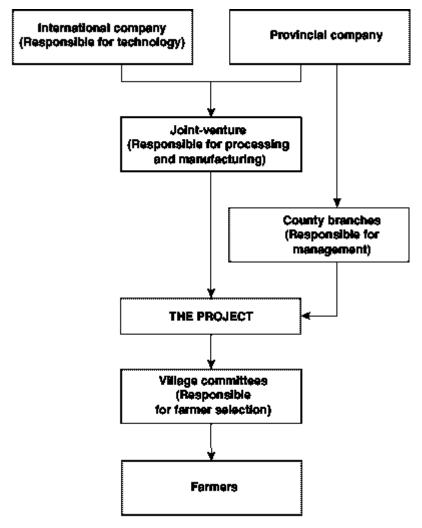
Multipartite model

The multipartite model usually involves the government, statutory bodies and private companies jointly participating with the local farmers. Multipartite contract farming may have separate organizations responsible for credit provision, production, processing, marketing and management of the produce. Governments have actively invested in contract farming through joint ventures with the private sector in Mexico, Kenya and West Africa. Multipartite models are common in China where government departments as well as township

committees and, at times, foreign companies have jointly entered into contracts with village committees and, since the early 1980s, individual farmers. Figure no. 2 outlines a multipartite project in China.

Figure no. 2
The multipartite model

Informal model
In this case individual entrepreneurs or small companies make simple, informal production contracts with farmers on a seasonal basis.

The crops usually produced under this model require only a minimal amount of processing or packaging for resale to the retail trade or local markets, as with vegetables, watermelons, fruits and also require minimal amount of investment. Material inputs are often restricted to the provision of seeds and basic fertilizers, with technical advice limited to grading and quality control matters. Informal model is the most speculative of all contract farming models, with a risk of default by both sponsors and farmers.

Intermediary model

Sometimes, sponsors are agreed with intermediaries like collectors, farmer groups, NGOs with a formal subcontract of production and the intermediaries have their own informal arrangements with farmers. It disconnects the direct linkage between sponsors and farmers. This type of contract farming model is known as intermediary model. The formal subcontracting of crops to intermediaries is a common practice in Southeast Asia. In Thailand, for example, large food processing companies and fresh vegetable entrepreneurs purchase crops from individual "collectors" or from farmer committees, who have their own informal arrangements with farmers. In Indonesia, this practice is widespread and is termed 'plasma'.

Advantages to the Farmers

● The farmers will be exposed to world class mechanized agro-technology which will increase productivity.

● The farmers obtain a guaranteed and fixed pricing structure for their product.

● The farmers get access to reliable markets.

● Contract farming usually allows farmers access to some form of credit to finance production inputs.

● The farmers get healthy disease-free nursery, agricultural implements and improved technology from the contracting company.

● There will be crop monitoring on a regular basis, technical advice will be provided free of cost at the doorstep of the farmer.

● The skills the farmer learns through contract farming may include record keeping, the efficient use of farm resources, improved methods of applying chemicals and fertilizers, knowledge of the importance of quality and the characteristics and demands of export markets.

Problems faced by Farmers

● Farmers entering new contract farming ventures should be prepared to balance the prospect of higher returns with the possibility of greater risk.

● The introduction of a new crop to be grown under conditions rigorously controlled by the sponsor can cause disruption to the existing farming system.

● The introduction of sophisticated machines (e.g. for transplanting) may result in a loss of local employment and overcapitalization of the contracted farmer.

● Management may be tempted to manipulate quality standards in order to reduce purchases while appearing to honour the contract.

● Problems occur when staff responsible for issuing contracts and buying crops exploits their position. Such practices result in a collapse of trust and communication between the contracted parties and soon undermine any contract.

● Allowing only one purchaser encourages monopolistic tendencies, particularly where farmers are locked into a fairly sizeable investment, such as with tree crops, and cannot easily change to other crops.

● Availability of credit may some time be the cause of farmers' indebtedness and over reliance on advances.

Advantages to the Sponsors

● The sponsor will get uninterrupted and regular flow of raw materials for its processing plant.

● The sponsor will get protection from fluctuation in market pricing as the company enters into forward contract with the farmers.

● It will be possible for the sponsor to formulate long term planning.

● If the move is successful for one crop it can be extended to other crops. As a result the sponsor can diversify its product base and farmers can also produce several products.

● The sponsor gets a dedicated supplier base. The contract farming builds long term commitment between the sponsor and the farmers. It also generates goodwill for the organization.

Problems faced by Sponsors

● Farmers must have suitable land on which to cultivate their contracted crops. Problems can arise when farmers have minimal or no security of tenure as there is a danger of the sponsor's investment being wasted as a result of farmer-landlord disputes.

● Problems can arise when management chooses farmers who are unable to comply with strict timetables and regulations because of social obligations. Promoting agriculture through contracts is also a cultural issue. In communities where custom and tradition play an important role, difficulties may arise when farming innovations are introduced.

● If 'farmer discontent' not readily addressed, such circumstances will cause hostility towards the sponsors that may result in farmers withdrawing from projects.

● The sale of produce by farmers to a third party, outside the conditions of a contract, can be a major problem. Extra-contractual sales are always possible and are not easily controlled when an alternative market exists.

● Farmers are tempted to use inputs supplied under contract for purposes other than those for which they were intended. They may choose to use the inputs on their other cash and subsistence crops or even to sell them.

Successful Cases

A few successful cases of contract farming ventures in India are highlighted in this phase of discussion:

Ugar Sugar works Ltd. runs a contract farming model in Belgaum-Karnataka for barley production in the year 1997. The causes of success are:

1. The company supplies genetically pure seed on credit to the contracted farmers without interest;

2. The price of barley seeds supplied for sowing and the final produce that is procured by the company is the same i.e. cost of the seed is same as that of the pre-agreed price of barley. Hence, the quantity of seed supplied for sowing is recovered from the time of procurement of the product;

3. A technical person from the company visits the farmers' fields at least four times in a crop cycle, giving free technical assistance;

4. The company supplies seed at the sowing points in farmers' fields, and the final product is procured from the fields at the company's transportation cost.

5. Under the contract, it is obligatory on part of both the contracting farmer and the company to sell and buy respectively the entire contracted quantity at the pre-agreed price

Pepsi Food Limited (PEPSICO) runs a contract farming model in Zahura in Hoshiarpur District, Punjab for tomato production in 1989. The model extended to Basmati rice, spices, oilseeds and potato also. The causes of success are:

1. Core R&D team
2. Unique partnership with local agencies including a public sector enterprise
3. Execution of technology transfer through well-trained extension personnel
4. Supply of all kinds of agricultural implements free of cost to contracted farmers
5. Supply of timely and quality farm inputs on credit
6. Prompt dispatch/delivery/procurement of the mature produce from every individual contracted farmer through the system of 'Quota Slips'
7. Effective adoption/use of modern communication technology like pagers for communication with field executives
8. Regular and timely payment to contracted farmers through computerised receipts and transparent system
9. Maintenance of perfect logistics system and global marketing standards.

Appachi Cotton Company (ACC) runs a contract farming model in Pollachi, Coimbatore District, Tamil Nadu, for the production of raw cotton in 2002. The causes of success are:

1. One village, one group (SHG)
2. One village, one variety/hybrid of cotton seed
3. Crop loan at 12% per annum on Group's guarantee
4. Door delivery of quality inputs at discounted rates
5. Cotton crop insurance
6. Synchronised sowing
7. Integrated crop management through competent Farm Service Centres
8. Contamination control measures from farm to factory
9. Assured buyback of final produce from farmers' doorsteps

10. The sponsor (ACC) plays the role of a perfect coordinator/ facilitator between the producer and the consumer.

Hindustan Level Ltd (HLL), Rallis and ICICI also run a contract farming model successfully in Madhya Pradesh for wheat production.

Problems of Contract Farming

Presently contract farming ventures in India are facing some basic problems discussed below:

● There is no credible enforcement mechanism for contract farming in India.

● Since the size of the holdings is small the company will have to enter into contact with a large number of farmers which increases costs of the company.

● There is a lack of comprehensive crop insurance scheme in India.

● Even in the absence of any legal framework the company can take certain measures to make the system effective such as maintain a proper database on farmers, publicize the names of defaulter, introduce a system of incentives/rewards and encourage farmers to sell their surplus output in the open market.

Concluding observations

The study reveals that though contract farming was emphasized in National Agricultural Policy (2000) of Government of India, but it is nothing new. During the British period there was indigo plantation through contract farming. But that was exploitative. The Government of India runs the largest contract farming model during the period of Green Revolution. Like a contracting company, the Government supplied inputs like HYV seeds, new technology, water for irrigation, fertilizers, insecticides, pesticides, subsidized credit etc. Again the Government purchased agricultural crops from the farmers at predetermined prices. This new agricultural strategy was a resounding success. While contract farming can be effective in introducing new technologies and providing external inputs to farmers, danger lies in firms extending technologies that bring financial benefits in the short-term but result in negative long-term health and environmental impacts. In addition, contract farming is not appropriate for all types of crops. To have a significant poverty impact, crops produced under contract farming should be labour-intensive rather than input-intensive and should be appropriate for

production on small plots of land. Many developing countries lack the laws and ensuing legal framework to support contractual agreements, and thus contracts may not be easily enforceable or legally binding. As a result, it is inevitable that distrust and the potential for opportunistic behaviour exist between firms and farmers, undermining the viability of contracting. Modern contract farming is mutually advantageous. Since the company is financially stronger than individual farmers, the terms of the contract may go against the farmers. Herein the government will have to come forward. The success of contract farming may be dependent on sound managerial skills and the demonstration of corporate social responsibility and cultural understanding on the part of the firm.

Recommendations

The study reveals some problems which hinders the wide implementation of contract farming in India. The state of affairs led the author to several implications for the concern authorities, particularly the government of India. Suitable steps should, therefore, be taken by the respective authorities to remove the existing drawbacks. The following **recommendations** are made in this regard.

● State level legislation should be made for the regulation of contract farming. It would help to redress the disputes occurred between contracting company and farmer.

● The government should allow and encourage contract farming organizations to take out realistic and deregulated crop insurance policies.

● The government should give tax concessions or tax holidays to the companies engaged in contract farming to encourage their participation.

● The government should instruct the Indian Council of Agricultural Research (ICAR) and the University system to provide region specific crop solutions and make them part of the public information domain.

● The government should take initiatives to import of new improved varieties of seeds/saplings/hybrids and technology for contract farmers/contracting companies.

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The Impact of Economic Crises on the Activity of SMEs in Romania

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Abstract
Never before the future of economic recovery and development, both in Romania and in Europe has depended so much as today on the SMEs sector evolution, because, in the current context, SMEs are the most dynamic factor in economic development and social inclusion, because of their potential for competitiveness and innovation and the ability to create and maintain jobs. Economic successes and failures of the enterprises in Romania are determined, to a large extent, by managerial skill, work quality of the personnel employed, structure of production, final product, the originality of products, economic activities, the number of employees, labor occupation structure, the turnover of enterprises and local units, gross and net investments of businesses, etc. This research paper represents a blueprint for the SMEs sector and also an analysis of the changes in the evolution of active SMEs in Romania due to the impact of the economic crisis of recent years on their activity.
Keywords: SMEs, economic crisis, economic development, economic competitiveness.

Evolution of the active SMEs in Romania due to the impact of the economic crisis

The share of SMEs in the total non-financial economy of enterprises can be seen in table no.1, which presents the distribution of enterprises by size classes and economic sectors, according to data from the balance sheet registered at the beginning of 2012. Regarding the share of the SME sector reported to large enterprises, it registers values greater than 97% in all economic sectors, except the energy sector (93.8%). This overwhelming preponderance of SMEs as opposed to large companies must be understood exclusively through the number of enterprises.

Trade remains the main economic sector in which SMEs operate, with a share of 37.5%. 163781 small and medium sized enterprises have performed their activity in 2011, in Wholesale and retail trade; repairing vehicles and motorcycles. Among them, microenterprises are the most numerous (149382), representing more than 90% of the total. At the same time there are a considerable number of 1415 medium sized enterprises, respectively 17.5%, operating in this sector, amidst activity fields trade was ranked first among small enterprises, with a number of 12984. In the professional, scientific and technical activities' sectors a total number of 49046 SMEs are operating (11.2%), most of which are microenterprises (95.2%). This sector of activity ranks 2 only in the case of microenterprises (12.2%), not as regards of small and medium sized enterprises, which account for 4.62%, respectively 3.19% of this sector.

Table no. 1. Distribution of enterprises by size classes and economic sectors for 2012

Sector	Micro	Small	Medium	SME	Large enterprises	Total enterprises
Agriculture	12353	1806	204	14363	31	14394
Mining and quarrying	739	236	49	1024	17	1041
Manufacturing industry	30724	9820	3118	43662	738	44400
Production and supply of electricity and gas	602	98	29	729	48	777

Sector	Micro	Small	Medium	SME	Large enterprises	Total enterprises
Water supply, sanitation,waste management	1741	475	137	2353	69	2422
Constructions	34002	6412	1108	41522	128	41650
Wholesale and retail trade, repairing vehicles and motorcycles	149382	12984	1415	163781	148	163929
Transport and storage	28176	2707	435	31318	96	31414
Hotels and restaurants	18876	2995	254	22125	27	22152
Information and communication	14711	1253	246	16210	56	16266
Real estate transactions	11264	571	55	11890	8	11898
Professional, scientific and technical activities	46718	2077	251	49046	55	49101
Activities of administrative services and support service activities	12578	1737	588	14903	147	15050
Public administration and defense	59	13	11	83	2	85
Education	2488	285	14	1787	1	2788
Health and social assistance	7709	676	80	8465	14	8479
Arts, entertainment and recreation activities	3223	168	20	3411	-	3411
Activities of private households as employers	28	3	1	32	-	32
TOTAL	*384014*	*44939*	*8089*	*437042*	*1588*	*438630*

Source: Developed by the author based on Data from enterprises balance sheet at 01/01/2013; RNI of Statistics January 2013

Manufacturing industry is the third activity field representative for SMEs. Thus, the industry SMEs sector accounts for 10%, following the Service sector (39%) and the Trade sector (37.5%). In the manufacturing industry there are pronounced differences between size classes. It is notable the fact that this economic sector is most representative for medium sized enterprises. A percentage of 38.6% of medium sized enterprises (with more than 50 employees) are present in the industrial sector. The SMEs in industry are larger as opposed to those involved in other activities such as, for example, the service sectors in which microenterprises are predominant. Also, small enterprises have an important share in the industrial sector (21.8%), which rank 2 after trade. Instead, microenterprises have a reduce share, of only 8%, in the manufacturing industry, corresponding to the low technological capacity of this category of companies.

The *Constructions* sector has a significant share in the overall structure of SMEs, although it has experienced the most torsion dynamic over the years, reaching in 2011 a percentage of 9.5%. Microenterprises from Constructions include 34002 enterprises and represent 81.9% of the total number of active enterprises in this sector.

In *Transport and storage* the average number of SMEs is 31318, representing a share of 7.2% of the total. In this sector the distribution on the three size classes is more uniform compared to other economic sectors; thus 7.3% are microenterprises, 6.0% are small enterprises and 5.4% are medium sized enterprises.

Another important area for the presence of SMEs is the Hotels and restaurants sector, with an average share of 5.1%. The small enterprises class has a share above average, of 6.7%, and microenterprises account for 4.9%. Fewer medium sized enterprises operate in tourism, respectively only 254, representing a rate of 3.1% of the total.

Agriculture becomes an increasingly significant sector for SMEs, registering an increase as regards to the total number of active enterprises (14363). The average share is 3.29%, however small enterprises, with an average number of 10 and 49 employees, register a higher share of 4%.

Regarding the evolution trend, after two consecutive years of rebound, the turnover of SMEs registered a real average growth of 2% in 2012 compared to 2011.

In most economic sectors, SMEs register a turnover higher than large enterprises. Exceptions are the sectors concerning industry and energy, mining and communications, where SMEs are unable to compete with large scale economic operators, national or transnational, which are dominant in the market (Soros, 2010). SMEs contribute with more than 58% to the total turnover of the non-financial economy. According to data from the balance sheet of enterprises active in the non-financial economy, at 01.01.2012 the value of the turnover achieved by SMEs was 589256 billion lei, while the turnover of large enterprises was 4262456 billion lei.

As regards to turnover distribution between the three sizes classes of SMEs, very close shares can be observed, however microenterprises have a lower contribution compared to large enterprises. This characteristic of SMEs in Romania is kept for several years, noting that in 2012, the small enterprises class increased its share in the total turnover.

Fig. no. 2. Turnover in SMEs by size classes, 2012

Source: Developed by the author based on Data from enterprises balance sheet at 01/01/2013; RNI of Statistics January 2013

As illustrated in figure no.1, microenterprises contribute with 30.8% to the total turnover achieved by SMEs, small enterprises with 34.2% and medium sized enterprises with 43.9%. Small enterprises stand out in terms of turnover as the class with the highest growth potential between Romanian SMEs.

According to the latest data of the balance sheet regarding the situation of enterprises, a number of 238212 SMEs reported profit for 2012. As a percentage, this means more than 54.5% of small and medium sized enterprises active in non-financial economy. The total net profit registered in 2012 by SMEs was 29240 billion lei, representing 5% of turnover. In figure no. 2 is presented a comparison between the profit and turnover on enterprises' size classes – micro, small and medium sized.

It can be observed a different distribution of profits compared with turnover in the three size classes. Thus, from the balance sheet data, result the following observations:
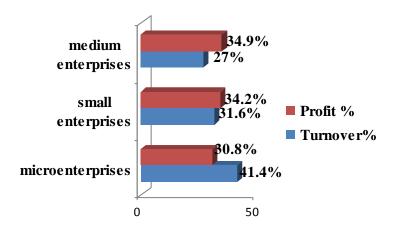
- Microenterprises class, although it has the lowest percentage of turnover (30.8%), achieved the highest level of profit, respectively 41.4% of the total value on SMEs.
- Small enterprises class registers the most balanced situation, contributing with 34.2% to the total turnover of SMEs and obtaining a profit at the rate of 31.6% of total.
- Medium sized enterprises class, with the highest turnover (34.9%), reported the lowest level of profit, with a percentage of 27%.

These findings show the existence of an inversely proportional relationship between size of enterprises and mass of profit, in the general classes of SMEs. However, assessing profit by highlighting its mass at a given time is insufficient to draw conclusions on the profitability of SMEs.

The highest level of profit is obtained by SMEs active in services, which cumulate 31.6% of the total mass. However, it is noteworthy that the share of profit is below the weight of the number of enterprises in this sector (figure no.3) (Schumpeter, 1982).
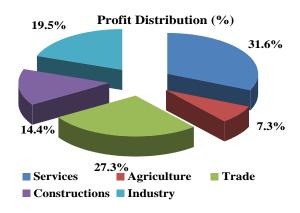
SMEs in *Trade* obtain a percentage of 27.3% of the total profit of SMEs, value which is also situated well below the percentage of enterprises active in this sector (37%). In industry is achieved 19.5% of SMEs' profit, while the percentage of active enterprises is only 11%. SMEs in Constructions also manage to generate a superior profit percentage (14.4%) compared to the number of enterprises in this sector (10%).

Fig. no. 3. Net profit vs. Turnover in SMEs, by size classes, 2012

Source: Developed by the author based on Data from enterprises balance sheet at 01/01/2013; RNI of Statistics January 2013.

Fig. no. 4. Profit distribution of SMEs in main activity sectors, 2012

Source: Developed by the author based on Data from enterprises balance sheet at 01/01/2013; RNI of Statistics January 2013

SMEs in Agriculture appear with the best ratio between profit weight and the share of number of enterprises, that is 7.3% share of the total profit and 3.3% in number of enterprises.

Impact of the post-crisis period on the productive potential of enterprises and their performance level

Currently, increasing the performance of SMEs in terms of economic efficiency and competitiveness is a constant concern at European Union level, which is also illustrated by the SME policy and strategic lines of actions to support their development. SMEs' economic efficiency can be expresses using several economic indicators, among which the most relevant is labor productivity (defined as the ratio between turnover and the number of employees) and profitability (Atanase, 2010).

The level of labor productivity and its growth rate depends on a number of influence factors, such as number and level of qualification of the personnel and the technological level of production and organizational processes in companies. In many cases, reducing the number of employees is a direct factor of influence for increasing productivity, but the positive results can be expected only if the restructuring is accompanied by personnel training and qualification as well as renewal of the technological factors (Teresa da Silva Lopes, 2007).

Developments in recent years in the average number of employees, in Romanian SMEs, were determined primarily by the difficulties of the economic crisis and have led to conjectural reductions rather than strategic ones. At the same time, the reduction in the number of employees in SMEs took place while the turnover diminished, resulting in a decrease of SMEs performance in 2009-2010, with a slight recovery in 2012. SMEs are important to the economy for contributing to Gross Domestic Product creation, but in recent years marked by the effects of the economic crisis are increasingly appreciated as the main generator of employment in Europe. The average number of employees per enterprise at SMEs level is 5.8 in Romania, higher than the European average of 4.2 times. On each class of enterprises the situation is as follows: in microenterprises the average number of employees per enterprise is 2.1; in small enterprises the average is 19.6 employees per enterprise; in medium sized enterprises there are 101.7 employees per enterprise. By activity sectors, in Industry we find the largest number of

employees/enterprise (14.2); in Constructions there are 7.7 employees/ enterprise; in Agriculture 5.9 employees/enterprise; and the lowest average values are in Services (4.5) and Trade (4.2) employees/ enterprise. The average value of labor productivity in SMEs, calculated by the average turnover per employee is 233434.2 lei, compared to the value of labor productivity in large enterprises which is 323215.4 lei.

The sectoral labor productivity analysis indicates the highest value in the Trade sector (404264 lei), above the average in SMEs, explainable by the specific of this activity that runs large turnovers with a small number of personnel. SMEs in Agriculture are noted with 258163.3 lei level of labor productivity, above the average value of SMEs. This result can be interpreted in the general positive trend of SMEs in this sector, which has developed through new investments stimulated by constant financial aids.

In Industry, SMSs have a level of productivity of 185216 lei, below average, which indicates an inadequate level of technology in SMEs in the manufacturing sector. In Constructions and Services is found the lowest labor productivity, the achieved turnover is reduced in relation to the large number of employees.

Profitability is another analyzed indicator regarding the evaluation of business efficiency, which measures the contribution of personnel to the achievement of economic and financial performances. Thus, the efficiency of Romanian SMEs, in terms of the ratio between the profit obtained and the average number of employees in 2012 had an average value of 11583.5 lei/employee. The analysis of the data from the balance sheet for the three size classes and main economic sectors reveals the following general issues:

- The most favorable situation appears in microenterprises, that have the highest profitability per employee at the level of the entire class, respectively 127% average value per SME;
- Small enterprises have a share of profitability per employee of 90% compared to the average value, and medium sized ones of only 83%;
- The personnel from the enterprises working in Agriculture has the highest contribution to profit, which ensures a profitability rate two times higher than the average on SME (25219.5 lei/ employee);
- SMEs in Construction have the second highest profitability (13104 lei/employee) between economic sectors; in Service and

Constructions were recorded values close to average, respectively 12191 lei/employee and 11660 lei/employee;

• In terms of profitability, SMEs from Industry present the weakest performance with a level of only 8410 lei/employee.

Conclusions and proposals

Never before the future of economic recovery and development, both in Romania and in Europe has depended so much as today on the SMEs sector evolution. In the current context, SMEs represent the most dynamic factor in economic development and social inclusion, through their potential for competitiveness, innovation and the ability to create and maintain jobs in society.

The number of economically active SMEs remained practically at the same level, of about 437000, in 2011 and 2012, but compared to 2008, before the crisis, this number is reduced by 14%. It can be concluded that approximately 71000 active SMEs in 2008 disappeared from the Romanian economic environment during the crisis.

The size class structure of SMEs registered in 2011 a slight increase regarding the small enterprises class representing 10% and the middle sized enterprises class with a share of 2%; these evolving structure movements occurred due to the SMEs sector reconfiguration following the dissolution of a large number of microenterprises.

Regarding specialization, small and medium sized enterprises in Romania are predominantly oriented in Services, being predominantly also in the Wholesale and retail trade and repairing vehicles sector, with a share of 76.5% of total.

Determining the optimal period to renovate productive equipments is a multi-iteration problem; in the optimal decision-making processes, separately for each stage, the manager adopts a series of consecutive decisions. Every decision is optimal for the given iteration; all decisions are directed towards the achievement of the ultimate goal – maximum income, profit or minimum costs, expenses; at each stage of solving the problem the manager usually uses the one and the same optimization criteria; the problem of determining the optimal period of equipment refurbishment can be solved only for separate periods of time; the problem must be decomposed into a set of optimization sub-problems for each period; the set of solutions for optimization problems is presented by a sequence of values of the function-purpose; solving optimization problems for each period is done by algorithms developed

for each problem depending on its specificity, starting with the last period; the optimal solution for each period examined separately is optimal in all periods.

The problem of determining the optimal assortment, technologies used to manufacture finished products can be resolved only after examining all possible options; the optimal solution of the problem can be attributed to the decision-making system and other business services; the optimization criteria is not about principle, it can be modified depending on the specificity of the problem, and it can be replaced with minimal cost and maximum profit.

Under the conditions of post-accession to the EU, the enterprise faces several main problems: the price stability of the enterprises' products is not given by the company, but by the market. The reduced prices of the enterprises' products can aggravate its economic status. In this context, the company is required to minimize as much as possible its productive efforts. This can be achieved only by using the analytical potential of mathematical programming (planning). The enterprises' manager must know the potential of analytical methods, and set up groups of experts to address issues related to strategic management.

Enterprises in Romania operate in an open economic environment, they are engaged in an economic competition with EU member state, and the material, financial, labor resources, including qualified labor are limited. The productive potential of enterprises is determined by a number of exogenous and endogenous factors: technological progress, innovational level, availability of fixed capital, its efficiency, the specific resource consumptions (per unit of product), demand and supply in the Romanian market, as well as EU; economic policies of the enterprise, of the country and of EU. Actually, the enterprise cannot operate effectively on the basis of programs (plans) developed intuitively, the situation requires to fully use all the possibilities to become an enterprise of the future.

The investment distribution (of productive accumulations) between businesses of a company is a dynamic programming problem, for which in the technical literature can be found a number of resolving methods. The problem solving procedures, very mathematical, remain inaccessible for the managers of several companies.

Financial crises have accompanied the economic development of mankind throughout its existence, only the dimensions were more reduced, sometimes local. Economic practice argues the statement:

financial and economic crises are more "a rule", than deviations from the "rule".

The turnover of SMEs represents more than 58% of the total turnover achieved in the economy. The average increase in the turnover obtained by SMEs in 2012 compared to 2011 was +2% in real terms, and at the level of size classes, the highest increase was registered by the small enterprises class (+8.6%), followed by the medium sized enterprises class (+0.9%). Only microenterprises have diminished their turnover in real terms, in 2012 compared to the previous year, respectively with -3.3%.

At SMEs level, the average number of employees per enterprise is 5.8 in Romania, higher than the European average which if 4.2 employees/enterprise. The average number of employees/enterprise is 2.1 in the case of microenterprises, 19.6 in small enterprises and 101.7 in medium sized enterprises. From the activity sector's perspective, the highest number of employees per enterprise is engaged in manufacturing (14.2) and the lowest in trade (4.2).

The average labor productivity in SMEs represents 72% of the labor productivity in large enterprises. The productivity values registered in SMEs in Romania are in the range of specific values for SMEs in EU 27, respectively between 32000 Euros for microenterprises and 59000 Euros for large enterprises.

The analysis of the three indicators – number of enterprises, number of employees and turnover in SMEs – reveals several main aspects that characterize SMEs in Romania:

- there is a directly proportional relation between these three indicators, in the evolution of each size class;
- microenterprises were the most vulnerable in conditions of instability and difficulty brought by the economic crisis, being the only ones with loss in turnover;
- the small enterprises class had the best evolution in all analyzed indicators.

The general radiography of enterprises in Romania, six years after integration in the European Union and under the impact of the global crisis, reveals a series of inabilities and vulnerabilities of small and medium sized enterprises that appear insufficiently prepared to compete successfully in the domestic market of the European Union.

SMEs limitations related both to the general and the particular characteristics of each size class or activity sector were aggravated

during the generalized crisis, Romanian enterprises being forced to evolve in an unfriendly economic environment, characterized by structural imbalances, instability of the tax system and a banking system reluctant to crediting small enterprises. The magnitude of the crisis and the extension of its effects over several years translate into a reduction of the number of SMEs in Romania and related job losses starting with 2009.

The negative macroeconomic context was reflected in the performance of SMEs economically active, as well as in the demographic trends in business, registered during the 2008-2012 period. The balance sheet data at the beginning of 2012, although they indicated a slight positive return of the main indicators, shows us that SMEs in Romania are in a turning point, with a fragile stability that manifests differently in size classes and economic activity sectors or from one region to another.

The assessment of the economic potential of the commercial enterprise with the purpose of formulating some proposals for strengthening its viability in terms of the financial and economic crisis have led to some *recommendations*.

Given the persistence of the global economic crisis, are required more than ever strategic governmental measures and coordinated actions to support the economically active enterprises in the increasingly fierce competition in the single market of the European Union, and to stimulate businesses and the creation of new businesses. For labor productivity growth is necessary that the state solves the following problems: stimulate the creation of perfect markets; exclude monopoly from the market; ensure economic competition through institutional acts; implement methods that will ensure the comprehensive development of all Romanian counties; update the professional training systems of labor resources; motivate work quality, performance studies; ensure social security of distressed labor resources; determine the priority sectors that are successful generators in increasing labor productivity; elaborate regional development programs for all counties, cities, rural communities; develop mechanisms to drive private capital in educational processes; develop productive infrastructure; develop the national electronic database in the profile of counties, municipalities, cities, villages.

Following the model of the countries with the highest economic performance, it is recommended that the decision maker from the

governmental sector, academic and business environment, nationally as well as regionally, to collaborate together to create a comprehensive support model for spin-off and high-tech companies in production and services based of advanced technology and research.

The economic potential of Romanian enterprises can be amplified if they will allocate substantial budgets for programs and dedicated funding schemes, that provide direct financial support to small and medium sized enterprises oriented towards innovation, creating prerequisites for the establishment, in Romania, of a critical business mass with growth potential in areas of high technologies or based on transfer of research results.

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Small Scale Industries and Poverty Reduction in Ondo State, Nigeria

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Abstract
Ondo State of Nigeria is part of the National Millennium Goal of halving poverty by the year 2015. This paper examines the contribution of small scale industrial enterprises toward achieving this goal, relying on questionnaire which was administered on 353 proprietors and 706 workers randomly. Data were also collected from government agencies and organizations that were responsible for formulating and implementing policies on these categories of industrial establishments. These were analyzed using descriptive means. The study discovered substantial contribution of these enterprises to improvement in income, job creation and linkage with other enterprises, factors necessary for poverty reduction. It was also discovered that even the least proprietor earns an average of $2.8 per day (apart from profits which are mostly saved in cooperative societies and age grade associations) which is above poverty line. It also discovered a bias toward Ondo Central which is the most cosmopolitan region in the state in terms of the magnitude of these impacts at reducing poverty. The study concluded by recommending improved support by the government to grow the sector to further reduce poverty in the state.

Introduction

Africa compared with other continents of the world is noted for its high state of underdevelopment (see Human Development Index, 2010). The state of underdevelopment of countries in the continent is a reflection of the low level of technology, high incidence of unemployment and underemployment, as well as the generally high poverty level experienced especially in most African countries. Small-scale industries (SSI) have therefore been recommended by bi-lateral and multi-lateral international agencies as the most viable industrial strategy for the developing countries, especially in poverty reduction (Williams, 2009).

A cursory examination of the sector in Nigeria however shows that its potentials at reducing urban and rural poverty have not been fully explored. It employs just about 20 percent of the labor force while contributing only 0.55 percent to the Gross Domestic Product (Ishengoma, 2004). These contrast sharply with the situation in countries such as United States of America and Israel, where SSI employs between 55 and 53 percent of the work force and contributes up to 50 percent of the Gross Domestic Product (International Development Corporation, 2005).

In order to correct this anomaly, the Federal Government of Nigeria between 1975 and 2002 designed and implemented several policies and incentives to give financial, technical and managerial assistance to small-scale industries. The small-scale industrial credit scheme and the creation of industrial development centres (IDC) had been the two major schemes for administering the incentives. These were complemented by the creation of Small and Medium Scale Enterprises Development Agency (SMEDA) in 2002, and the establishment of industrial estates and parks. The Federal government at various times established the Nigerian Industrial Development Bank (N.I.D.B) which was later renamed Bank of Industry (BOI) in 2002, National Economic Reconstruction Fund (NERFUND), Export Credit Guarantee Scheme and Free Trade and Export Processing Zones in Calabar, Lekki, Olokola, Onne, among others. These were all in a bid to encourage the growth of this sector, in order to make it a spring board

of sustainable economic development. While both, the Federal and State governments in Nigeria have formulated and implemented policies designed to improve the standard of living across sectors, it is a fact that poverty rates keep increasing even with the massive economic growth of over 7% per annum that Nigeria has witnessed from 2003 to date. It is therefore necessary to evaluate how small industries scale industrial enterprises have affected poverty rates among its major stakeholders and how this has reflected in regional development of Ondo State.

Research Method

Three major towns Akure, Ikare and Okitipupa, three minor towns Ugbe, Obaile and Odeaye, three major villages, Iboropa Aponmu and Ikoya were investigated. The sample frame covered all the SSI (formal and informal) in the nine settlements selected. There were 1411 in the study area. The sample size of the SSI was 353. This constitutes 25% of the entire sample frame (1411). Moreover two workers in each factory were sampled making a total of 706 workers. To collect the needed data questionnaires were administered on these proprietors and workers of sampled small scale industries. Small scale industries in each town were first identified and numbered during reconnaissance survey. Data were analyzed using simple tables and charts. The study was carried out in Ondo state.

Ondo State of Nigeria is one of the seven states created on 3rd February 1976. It was carved out of the former Western State. The state covered the total area of the former Ondo Province, which was part of the western region created in 1915 with Akure as the provincial headquarters. Ondo State took off formally on 1st April 1976, consisting of the nine administrative divisions of the former Western State (Ondo Ministry of Information and Culture, 1979). However, the present Ondo State is made up of Akoko, Akure, Okitipupa, Ondo and Owo divisions. Akure remains the State capital. The state has a long history of craft industries. Owo for example was noted for its pottery and beads, Ondo for weaving and metal smelting, Akure was a centre of bronze making, while Okitipupa was noted for production of indigenous soap as well as water based SSI such as fish and shrimp processing and gin making.

Literature review

The number one objective of regional planning is poverty reduction in underdeveloped areas. Nigeria as a nation has abundant human and natural resources. Paradoxically, the national poverty level does not reflect this. The country has the largest number of poverty alleviation agencies, institutions, programmes and policies in Africa, yet its poverty profile keeps growing. Urban poverty, in particular, has been exacerbated in Nigeria by low levels of social development resulting from corruption, misallocation of funds, poor investment habits, poor family planning habits, minimum wage laws, declining life expectancy and inadequacy of production enterprises that can serve as employment stimuli. The Human Development Report (2009) rate Nigeria as the 24th poorest country in the world with 70.2% of its population living below the United Nations Poverty line (US$1 per day).

Livelihood represents the current condition of individuals and households and the means by which they reproduce themselves. Resources represent access to assets such as markets, labour, land and basic services. Knowledge is also a resource and an important dimension of poverty, while rights include formal, traditional, civil and political rights. In this multi-dimensional framework, poverty reduction addresses not only improvement in livelihoods, but also improvement in access to resources, expansion of knowledge, and expansion of production enterprises increased empowerment.

Reasonable research has been carried out on urban poverty in Nigeria. In spite of Nigeria's abundant natural and human endowment, poverty remains pervasive, multifaceted and chronic. Given the most recent data available, it is estimated that approximately 69 million or 54.4 percent of Nigerians live below poverty line in 2004, an increase of more than 24 percent since 1980, (Omonoma, 2009). Ogundele (2000) in his study of poverty in Ado Ekiti asserts that government sponsored poverty reduction programmes usually benefit the executors rather than the indigent masses. Okoko (2000), also posit that effective poverty alleviation can only be achieved through the empowerment of the poor to initiate, design, execute and manage their own priorities.

Ravallion, Chen and Sangraula (2007) in their study of poverty in the new millennium provide new evidence on the extent to which absolute poverty has urbanized in the developing world, and the role that population urbanization has played in overall poverty reduction.

They find that one-quarter of the world's poor live in urban areas and that the proportion has been rising over time. By fostering economic growth, urbanization helped reduce absolute poverty in the aggregate but did little for urban poverty. Between 1993 and 2002, the count of the "$1 a day" poor fell by 150 million in rural areas, but rose by 50 million in urban areas. The poor have been urbanizing even more rapidly than the population as a whole.

Looking forward, the recent pace of urbanization and current forecast for urban population growth imply that a majority of the poor will still live in rural areas for many decades to come. There are marked regional differences; Latin America has the urbanized poverty problem, East Asia has the least; there has been a "ruralization" of poverty in the Eastern Europe and central Asia; in marked contrast to other regions, Africa's urbanization process has not been associated with falling overall poverty. Small enterprises can therefore play a leading role in poverty reduction in the urban areas.

Studies on poverty have highlighted the fact that poverty is a consequence, not only of the misfortunes and limited capabilities of individuals, but also of the structure and processes that determine the distribution of income (Soludo, 2003). Access to means of production such as small scale industries development therefore plays a leading role in income redistribution. The relationship between poverty and SSI cannot be overemphasized. The SSI has been described as a means of livelihood for new entrants into the urban labour force, who through lack of opportunity and/or training are unable to seek employment in the real sector of the economy. It is also seen as a means of survival for the migrant, especially when no social welfare services are available in the city.

Unfortunately, governments at times past have had a "lackasidical" attitude towards the SSI especially the uncertainty, inferiority, depravity and constant threats by authorities and the law enforcement agencies (Obada and Agba, 2006) which many enterprise owners have had to contend with. It has been described variously as illegal, parasitic and residual. The conditions under which its activities are forced to operate encourage environmental degradation. Nevertheless, the contributions of small scale industries especially the informal types to urban populations and economies, particularly of the third world would be difficult to sweep under the carpet as it provides succor for many middle class families. It also adds essential funds to the otherwise skimpy family coffers of the urban poor. While studies have shown that many participants in the

informal small scale industries remain in the low-income cadre, evidence exists to show that informal enterprises make significant contribution to improving sustenance for the urban poor. Olanrewaju (2000) in his study of informal activities and poverty posit that by participating in the informal sector, there is an autonomous and efficient capacity for generating growth in the income of the poor.

The sector employs over 80% of the working population of Nigerians employed in the manufacturing sector (UNDP, 2000). It is a very important part of the nation's economy as it acts as a shock absorber by providing employment for workers who otherwise might have been unemployed thus reducing poverty. Although there has been a "ruralisation" of poverty in Eastern Europe and Central Asia, in marked contrast to other regions, Africa's urbanization process has not been associated with falling overall poverty. Small entrepreneurs played a leading role in poverty reduction in the urban areas.

Results and Discussion

One major goal of investment is profit maximization. Earnings in form of profit on the other hand lead to reduction in poverty. Small scale enterprises as shown in the literature helps to creation wealth which in turn creates multiplier effects with maximum impacts on workers impute suppliers and sellers of the products. A cursory examination of table no.1 indicates that in the opinion of manufacturers, earnings from their enterprises have been good in spite of the global economic crises. One hundred and seventy nine (179) respondents representing 50.7% had picked good Yet a large part of the respondents had picked average (42.8%) while only few picked poor (1.4%), which is considerably lower than those that had picked excellent. These were discussed in Table no. 1

Table no 1: Return on Capital Investment by Small Scale Industries

Market range	Food product		Textile		Consumer product		Iron and capital goods		Wood based	Industrial/ Constructional material		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	Freq.	%	Freq.	%
No response	-	-	-	-	-	-	-	-	-	-	-	-	-
Poor	1	0.8	2	29	2	2.6	-	-	-	-	-	5	1.4

Good	53	42	33	47	44	56	10	66.7	6	34	82.5	179	50.7
Average	69	54.8	30	42.8	29	37	5	33.3	16	2	5	151	42.8
Excellent	3	2	5	7	4	5	-	-	-	5	12.5	17	4.8
	126		70		79		15		22	40		353	100

Source: Authors research work, 2014

One veritable means of poverty reduction is the propensity of small scale industries to generate employment, even more than large scale industries since they employ more per unit of investment (Fatusin, 2012). A total of 706 workers to an investment of about 50 million in all the 353 enterprises sampled are considered good enough compared with many large scale industries that were built but collapsed in the 1980s in the state. The pattern of employment generated by the different classification of small scale enterprises was investigated. The study found out that out of the five different categories of small enterprises (when classified by types of product) such as Agro based enterprises, industrial material\constructional products based, consumer products, capital goods, wood products based enterprises, agro based enterprises employed the highest number of people i.e. 252 employees which accounted for 35.7% of the total number of employees sampled. This is closely followed by consumer products enterprises which had in its employment 158 people or 22.4%. The least number of employees came from enterprises which produced capital/metal goods, which accounted for 4.3% of the total. This is not surprising considering the fact that most of the small enterprises in the study area were agriculture based processing mills or consumer products based firms. There were few capital/metal goods producing enterprises. Aside from that, agriculture based small enterprises have were found to be more linked to the local economy through backward and forward linkages (see table no. 2).

Table no 2: Employment Generation among some categories of small Scale enterprises

Categories of small scale enterprises (by products)	No. of empl oyees	%	Ondo North	Ondo Central	Ondo South
Agro products	252	35.7	73(35.8%)	95(33.7%)	84(38.2%)

Industrial/Construction al materials	142	20	39(19%)	55(19.5%)	48(21.8%)
Consumer products	158	22.4	48(23.5%)	50(17.7%)	60(27.3%)
Textiles	80	11	20(9.8%)	50 (17.7%)	10(4.5%)
Capital /Metal goods	30	4.3	10(4.9%)	14(4.9%)	6(2.7%)
Wood based firms	44	6	14(6.9%)	18(6.3%)	12(5.5%)
$Total	706	100	204	282	220

Source: Authors research work, 2014

Regional variation occurred in terms of the capacity of the enterprises to generate employment for example the agro allied industries, which by far employed the largest number of people (252) and which accounted for 35.7% of all employment varied from 35.8% in Ondo North, to 33.7% in Ondo Central and 38.2% in Ondo South. Out of the 142 Industrial raw material/constructional materials employees, who account for 20% employees for the entire state, it averaged 9.8% in Ondo North, 17.7% in Ondo Central and 4.5% in Ondo South. Though capital/metal goods industries accounted for just 4.3% of total employment in Ondo State, it also varied from 4.9% in Ondo North, 4.9% in Ondo Central and 2.7% in Ondo South (see Table no. 2). However, the study proceeded to investigate whether there was a significant difference in the structure of employment generation among different categories of SSI in the 3 regions sampled – Ondo North, Ondo South and Ondo Central.

Table no 3: Summary of ANOVA on employment Generation in the 3 Regions

Model	Sum of squares	Df	Mean square	F	Sig.

1   Regression
        Residual
        Total
	695.685
	3.530
	699.215
		2
		3
		5
			347.843
			1.177
				295.642	.000[a]

A. predictors: (Constant) Ondo south, Ondo central
b.   Dependent Variable: Ondo North
Source: Authors research work 2014
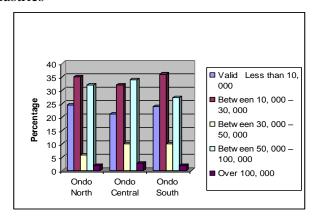
The result above showed that there was a significant difference in the structure of employment among the categories of enterprises in

the 3 regions at 0.05 level of significance. Since F_{cal} (295.642)>$F_{tab\ 0.05}$ (9.5521). The implication of this is that employment generation, by different categories of enterprises did not show the same tendency across the 3 regions.

Entrepreneurs earn two types of incomes - profit and monthly salary, although many proprietors of small scale enterprises could not differentiate between the two. The study reveals that many entrepreneurs (45%) are engaged in co-operative societies, 22% were in age grade meetings where they also contribute either weekly or monthly with their profits. These are shared at the end of the month or year creating a lump sum which some of them reinvest in their businesses or used it for capital projects.

Proprietors were asked to estimate their yearly profit. The result review that majority of the respondents (26%) save an average of 300,000 ($1,875) per year, while 18% save less than 100,000 ($625) yearly. The average monthly income of workers reflected a generally average income per month. Out of the 706 workers, 38.2% or 1/3 claimed to be earning an average of N20,000 ($125) per month. 31.9% claimed to be earning an average of N75,000 ($469) per month. Only 2.8% of respondents earn over N100,000($625) per month. However out of the 353 proprietors 34.3% earn mean monthly salary of N20, 000 ($125), 31.4% earn N75,000 ($469), while only 2.3% earn N100,000 ($625) as mean monthly salary. The table revealed that Ondo Central has the highest wealthy proprietors and by extension lowest poverty rate among proprietors since the region has the highest number of proprietors earning over N100,000 ($625) per month and those earning between N50,000 and N100,000 per month. This shows that small scale entrepreneurs were having appreciable returns on the capital investment. Therefore it can be deduced that small scale enterprises provided veritable mean of livelihood in the economy or the state. The regional analysis of the average monthly income was calculated. Out of the 34.3% (121) people who earned an average monthly income of between N10,000- N30,000 in Ondo state, minor variation occurred. The variation was exhibited by 36 respondents or 35 % in Ondo North, 45 respondents or 31.9% in Ondo central and 40 respondents or 36% in Ondo South. This is followed by 31.4 % (111) of respondents who earned between 50,000 and 100,000. The figures for the regions being 33 or 32%, 48 or 34% and 30 or 27.3% for Ondo North, Ondo Central and Ondo South (See Fig. no.1)

Fig. no. 1: Inter Regional Variation in Incomes of Proprietors of Small Scale Industries

The study went further to compare the mean salaries of workers who crossed to their present small scale enterprises from other sectors to see whether by crossing over to work in the small enterprise their profits have improved or reduced the number of respondents earning below ₦10,000 ($62.5) per month which was about $2 per day dropped from 121 to 95 workers since they got employment in their new enterprise. Same with those earning an average of ₦3,000 ($125) before, which dropped from 183 respondents to 111 respondents, making a net gain of 72 respondents. On the other hand, the number of respondents who were in the high income bracket increased. For example while 82 respondents had indicated mean monthly incomes of ₦15,000 ($469) before they got employed in their current small enterprise, the number increased to 127, making a net gain of 45 respondents. Same with those earning over ₦100,000 ($625) before, which increased from 8 respondents to 25 respondents, making a net gain of 17 workers. By this calculation, 195 people were either eliminated from poverty or had become richer.

No wonder therefore that when workers were asked to compare their new incomes with the work they were doing 38% (268) reported that the pay was averagely enough, 24.4% (172) believed the salary was good, while 10.3% (72) of the respondents believed the income was very good. Only 27.3% (193) constituting 28.4% in Ondo North, 24.8% in Ondo Central and 29.5% in Ondo South believed the contrary. All these are positive indicators that in the perception of proprietors and

workers of small scale industries have contributed in improving their incomes, even above the daily poverty level of one dollar per day.

Conclusion

The study has been concerned with an assessment of impact of small scale manufacturing enterprises in poverty reduction in Ondo state. The study evaluated two factors that were generated to poverty reduction among the sampled small scale manufacturing enterprises: employment and effects on income improvement The study found out that out of the five different categories of small enterprises, agro based enterprises employed the highest number of people i.e. 252 employees which accounted for 35.7% of the total number of employees sampled followed by consumer products enterprises which had in its employment, 158 people or 22.4% and the least are enterprises which produced capital/metal goods, which accounted for 4.3% of the total. However, variations exist across the three regions for example agro allied industries which accounted for 35.7% of all employment varied from 35.8% in Ondo North, to 33.7% in Ondo Central and 38.2% in Ondo South. Out of the 142 Industrial raw material/constructional materials employees, who account for 20% employees for the entire state, it averaged 9.8% for Ondo North, 17.7% in Ondo Central and 4.5% in Ondo South. An application of ANOVA to test whether there was any significant differences in the structure of employment across the three regions proved positive.(F_{cal} (295.642) > $F_{tab\ 0.05}$ (9.5521). The study also revealed that while the incomes of proprietors are still generally low, small scale enterprises have generally helped to improve their income with 28.9% claimed to be earning a mean salary of 75000 or $469 per month, while 3.8% of respondents earn over ₦100,000 or $625 per month even the least proprietor earns an average of ₦ 10,000 ($62.5) per month, which is above $1 per day minimum. Yet the study also revealed that the number of workers who have had their incomes improved from moving over to work in the small enterprises have increased to 195 workers among the 706 sampled, with some regional variations. The study revealed considerable linkage with local small scale industries, in term of sourcing of raw materials, creating multiplier effects and some improvement in income of workers in these enterprises.

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Comparative Analysis of Risk, Return and Diversification of Mutual Fund

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Abstract
Mutual Funds have become a widely popular and effective way for investors to participate in financial markets in an easy, low-cost fashion, while muting risk characteristics by spreading the investment across different types of securities, also known as diversification. It can play a central role in an individual's investment strategy. With the plethora of schemes available in the Indian markets, an investors needs to evaluate and consider various factors before making an investment decision. The present investigation is aimed to examine the performance of safest investment instrument in the security market in the eyes of investors. Five mutual fund large cap scheme have been selected for this purpose.
The examination is achieved by assessing various financial tests like Sharpe Ratio, Standard Deviation, Alpha, and Beta. Furthermore, in-depth analysis also has been done by considering return over the period of last five years on various basis, expenses ratio, corpus-size etc. The data has been taken from various websites of mutual fund schemes and from www.valueresearch.com. The study will be helpful for the researchers and financial analysts to analyze various securities or funds while

selecting the best investment alternative out of the galaxy of investment alternatives.

Keywords: Risk, Return, Diversification, Sharpe Ratio, Standard Deviation, Alpha

Introduction

Mutual Funds over the years have gained immensely in their popularity. Apart from the many advantages that investing in mutual funds provide like diversification, professional management, the ease of investment process has proved to be a major enabling factor. However, with the introduction of innovative products, the world of mutual funds nowadays has a lot to offer to its investors. The industry broadly caters to all types of investors depending on their risk return preferences. A mutual fund is the ideal investment vehicle for today's complex and modern financial scenario. Mutual funds offer several advantages over investing in individual stocks, including diversification and professional management. A mutual fund may hold investments in dozens of stocks, thus reducing the risk associated with owning any particular stock. A Mutual Fund is a pure intermediary that performs a basic function of buying and selling securities on behalf of its unit holders. Mutual Fund is a body corporate which pools up the money from different types of investors and invests those funds on behalf of the investors in diversified securities. In other words, a mutual fund allows an investor to take a position indirectly in a basket of assets. A majority of investors are quite content in simply analysing the appreciation in the net asset value (NAV) of their investment. They are not much more concerned about the risk associated with the investment alternative. Risk measure mostly deal with the character of a fund's returns and the manner in which these returns have been achieved.

Equity funds

Equity funds have the objective to provide capital appreciation over a long term. A major portion of their investments is in equities which provide potentially superior returns than other avenues of investment. Equity schemes offer potentially the best possible returns among all mutual fund schemes, but carry the highest risk as well. The equity funds are high on the risk scale as the share prices are volatile. These funds try to reduce the risk by diversifying the investments in

different types of shares. Also, it is usually easier and less expensive to invest in equity funds, than to buy each and every stock in a fund's portfolio. Equity funds are also cheaper; they're a way to avoid the often higher transaction costs and lower liquidity associated with trading individual stocks. The present research will explore the measures of risk and return for the selected mutual fund schemes.

Literature review

Harry Markowitz (1952) provides a theory about how investors should select securities for their investment portfolio given beliefs about future performance. He claims that rational investors consider higher expected return as good and high variability of those returns as bad. From this simple construct, he says that the decision rule should be to diversify among all securities, securities which give the maximum expected returns. His rule recommends that the portfolio with the highest return is not the one with the lowest variance of returns and that there is a rate at which an investor can increase return by increasing variance. This is the cornerstone of portfolio theory as we know it.

William Sharpe (1964) and John Lintner (1965) separately extend the work of Markowitz. They show that the theory implies that the rates of return from efficient combinations of risky assets move together perfectly (will be perfectly correlated). This could result from their common dependence on general economic activity. If this is so, diversification among risky assets enables investors to escape from all risks, except the risk resulting from changes in economic activity. Therefore, only the responsiveness of an asset return to changes in economic activity is relevant in assessing its risk. Investors only need to be concerned with systematic risk [beta], not the total risk proposed by Markowitz

Veit and Cheney (1982) investigated the ability of mutual funds managers to adjust the risk level of funds to leverage the ability to time the market. They test the null hypothesis that alphas and betas are the same in bull and bear market using annual data for 74 funds over the 1944-78 periods. The sample was sub-divided into balanced funds, income and growth to examine differential effects by investment objective.

The Financial Express Investment Magazine (1997) conducted a study jointly with Value Research, a pioneer in tracking mutual funds in India, which shows that the bond funds have emerged as winners, while equity funds plunged deeper into red.

The Intelligent Investor (2000), a leading business magazine conducted a Comprehensive survey of mutual fund performance 1999 to help the investors to choose the funds that best suits their needs. The survey is based on data source from credence, the Mumbai - based monitor of mutual fund performance, with a cut off date for the survey of December 31, 1999. The methodology and the performance parameters they used are; the three months return and one-year return calculated by taking the percentage change in net asset values, adjusted for rights, bonuses and dividends, if any in the interim; the three-year and five-year returns are likewise adjusted and annualized.

Blake David and Timmermann Allan (2003) in their assessment "Performance Persistence in Mutual Funds: An Independent Assessment of the Studies prepared by Charles River Associates for the Investment Management Association" believed that there is a reasonable case for arguing that risk-adjusted past performance data should be included in the FSA's Comparative Tables. They argued that this is not because of the traditional argument over whether superior performance might or might not persist, which we regard as inconclusive, but rather because of the evidence that inferior performance seems to persist. They considered that it is important for investors to have easy access to reliable information on underperforming funds so they can modify their investment strategies accordingly.

Shanmugham (2000) conducted a survey of 201 individual investors to study the information sourcing by investors, their perceptions of various investment strategy dimensions and the factors motivating share investment decisions, and reports that among the various factors - psychological and sociological - dominated the economic factors in share investment decisions.

Objectives of the study

The present study aims to achieve the following objectives by considering the main objective as to select the best Mutual fund among selected eight schemes during the period of study:

I. To compare and analyse the best Mutual Fund schemes of the selected mutual fund players.
II. To compare the growth in Mutual Fund schemes with Industry average.
III. To find out the best Mutual Fund scheme in terms of return over the selected period of study.

IV.   To suggest the means to improve return by investment in mutual funds.

V.   To compare the risk associated with the mutual fund schemes.

Research methodology

The present investigation is aimed to examine the performance of the safest investment instrument in the security market in the eyes of investors i.e., mutual funds by specially focusing on equity schemes. Five mutual fund schemes have been selected for this purpose. The examination is achieved by assessing various financial tests. To carry out the research, the following methodology is adopted:

Data collection

The present research is a study of examining and analysing selected mutual fund schemes by using different financial and statistical tools. The Large cap schemes taken for this purpose are:

- HDFC Top 200 Fund (G)
- DSP-BR Top 100 Equity - RP (G)
- ICICI Pru Top 100 Fund -Inst –I
- Franklin India Bluechip (G)
- Birla SL Frontline Equity -A (G)

This study compares five funds launched by public/private sector, and foreign mutual fund players in India. The schemes have been selected using deliberate sampling method subject to the criteria mentioned:

A.   All the funds are taken as per the ranking done by CRICL

B.   Considering corpus size of AMC 25 crore to 1000 crore

C.   The funds that have been consider as the minimum investment 500 and maximum 100000 Rs

D.   The performances of funds are calculated on the bases of their risk and return

E.   Closing Net Asset Values (NAV) of the selected funds are taken on monthly basis.

The study is exclusively based on secondary data, which has been collected from various websites, journals and fact sheets of various mutual fund schemes published by them time to time.

Tools and techniques

The collected data have been analysed on basis of returns of last one month, six months, one year, three years and five years. Various statistical and financial techniques namely, Standard Deviation and

Sharpe ratio has been used to measure volatility of returns and returns per unit of risk. Furthermore, Coefficient of determination (R2), Expenses ratio and Corpus size of funds have also been evaluated. In addition to these tools, various tables and graphs has also been used to make the data presentable and easy to understand.

(I) Sharpe's Ratio

Sharpe ratio reflects the additional return over the Risk-Free return per unit of its variability. It is basically return per unit of risk. The rule states that the higher the Sharpe ratio, the better the fund's performance is in relation to the amount of fluctuation. It can be explained through the formula:

$$S = RP - Rf / sp$$

where: S = Sharpe's Index;

rp = average monthly return of fund;

rf = risk free return Risk free return (rf) is taken as 3.40% per annum

(II) Standard Deviation

It is possibly one of the most common risk measure used in assessment of portfolios - be it of mutual funds or any other investment product. It is used to measure the variation in the individual return from the average expected return, over a certain period. Standard deviation is used in the concept of risk of a portfolio of investment. Higher Standard Deviation means a greater fluctuation in expected return.

$$\sigma = \sqrt{(Y - Y)/N}$$

where: Y = fund return

(III) Beta (β)

Beta Measure reflects the systematic risk assigned to each of the schemes, Beta of the Index is always being 1 (with itself). Beta of a risk-free investment is zero. The higher the Beta value, the higher the degree of Correlation with the market index and the fund will be.

$$\beta = n\Sigma XY - (\Sigma x \Sigma y) / n\Sigma x - (\Sigma x)^2$$

where: X = Index return

Y = fund return

(IV) Jensen's Alpha (Differential Return)

Jensen's Alpha reflects the return that is expected for the scheme given the risk exposure of the scheme and compares that with the return actually realized over the period under study. If the actual return of the fund is more than the return as predicted by its Beta, then it has a positive alpha, and if it returns less than the amount predicted by Beta, the fund has a negative alpha. A fund's return and its risk both contribute to its Alpha value. The higher a funds' risk level, the greater the returns. It must generate in order to produce a high Alpha which becomes more volatile. Systematic risk can be reduced through proper diversification of the portfolio of the fund.

$$\alpha = Y - \beta X$$

where: X =Index return;

Y = fund return

(V) R-Squared

R-Squared measures the co-relation between returns generated by a fund and its benchmark index. This is indispensable in ascertaining the reliability of the beta of a fund. It is a statistical measure that represents the percentage of a fund or security's movements that can be explained by movements in a benchmark index. R-squared values range from 0 to 100. An R-squared of 100 means, that all the movements of a fund are completely explained by movements in the index. A high R-squared (between 85 and 100) indicates the fund's performance patterns have been in line with the index. A fund with a low R-squared (70 or less) doesn't act much like the index.

Analysis and interpretation

The data collected of selected mutual fund schemes have been analysed into two parts:

A) Analysis on the basis of returns over the period of time

Returns are calculated periodically on the basis of various time periods after that rankings have also been provided to the selected equity schemes. Returns of Last:

I.   One Month
II.   Six Months
III. One Year
IV. Three Years
V.   Five Years

B) Performance evaluation of Selected Funds

Performance Evaluation has been done on the basis of risk and return evaluation.

I.   Corpus Size
II.   Beta
III. Alpha
IV. Standard Deviation
V.   R-Squared
VI. Expenses Ratio

C) Analysis on the on the bases of diversification

One of the main advantages of investing in mutual funds is risk diversification. Thus, fund managers have different risk levels to achieve financial schemes objectives. A diversified fund contrasts with specialized or focused funds, such as sector funds, which focus on stocks in specific sectors such as biotechnology, pharmaceuticals or utilities, or in particular regions such as Asia or Europe.

Analysis of large cap scheme

Large cap funds are those mutual funds, which seek capital appreciation by investing primarily in stocks of large blue chip companies with above-average prospects for earnings growth. Generally, companies with a market capitalization in excess of Rs 1000 crore are known large cap companies. Investing in large caps is a lower risk-lower return proposition (vis-à-vis mid cap stocks), because such companies are usually widely researched and information is widely available. The selected large cap funds are:

- HDFC Top 200 Fund (G)
- DSP-BR Top 100 Equity - RP (G)
- ICICI Pru Top 100 Fund -Inst –I
- Franklin India Bluechip (G)
- Birla SL Frontline Equity -A (G)

A) **Analysis on the basis of returns over the period of time**

Returns are calculated periodically on the basis of various time periods like monthly, six months, one year, three years and five years. After that rankings have also been Provided to these selected equity-diversified mutual fund schemes. These are stated below:

- HDFC Top 200 Fund (G)
- DSP-BR Top 100 Equity - RP (G)
- ICICI Pru Top 100 Fund -Inst –I
- Franklin India Bluechip (G)
- Birla SL Frontline Equity -A (G)

Table no. 1. Returns of Equity Mutual Fund schemes as on July 2012

Scheme	HDFC Top 200 Fund (G)	DSP-BR Top 100 Equity - RP (G)	ICICI Pru Top 100 Fund -Inst –I	Franklin India Bluechip (G)	Birla SL Frontline Equity -A (G)
Fund Class	Large Cap	Large Cap	Large Cap	Large Cap	Large Cap
Ranking	Rank 2	Rank 2	Not Ranked	Rank 2	Rank 2
Scheme Asset	11381.1	3109.35	20.13	4516.35	2900.75
Minimum Investment	Rs.5000	Rs.5000	Rs.100000	Rs.5000	Rs.5000
AMC/Fund	HDFC Asset Mgmt.. Co. Ltd.	DSP BlackRock Investment Managers Limited	ICICI Prudential Asset Mgmt.Co. Ltd	Franklin Templeton Asset Mgmt. (India) Pvt. Ltd.	Birla Sun Life Asset Mgmt. Co. Ltd.
Latest NAV	201.863	98.444	19.99	212.827	84.53
3 Months	1.30%	0.20%	2.70%	0.60%	2.30%
6 Months	14.60%	12.10%	15.60%	12.00%	13.60%
1 Year	-5.20%	-3.20%	3.60%	-2.00%	-4.50%
2 Years	2.40%	2.70%	7.60%	4.60%	1.60%
3 Years	12.70%	11.40%	14.70%	13.00%	11.80%
5 Years	10.60%	8.30%	8.20%	8.10%	8.00%

Source: Calculated data

Table no. 1 explores the returns of selected funds over a period of time for different periods. In terms of last one year returns i.e. from August 11 to July 12; ICICI Pru Top 100 stood at number one with the maximum returns of 3.60% during the selected period. It is followed by Franklin India and DSP-BR Top 100 fund with the returns of -2.00% and -3.20% respectively. Birla SL Frontline Selected has given returns -4.50% over that period. HDFC Top 200 Fund has given the least return -5.20%. But in long run i.e. for the period of five years HDFC Top 200 Fund (G) has performed well among the selected scheme. During the period of study Franklin India Bluechip (G) has the highest NAV value 212.827.

B) Performance evaluation of Selected Funds

Performance Evaluation has been done on the basis of risk and return evaluation. For this purpose Standard Deviation, Beta Alpha, Sharpe-Ratio and R-Squared are calculated, which are tabulated below after the detailed calculations:

Table no. 2. Analysis of volatility and return per unit of risk

Fund Name	Fund Risk Grade	Standard Deviation	Sharpe Ratio	Beta	Alpha	R-Squared
HDFC Top 200	Avg.	19.34	0.4	0.91	4.14	0.95
DSPBR Top 100 Equity Reg	Low	17.9	0.36	0.84	3.11	0.95
ICICI Prudential Top 100 Inst I	Below Avg.	19.13	0.48	0.91	5.57	0.97
Franklin India Bluechip	Low	16.39	0.43	0.78	4.04	0.96
Birla Sun Life Frontline Equity	Avg.	18.06	0.35	0.86	3.02	0.97

Source: Calculated data

Fig. no. 1 Graph showing the status of Std.Deviation

Higher standard Deviation means a greater fluctuation in expected return. The most volatile fund is HDFC Top 200 as it is having the standard deviation of 19.34, which is followed by ICICI Prudential Top 100 Inst19.13 and Birla Sun Life Frontline Equity18.06. It indicates that out of the selected schemes the most risky fund is of HDFC Top 200. As the standard deviation is an unsystematic risk which is not going to minimize through diversification. It is beyond the control of investors.
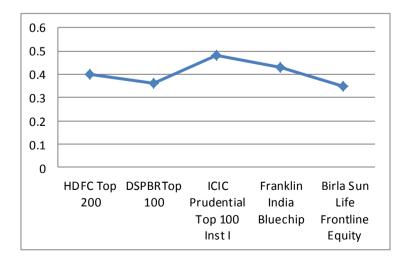
Fig. no. 2. Graph showing the status of Sharpe Ratio

Sharpe ratio reflects the additional return over the Risk-Free return per unit of its variability. In terms of returns, the scheme i.e. ICICI Prudential Top 100 Inst I is having maximum returns per unit of risk (0.48). Followed by Franklin India Blue-chip (0.43) and HDFC Top 200 (0.40). Least return provider is the fund which is having the maximum risk in terms of std. deviation and beta, i.e. Birla Sun Life Frontline Equity (0.35).
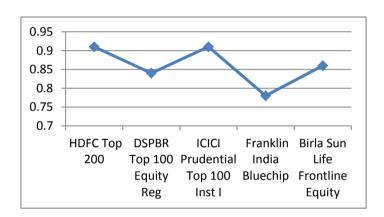
Fig. no. 3. Graph showing the status of Beta

Beta of the Index is always being 1 (with itself). Beta of a risk-free investment is zero. More the Beta value, the higher the degree of correlation with the market index. The statement regarding risk is supported by the calculation of beta. Again HDFC, ICICI prudential, and Equity proved the most risky schemes as they are having maximum of beta (0.91, 0.91, and 0.86 respectively). Least risky scheme Franklin India Blue-chip in terms of Standard Deviation and Beta. Beta is a systematic risk that can be minimized through diversification.

C) Analysis on the on the bases of diversification

Diversification is a technique that reduces risk by allocating investments among various financial instruments, industries and other categories. It aims to maximize return by investing in different areas that would each react differently to the same event. The table shows the allocation of fund in different sector of the selected large cap equity schemes.

Table no. 3. Allocation of funds in different sectors

Scheme	HDFC Top 200 Fund (G)	DSP-BR Top 100 Equity - RP (G)	ICICI Pru Top 100 Fund -Inst –I	Franklin India Bluechip (G)	Birla SL Frontline Equity -A (G)
Top 5 holdings	SBI, Infosys, ITC, ICICI Bank, Tata Motors (D)	TCS, Reliance, Wipro, Kotak Mahindra, BPCL	Infosys, Reliance, Bharti Airtel, ICICI Bank, Sun Pharma	Infosys, ICICI Bank, Bharti Airtel, HDFC Bank, Reliance	ICICI Bank, ITC, Infosys, Reliance, Larsen
Weight age to top 5 holdings	30.43%	29.30%	42.74%	30.93%	23.07%
Top 3 Sectors	Banking/Finance, Technology, Oil & Gas	Banking/Finance, Technology, Oil & Gas	Technology, Pharmaceuticals, Oil & Gas	Banking/Finance, Oil & Gas, Technology	Banking/Finance, Technology, Automotive
Weight age to Top 3 Sectors	44.96%	46.72%	48.83%	42.67%	43.88%

Large cape mutual funds are expected to offer the advantages of Diversification, Market timing and Selectivity. In the sample, ICICI Pru Top 100 Fund -Inst –I is found to be highly diversified fund and because of high diversification it has reduced total risk of the portfolio. Whereas, Birla SL Frontline Equity -A (G) is low diversified and because of low diversification its total risk is found to be very high.

Conclusions

Observation of the results found on the basis of several calculations indicates that out of the five selected Large cap mutual fund schemes, in short-run ICICI Pru Top 100 Fund -Inst –I manages to be at number one in terms of returns over the period of last one month and six months as well as in long run at number one position in terms of the returns of last five years. As far as the financial risk parameters are concerned Franklin India Blue-chip was found least risky in terms of the results of Beta (0.78) & Standard Deviation (16.39) and in terms of returns ICICI Pru Top 100 Fund -Inst –I manage to earn the maximum returns per unit of risk, i.e., Sharpe ratio (0.48). Further research could aim to extend the data set to include more equity diversified mutual

funds, and also to enlarge the time scope to investigate whether the market has changed (improved) over time.

Suggestions

The main objective of the investment is to get return from investment from the mutual funds. An investor should take following points into consideration to earn good returns:

- An investor should assess his risk profile before investing in any fund.
- To select a fund with good past records of returns. Usually, an investor should select a fund, which is less volatile.
- An investor should select a portfolio of three to five funds which are less volatile in nature, and a good track record of consistent returns.
- For selection of a good fund, investor can compare the return of the fund with the industry average and benchmark indices. The fund which outperforms the both can be selected for investment.
- Investors should review their portfolio of mutual funds from time to time. Investors should try to keep their investment for a longer period of time so as to ensure that they can beat market volatility.

Last but not the least; investor can withdraw funds according to his needs and purpose.

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A Post-Modern Portfolio Management Approach on CEE Markets

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Abstract
In this paper we apply two methods based on the Post-Modern Portfolio Management approach to study the risk-adjusted return of 5 major indices from emerging markets in Central and Eastern Europe during the period 2008-2013 on daily data. First, we involve the Sortino ratio. Secondly we propose an alternative method to the Sortino ratio for calculating the risk-adjusted return using a "multipliers method" to determine a global measure of risk.

The Sortino ratio is used to score a portfolio's risk-adjusted returns relative to an investment target using downside risk and it measures the risk-adjusted return of an investment asset, portfolio or strategy. Our proposed alternative method is using the same logic and frame structure as Sortino ratio. However instead of downside risk we use the global risk calculated using multipliers. This is due to the fact that Sortino ratio does not distinguish between sub-cases possible – unrealized return area and loss area (negative return). Because of these we believe that it would be necessary a new method which to refine the results and take and into account the three areas.

Our dataset includes 5 emerging markets: Romania (BET), Hungary (BUX), Czech Republic (PX), Bulgaria (SOFIX) and Poland (WIG). For each of them we estimate the Sortino ratio of length windows 7, 14, 42 and 10, 21, 60. We used two variants for each target return, namely 2% and 5%. We consider Germany as a benchmark.

After estimating the Sortino ratio and global risk calculated using "multipliers method", we conducted a parallel analysis between Sortino ratio and the proposed alternative method. We split the analysis time span in two sub-periods, 2008-2010 and 2011-2013.

As known, the higher the Sortino ratio, the better the risk-adjusted performance. The risk-adjusted return is influenced by the used target return and the used window. Analyzed data reveals that in case of Sortino ratio, Hungary has the best results and on the other side, Bulgaria has the worst results - regardless the window size or target return. In case of the alternative method, the best results are obtained on Hungary capital market and the worst results on Bulgaria and Poland capital market. Also, the analysis performed on the two sub-periods, 2008-2010 and 2011-2013, highlights the fact that Central and Eastern Europe emerging markets have experienced the crisis of 2008 with a delay.

Keywords: Emerging Markets, Risk-Adjusted Return, Portfolio Choice, Investment Decisions

Introduction

International financial theory highlights the positive impact of market segmentation on international portfolio value. By spreading risks among different countries, investors can minimize the negative effects of market volatility and ultimately yield increased long-term returns. However, the growing presence of co-movements among developed and emerging financial markets is now well documented.

The power of diversification is in theory magnified in the case of emerging markets (Bartram and Dufey, 2001).

Furthermore, specific risks such as political instability and information costs are compensated by higher than average returns. This is due to a faster rate of capital accumulation and faster economic growth than in developed countries. In a seminal study, Harvey (1995) showed that adding an emerging market component to a diversified developed portfolio would result in a reduction of six percentage points in the total portfolio's volatility while the expected returns remain unchanged.

However, the performance characteristics of emerging markets may have changed as a consequence of recent financial crises and the increased economic and financial integration of emerging markets into the global markets.

The modern portfolio theory (MPT) represented at the middle of the past century a big step forward in the financial literature and the investment practice. The theory put a logic relation between the distribution of return rates and risk of the investment. It considers that investors acts rational in taking decisions about the investment performed, that they have aversion to risk and that the distribution of return rates is following a normal distribution.

In 1959, Harry Markowitz, the "father of modern portfolio theory" published Portfolio Selection in which he proposed that investors expect to be compensated for taking additional risk. And it was argued that an infinite number of "efficient" portfolios exist along a curve defined by three variables: standard deviation, correlation coefficient and return. The efficient-frontier curve consists of portfolios with the maximum return for a given level of risk or the minimum risk for a given level of return.

Sharpe credits Markowitz for taking a personal role in helping shape the doctoral dissertation that led to the capital asset pricing model (CAPM). In Sharpe's words: "The CAPM is built using an approach familiar to every microeconomist. First, one assumes some sort of maximizing behavior on the part of participants in a market; then one investigates the equilibrium conditions under which such markets will clear." Later work from Sharpe gave us the information ratio, a version of which became known as the Sharpe ratio - the first major attempt to create a measure for comparison of portfolios on a risk-adjusted basis. More than 50 years after the paper Portfolio Selection was published in the Journal of Finance, Harry Markowitz's views on MPT are still debated by the influential investment thinkers of our time. MPT is a

tricky beast at best and, despite the fact that Markowitz eventually won a Nobel Prize, not everyone is convinced that Markowitz's efficient frontier is the best way to go.

Financial behavior presents the investor as a person that is reluctant to losses, but not to gains over the minimum expected return. The research of the investor reactions shows that he is in fact interested in obtaining a minimum desired return. Any result below the minimum desired return is consider a loss, while gains higher than the expected level of return do not constitute a concern (but contrary, they are considered as premium for the courage of investing), the "good surprise" (Tsai, Wang, 2012).

The post modern portfolio theory (PMPT) was developed in the 1980s at the Pension Research Institute (USA) in order to better adapt the MPT to the market reality, including the minimum return rate accepted by the investor in the measurement of risk.

Although MPT remained a significant benchmark in the portfolio theory (Elton, Gruber, 1997, Chen, Tsai, Lin, 2011), the PMPT moves the financial theory and practice a step forward, considering the investor expectations (Nawrocki, 1999, Bawa, Lindenberg, 1977, Fishburn, 1977). Both theories are used within the financial research, but also outside this area. Researchers and business people extend their application to others economic domains (such as real-estate, energy portfolios, other investments except stocks) with interesting results and ways of applying the methods of quantifying risk (Madlener, Glensk, Raymond, 2009, Tsai, Wang, 2012, Hines, 2009).

Since the beginning of the present financial crises, many researchers and portfolio managers revive the question regarding the MPT realism relative to market conditions. Although MPT was preferred and used for decades before financial crises in 2008, the theory was blamed for failing in those moments (Welch, 2010). Investors and researchers start to look for alternative theories that would measure risk (Bertsimas, Lauprete, Samarov, 2004, Patari, 2008).

Until PMPT, the investors were considered as having a rational behavior regarding the investment decision process, all investors having the same expectation related to market future evolution. This concept is modified in PMPT. Investor is considered as having as target a minimum accepted return that insures him the emotional comfort and the investor is concerned the returns lower than his expected benchmark.

The attitude of investor regarding the returns is situated over the expected return rate. This rate is established by the investor in accordance with his own emotional satisfaction, and interests is considered being linear, neutral or even in favor of risk (Fishburn, 1977). These returns do not practically generate losses, but determine premium gains for the investment.

PMPT allows models applied for portfolio management to be more adequate to reality, having higher power in representing the economic reality (Dronin, 2012, Rani, 2012). The information offered is better suited for the decisional process of managers that evaluate the investment opportunities in a competitive environment (Libby, Fishburn, 1977).

Starting from the basis elements of theory, there are a lot of developments and updates made to PMPT (Plantinga, van der Meer, Sortino, 2001, Kaplan, Knowles, 2004, Galloppo, 2010).

The attitude towards risk depends on the investor affinity to risk (Kaplan, Siegel, 1994). His wish to obtain a higher return implies accepting higher risk, so the minimum accepted return rate is higher. Downside risk is what investors consider to be risky and this became more "popular" among investors (Huang, 2008). The position of the minimum accepted return on the return rates distribution depends on the risk accepted.

Kushankur and Debasish (2012) examine the indian emerging market from 2009 to 2010. The authors find that there is a better risk-adjusted return for Sortino Ratio than for Sharpe ratio and Treynor ratio. Also Washer and Johnson (2013) conclude that the Sortino and the Sharpe ratios are more likely to rank differently and it could be argued that the Sortino ratio is superior to the Sharpe ratio. The same outcome is also supported by Grelck, Prigge et al. (2010) whose study was conducted on data from 1999-2009 on MSCI World Index. The index is designed to measure global developed market equity performance. In most cases portfolio performance improved in a greater extent using Sortino ratio than using Sharpe ratio.

Teherani, Ahmadinia and Hasbaei (2011) tried to analyze the performance of the investment companies listed in Teheran Stock Exchange from 2006 to 2010 by Sharpe Treynor and Sortino ratio. This study has indicated that the Sortino ratio is a more suitable ratio in this case. Using Sortino ratio, Lagoarde-Segot and Lucey (2007) seems to

obtain best results in portfolio diversification for Middle East and North African (MENA) stock markets for 1998–2006 periods.

Methodology and Data

The Sortino ratio measures the risk-adjusted return of an individual asset or a portfolio:

$S = (R - T) / DR$, where:

- R is the realized return of the asset or portfolio
- T is the minimum accepted return (MAR or ŋ target) and
- DR is the downside deviation as measured by the standard deviation of negative asset or portfolio returns (If R < T then (R-T), 0 otherwise)

However, it only concerns itself with returns that fall below a user-specific minimum or required rate of return (minimum accepted return – MAR or ŋ target). In other words, it measures the excess return against the risk of failing to achieve the minimum return.

Our main argument is resumed by figure no. 1.
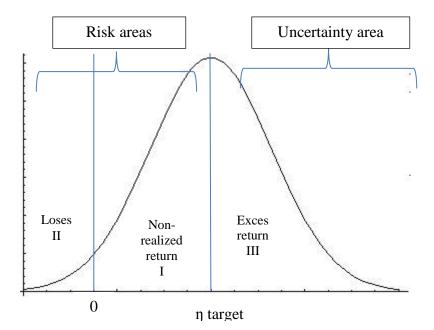
Fig. no. 1. Areas of return

Although Sortino Ratio differs from the other risk-adjusted return measures, which treat upside and downside volatility equally, it can be noted that the Sortino does not make a distinction between zone I

and zone II (see figure no.1), i.e between the loses and non-realized return.

Relative importance of the two areas of risk (unrealized return area and loss area) varies depending on the risk profile of the investor thus:

(a) the more the investor will have a greater appetite for risk, the greater will be predisposed to pursue the effective returns as close to the target return. Also he will look into a more undifferentiated manner the two risk areas;

(b) the more the investor will have a pronounced aversion towards risk, the recording of a loss will be felt as having a wider negative connotation in relation to cases of unrealized return.

Because of these we argue that it might be necessary to develop a new method in order to refine the results and take into account the areas.

AM= (R – T) / GR*100, where:

R is the realized return of the asset or portfolio

T is the minimum accepted return (MAR or ŋ target)

GR is the global risk calculated using multipliers

Since Sortino ratio does not distinguish between sub-cases possible – unrealized return area and loss area (negative return), we propose an alternative method which is using the same logic and frame structure as Sortino ratio. The difference is that instead of downside risk we use the global risk calculated using multipliers. To these areas are assigned different weights wich reflect the risk profile of the investor.

Global GR is calculate as follows: first we calculate multipliers m1, m2, m3 with the "Objective" method – based on market information:

(a) we select a "short" window – w1, a "medium" window – w2 and a "long-run" window – w3 (w1<w2<w3)

(b) we compute Sortino ratios for w1, w2, w3

St=(R – T) / DRt   (If R < T then (R-T), 0 otherwise)

(c) we calculate m1, m2, m3

m1 = 1 + |Sw1|/|Sw1| + |Sw2| + |Sw3|

m2 = 1 + |Sw1| + |Sw2| / |Sw1| + |Sw2| + |Sw3|

m3 = 1 + |Sw1| / 2 / |Sw1| + |Sw2| + |Sw3|

Then we calculate global risk as follows:

$$GR=Rt=\sqrt{\sum_{i=t-w+1}^{t} ri}$$

$$r_t = \begin{cases} [m1 * (\eta target - \eta t)]^2 & , \eta t >= 0, \eta t <= \eta \text{ target} \\ [m2 * (\eta target - \eta t)]^2 & , \eta t < 0 \\ [m3 * (\eta t - \eta target)]^2 & , \eta t > \eta \text{ target} \end{cases}$$

m2>m1>m3>1

ηt = ln (closing price t/closing price t-1) * 100

After we calculated the global risk, we calculate AM ratio: AM= (R − T)/ GR. We keep in mind that for each area of the 3 we have a weight of the area as multipliers m1 (non-realized return), m2 (loses) and m3 (exces return) that were included in the calculation of global risk and they actually reflect investors' risk aversion.

The emerging markets that we consider are represented by Romania (BET), Hungary (BUX), Czech Republic (PX), Bulgaria (SOFIX) and Poland (WIG). For each of them we estimate the Sortino ratio of length windows 7, 14, 42 and 10, 21, 60. We used two variants for each target return, namely 2% and 5%. We consider Germany (DAX) as a benchmark. The daily closing prices of the stock indices have been selected through the www.quotenet.com and www.investing.com. The time period examined spans from October 2008 to October 2013 and the number of observations in the sample for each index is 1073.

Results and discussion

After estimating the Sortino ratio and alternative method ratio, we conducted a parallel analysis between Sortino ratio and the proposed alternative method. We split the analysis time span in two sub-periods, for 2008-2010 and, respectively, 2011-2013. Then we try to determine the rank of each country regarding the risk-adjusted return by Sortino and alternative method.

After conducting this parallel analysis between Sortino ratio and alternative method ratio, we will try to determine a rank for each country. The goal is to see which of the two methods generate more refined and accurate results in accordance with the observed reality. If a country has the best results, will receive a 6 and if he has the worst results will receive a 1.

Table no. 1. Sortino Ranking on sub-periods (2008-2010, 2011-2013)

	Rank 2008-2010				Average rank 2008-2010	Rank 2011-2013				Average rank 2011-2013
	w=42 tr=2%	w=42 tr=2%	w=42 tr=5%	w=60 tr=2%		w=42 tr=2%	w=42 tr=2%	w=42 tr=5%	w=60 tr=2%	
Romania	5	5	5	5	**5**	3	3	3	3	**3**
Hungary	6	6	6	6	**6**	6	6	6	6	**6**
Czech Republic	4	4	4	4	**4**	4	4	4	4	**4**
Bulgaria	1	1	1	1	**1**	1	1	1	1	**1**
Poland	2	2	2	2	**2**	2	2	2	2	**2**
Germany	3	3	3	3	**3**	5	5	5	5	**5**

The first sub-period, 2008-2010, after Sortino Ranking, first position and best results are attributed to Hungary, followed by Romania, Czeck Republic, Germany, Poland. The last position is occupied by Bulgaria. Regarding the situation for the second sub-period, 2011-2013, Hungary remains on first position. On the second position ascend Germany, followed by Czeck Republic, Romania, Poland and the last position is kept occupied by Bulgaria. Basically you can see that Romania and Germany exchange places between them in the two sub-periods.

Table no. 2. Alternative method Ranking on sub-periods (2008-2010, 2011-2013)

Rank 2008-2010					Average rank 2008-2010	Rank 2011-2013				Average rank 2011-2013
	w=42 tr=2%	w=42 tr=2%	w=42 tr=5%	w=60 tr=2%		w=42 tr=2%	w=42 tr=2%	w=42 tr=5%	w=60 tr=2%	
Romania	6	6	6	6	**6**	4	3	4	3	**4**
Hungary	6	5	5	5	**5**	5	5	5	5	**5**
Czech Republic	4	4	4	3	**4**	3	2	3	2	**3**
Bulgaria	3	3	4	4	**4**	1	1	1	1	**1**
Poland	1	1	1	1	**1**	2	4	2	4	**3**
Germany	3	2	2	2	**2**	6	6	6	6	**6**

In Table no. 2 we can see that the first sub-period, 2008-2010, after alternative method Ranking, first position and best results are attributed to Romania, followed by Hungary, Czeck Republic, Bulgaria, Germany. The last position is occupied by Poland.

Regarding the situation for the second sub-period, 2011-2013, on the first position we have Germany. On the second position remains Hungary, followed by Romania, Poland, Czeck Republic and Bulgaria.

Table no. 3. Sortino Ranking and alternative method Ranking on the entire period (2008-2013)

| | **Sortino Rank** | | | | Average Sortino Rank | **Alternative Method** | | | | Average Alt. Meth. Rank |
	w=42 tr=2%	w=42 tr=2%	w=42 tr=5%	w=60 tr=2%		w=42 tr=2%	w=42 tr=2%	w=42 tr=5%	w=60 tr=2%	
Romania	3	3	3	3	**3**	5	6	5	6	**6**
Hungary	6	6	6	6	**6**	6	5	6	5	**6**
Czech Republic	4	4	4	4	**4**	3	3	3	3	**3**
Bulgaria	1	1	1	1	**1**	1	2	1	2	**2**
Poland	2	2	2	2	**2**	2	1	2	1	**2**
Germany	5	5	5	5	**5**	4	4	4	4	**4**

If we consider the whole analyzed period (2008-2013), Sortino Rank positions Hungary on the first place, but the second comes Germany. Then follows the Czeck Republic, Romania, Poland and Bulgaria.

Regarding alternative method Rank for the entire period (2008-2013), first place is awarded to Hungary and Romania. The following positions are occupied by Germany, Czech Republic, Bulgaria and Poland.

Table no. 4. Sortino Ranking vs. Alternative Method Ranking

| | **Sortino Ranking** | | | **Alternative Method Ranking** | | |
	2008-2010	**2011-2013**	2008-2013	2008-2010	**2011-2013**	2008-2013
Romania	5	**3**	3	6	**4**	6
Hungary	6	**6**	6	5	**5**	6
Czech Republic	4	**4**	4	4	**3**	3
Bulgaria	1	**1**	1	4	**1**	2
Poland	2	**2**	2	1	**3**	2
Germany	3	**5**	5	2	**6**	4

Here we have the ranking for the entire analyzed period (2008-2013). In case of Sortino Ranking - Hungary has the best ranking. Germany gets the second place and Romania is on the 4th place. This happens even though in the first sub-period (2008-2013) Romania had a ranking of 5, while Germany had a ranking of 3 and in the next sub-period (2011-2013) Romania had a ranking of 3, while Germany had a ranking of 5. The other countries keep the same positions they had in the two sub-periods.

Regarding the alternative method ranking, Poland and Bulgaria has the lowest ranking: 2. Although Romania has a ranking of 6 in the first sub-period and a ranking of 4 in the next sub-period and Hungary has a ranking of 5 for the both sub-periods, at the level of the entire period (2008-2013) – best ranking is obtained by Hungary and Romania. Just as in the case of Sortino ranking, Bulgaria and Poland have the worst ranking. Both for Czech Republic and Germany, their ranking has decreased by one unit in comparison with Sortino Ranking.

Conclusions

Our main purpose regarding this paper was to propose an alternative method for risk-adjusted return which distinguishes between the following possible sub-cases – unrealized return area and loss area (negative return). In case of the alternative method that we propose for these two areas are assigned different weights which reflect the risk profile of the investor.

The two methods, both based on the Post-Modern Portfolio Management approach, have been applied to study the risk-adjusted return of the 5 major indices on CEE emerging markets. These gave us an overview of the situation of Central and Eastern European emerging markets during the period 2008-2013. For both, Sortino ratio and alternative method, we have obtained better results for the first sub-period, 2008-2010, and worse results for the second sub-period, so as in case of window size of 42 or 60 just as in case of 2% and 5% target return.

We noticed that the risk-adjusted return is influenced by the used target return and the used window for both Sortino ratio and alternative method. In case of the same window used, difference is made by target return. If target return is smaller, we have better results in comparison with higher target return on the same window length. If the target return increases for the same given window length, we obtain worse Sortino

ratio results. On the other side if we increase the size of window, but keep the same target return, we have in almost all cases better result that in case of smaller window's length.

Our main results highlight the fact that in case of Sortino ratio, Hungary has best ranking. It also obtains best Sortino ratio and best risk-adjusted returns, while Bulgaria takes the prize for worst results and worst risk-adjusted returns. This is conserved for the two countries on the two sub-periods (2008-2010 and 2011-2013), as well as during the entire study (2008-2013).

Regarding alternative method, best results are attributed for the first sub-period (2008-2010) to Romania followed by Hungary and the worst results went to Poland. In the second sub-period (2011-2013), Germany gets the first place, followed by Hungary. On the last place is situated Bulgaria. For the whole period, Hungary and Romania have the best ranking and Bulgaria and Poland have the worst ranking.

If we look comparatively we notice that in most of the cases both methods place Hungary on the first place with best results and best risk-adjusted return, while Bulgaria and Poland seems to have the worst risk-adjusted return.

As a general conclusion resulting from the comparison of the two methods of measuring risk - Sortino and alternative method - there are some clear evidences that alternative method could offer a better measure of risk, more flexible and adapted to the investment process reality. Further research should provide better methodological insides, for instance by explaining in greater details the choice of multipliers values.

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A Literature Review Fuzzy Pay-Off-Method – A Modern Approach in Valuation

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Abstract
This article proposes to present a modern approach in the analysis of updated cash flows. The approach is based on the Fuzzy Pay-Off-Method (FPOM) for Real Option Valuation (ROV). This article describes a few types of models for the valuation of real options currently in use. In support for the chosen FPOM method, we included the mathematical model that stands at the basis of this method and a case study.
Keywords: Cash-Flow, Pay-off-Method, ROV – Real Option Valuation, Fuzzy, NPV – Net Present Value**.**

Introduction

The analysis of updated cash flows is to be found in the future revenue actualization method. This method can be applied within the income approach, alongside three other techniques: the updated value technique; the revenue and expenditure estimation and direct capitalization.

The update is a technique used to convert a series of future income in their present value using an appropriate discount rate. In order to apply the method, the following steps must be followed:

- Selecting a period of ownership of the investment
- Predicting future cash flows
- Selecting the discount rate
- Converting future cash flows in their updated value

In order to use the updating method, we must be used with the cash flow analysis. The general formula used for updated cash flows is the following (ANEVAR, IROVAL 2008):

$$Updated\ value = \frac{CF_1}{(1+k)^1} + \frac{CF_2}{(1+k)^2} + \frac{CF_3}{(1+k)^3} + \cdots + \frac{CF_n}{(1+k)^n}$$
$$= \sum_{i=1}^{n} \frac{CF_i}{(1+k)^i}$$

where:

CF_i = cash flows related to a time-span/year

K = discount rate

i = the number of periods/years of investment ownership

Real options are investment possibilities and possibilities within investment projects. Real option valuation is valuing these possibilities as "real" options. Valuation started by using the same methods that have been used for financial option valuation.

Next we treat the real options as a modeling problem. The three major components of modeling the value of an (real) option are:

- to model of the future value distribution;
- to calculate the expected value of the future value distribution while mapping negative values of the distribution zero;
- to model the calculation of the PV - present value of the expected value.

In present there are four types of models for the valuation of real options currently in use. These are the following:

1. *differential equation solutions*
2. *discrete event and decision models*
3. *simulation based models*
4. *fuzzy logic based methods*

Types of models representative for the four aforementioned valuation models are the following:
1. *The Black & Scholes Model*
2. *The Binomial Option Valuation Model*
3. *Datar-Mathews Model for ROV*
4. *FPOM (Fuzzy Pay-off Method) for ROV.*

Literature review

Black & Scholes Model – B&S M(1973)

This model is a stochastic (GBM) process used to yield a continuous log-normal distribution of future asset value. It consists in calculation of expected value as a probability weighted average of the positive side of the future value distribution, also discounting the expected value to present value with the risk-free rate of return, continuous compounding. Same discount rate will be used for revenue and cost. The input parameters are fed into a formula and it out pops the answer (Collan, Carlsson and Majlender, 2003).

B&S M is a closed form solution, based on the replication argument: Any two assets that yield same cash-flows under the same circumstances must be worth the same price. From a Mathematical point of view it is very elegant and is based on a strict set of assumptions about markets (complete/efficient). The result is presented as a single number (Buckley and Esfandiar, 2008).

Binomial Model -BM (1979)

The BM is a binomial tree process used to create a future value distribution. It uses the backwards iteration to find the option value. Iteration includes discounting with a compounding risk-free rate of return for cost and revenues. With a large number of time steps the result converges with the result from the Black & Scholes model. BM is based on strict assumptions about the markets and needs the input info for standard deviation and up/down probability. The result is presented as a single number, as in the previous model (Boyle, 1986).

Datar –Mathews Model – DMM (2004)

The DMM creates future value distribution, using manager-created cash-flow scenarios as input for a Monte Carlo simulation project that creates a probability distribution (Datar, Mathews and

Johnson, 2007). The expected value is calculated as the probability, weighted average of the positive side of the future value distribution. Thus, the discount rate could be separated from the costs and CF revenues, based on selecting a range of periods. They are no strict assumptions about the markets/reality. The model is designed for spread-sheet software and generates the same answer as Black & Scholes, reachable with same assumptions. The result is presented as a single number, as in the previous models (Mathews and Datar, 2007).

Pay-Off Method for Real Option Valuation (2009)

In POM manager created cash-flow scenarios are used to create (simplified) future value distributions that are treated as fuzzy numbers (often triangular / trapezoidal). The "expected value" is calculated from the fuzzy numbers as the possible mean of the positive side of the fuzzy number. Discounting is done by using separate discount rates for revenues and costs. The POM for ROV compounds interval at the discretion of the user, is no strict assumptions about the markets/reality, is spread-sheet compatible and is designed for the practitioner –"as easy as possible".

The main observations of the Fuzzy Pay-Off Model – FPOM are the following:

- The fuzzy NPV of a project is (equal to) the pay-off distribution of a project value that is calculated with fuzzy numbers.
- The mean value of the positive values of the fuzzy NPV is the possible mean value of the positive fuzzy NPV values.
- ROV calculated from the fuzzy NPV is the possible mean value of the positive fuzzy NPV values multiplied with the positive area of the fuzzy NPV over the total area of the fuzzy NPV.

The ROV value can be derived from the fuzzy NPV. These are the blocks that together make the FPOM for ROV.

Mathematical Model for FPOM

In POM for ROV the real option value is calculate from the fuzzy Net present Value – NPV, with the formula (Collan, Fullér and Mézei, 2009):

$$ROV = \frac{\int_0^\infty A(x)dx}{\int_{-\infty}^\infty A(x)dx} \times E(A_+)$$

where (see Figure 1):

A - stands for the fuzzy NPV
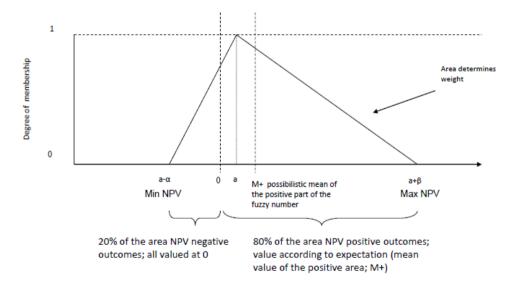
E(A+) - denotes the fuzzy mean value of the positive side of the NPV

$\int_{-\infty}^{\infty} A(x)dx$- computes the area below the whole fuzzy number A

$\int_{0}^{\infty} A(x)dx$- computes the area below the positive part of A

     A positive ROV indicates that it is profitable to invest.

     The most used fuzzy numbers are trapezoidal and triangular fuzzy numbers, because they make many operations possible and are intuitively understandable and interpretable.

     In this article we use the triangular fuzzy numbers.

Fig. no. 1. A triangular fuzzy number A, defined by three points [a,α,β] describing the NPV of a prospective project (percentages are for illustration purpose only) (Collan, Fullér and Mézei, 2009)

     The membership function of the right-hand side of a triangular fuzzy number truncated at point a-α-z, where 0≤z≤α.

$$(A|z)(t) = \begin{cases} 0 \ if \ t \le a - \alpha + z, \\ A(t) \ otherwise \end{cases}$$

So, we get the expected value of the triangular fuzzy number (Collan, Fullér and Mézei, 2009):

$$E(A_+) = \begin{cases} (a-\alpha) > 0 \text{ then } E(A_+) = a + \dfrac{\beta - \alpha}{6} \\ a > 0 > (a-\alpha) \text{ then } E(A_+) = a + \dfrac{\beta - \alpha}{6} + \dfrac{\alpha - a^3}{6a^2} \\ \alpha + \beta > 0 > a \text{ then } E(A_+) = \dfrac{\alpha + \beta^3}{6\beta^2} \\ \alpha + \beta < 0 \text{ then } E(A_+) = 0 \end{cases}$$

Case Study
Using FPOM for ROV in Analyzing the Cash Flow

In our article we present the problem of valuating the uncertain cash-flows from APPLE INC Company. The financial data refers to a three-year time period 2011-2013 and have as source the Yahoo! FINANCE Web site.

The FPOM approach is based on three steps (Muzzioli and Torricelli, 2000):

Step 1: Build a number of cash-flow scenarios and perform present value & NPV calculations;

Step 2: Create the pay-off distribution;

Pay-off distribution	Fuzzy number
Maximum scenario NPV	a+β
Best guess scenario NPV	a
Minimum scenario NPV	a-α
Distance between best guess scenario NPV and maximum scenario NPV	β
Distance between best guess scenario NPV and minimum scenario NPV	α

Step 3: Calculate descriptive for additional decision-support.

The input information available is in the form of three future cash-flow scenarios: Best estimate – most likely, Minimum possible – pessimistic, Maximum possible – optimistic.

Table no. 1 and the Figure no. 2 reflect data from the Cash Flow.

Fig. no. 2. Cash-Flow Diagram- APPLE INC Company
Data refers to a three-year time period 2011-2013
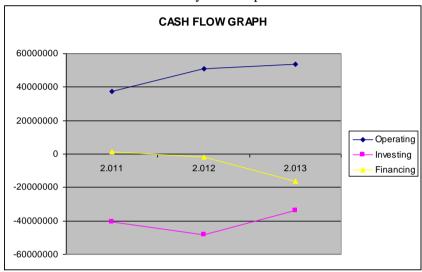
Table no. 1. Cash-Flow from Financial Statement of APPLE INC Company -
data refers to a three-year time period 2011-2013

Structures	*2011*	*2012*	*2013*
Net Income	**25.922.000**	**41.733.000**	**37.037.000**
Operating Activities, Cash Flows Provided By or Used In			
Depreciation	1.814.000	3.277.000	6.757.000
Adjustments To Net Income	4.036.000	6.145.000	3.394.000
Changes In Accounts Receivables	-1.791.000	-6.965.000	-1.949.000
Changes In Liabilities	8.664.000	9.843.000	8.320.000
Changes In Inventories	275.000	-15.000	-973.000
Changes In Other Operating Activities	-1.391.000	-3.162.000	1.080.000
Total Cash Flow From Operating Activities	*37.529.000*	*50.856.000*	*53.666.000*
Investing Activities, Cash Flows Provided By or Used In			
Capital Expenditures	-4.260.000	-8.295.000	-8.165.000

Investments	-32.464.000	-38.427.000	-24.042.000
Other Cash flows from Investing Activities	-3.695.000	-1.505.000	-1.567.000
Total Cash Flows From Investing Activities	***-40.419.000***	***-48.227.000***	***-33.774.000***
Financing Activities, Cash Flows Provided By or Used In			
Dividends Paid	0	-2.488.000	-10.564.000
Sale Purchase of Stock	831.000	665.000	-22.330.000
Net Borrowings	0	0	16.896.000
Other Cash Flows from Financing Activities	-520.000	-1.226.000	-1.082.000
Total Cash Flows From Financing Activities	***1.444.000***	***-1.698.000***	***-16.379.000***
Effect Of Exchange Rate Changes	0	0	0
Change In Cash and Cash Equivalents	***-1.446.000***	***931.000***	***3.513.000***

Table no. 2 present the ROV obtained for Operating, Investing, Financing Cash Flow, respectively Change in Cash and Cash Equivalents.

We observe that the obtained values are positive, negative and zero. In case of Operating and Financing Cash Flow ROV is positive, that means it is profitable to invest.

The obtained data is in concordance with the Cash Flow trends presented in Figure no. 2.

Conclusions

The FPOM method is simpler to apply than other, more complex methods, mentioned in section 2.

Using triangular fuzzy numbers make very easy implementations possible with the most commonly used spreadsheet software; this opens avenues for ROV to find its way to more practitioners.

Table no. 2. ROV obtained with FPOM

Operating Cash Flow		2.011	2.012	2.013	NPV		a>α	
maximum	a+β	37.529	50.856	53.666	128.229	β= 12.529	E(A₊)=	25.838
best estimated	a	25.000	38.000	42.000	94.558		A_total=	10.015
minimum	a-α	17.500	26.000	31.800	67.719	α= 7.500	A₊=	6.265
							ROV=	16.163

Investing Cash Flow		2.011	2.012	2.013	NPV		a<0	
maximum	a+β	15.000	12.000	17.000	39.855	β= 55.419	E(A₊)=	-47.769
best estimated	a	-40.419	-48.227	-33.774	-111.413		A_total=	40.000
minimum	a-α	-65.000	-72.000	-51.000	-171.267	α= 24.581	A₊=	27.710
							ROV=	-33.091

Financing Cash Flow		2.011	2.012	2.013	NPV		a>α	
maximum	a+β	3.200	200	-7.800	-3.509	β= 700	E(A₊)=	2.441
best estimated	a	2.500	-275	-1.500	836		A_total=	878
minimum	a-α	1.444	-1.698	-16.379	-14.314	α= 1.056	A₊=	350
							ROV=	973

Change In Cash and Cash Equivalents		2.011	2.012	2.013	NPV		α+β<0	
maximum	a+β	-2650	1340	4750	2.795	β= -1.204	E(A₊)=	0
best estimated	a	-1446	931	3513	2.502		A_total=	1725
minimum	a-α	800	500	2800	3.634	α= -2.246	A₊=	602
							ROV=	0

The method is flexible as it can be used when the fuzzy NPV is generated from scenarios or as fuzzy numbers from the beginning of the analysis.

As information changes and uncertainty is reduced, this should be reflected in the fuzzy NPV, the more there is uncertainty the wider the distribution should be, and when uncertainty is reduced the width of the distribution should decrease. Only under full certainty should the distribution be represented by a single number, as the method uses fuzzy NPV there is a possibility to have the size of the distribution decrease with a lesser degree of uncertainty, this is an advantage over probability based methods.

In case when all the values of the fuzzy NPV are greater than zero, the single number NPV equals ROV, which indicates immediate investments.

The FPOM for ROV opens possibilities for making ROV evaluation tools that will help managers to construct real option analyses - ROA for systems of RO that are present currently in many types of investments.

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Usage and recall of FMCG brands by rural consumers and relevant facts

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Abstract
India is a country of villages. It has mammoth rural population of 833 million spread over 640,867 villages. Rural markets are small in size, distantly scattered and heterogeneous. They provide awesome opportunities for fast moving consumer goods (FMCG) companies. Rural consumers aspire to use brands rather than just commodities. At this juncture, understand rural consumer usage of FMCG brands and awareness is perceived appropriate. The objective of this research paper is to study the usage and recall of FMCG brands by rural consumers in Prakasam district of Andhra Pradesh in India. Thus, a modest attempt is made in this paper to divulge relevant facts of the topic with empirical data. This article is quite useful to the stakeholders of rural marketing.
Keywords: brand recall, FMCG brands, rural consumer, rural marketing, usage

Introduction

In the 1960s HLL (Hindustan Lever Limited now call it as Hindustan Unilever Limited (HUL)) saw rural markets as an opportunity and entered with Lifebuoy soap. Today, HUL dominates rural markets and has a presence in more than half of the Indian villages. FMCG majors like Colgate-Palmolive, Proctor & Gamble, Dabur India, Nirma Limited, Godrej Consumer Products Limited, CavinKare Private Limited, Jyothi Laboratories etc. followed the suit and gung-ho about rural marketing. Rural consumers now aspire to use brands rather than just commodities. For any branded product there are a multitude of local variants, which are cheaper and therefore more desirable for villagers. For instance, CavinKare launched Chik and Meera shampoo brands with low unit price for the first time in rural markets of south and succeeded. Rural consumers are used to charcoal, neem sticks, salt and other traditional means of oral hygiene. But Colgate used Operation Jagruti to successfully persuade people to convert to oral hygiene products, to the extent that toothpaste has become generic with the brand among rural consumers. HUL launched Operation Bharat in the year 1997 to create brand awareness for its rural brands and successfully addressed issues of awareness, attitudes and habits. For example, Anchor White toothpaste positioned itself as India's first 100 percent vegetarian toothpaste and effectively priced it much lower than the leading brand Colgate. Hopefully, the consumers in rural areas get exposed to such value-added, value-for-money alternatives and continue to use different categories of products (Ramkishen, 2005). Factors such as increase in literacy levels, considerable media reach, growing purchasing power, high penetration of rural brands, development in transportation and distribution have brought changes in rural consumer behavior.

Literature Review

Rural markets can be segmented by price, region and season. Mass media is not as effective in rural areas as consumers are heterogeneous and scattered across India. The message for the rural consumer also must be simple about relevance and benefits of product, that too in local language with high visual content to get better attention. In fact, rural markets are a more price sensitive version of urban markets is half wrong, as prices are important, but value is even more so (Halan, 2003). The rural brand loyal consumers are found to be more

price conscious for detergent powder and toilet soaps. Toothpaste is the only product for which rural market shows greater brand loyalty (Vasudeva, 1999).

The success of a brand in the Indian rural market is as unpredictable as rain. It is always difficult to gauge the rural market. Many brands, which should have been successful, have failed miserably in rural markets (Pirakatheeswari, 2010). The regional brands of FMCGs are making their aggressive presence in smaller towns and villages by participation in *melas* and exhibitions. Easily available technology, strong local area knowledge, a short supply chain and quality raw material are factors which regional players are giving big brands a run for their money. They provide better margins to distributors and retailers in rural areas (Oza, 2004). Pond's is the most favored brand followed by regional brand Gokul Sandal in rural areas of Madurai district. Most of the respondents have not changed their brand of talcum powder, suggesting existence of good degree of brand loyalty for this product category (Chidambaram and Ganeshan, 2004). HUL's Clinic Plus is the market leader in shampoo market on an all India basis. CavinKare's Chik is market leader in the rural areas where Clinic Plus is only distant second. Regional brands and niche players, with better understanding for rural market and rural specific business models and strategies, are emerging clear leaders in the rural market (Shukla, 2004).

Local players are defeating the big giants of FMCG market. Local players in particular category like in detergent cake, Kudrat, Atul, and Bartan have defeated Nirma and Wheel in achieving market share. In bathing soap category, Lux and Lifebuoy got strong competition from Vatan and Navrang. Main reasons found for the popularity of local brands have been the push strategy of retailers because of high margin profitability and also due to the familiarity with the local names. The prices of local brands are affordable for rural consumers. Chik shampoo is very much preferable because it is cheaper. Marketers should realize that as rural users are unfamiliar with English and absurd branding names, they tend to hesitate trying out such brands. This is one of the major threats still for big players in FMCG category (Naresh and Prasad, 2005).

Brand awareness of the rural consumer is qualitative in character and cannot be measured directly in quantitative terms. There is no fixed value or scale which will help to measure the brand awareness. But the awareness can be studied with the help of consumer responses to

various questions (Naidu, 2004). For example, the level of awareness among the rural consumers about the brand of soft drinks is high which is indicated by the mode of purchase of the soft drinks by Brand Name. Major source of brand awareness is the word of mouth followed by advertisement. Another factor that influences the purchase of a brand of soft drinks is product quality (Nandagopal and Chinnaiyan, 2003). Increasing awareness led to significant changes in buying behavior and consumption habits of rural consumer. Even premium brands are gaining wide acceptance in the rural bastions (Ganesamurthy, 2003).

The future is very promising for those who can understand the dynamics of rural markets and exploit them to their best advantage.

Objectives of the Study

1. To study the FMCG brand usage of the rural consumers;

2. To examine the FMCG brand recall and awareness of the rural consumers;

3. To measure the relationship between variables.

Hypotheses

The following hypotheses have been developed to test statistically:

H1: There is no relationship between toothpaste brand recall and education level of the rural consumer.

H2: There is no significance between shampoo brand recall and education of the rural consumer.

H3: There is no association between the toilet soap brand recall and the level of education of the rural consumer.

H4: There is no relationship between detergent cake brand recall and education of rural consumer.

H5: There is no association between the detergent powder brand recall and education of rural consumer.

Methodology

The study covers only five select FMCG products viz., toothpaste, shampoo, toilet soap, detergent cake and detergent powder. The survey is conducted in 40 select villages out of 1093 in Prakasam district of Andhra Pradesh. Multistage random sampling method is used for the study. In the first stage, 40 mandals out of 56 are randomly selected. One village having more than 1000 population from each

mandal is randomly selected in the second stage. Six respondents from each village are randomly selected in the third stage. The total sample size is 240. A pre-structured schedule is used as the research instrument for gathering responses. Responses are collected by personal interview method. The research work is done between 2012 and 2014. The statistical technique of Chi-square test is used to test the hypotheses.

Results and Discussion
Usage and recall of toothpaste brands by rural consumers and relevant facts

When rural respondents are asked about the brand of toothpaste they are using at present in rural areas, the outcome is quite impressive. Rural consumers are loyal to one brand of toothpaste and hardly shifting to other brands. Those who are exposed to TV ads believe that FMCG companies are simply promoting old brands and need to launch new brands in this category. Advertisements such as Babool toothpaste showcase the natural neem herbs influence the rural buyer behavior. The users of Colgate brand are happy with the offers given by the company and the users of other brands are eagerly seeking offers from companies for their brands.

Table no. 1. Brand Usage of Toothpaste

Brand Name	Used by no. of Respondents	Percentage
Anchor	5	2.08
Babool	3	1.25
Close-up	58	24.17
Colgate	117	48.75
Dabur	29	12.08
Himalaya	4	1.67
Meswak	2	0.83
Nutrogel	2	0.83
Pepsodent	16	6.67
Senquel	1	0.42
Sensodine	3	1.25
Total	240	100.00

Table no. 2. Brand Recall of Toothpaste

No. of Brands Recalled	No. of Respondents	Percentage
1	11	4.58
2	22	9.17
3	80	33.33
4	84	35.00
5	28	11.67
6	15	6.25
Total	240	100.00

Table no.1 reveals that Colgate is the leading brand of toothpaste used by rural consumers in Prakasam district as it renders 48.75% usage followed by Close-up (24.17%), Dabur (12.08%) and Pepsodent (6.67%). Apart from these brands, other brands such as Anchor (2.08%), Himalaya (1.67%), Bobool and Sensodine (1.25% each) as well as Meswak and Nutrogel (0.83% each) also used by a significant number of rural respondents. Senquel is used by an insignificant number of respondents (0.42%). As far as toothpaste brand recall and awareness of the rural consumer is concerned, table no. 2 shows that 35% of the respondents are able to recall four brands followed by 33.33% respondent's three brands, 11.67% respondent's five brands, 9.17% respondent's two brands, 6.25% respondent's six brands and 4.58% respondent's recall one brand impulsively. In the process of recalling toothpaste brands most of the respondents are begin with their present use of brand and then recalling other brands which are positioned in their minds.

In order to test statistically whether there is relationship between toothpaste brand recall and education level of the rural consumer, the following hypotheses are developed.

H_0: There is no relationship between toothpaste brand recall and education level of the rural consumer.

H_1: There is relationship between toothpaste brand recall and education level of the rural consumer.

The primary data is put to hypothesis testing by applying chi-square test.

The observed values

Education	No. of Toothpaste brands recalled						Total
	1	2	3	4	5	6	
Up to School	4	13	35	28	7	4	91
Graduation	1	2	23	29	12	3	70
Post-Graduation	1	2	17	26	7	7	60
Others	5	5	5	1	2	1	19
Total	11	22	80	84	28	15	240

The expected values

Education	No. of Toothpaste brands recalled						Total
	1	2	3	4	5	6	
Up to School	4.171	8.342	30.333	31.850	10.617	5.688	91
Graduation	3.208	6.417	23.333	24.500	8.167	4.375	70
Post-Graduation	2.750	5.500	20.000	21.000	7.000	3.750	60
Others	0.871	1.742	6.650	6.650	2.217	1.188	19
Total	11.000	22.000	80.000	84.000	28.000	15.000	240

Results

Chi-square calculated value	51.7519
Degrees of freedom	15
Level of significance	5%
Chi-square tabulated value	24.996
The p value	0.000006

Since the calculated value of chi-square is greater than the tabulated chi-square value, the null hypothesis H_0 is rejected and alternate hypothesis H_1 is accepted.

Thus, it can be statistically concluded that there is relationship between the toothpaste brand recall and the level of education of the rural consumer.

Usage and recall of shampoo brands by rural consumers and relevant facts

Most of the rural consumers are using low unit sachets in shampoo category. Barring the rural youth using multiple brands of shampoo in one family, a significant portion of rural orthodox

accustomed to use soapnuts (*sapindus marginatus*) for their head bath rather than shampoo. Rural educated those who have technical exposure are closely observing ingredients such as low sodium hydroxide content while choosing the shampoo brand.

Table no. 3. Brand Usage of Shampoo

Brand Name	Used by no. of Respondents	Percentage
Chik	15	6.25
Clinic All Clear	8	3.33
Clinic Plus	40	16.67
Dove	31	12.92
Head & Shoulders	36	15.00
Karthika	9	3.75
L'Oreal	2	0.83
Meera	58	24.17
Neutrogena	1	0.42
Nyle	2	0.83
Pantene	18	7.50
Shikakai	3	1.25
Sunsilk	8	3.33
Vatika	5	2.08
Vivel	4	1.67
Total	240	100.00

Table no. 4. Brand Recall of Shampoo

No. of Brands Recalled	No. of Respondents	Percentage
1	11	4.58
2	19	7.92
3	48	20.00
4	66	27.50
5	64	26.67
6	32	13.33
Total	240	100.00

Table no. 3 portrays that Meera is leading brand of shampoo with 24.17% of respondents' usage followed by Clinic Plus (16.67%), Head & Shoulders (15%), Dove (12.92%), Pantene (7.5%) and Chik (6.25%) brands. Besides, a significant percentage of respondents also using brands such as Karthika (3.75%), Clinic All Clear and Sunsilk (3.33% each), Vatika (2.08%), Vivel (1.67%), Shikakai (1.25%), L'Oreal and Nyle (0.83% each) and Neutrogena (0.42%) in rural Prakasam. Meera got wider acceptance in rural areas because of an impression among the rural folk that it is made up of soapnuts. Karthika, a Tamil Nadu based regional brand claims significant usage in rural areas because of its low unit price. Rural respondents have sound awareness about shampoo brands. As per table no. 4, 27.50% of the respondents are able to recall four brands of shampoo and closely followed by 26.67% respondents recall five brands. 20% of the respondents are able to recall three brands, 13.33% respondents six brands, 7.92% respondents two brands and 4.58% of the respondents recall only one brand what they are using at present.

So as to test the significance of shampoo brand recall and level of education of the rural consumer, the following hypotheses are developed.

H_0: There is no significance between shampoo brand recall and education of the rural consumer.

H_1: There is significance between shampoo brand recall and education of the rural consumer.

The primary data is put to hypothesis testing by applying chi-square test.

The observed values

Education	No. of Shampoo brands recalled						Total
	1	2	3	4	5	6	
Up to School	3	8	22	24	25	9	91
Graduation	2	4	8	21	19	16	70
Post-Graduation	1	2	14	19	19	5	60
Others	5	5	4	2	1	2	19
Total	11	19	48	66	64	32	240

The expected values

Education	No. of Shampoo brands recalled						Total
	1	2	3	4	5	6	
Up to School	4.171	7.204	18.200	25.025	24.267	12.133	91
Graduation	3.208	5.542	14.000	19.250	18.667	9.333	70
Post-Graduation	2.750	4.750	12.000	16.500	16.000	8.000	60
Others	0.871	1.504	3.800	5.225	5.067	2.533	19
Total	11.000	19.000	48.000	66.000	64.000	32.000	240

Results

Chi-square calculated value	48.6520
Degrees of freedom	15
Level of significance	5%
Chi-square table value	24.996
The p value	0.00002

The calculated value of chi-square is greater than the tabulated chi-square value. Therefore, H_0 is rejected and H_1 is accepted.

Thus, it is stated that there is significance between the shampoo brand recall and the level of education of the rural consumer.

Usage and recall of toilet soap brands by rural consumers and relevant facts

Rural consumers are diligently observing the price changes of toilet soaps. Due to large variation in soap prices between the village and the town, the rural folk who are carrying their primary produce to nearby town is used to buy soaps in town. Though they are loyal to one brand of toilet soap, now and then they shift to other brands because of non-availability in village shops. Rural consumer is carefully watching the offers and others sales promotional schemes available to toilet soaps.

Table no. 5. Brand Usage of Toilet Soap

Brand Name	Used by No. of Respondents	Percentage
Cinthol	27	11.25
Dove	9	3.75
Hamam	1	0.42
Lifebuoy	4	1.66
Liril	3	1.25

Lux	17	7.08
Medimix	3	1.25
Mysore Sandal	15	6.25
No.1	12	5.00
Pears	7	2.92
Rexona	7	2.92
Santoor	134	55.83
Wild Stone	1	0.42
Total	240	100.00

Table no. 6. Brand Recall of Toilet Soap

No. of Brands Recalled	No. of Respondents	Percentage
1	6	2.50
2	10	4.17
3	40	16.66
4	71	29.58
5	61	25.42
6	22	9.17
7	19	7.92
8	11	4.58
Total	240	100.00

As per the data in table no. 5, Santoor is the leading brand of toilet soap in rural areas as if it claims 55.83% of usage. Barring little dissatisfaction over its fragrance, Santoor is highly positioned in rural respondents because of attractive advertisement and affordable price. Next to Santoor are Cinthol (11.25%), Lux (7.08%), Mysore Sandal (6.25%), No.1 (5%), Dove (3.75%), Pears and Rexona (2.92% each), Lifebuoy (1.66%), Liril and Medimix (1.25% each), Hamam and Wild Stone (0.42% each) brands which are used by rural respondents. As far as toilet soap brand recall and awareness of the rural consumer is concerned, the responses are quite optimistic. Table no. 6 illustrates that 29.58% of the respondents are able to recall four brands, followed by 25.42% respondents five brands, 16.66% respondents three brands, 9.17% respondents six brands, 7.92% respondents seven brands, 4.58% respondents eight brands 4.17% respondents two brands and 2.5% of the respondents recall only one brand what they are using at present.

To test whether there is association between toilet soap brand recall and level of education of the rural consumer, the following hypotheses are developed.

H_0: There is no association between the toilet soap brand recall and the level of education of the rural consumer.

H_1: There is association between the toilet soap brand recall and the level of education of the rural consumer.

The primary data is put to hypothesis testing by applying chi-square test.

The observed values

Education	No. of Toilet soap brands recalled								Total
	1	2	3	4	5	6	7	8	
Up to School	2	4	19	23	20	10	7	6	91
Graduation	2	3	6	25	17	6	9	2	70
Post-Graduation	1	1	13	17	20	4	2	2	60
Others	1	3	2	6	4	1	1	1	19
Total	6	11	40	71	61	21	19	11	240

The expected values

Education	No. of Toilet soap brands recalled								Total
	1	2	3	4	5	6	7	8	
Up to School	2.275	4.171	15.167	26.921	23.129	7.962	7.204	4.171	91
Graduation	1.750	3.208	11.667	20.708	17.792	6.125	5.542	3.208	70
Post-Graduation	1.500	2.750	10.000	17.750	15.250	5.250	4.750	2.750	60
Others	0.475	0.871	3.167	5.621	4.829	1.662	1.504	0.871	19
Total	6.000	11.000	40.000	71.000	61.000	21.000	19.000	11.000	240

Results

Chi-square calculated value	22.2967
Degrees of freedom	21
Level of significance	5%
Chi-square tabulated value	32.671
The p value	0.3826

Since the calculated value of chi-square is less than the tabulated chi-square value, H_0 is accepted and H_1 is rejected.

Hence, there is no association between the toilet soap brand recall and the level of education of the rural consumer. High penetration of more number of brands and high level of media communication are the factors led to enhance the brand awareness among the rural consumers irrespective of their education level in toilet soap category.

Usage and recall of detergent cake brands by rural consumers and relevant facts

The prices of detergent cake brands are perceived as high by rural consumers but compromise due to high quality instinct. Rin is the leading brand in this category. Oorvasi, a regional brand got due attention of the rural consumers on account of low price and large quantity.

Table no. 7. Brand Usage of Detergent Cake

Brand Name	Used by no. of Respondents	Percentage
Henko	7	2.92
Nirma	1	0.42
Oorvasi	16	6.66
Rin	104	43.33
Surf Excel	55	22.92
Tide	33	13.75
Xtra	7	2.92
XXX	17	7.08
Total	240	100.00

Table no. 8. Brand Recall of Detergent Cake

No. of Brands Recalled	No. of Respondents	Percentage
1	15	6.25
2	48	20.00
3	98	40.83
4	44	18.33
5	29	12.08
6	6	2.50
Total	240	100.00

Table no. 7 depicts that Rin is the leading brand in detergent cake category as if it claims 43.33% usage followed by Surf Excel (22.92%), Tide (13.75%), XXX (7.08%), Oorvasi (6.66%), Henko (2.92%), Xtra (2.92%), and Nirma (0.42%) brands in rural areas. As far as detergent cake brand recall and awareness is concerned, table no. 8 shows that 40.83% of the respondents are able to recall three brands, 20% respondent's two brands, 18.33% respondents four brands, 12.08% respondents five brands, 6.25% respondents one brand and 2.5% respondents recall six brands at the moment.

In order to test statistically whether there is relationship between detergent cake brand recall and level of education of the rural consumer, the following hypotheses are developed.

H_0: There is no relationship between detergent cake brand recall and education of rural consumer.

H_1: There is relationship between detergent cake brand recall and education of rural consumer.

The primary data is put to hypothesis testing by applying chi-square test.

The observed values

Education	No. of Detergent Cake brands recalled						Total
	1	2	3	4	5	6	
Up to School	7	24	31	12	16	1	91
Graduation	1	9	35	17	7	1	70
Post-Graduation	3	10	27	13	4	3	60
Others	4	5	5	2	2	1	19
Total	15	48	98	44	29	6	240

The expected values

Education	No. of Detergent Cake brands recalled						Total
	1	2	3	4	5	6	
Up to School	5.688	18.200	37.158	16.683	10.996	2.275	91
Graduation	4.375	14.000	28.583	12.833	8.458	1.750	70
Post-Graduation	3.750	12.000	24.500	11.000	7.250	1.500	60
Others	1.188	3.800	7.758	3.483	2.296	0.475	19
Total	15.000	48.000	98.000	44.000	29.000	6.000	240

Results

Chi-square calculated value	28.5638
Degrees of freedom	15
Level of significance	5%
Chi-square tabulated value	24.996
The p value	0.0183

Since the calculated value of chi-square is greater than the tabulated chi-square value, H_0 is rejected and H_1 is accepted.

Therefore, there is relationship between the detergent cake brand recall and the level of education of the rural consumer.

Usage and recall of detergent powder brands by rural consumers and relevant facts

Detergent powder is an unavoidable product besides detergent cake in rural areas. Soaking clothes with detergent powder before washing is a common practice even in rural areas. Despite higher prices rural consumers use premium brands such as Surf Excel and Rin. However, Oorvasi, a Tamil Nadu based brand is in progressive track on competition with renowned multinational brands.

Table no. 9. Brand Usage of Detergent Powder

Brand Name	Used by no. of Respondents	Percentage
Ariel	20	8.33
Nirma	6	2.50
Oorvasi	21	8.75
Rin	57	23.75
Surf Excel	73	30.42
Tide	44	18.34
Wheel	8	3.33
XXX	11	4.58
Total	240	100.00

Table no. 10. Brand Recall of Detergent Powder

No. of Brands Recalled	No. of Respondents	Percentage
1	16	6.67
2	38	15.83
3	69	28.75
4	55	22.92
5	38	15.83
6	24	10.00
Total	240	100.00

Table no. 9 divulges that Surf Excel is leading brand of detergent powder in rural areas as it claims 30.42% of the respondents' usage. The other brands in line are Rin (23.75%), Tide (18.34%), Oorvasi (8.75%), Ariel (8.33%), XXX (4.58%), Wheel (3.33%) and Nirma (2.5%) respectively. As far as brand recall and awareness is concerned, table no. 10 shows that 28.75% of the respondents are able to recall three brands, 22.92% respondents four brands, 15.83% respondents two brands and five brands each, 10% respondents six brands and 6.67% of the respondents recall only one brand.

In order to test statistically whether there is association between detergent powder brand recall and level of education of the rural consumer, the following hypotheses are developed.

H_0: There is no association between the detergent powder brand recall and education of rural consumer.

H_1: There is association between the detergent powder brand recall and education of rural consumer.

The primary data is put to hypothesis testing by applying chi-square test.

The observed values

Education	No. of Detergent Powder brands recalled						Total
	1	2	3	4	5	6	
Up to School	6	14	28	18	15	10	91
Graduation	1	9	26	12	15	7	70
Post-Graduation	4	12	13	20	7	4	60
Others	5	3	2	5	1	3	19
Total	16	38	69	55	38	24	240

The expected values

Education	No. of Detergent Powder brands recalled						Total
	1	2	3	4	5	6	
Up to School	6.067	14.408	26.162	20.854	14.408	9.100	91
Graduation	4.667	11.083	20.125	16.042	11.083	7.000	70
Post-Graduation	4.000	9.500	17.250	13.750	9.500	6.000	60
Others	1.267	3.008	5.462	4.354	3.008	1.900	19
Total	16.000	38.000	69.000	55.000	38.000	24.000	240

Results

Chi-square calculated value	29.1774
Degrees of freedom	15
Level of significance	5%
Chi-square tabulated value	24.996
The p value	0.0153

Since the calculated value of chi-square is greater than the tabulated chi-square value, H_0 is rejected and H_1 is accepted.

Hence, there is association between the detergent powder brand recall and the level of education of the rural consumer.

Conclusions

Brand awareness of FMCG products such as toothpaste, shampoo, toilet soap, detergent cake and detergent powder categories has been enhanced in rural consumers. Factors such as increasing levels in education, income, communication, transportation and other infrastructure facilities led development in rural consumer awareness and brand usage pattern of FMCGs. Rural consumers are loyal to one brand of toothpaste and hardly shifting to other brands. They use brands which resembles their lifestyles. For example, the natural neem herbs feel of Babool toothpaste and soapnut liquid feel of Meera shampoo attract rural consumers. Rural consumers are diligently observing the price changes of FMCGs. Due to large price variation between village shop and town shop, the rural folk who are carrying their primary produce to nearby town is used to buy FMCGs in town shops. They compromise with price hikes because of quality instinct. Despite higher prices rural consumers use premium brands such as Surf Excel and Rin in detergent category. However, Oorvasi, a Tamil Nadu based regional brand is in progressive track on competition with renowned

multinational brands due to low price and large quantity. High rural penetration of FMCG brands and communication media reach are some of the factors responsible for increased brand awareness of the rural consumers irrespective of their education level. There is a wide scope for further research in this area as the study confined only to Prakasam district of Andhra Pradesh and covered only five select FMCG products.

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A Qualitative Inquiry into the formation of Generational Cohorts: a Case of an Emerging Market

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Abstract
This study use sociological theories of generations to identify generational cohorts for market segmentation. These theories are predominantly used in the West, hence little is known about their relevance in emerging markets, such as Malaysia. Past studies have mostly borrowed cohort labels from that of the U.S. sources, and assumed that their characteristics can be construed in the Malaysian context. Given the exploratory nature of the study, a qualitative approach by means of personal interview was conducted to identify the actual cohorts in Sarawak, a state in Malaysia. Specifically, major societal and historical events that Sarawakians could overtly recall due to their attachment to them during formative years were elicited. Accordingly forty-eight interviews were recorded, transcribed and content-analysed. Five cohorts were identified, and they were different from that of the U.S. sources. They were subsequently labelled as Neoteric-inheritors, Prospective-pursuers, Social-strivers, Idealistic-strugglers and Battling-lifers based on their collective experience of the events. The results show the relevance of theories of generations for market segmentation in emerging market.

Keywords: sociology, marketing, generational cohort, qualitative.

Introduction

The sociological concept concerning generation and its impact on society has long been discussed in various disciplines, especially in the West (Dwyer, 2009; Glenn, 2005). Specifically, generation study has increasingly gained its relevance in marketing due to its profound implication on consumer behaviour (Schewe and Meredith, 2004). Studies have shown positive prospects of generational cohort in developing marketing strategies and in understanding consumers (Moore and Carpenter, 2008; Motta and Schewe, 2008). Generation descriptions such as Leading-edge Boomers, Trailing-edge Boomers, Generations X and Y are time and again associated with marketing opportunities and market segmentation (Noble and Schewe, 2003; Schewe and Noble, 2000). Despite originating from sociology, understanding generation has become an innovative basis for marketers and managers alike to communicate with and serve consumers effectively (Mittal *et al.*, 2008). As generation is a lifelong process, it makes the understanding of their characteristics and the prediction of their future behaviour more credible (Holbrook and Schindler, 1994).

Literature review
Definition of Generational Cohort

Generational cohort is defined as a group of individuals who are born during the same time period and who experience similar societal and historical events during their late adolescent and early adulthood years (Rogler, 2002). As such it goes beyond what age alone can divulge because it explores the life journey of individuals through their coming-of-age years (Motta and Schewe, 2008; Smola and Sutton, 2002). They experience the same external events at about the same point in their human development (Edmunds and Turner, 2005), be it political, economic, social or technological event (Noble and Schewe, 2003). Due to its cataclysmic impact on people, individuals in the same generational cohorts tend to think and act differently from those born in other time spans (Gursoy *et al*., 2008).

Theoretical background

Introduced in sociological theory in the 1950s by Karl Mannheim, sociologists have long used generations to explain its impact on American culture (Eyerman and Turner, 1998). Mannheim's (1952) essay "The Problem of Generations", being one of the earliest works on the subject, pointed out that the youths are susceptible to socio-historical environment (Bengtson *et al.*, 1974). He claimed that those most influenced by external events would have personally experienced them when they came of age, and thus remembered them undyingly. As these events have primacy, they give birth to, and thus define new generational cohorts (Noble and Schewe, 2003).

The theory of intergenerational value change developed by Inglehart (1977, 1997) also maintains that major historical happenings bring about changes on the foundation of existing social orders and value systems of the society, and consequently produce people of the new generations. The theory of historical generations proposed by Rogler (2002) further expands the preceding work and emphasizes that major external events imprint a stronger and more enduring mark on the formative group than on other age-groups who live through the same period. His propositions maintain that generations start with cataclysmic events and reactions to these events which will consolidate into stable orientations if their influences, directed towards to the young adults. The lifelong persistence of these orientations therefore defines historical generations. While birth years may be useful to separate cohorts, formative years explain why one cohort differs from others. These propositions are well supported by generational studies done in the Netherlands (Ester *et al.*, 2000), England, Germany and Japan (Schuman *et al.*, 1998; Scott and Zac, 1993), Brazil (Rubens and Motta, 2005), and the U.S (Holbrook and Schindler, 1994).

Contextual Background

One of the well-known frameworks pertaining to generational cohorts is that of Strauss and Howe (1991). It is widely adopted because the U.S. has long been identified as a benchmark to developing and modernization process (Barnet and Cavanaugh, 1994). They also emphasize that each cohort exhibits distinct attitudes and behaviours which are shaped by the impactful events experienced during their lives. Although different researchers have given dissimilar labels and cut-off points to each

cohort in the U.S., there is a general consensus around them (Dwyer, 2009). A summation of the cohorts is shown in table no. 1.

Table no.1: A Summation of Generational Cohorts in the U.S.

Cohort (Also referred to as)	Birth Years	Defining Events	Brief Description of Characteristics
Veteran (Silent, Traditionalists, Depression Babies)	1925 - 1945	Great depression, Lindbergh, FDR, Second World War	Dedication, hard work, respect for authority
Baby Boomers (Leading-edge and Trailing-edge Boomers)	1946 1965	Civil rights, assassination of JFK, women movement, cold war, Vietnam war	Optimism, personal gratification and growth
Generation X (The Thirteenth, Baby Bust Gen)	1966 - 1979	New feminism, spread of AIDS, the *Challenger* incident, energy crisis	Diversity, informality, techno-literacy, fun
Generation Y (Nexters, Millennials, Baby Boom Echo)	1980 - 2004	School violence, celebrity scandals, terrorist acts (e.g. 911), computer, Internet	Civic duty, social-caused, confidence, optimism, achievement

Source: Dwyer, 2009; Schewe and Meredith, 2004; Zemke, *et al.*, 2000

With the aforementioned in mind, it is posited that the postulation about the segregation and duration of years for defining the generational cohorts in the U.S., being applicable in other settings, such as Malaysia, is unfounded. In fact, past studies have already indicated the limitation of their respective findings when segregating the cohorts in Malaysia based on the U.S. labels and cut-off ages (de Run *et al.,* 2006; Munusamy *et al.* 2010; Ting and de Run, 2012). Inglehart (1997) has long highlighted the deficiency in cross-cultural studies when they use common age-groups or median year of birth as proxies for generation rather than the socio-historical events that more accurately define a country's generational cohorts.

Propositions

Despite being just a state in Malaysia, Sarawak is as large in size and as diverse in its people as Peninsular Malaysia (Department of Statistics, 2011). The state has had a long and different historical background, and is emerging as a lucrative market and investment hub. Hence, the people in Sarawak must have experienced different major societal and historical events from the people in Peninsular Malaysia

and more than that of the people in the U.S. Accordingly, three propositions are formulated in this study. The first proposition is developed as follows:

Proposition I: The people in Sarawak will recall different major societal and historical events from the people in the U.S.

Secondly, since major societal and historical events can happen at any time, and have happened throughout the years in the past, people with different age should have experienced, and thus be able to recall different events that are deemed impactful to them. Hence, the second proposition is as follows:

Proposition II: Each age-group in Sarawak will recall particular and different major societal and historical events that are deemed impactful to them.

Thirdly, individuals having collective memories and experiences of the major societal and historical events are likely to have experienced them primarily during their late adolescent and early adulthood years. Due to the impact of the events, they should be able to explain vividly how they are affected by the events in a subjective manner. This exemplifies the identifying of generational cohorts. Hence the third proposition is as follows:

Proposition III: The collective memories and experiences of the major societal and historical events in Sarawak will show that these events were predominantly taking place during the late adolescent and early adulthood years, hence defining each generational cohort.

Methodology
Research design

A qualitative approach was adopted in this study to explore and understand complex psychological and social issues embedded in generations of people (Marshall, 1996). The goal is to obtain insights into particular social processes and practices that exist and develop within a specific location and context (Connoll, 1998). The concept of saturation or information-richness is therefore emphasized (Strauss & Corbin, 1990; 1998).

Population and Sample

Given the exploratory nature in the study, the research site of the study is delimited to a state in Sarawak. Hence, Sarawakians, who are born and spend most of their years in the state, constitute the population

of the study. Gender, race and area of residence were also taken into consideration to ensure the study reflects the demographic characteristics of the state.

There are no clear guides as to how many cases or respondents should be included in qualitative studies (Perry, 1998). Therefore past studies were used as a guide to secure replication of information (Charmaz, 2006). It has been claimed that two to a maximum of fifteen cases are suggested for qualitative studies (Miles & Huberman, 1994). Moreover, qualitative samples often lie under fifty (Ritchie *et al*., 2003)

Purposive sampling strategy was used to select people purposefully from every age-group (Onwuegbuzie & Leech, 2007). Age was used as a proxy variable to develop cases. Earlier literature has shown that people become susceptible to major events as early as 14 or 15, and formative years tend to take place in late adolescence and end at the age of 24 to 27 (Holbrook & Schindler, 1994; Noble & Schewe, 2003). Subsequently six cases were developed: 15-24 years old, 25-34, 35-44, 45-54, 55-64, and 65 and above. When taking race and areas of residence in Sarawak into account, a minimum of five respondents were required for each case; hence, thirty respondents were predetermined.

Research Instrument

Since the study is about real people in natural settings (Marshall, 1996), personal interview was chosen as the most preferred and effective methods to collect primary data (Kendall, 2008). An interview protocol was designed, and funnel approach was adopted (Churchill & Iacobucci, 2005). Hence, respondents were firstly asked about the major events that they could remember in the last 80 years in an open-ended manner. Auxiliary words such as political, economic and technological aspects to the events were used in probing questions (Noble & Schewe, 2003). Then they were asked to clarify when these events happened and why they were impactful to them.

In addition to the researchers, four interviewers were recruited and trained with interviewing techniques. A pre-test was carried out to check whether the questions were clear enough for respondents to respond. Therefore, interviewers were asked to perform a trial interview each. They were also asked to report the interviewing process to the researchers. As a result, revisions were made until agreement from both the researchers and interviewers came to fruition.

Data Collection

Fifty-three interviews were subsequently conducted throughout Sarawak in December 2012 and January 2013. However, five of them were discarded due to response error. The additional interviews are useful in ensuring information-richness or replication. Although the using of audio recorder is rarely advisable during interviews in Asia (Dick, 1990), it was necessary in this study for checking and analytical purposes. Anonymity, confidentiality, and the purpose of the interview were explained upfront to reduce issues related to method variance.

Data Analysis

Content analysis was used due to its usefulness in analyzing interview data (Kassarjian, 1977). It is widely used to evaluate various communication forms on human behaviour (Yale & Gilly, 1988). It includes frequency counts (Wilkinson, 2000), and allows for qualitative analyses of initially qualitative data (Ryan & Bernard, 2000). It gives room to check whether the content captures something important in relation to the research aim (Clarke & Kitzinger, 2004).

All recorded interviews were transcribed verbatim, and the transcriptions were checked to match against the audio records (Kurasaki, 2000). The analysis began with the annotation of events by the researchers. Disagreements in annotation of texts were resolved by discussing key terms and jointly reviewing the transcripts until a consensus was reached (Kolbe & Burnett, 1991). Once this was done, another two trained coders were asked to analyze all transcripts independently (Hruschka*, et al.*, 2004). Annotation lists between the researchers and the coders were then compared so that they could be coded into distinctive and concise themes. The researchers analyzed all the transcripts again based on the coded themes to provide reliability check (Yale & Gilly, 1988). The themes of responses then allowed the events and their respective years of occurrence to be structured by age in a way that pointed out the cut-off age between cohorts. They were also used to show whether the events fit the model of adolescence and early adulthood as the primary source of memories.

Findings
Objectivity and Reliability

Objectivity and reliability are fundamental components of content analysis to secure quality of the coding process of complex and

open-ended data (Hagelin, 1999). Aside stringent data collection and analysis procedures, inter-coder reliability was used to gauge coders' marking behaviour on nominal data (Bernard, 1995; Kurasaki, 2000). Joint probability of agreement instead of Cohen's kappa coefficient was used because verifying whether coders were agreeing more often than those who were merely guessing is a minor concern in this study (Uebersax, 1987). As a result, the reported overall agreement was about 85 percent, which satisfied the recommended reliability threshold of 80 percent (Cicchetti, 1994; Hruschka *et al.*, 2004). Notwithstanding minor discrepancies, corresponding modifications of the themes were finalized by the team collectively.

Respondent profile

Table 2 depicts a summation of demographic information of forty-eight respondents. Age was used as proxy variable to establish groups to ensure Sarawakians of different ages were adequately sampled for analysis. Racial groups were also taken into account because Sarawak is a multi-racial state, where the Iban, Chinese and Malay make up about eighty percent of the total population.

Table 2: Respondent Demographic Information

Factors	Items	Frequency	Percent
Age-groups	From 15 to 24	10	20.8
	From 25 to 34	9	18.7
	From 35 to 44	9	18.7
	From 45 to 54	7	14.6
	From 55 to 64	7	14.6
	From 65 to above	7	14.6
Race	Iban	15	31.2
	Chinese	14	29.2
	Malay	12	25.0
	Others	7	14.6
Gender	Male	24	50.0
	Female	24	50.0
Present Residence	Kuching city	15	31.2
	Miri city	8	16.7
	Bintulu	6	12.5
	Sibu	6	12.5
	Others	13	27.1

Findings using Content Analysis

Sixty-two major events were elicited and coded from the transcripts by means of content analysis and inter-coder agreement. Frequency count is first used to postulate collective memories about events (Schuman & Scott, 1989). Then reasons given to each major event are looked into to gain insights about the attachment of the respondents to the events. Moreover, given the distribution of age, it becomes apparent that memories of particular impactful events, such as Japanese occupation, communist movement, economic crisis in late 90s and the advent of internet vary with age collectively. This allows researchers to check if the major events which the respondents are personally attached to mainly happened during late adolescent and early adulthood years. Such analysis will then be used to determine the number of generational cohorts and their respective cut-off age.

As a result, five generational cohorts are identified. The first cohort, consisting of those who are aged 20 and below, is labelled as 'Neoteric-inheritors' because they are young and tend to accept whatever there is around them without subjective experience. Besides they are still in their formative years. They seem to know about them without evident impression and conviction. When asked about the events that have impacted her, a young Malay girl responded with a few events disjointedly, and even mistakenly:

> *"(On the earthquake and tsunami in Aceh) I remember… the event of tsunami, in year 2007… eh… 2006, near Aceh… 2006 if I am not mistaken… Many died, very sad"*
> *"(On 911) I just read the newspaper yesterday… in America right? The building was knocked down by helicopters… three thousand died."* (Interviewee 04, Malay, age 16 years, from Miri)

The second cohort, consisting of those who are in their 20s and early 30s, is labelled as 'Prospective-pursuers' because they have experienced the rapid advancement in technology and the recovery from economic crisis. Concurrently they realize the frailty of mankind when natural disasters and deadly diseases strike, thus hoping for the best for themselves, and what lies ahead. Their interest in political matters expresses the belief in securing promising future. Some of the responses are stated as follows:

> *"(On the earthquakes and tsunamis in Aceh and Japan) Although everyone says Malaysia is a safe place, there is no*

tsunami, earthquake and volcano… though the earthquake happened in Indonesia, the tsunami might still reach Malaysia." (Interviewee 11, Chinese, age 23 years, from Kuching)

"(On the change of Prime Ministers in Malaysia and the inauguration of President Obama Barack in the U.S.) In terms of management we are much more systematic now… the changes of Prime Ministers… with different approaches to manage our country… like President Obama, you know…" (Interviewee 39, Indian, age 27 years, from Miri).

The third cohort, consisting of those who are in their late 30s and 40s, is labelled as 'Social-strivers' since they care mostly about economic stability and social welfare. Understandably, peace and security were brought in after the final capitulation of communists, and various developments began to take place since then. All these enhanced their living drastically. Many seem to be content with their lives until late 90s when economic breakdown and political unrest caught them by surprise. Two respondents said the following statements:

"(On economic crisis in 1997/98) Our country was hit by… I mean… economic downturn… so unfortunately also that was the year I graduated from my university."

"(On Anwar's sacking and lawsuit) I think in 1998 we had the worst political crisis in Malaysia because Anwar Ibrahim was sacked as the deputy Prime Minister… Of course it affects our lives because… normally our political situation is very stable, but suddenly because of this one we see people become willing to protest…" (Interviewee 13, Iban, age 37 years, from Seratok).

The fourth cohort, consisting of those who are in their 50s and 60s, is labelled as 'Idealistic-strugglers' as they lived in fear and doubt during the time of communism, andduring British colonization and the formation of Malaysia. Despite having umpteen uncertainties, opinions and beliefs were generated during those times as to what were the actual situations and what could and should have been done. A Chinese and a Malay respondents recalled that:

"(On communism) I still remember when we were young, all the villages along the road to Serian were fenced up in the curfew time… sometimes when we travelled in a bus, there could be gunfire in front and then we had to stop because the guerillas were attacking… but after the surrender there was no more

gunfire, everything was at peace." (Interviewee 08, Chinese, age 53 years, from Kuching)

"(On Sarawak joining Malaya)... I think if Sarawak did not join Malaya, life could be a bit better. Because Sarawak has lots of jungles, vast lands... oil also. Now Sarawak has joined Malaya... a lot of riches go to the peninsular. Here we don't have, a little only..." (Interviewee 28, Malay, age 69 years, from Bintangor).

The fifth cohort, consisting of those who are in their 70s and beyond, is labelled as 'Battling-lifers' due to the fact that they had to find ways to survive during Japanese occupation. They also lived through the times of British colonization, communism and the formation of Malaysia. They believed in hard work, and were protective of their family. The followings are what two veterans had to say:

"(On Japanese occupation) During that time... Japanese came... Japanese planes and soldiers... we ate cassava only... all shops were ruined... I could not forget because my elder brother was taken away and there was no news of him ever since..." (Interviewee 26, Malay, age 82 years, from Bintangor).

"(On British colonization) ...Rajah Brooke managed to defeat the rebels... that's why I am grateful to the European and to the British because they brought peace to the country, and also education..." (Interviewee 31, Iban, age 78 years, from Siburan).

Discussions and implications
Sarawakians Recalls Different Major Events

The findings for Proposition 1 confirm that major societal and historical events recalled by Sarawakians are indeed different from that of the U.S. It is simply because the cohorts in the U.S. do not have similar social and historical backgrounds. For example, Sarawakians in their 60s did not mention Cold War or the assassination of President JFK, nor did anyone in their 30s touch on new feminism movement. Similarly, the Baby Boomers in the U.S. certainly did not experience the formation of Malaysia, nor did Gen X and Y suffer from haze and SARS. Suffice to say that cohort labels and generation descriptions in the U.S. cohorts, despite being widely adopted, cannot be generalized to that of an emerging market like Sarawak. Notwithstanding the pervasive impact of some global events, it is evident that cohorts mainly reflect

the values emphasized during a country's particular historical period (Egri and Ralston, 2004). Hence the first proposition holds true, and is thus supported.

Different Age-groups Recalls Different Major Events

The findings for Proposition 2 also show that the major events recalled by different age-groups are generally different. For instance, out of 14 respondents who mentioned the tsunami in Aceh in 2004, about half of them are between 15-24 years old. Many of them also recalled events related to other natural disasters and outbreak of diseases. They also seemed to be concerned with elections in recent years. Moreover, six out of nine respondents aged 25 to 34 recalled the incidents of tsunamis either in Aceh or Japan. Five respondents spoke about haze in 1997 and 1998, and the same amount of respondents talked about the impact of the advancement in digital technology. Interestingly, only this group mentioned about the change of Prime Ministers in Malaysia in the last decade and the impact of the global economic crisis in 2008. Six of them considered the economic crisis in the late 90s impactful as well.

As far as the 35-to-44 age-group is concerned, most respondents regarded the economic crisis in the late 90s as something very impactful. Apparently this group is more concerned with societal well-being because a good number of them explained about impact of the outbreak of various diseases, flood, haze, and the improving of living standard after the time of communism with personal experiences. As for the older age-group in respondents who are 45 to 54 years old, they began to tell fragmented matters pertaining to communism. They also explained how the economic crisis in late 90s, and the improvement of living standard had impacted them.

With the age-group of 55 to 64, it is of no surprise that six out of seven respondents gave a good account on communist movement and curfew in Sarawak collectively. The older ones in this group also mentioned instances about the forming of Malaysia in 1963. Finally, the 65-and-above age-group talked mostly about British colonization, the good or the bad about the formation of Malaysia, and communism in Sarawak. Only those who are over seventy years old talked about Japanese occupation.

Even though individuals from different age-groups mentioned a few similar events, it is still apparent that a good number of events are

mainly and exclusively spoken by certain cohorts. This is further articulated when individuals were able to cite personal attachment as reasons why these events were influential to them. Therefore it is posited that the second proposition is also supported.

Attachment to Events during Formative Years Defines Generational Cohorts

The mentioning of similar major events or overlapping situations between two successive groups in fact suggests the initial cut-off ages to develop cases do not truly represent the actual cohorts. As discussed earlier, five generational cohorts, instead of six age-groups, were identified, and they are labelled as Neoteric-inheritors, Prospective-pursuers, Social-strivers, Idealistic-strugglers and Battling-lifers based on their respective engagement with the events during formative years. Younger groups do not seem to remember or cannot give a strong account about communism and Japanese occupation although they have read or heard about them. The older generations, in turn, do not regard the advent of computer and Internet as impactful in their memories though it is one of the greatest recent phenomena. This validates past studies on the formation of generational cohort, particularly the propositions made by Rogler (2002) about young adults being at the cusp of their early formative years and thus more prone to the impinging external events. As such the third proposition is also supported.

Management Implications

In addition to affirming the relevance of the sociological theories of generations in the context of Sarawak from the theoretical point of view, the findings and discussions also highlight two noteworthy managerial implications. Firstly, as the labels and descriptions of cohorts in the U.S. cannot be applied in Sarawak directly, and the identification of cohorts in the state cannot and must not be based on age-ranges suggested in western sources. This highlights the need for marketers and managers alike to reassess segmentation strategies and the understanding of consumers. As internal marketing is pivotal to organizational success, how employees of different ages are organized, managed and trained needs to be looked into again. Secondly, since Sarawak is made up by different generational cohorts, it gives business practitioners a whole new platform to review their strategies in order to exploit new opportunities in the market. Business tactics which did not

work in the past and new prospective approach can be reviewed with reference to generational cohorts in order to secure effective implementation and desired performance.

Conclusion

Even though the study has achieved its objectives, it is not without limitations. Firstly, instead of Malaysia, only the state of Sarawak was selected as the research site of the study. Therefore the scope is delimited to a region. Secondly, since this study is more exploratory in nature, interview rather than quantitative survey was executed. Despite addressing issues related to subjectivity, an empirical quantitative study is still needed to generalize the findings. Finally, content analysis was done manually instead of using computer-aided qualitative software. The two main reasons are that the study does not involve complicated topics, and the available software does not assist in interpretation of findings. Having said that, it is believed the findings generated by the software will be more organized and thus helpful in interpretation.

Hence, the study underscores the need to conduct quantitative survey in the future, and illustrates the prospects to further investigate the characteristics of each cohort, and their use as a segmentation approach in Sarawak. As the findings have suggested possible cross-over effects between cohorts, intergenerational relationships are something that can be delved into (Brannen, 2006). The study can also be extended to the national setting to determine the generational cohorts of Malaysia and serve as a basis to conduct similar studies in neighbouring countries and other emerging markets using the theories of generations. This would then provide a more holistic view of the subject matter, and enhance the understanding of consumers in developing countries. A deeper insight into the economic beings represented by these cohorts will also be determined.

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Customers Perception of Service Quality in the Nigerian Telecommunication Sector

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Abstract
This study examines the customers' perception of service quality in the Nigerian telecommunication sector. Data for the study was generated through questionnaire administered on a random sample of 250 undergraduate students spread across two public owned state Universities in Ogun State, South-West, Nigeria. The data was subjected to descriptive statistics. One Sample Test statistic was employed in testing hypothesis. The results of the study revealed that there was a positive and significant relationship between service quality and both, customer satisfaction and customer loyalty, and also service quality is considered as a major factor in choosing telecommunication service provider in Nigeria. Further, the study revealed that the quality of service customers received from their service providers in terms of prompt service delivery, reliability, improved service, availability of effective and efficient customer care to assist customers help in assessing their rate of satisfaction.
Keywords: Service Quality, Customers Satisfaction, Customers loyalty, Service delivery

Introduction

Communication is an important element in human life and also forms an integral part of the human society. It has been found to be one of the most important elements for the efficient growth of an economy. The electronic transfer mode which includes broadcasting and telecommunication plays an important role in information communication. With telecommunication, some of the physical constraints can be removed in all sector of the economy; this will allow increased productivity through better management and administration. In a system, the function of telecommunication is likened to that of a nervous system in a living organism, without rapid and reliable exchange of information between all parts, effective control and coordination of such system will not be possible. Therefore, optimum use could not be made of the available resources for the development of the system. The operations of the licensed telecommunication service providers in the country has created some macro-economic effects in terms of job creation, faster delivery services, reduced transportation cost, greater security and higher national output.

Telecommunication investments guarantee development which is both, geographically and culturally balanced. Telecommunication service provides a platform for economic growth by bringing buyers and sellers together; an indispensable function in a thriving market. It also facilitates the flow of information which is essential in making a market work, acts as a feedback cycle between the suppliers and their customers and more importantly, promotes trade in services upon which modern economies are built (Jean, 1993). It empowers firms to reach more customers with fewer resources and manpower.

Current competitive environment induced by globalization and advances in information technology have forced companies to focus on managing customers relationship and in particular customer satisfaction and customers loyalty, in order to efficiently maximize revenue. Thus, in this age of customer's focus, delivering quality service is considered as an essential strategy for success and survival in today competitive environment. However, no business organization can survive without building its customer satisfaction and brand loyalty. Likewise no organization can make a healthy living without meeting the needs of its customers. That is what organizations do, they serve people's needs. Service quality, therefore, helps in cementing the relationship between customers and the organization and it is a two-way flow of value. This

means that customer derives real value from the relationship which translates into value for the organization in the form of enhanced profitability and sustainability over a long period of time (Olu, 2010).

The competitive structure of the Nigeria telecommunication industry is consolidated, thus competition is intense among the few actors. This has resulted in the necessity to assess customer's perception of the service quality of service providers in the sector. According to Olu (2010), there is dearth of empirical literatures relevant to the field in under-developed and developing countries, including Nigeria. Therefore this study attempts to provide more empirical evidence in the field by evaluating customer's perception of service quality in the Nigerian telecommunication sector.

Materials and Methods

This study was undertaken among two state owned public Universities Students in Ogun state, South-West, Nigeria. The study adopted a survey design as it assists in collecting data from members of a population in order to determine their current status in that population with respects to one or more variables. The sampling frame consists of the student customers of the four major Nigerian telecommunication service providers (MTN, AIRTEL, GLO and ETISALAT) in the main campuses of the Universities. This is so because the students of the institutions majorly constitute the inhabitant of the local areas who use the services of the telecommunication providers. A probability sampling technique, simple random sampling was employed to ensure that every member of the population has an equal chance of being part of the sample. The respondents were administered a well-designed questionnaire to elicit information from them. 300 copies were administered. However, only 250 respondents filled the questionnaire adequately and were used for our data analysis. It consists of two sections: bio data and research questions. The questionnaire has three variables namely: service quality (independent), customer satisfaction and customer loyalty (dependent variables) and used a five scales thus: strongly agree, agree, undecided, disagree and strongly disagree, and with 5 point allocated to strongly agree and 1 point to strongly disagree. Furthermore, data obtained was analyzed using descriptive statistics while One-Sample Test statistic analysis was also adopted under the inferential statistics. This was used in testing the research hypotheses.

Literature Review

Quality is one of the most important watchwords when managing for high performance and competitive advantage; it has become the theme of the day. Customers want quality whether they are buying consumer goods or receiving a service. Crosby (1979) defines quality as conformance to specification where the specification has been developed from the expressed needs of the consumers. One of the major ways a service firm can differentiate it is by delivering consistently higher quality service than its competitors (Kotler and Armstrong, 2006).

A service is a process that leads to an outcome during partly simultaneous and consumption processes (Gronroos, 2001). A service firm's ability to hang onto his customers depends on how consistently it delivers value to them. Perhaps, customer retention is the best measure of quality (Thomas and Page, 2002). Top service companies set high quality standards. They understand the service-profit chain which links service firm profit with employee and customer satisfaction.

Parasuraman, Zeithmal and Berry (1988) define service quality as the results from the comparison of customer's expectation with perceived performance of services. Service quality can also be described as a rationale of differences between expectations and competence along the important quality dimension. It is commonly noted as a critical pre requisite and determinant of competitiveness for establishing and sustaining satisfying relationship with customers. However, service quality is harder to define than product quality; for example, it is harder to agree on the quality of hair cut than on the quality of hair dryer. Service quality is different from the quality of goods. Since services are intangible, perishable produced and consumed simultaneously and heterogeneously (Zeithaml and Bitner, 2000).

Conversely, Johnson and Sirikit (2002) state that service delivery systems have the ability to allow managers of company to identify the real customer feedback and satisfaction on their telecommunication service since quality reflects the customer's expectations about a product or service. So, it sounds as a major problem for the telecommunication service providers, especially for the mobile telecommunication service providers to deliver quality service consistently as changes in market compositions and competing characteristics have been surfacing incessantly (Rahman, Haqueismail and Ahmad, 2010).

Customer's expectation of a particular service is determined by factors such as recommendations, personal needs and past experiences. The expected service and the perceived service might not be equal thus leaving a gap; the difference, imbalance or disparity which exists between customer's perception of firms' performance and their prior expectation. Management of service quality largely focuses on managing the gaps between expectations and perceptions of customer's (Zeithmal *et. al.*, 2003). The goal of the firm is to minimize the gap between perception and expectation.

According to Parasuraman *et al.*, (1985), the appearances of a gap can be influenced by ten factors. They include: competence, courtesy, credibility, security, accessibility, communication, knowing the customers, tangibles, reliability and responsiveness. These ten factors were later reduced to five thus: reliability, responsiveness, assurance, empathy and tangibles. Based on these five factors, the 22-item SERVQUAL item was developed. According to Juran (1989) measurement of quality in a service organization was classified along two dimensions: internal and external. Internal measurement is to measure the internal process, while external measurement is to measure the quality of products or services based on customer satisfaction. The main yardstick of performance in quality for service organizations is external customer satisfaction.

Among various measures of service quality, two are most widely accepted and used by researchers, the SERVQUAL model by Parasuraman *et al.,* (1988) and the Technical and Functional Quality framework by Gronroos (1984, 1990). Parasuraman *et al.,* (1985) proposed a conceptual framework of service quality based on the interpretation of qualitative data from extensive explanatory research performed in four service businesses. The SERVQUAL instrument has been used widely all over the world although it is not without criticisms.

Generally, there are two general conceptualizations of satisfaction, namely, transaction-specific satisfaction and cumulative satisfaction (Yi and La, 2004). Transaction-specific satisfaction is a customer's evaluation of his or her experience and reactions to a particular service encounter (Boshoff and Gray, 2004), and cumulative satisfaction refers to the customer's overall evaluation of the consumption experience to date (Johnson, Anderson and Fornell, 1995). Service providers pay high attention to customer satisfaction, because it has been seen as a prerequisite to customer retention. As a positive

outcome of marketing activities, high customer satisfaction leads to repeat visitation to stores, repeat product purchases and word-of-mouth promotion to friends, while low customer satisfaction has been associated with complaining behavior. A satisfied customer often stays loyal longer and is likely to patronize the firm in the future (Kotler and Armstrong, 2006).

Product and service quality, customer satisfaction and company profitability are intimately connected. Higher levels of quality result in higher levels of customer satisfaction which support higher prices and lower costs. Greising (1994) states that the bottom-line orientation forces companies to make sure that the quality of the product offering is in fact the quality consumers actually want. Consequently, Rust and Oliver (1994) pointed out that companies need to measure consumers satisfaction with their products and services.

Previous researches have noted significant importance of customer satisfaction, although in different ways. The degree of consumer satisfaction will depend on the quality of brand characteristics that are offered by a company (Gerport, Rams and Schindler, 2001). To retain consumers, however, it is important to satisfy them. The unsatisfied consumers of a company do not take time to switch from such brand and also 'demarket' the concerned brand or company. Highly satisfied customer's make repeat purchases and tell others about their good experiences with the services or product. Low quality services can also lead to dissatisfaction (Olu, 2010). A low quality service is such type of service which does not fulfill the requirements and consumers expectations.

There are overwhelming arguments that it is more expensive to win new customers than to keep existing ones. For example, customer replacement costs, like advertising, promotion and sales expenses are high and it takes time for new customers to become profitable. Thus, outstanding firms aim at delighting customers by promising only what they can deliver, then delivering more than they promise (Olu, 2010).

Customer loyalty has received much attention from both practitioners and researchers. It is recognized as a primary instrument for enhancing firms' financial performance in today competitive markets (Muhammad, 2012). Customer's loyalty is as a result of an organization creating a benefit for customers so that they will maintain an increasing repetitive business with the organization (Anderson and Jacobsen, 2000).

According to Oliver (1999), customer loyalty is a deeply held commitment to re-buy, or re-patronizes a preferred product or services consistently in the future, despite situational influences and marketing effort having the potential to cause switching behavior. Loyalty is used to describe the willingness of a customer to continue patronizing a firm goods and services over a long period of time and on a repeated and preferably exclusive basis and voluntarily recommending the firms product to firms and associates (Lovelock, 1996).

Based on theoretical knowledge, positive relationship between service quality, customer satisfaction and customer loyalty are well documented in the literature. Service quality results in repeated sales and increased market share, which leads to customer loyalty. However, good service recovery can turn angry customers into loyal ones. In fact good recovery can win customer purchase and loyalty than if things had gone well in the first place. Therefore companies should take steps not only to provide quality service every time but also to recover early from service mistakes when they occur (Kotler and Armstrong, 2006).

Customer loyalty in telecommunication is concerned with the length of time and the frequency with which customers stay and remain with service providers. The longer the time a customer remain on and the more frequently he patronizes a service provider, the more such customer became loyal. It is therefore the desires of all telecommunication service providers in Nigeria to retain large numbers of their customers. The current saturated level of Nigeria telecommunication service growth and intense competition in the industry has left the various service providers with no option other than seeking to maintain the existing customers and lock them into loyalty (Adepoju and Suraju, 2012).

Empirical Review

Researchers have investigated the perceptions of customers of telecommunication service with regards to quality. These studies provide insight to the quality dimension that service providers need to consider in order to remain competitive in the industry. Adepoju and Suraju (2012) studied the determinants of customer loyalty in Nigeria GSM market. Using a sample of 252 respondents drawn from customers of the four major GSM companies in Nigeria and who reside in Lagos State, the findings reveals that a good corporate image of GSM

operators driven by promotion, service quality and price can make customers to become loyal.

In the study of Olatokun and Nwonne (2012) who examined mobile service providers in the Nigerian based on the survey of 367 users, the empirical evidence shows that call rate remains the most significant of the factors, while brand image is the least preferred factor in user's perception when selecting a service provider. In Malaysia, Siew-Phaik *et al.,* (2010) studied service quality and customer satisfaction among telecommunication service providers. A sample of 200 respondents was used comprising Malaysians, Indians and Chinese. They examine the differences in the five service quality dimension using the SERVQUAL model and also examined the impact of the five service quality dimensions on customer perception of services delivered. The result of the study confirmed a significant positive relationship between service quality and customer satisfaction except in the area of tangibility or physical aspects. Prompt and reliable services are vital to attract, serve and retain customers.

Given the literature reviewed, we therefore hypothesize:
H1: service quality has a significant and positive relationship with customer satisfaction.
H2: service quality has a significant and positive relationship with customer loyalty.
H3: service quality is a significant factor in choosing telecommunication service provider.

Results and Discussion

The demographic analysis of respondents revealed that 58.4% of the respondents are females, while 41.6% are male. Majority of the respondents are of age 15- 30 years while only 4.8% are above 30 years. The respondents use of service providers analysis revealed that 47.6% use MTN, 22% use AIRTEL, 20.4% use GLO and the remaining 10% use ETISALAT. About 47% of the respondents use only one network, 37.6 uses two networks, while the remaining 14.8% uses above two networks. In terms of years on the networks, 58.4% have spent 1-4 years with their service providers, 34% have spent about 5-8 years while 7.2% have spent above 8 years with their service providers. Furthermore, it revealed that majority of the respondents are aware of MNP, but are not willing to port.

Testing of Hypotheses
Decision Rule

We accept the null hypothesis if the p-value and t-value is greater (>) than 0.05 and 0.01 respectively, and reject the alternate hypothesis. We reject the null hypothesis if the p-value and t-value is less than (<) 0.05 and 0.01 respectively and accept the alternate hypothesis.

Hypothesis 1: *Service quality has a significant and positive relationship with customer satisfaction.*

Table no. 1: One Sample Test

Statement	Test Value = 95					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
I am highly satisfied with the quality of services provided by my service provider.	-965.410	249	.000	-91.552	-91.739	-91.365

The one sample t-test shows a p-value of 0.00 and a t value less than 0.01 (table 1). Therefore, the research hypothesis could be retained. It is therefore concluded that service quality has a significant and positive relationship with customer satisfaction. The finding agrees with the conclusions of Siew-Phaik *et al.,* (2010) who surveyed different nationals in their study and concluded quality of service is a condition for consumer satisfaction.

Hypothesis 2: *Service quality has a significant and positive relationship with customer's loyalty*

Table no. 2: One Sample Test

Statement	Test Value = 95					
					95% Confidence Interval of the Difference	
	t	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
The quality of service I received from my service provider makes me loyal.	-993.064	249	.000	-91.452	-91.633	-91.271

Table no. 2 shows the result of one sample test for hypothesis 2 revealing a p value of 0.00 and a t value less than 0.01. Consequent to this, the hypothesis is retained. It is therefore affirmed that service quality has a significant and positive relationship with customer loyalty. This follows and in tandem with the first hypothesis. Thus, when consumers experience satisfaction given the quality of service they receive overtime, they tend to develop loyalty to the service provider and her products and unconsciously promote the brand by not only making repeated purchase but also recommending the products to associates. This finding seem to agree with the conclusion of Adepoju and Suraju (2012) that service quality and price can make customers to become loyal in the telecommunication sector.

Hypothesis 3: *service quality is a significant factor in choosing telecommunication service providers*

Table no. 3: One Sample test

Statement	Test Value = 95					
					95% Confidence Interval of the Difference	
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
The major factor I put into consideration before choosing my choice of service provider is the quality of service rendered.	-1088.995	249	.000	-91.056	-91.221	-90.891

The one sample test shows a p value of 0.00 and a t value less than 0.01 as shown in table no. 3. As a result of this, the hypothesis is accepted. It is therefore concluded that service quality constitute a significant factor in choosing telecommunication service providers. This seems to confirm the conclusion of Adepoju and Suraju (2012).

Conclusion and Recommendation

Telecommunication industry in Nigeria is the fastest growing sector, especially the mobile market. This development has become a catalyst for the growth of the nation's commercial and industrial sectors. Organizations ability to deliver quality service is seen as a fundamental strategy for survival and success in the competitive industry. In the provision of improved service quality, telecommunication companies should necessarily assess the degree of customer's sensitivity and expectations in relations to service quality. Customers experience based on interaction with service providers, and the manners in which services are provided, facilitates or hinders profitability and survival of the organizations. The outcome of this study has shown that customers put at first, the quality of service they receive from their service providers in assessing their rate of satisfaction, loyalty and choosing their service providers. Delivering prompt reliable and improved service will increase customer's commitment to services since customers constitute the bedrock of a business.

This study further made useful recommendation. Organizations should design programs to measure service quality and customer perception on a regular basis in order to evaluate performance. This is in respect to how organization's performance fall short of, match or exceeds customer satisfaction, ability to influence customers intention to re-patronize and determine the major factor considered in choosing service providers as the dimensions may keep changing. As this will assists in ensuring cordial relationship between customers and telecommunication service providers in order for organizations to achieve their objective at its peak level.

Also future studies should capture other factors that are capable of influencing customer's perception in the Nigerian Telecommunication industry.

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Impact of ISO 9001 Certification on Firm Performance: Case Study of Beni Saf Cement Company

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Abstract

ISO 9001 certification is new to Algerian industry, but it has been adopted with great speed in recent years. Using a case approach, this study investigates the effect of ISO 9001 certification of Beni Saf company performance, as perceived by the management. Results indicated that the ISO 9001 certification has a positive impact on Beni Saf Company's performance. The marketing advantages were the principal benefits and the benefits related to the human resources occupied the lowest position in the company.

Keywords: ISO 9001 certification, performance, cement, Algeria

Introduction

The quest of quality is probably more widespread and intense globally than at any time in history. Organizations have realized that the key to increased productivity and profitability is improving quality. (Kartha, C. P., 2004). It is now generally accepted that ISO 9000 has become the most prevalent global quality initiative (Tsiotras and

Gotzamani, 1996). In 1987, ISO published the first of the ISO 9000 standards. These standards were revised in 1994. In 2000, a wide range of modifications was introduced and last modification was in 2008. ISO 9001 specifies the requirements for quality management system, by which an organization may be certified by a third party. Algerian organizations have gone for ISO 9000 certification in a big way since the beginning of 2000. The number of companies in Algeria which have been certified to ISO 9000 is relatively low, compared with the developed countries.

Despite the number research on ISO 9000 and performance in developed countries, little information exists on ISO 9000 experiences in the developing countries, especially Algeria. There is a great need for research providing information about the effect of ISO 9001 certification on performance in these countries. Using a case approach, this study investigates the effect of ISO 9001 certification on Beni Saf company performance, as perceived by the management.

Following a literature review, this paper has a description of the methodology employed in the study and this is followed by the results.

Literature review

Literature reveals that ISO 9000 certification has resulted in both, positive and negative impacts on companies' performance (in the sense of certification leads or not to better performance). Rayner and Porter (1991) investigation of ISO standards impact on 20 SMEs found that 70 per cent of the companies considered marketing advantages as the principal benefits: customer acquisition, customer retention, entry into new markets. Street and Fernie (1992) collected data from 52 certificated Scottish manufacturers. One-third claimed to have experienced a growth in the customer base, while one-quarter experienced increased sales. Tsiotras and Gotzamani (1996) conducted survey in Greece. The benefits can be separated into "internal "and "external ". As internal benefits were identified:

- Modernization of internal organization and process of the company.
- Better documentation.
- Greater employee quality awareness.
- Enhanced internal communication.
- Systematic approach to personnel training.

To the external advantages belong:
- Competitive advantage.
- Improved customer satisfaction and attraction of new customers.
- Increase of the company's reputation.

Vloeberghs and Bellens (1996) collected data from 689 Belgian certified companies. Most of the benefits experienced by these firms were internal, while the greatest benefit is that the formal quality management system leads to greater customer trust. Buttle's (1996) survey of 1220 certified UK companies found that improving operations as well as marketing gains were claimed by most of the firms following ISO 9000 certification. McAdam and Mckeown (1999) reported that in Northern Ireland ISO 9000 certification resulted in benefits for small firms, the specific benefits were:
- better control of the business.
- reduced costs.
- increased sales.
- increased productivity .
- fewer customer complaints.

Tan and Lim-Teck Sia (2001) investigated the benefits of ISO 9000 among 100 Malaysian firms. The study found a number of benefits:
- improved communication.
- improved product quality .
- increased process efficiency .
- improved human resource management.
- reduction in production costs.
- increased market share.
- improved export potential .

Terzioski *et al* (1995) collected data from 1,000 firms in Australia and New Zealand, and found that ISO 9000 certification had no significant positive relationship with business performance. Sun (1999) found that the ISO 9000 certification had little influence on market position and competitiveness, and no impact on employee satisfaction and environment protection. Seddon's (1997) case study research in the UK suggests that if ISO 9000 has any impact on performance, then it is negative.

In this study, we have measured the performance of organizations by 14 different performance outcomes. These indicators are based on the work of (Mann and Kehoe, 1994; Carlsson and

Carlsson, 1996; Tsiotras and Gotzamani, 1996; Buttle, 1997; Jones et al., 1997; Bozena *et al*., 2002; Heras *et al.*, 2002; Santos and Escanscio, 200). A study of these resources has resulted in the following 14 performance indicators for this research:
- modernization of internal organization and process of the company.
- decreasing nonconformities.
- better relations management/employees.
- increased productivity.
- improvement of products/services.
- enhanced internal communication.
- improvement of the company image in the market .
- increasing sales.
- market share increase.
- greater competitive advantage.
- improved customer satisfaction.
- reduction in the complaints.
- improved profitability.
- improved employee training.

Methodology

The objective of this study was to investigate the effect of ISO 9001 certification on Beni Saf Cement Company. Various companies were approached for inclusion as a case study. It was decided to choose Beni Saf Cement Company for several reasons. First, the company is one of the most important firms in Algeria. Second, the company has ISO 9001 certification since 2006. Third, top management of the company were committed to providing support to conduct this research. Beni Saf Cement Company was founded in December 1997, after the reconstruction of the national company of construction materials. It is specialized in production of cement and it employs 607 personnel. The instrument used to collect data was a questionnaire, that lists a total of 14 possible benefits with which the 40 managers of Beni Saf company were asked to rate the extent to which ISO 9001 certification affected such elements, a 5-point likert scale was used (1= very low to 5= very high) . 40 questionnaires were returned (a response rate of 100 %). We used also interviews with general managers, functional managers and quality managers in order to better understand the ISO certification benefits for the company.

Results

Table no.1 shows the mean and standard deviation values of each benefit of ISO 9001 certification.

Table no.1: Benefits of ISO 9001 certification

Benefits of ISO 9001	Mean	Standard deviation
Increasing sales	3.85	0.80
Market share increase	3.75	0.78
Improved profitability	3.62	0.98
Increased productivity	3.57	0.78
Improvement of the company image in the market	3.57	0.93
Improved customer satisfaction	3.40	0.81
Improvement of products/services	3.40	0.87
Reduction in the complaints	3.25	0.84
Modernization of internal organization and process of the company	3.20	0.65
Greater competitive advantage	2.87	0.91
Decreasing nonconformities	2.82	0.87
Improved employee training	2.60	0.87
Enhanced internal communication	2.47	0.90
Better relations management/employees	2.27	0.85

The mean values ranged from 3.85 to 2.27. It appeared that not all benefits of ISO certification have the same degree. Respondents cited the "increasing sales" and " market share increase " as the principal benefits, this could be attributed to the increasing demand on cement product in Algeria, especially the government that achieve the development plans, and this require that it suppliers must apply a good quality management system. Respondents cited the "improved employee training", "enhanced internal communication" and "better relations management/employees" as the lowest benefits, this could be attributed to the fact that the management of the company seek quick gains from ISO 9001 certification, and the human resource development

needs hard and continuous efforts. Therefore, the ISO certification has not a great impact on human resource management in Beni Saf Company.

Conclusions

The growth of ISO 9001 certification and the increasing of mega construction projects in Algeria were the main motivators behind undertaking this research. In this article, a study was carried out to investigate the effect of ISO 9001 certification on Beni Saf Company's performance.

Results indicate that the ISO 9001 certification has a positive impact on Beni Saf Company's performance. This support the idea of Rayner and Porter, 1991; Street and Fernie, 1992; Buttle, 1996; Tsiotras and Gotzamani, 1996; Vloeberghs and Bellens, 1996; Tan and Lim-Teck Sia, 2001, that the ISO 9000 certification is a source of benefits for its holders. The study revealed that the marketing advantages "increasing sales and market share increase" were the principal benefits and the benefits related to the human resources "improved employee training, enhanced internal communication and better relations management/employees" occupied the lowest position in the company. This finding support the works of Rayner and Porter, 1991; Street and Fernie, 1992.

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The Historical Cost, a Paradigm of the 21st Century

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Abstract
According to the current regulations, the valuation aims several moments, namely: the input date (when the element enters the patrimony), the inventory date, the date of the financial year's ending and, not at last, the output date (when the element leaves the patrimony). The present paper focuses on the financial year's ending valuation moment. The valuation is one of the most up-to-date accounting issues. Choosing the valuation basis actually involves establishing the moment for registering into the balance sheet the element value, namely: the past - the input value, the present - current value, the future - present value.
Keywords: value, valuation, valuation moment, valuation basis, historical cost

Introduction

The differences that appear between the financial structures' accounting value and their economic and financial value have numerous causes. The main factor that cannot be controlled by any valuation technique or method is time, because:

- ✓ The accounting profession works with variables that cannot be measured, but only estimated (the depreciation accounts);

✓ The accounting information users' vision is different in what concerns the certainty of activity's continuation (managers' strategies are projected for long or medium term, while creditors, investors or suppliers aim future gains on short term);

✓ Often, numerous economic events or phenomena are not quantified in time (assets' moral depreciation that leads to the depreciation of the accounting value).

Those from above are sustained by another variable, uncontrollable by the companies, namely the currency. It represents the only standard for measuring the value of financial structures. The currency, both by its purchasing power and by the exchange report, affects seriously the credibility of financial structures' value. Therefore, an instable currency cannot certainly represent a solution for quantifying the accounting value of the financial statements' structures, but the company has a set or more valuation bases available.

In the valuation process, there can be used, by the case, one or more valuation bases: the historical cost, the current cost, the embodiment value and the present value. The most used valuation base is the historical cost.

Different points of view on the historical cost

By the OMFP 3055/2009, the fiscal pressure's influence on the accounting profession is significant and this will certainly be maintained in the future, too. Taking into consideration this fact, the only valuation basis applied in our country is the historical cost.

The international accounting referential provides numerous valuation bases. The 4th European Directive proposes several alternatives for the valuation based on the historical cost, namely: the valuation based on inventories' replacement value, the valuation based on methods taking into consideration the inflation process, the valuation based on fixed or intangible assets' revaluation. The conceptual framework IASB provides both the valuation based on the historical cost and the valuation based on current values[1], but also offers a big liberty in choosing the valuation basis, the main target being the accurate image.

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[1] Current cost, present value, realizable value

The historical cost method involves the presentation of the financial structures in the financial statements taking into account their real value, from the moment they enter the patrimony. From the IASB point of view, the assets' historical cost represents the amount of money paid for them or the real value, considered as the purchase or production moment. In what concerns the liabilities' historical cost, it involves the equivalents' value obtained for the debts.

The historical cost represents already a myth for the accounting valuation. The demystification of this valuation basis is absolutely necessary. Even if it delivers objective, reliable and controllable accounting information, there are many situations when the accurate image is not respected.

Thus, either the historical cost is not an optimal valuation solution as long as (Colette, Richard, 1990):

✓ Not all the assets are bought;
✓ The purchase or production cost involve a choice concerning the processing of the extra expenses;
✓ The activity fractionation in financial exercises involves a gradual recovery of the value of several assets (depreciation);
✓ The "expense", "income" or "result" concepts are subjective by themselves.

The subjectivity involved by pre-calculated or estimated accounting indicators is doubled by the uncontrollable inflation phenomenon that really affects the financial structures' value.

For example, in the balance sheet appear under valuations of non-current assets, involving a distortion of the net situation. The profit and loss account is affected by the under valuation of the non-current assets' expenses and over valuation of the financial expenses.

The defenders of this valuation basis bring the proof of the adjustments registered in the financial statements structures' accounting value. According to IAS 16, the accounting value is "the value that an asset is recognized in the balance sheet after eliminating the accumulated depreciation".

We don't contest the utility of this value adjustment' techniques, but we can bring solid objections regarding the rational applicability of the adjustment concepts. In this regard, there can be noticed the fervent debates concerning the efficiency of the assets depreciation phenomenon accounting methods using the depreciation adjustments.

These depreciation adjustments regularly involve the structures that do not suffer irreversible depreciation.

Depreciation adjustments' accounting is debatable in what concerns the assets that can suffer an irreversible depreciation. IAS 36 says that "a loss from depreciation must be recognized for a unity that generates cash only if and only if its recoverable value is lower than its accounting value".

Even if the depreciation represents the value reduction of an asset element following the depreciation by its using for a time period, following the technical progress, following the market request for that type of assets, the depreciation policy itself is often insufficient because it is very subjective, in the same time.

Therefore, truly corrective is the policy of assets' depreciation adjustments. By definition, they represent temporary value loss, compared with depreciation, which represents permanent value loss.

Thus, the law framework allows creating structures of assets depreciation adjustments only in the following situations:

- ✓ The market value of the asset decreased considerably during the period, more than it was normal as follows the time passing or its normal using;
- ✓ During the period or in the near future, there are possible significant modifications having a negative impact on the company. These modifications could refer to the technological environment, market environment, economic or judicial environment in which the company develops its activity or to the market an asset is acknowledged;
- ✓ The market interest ratios or other market investments return ratios grew during the period and it is possible that this growth to affect the discount rate used for calculating the utility value of an asset and also to decrease its recoverable value;
- ✓ The reporting company's net assets value is higher than its market capitalization;
- ✓ The proof for the physical or moral depreciation of an asset is available;
- ✓ During the period took place significant changes with a negative impact on the company or they are expected to

    happen in the near future regarding the using of a certain asset;

✓ From the internal reporting, it is available a proof that shows up the fact that an asset's economic performance is or will be weaker than it was predicted.

As we could notice, all these recognizing criteria involve a certain degree of subjectivity, but which don't foreclose the specialists in determining more or more ingenious solutions in order to influence significantly the taxable base of the accounting result as consequence of their fiscal deductibility. Therefore, the company obtains a temporary self-financing during the financial exercise in which the adjustment appears in accounting situations. When there are certain clues that the adjustment is less of purpose, namely the value loss is no longer present, the adjustment is canceled by including it in the income and the taxable part of profit grows.

Conclusions

The answer to this accounting paradigms has been well defined in the last period, being remarked a current sustaining the using of fair value as an accounting basis of financial structures. This fair value can appear either as a current market value, or as a utility value, based on the updating of future cash flows generated by the valuated asset. Not a lot of time passed and in conservative accounting systems, such as France or Germany, these valuation bases are more and more used.

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Money and Design

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Abstract
The purpose of this article is to analyze the influence of the money design on willingness to make purchases. In this paper, we focus on three aspects that structure the relation between money and design: the link between design and finance (in general), determinants of design and perspective of currency design. The main research problem explored in this paper is: Does the money design have influence on the willingness to make purchases by employees/employers at design studios, design students and students of economics/management? The main hypothesis is as follows – the more experience in design practice, the more important is money design.
Keywords: economics, money, design,

Introduction

The 21st century shows that the design practice is maturing, and what was once a focused on aesthetics and usability is broadening to incorporate interdisciplinary knowledge from economics and finance.

The purpose of this article is to analyze the influence of the money design on willingness to make purchases. In this paper, we focus on three aspects that structure the relation between the money and the design: the link between design and finance (in general), determinants of design and perspective of currency design.

The study is divided into four parts. In Section 1, the relation between economics (finance) and design is presented. In Section 2, definitions and determinants of design are presented. In Section 3, currency design from the perspective of form, subject and security is presented. Finally, the results of own research are presented and implications are discussed.

Relations between economics (finance) and design

Design is not limited to certain sectors or professions, but applies across the economy [7]. Design deals with the creation of forms and the appearance of products. Creative design is expressed in several ways: through the creation of decorative luxury items such as jewellery, by the uniqueness of a functional service such as the architectural design of a building, or as utilitarian mass-produced goods such as an interior object. Design products are usually aesthetic functional creations based on concepts and specifications [2]. On the other hand, professional design is an essential part of a large range of products, and consequently, design affects most widely the business and society. Design has a great significance for brand and value creation processes i.e. mobile phone industry [8].

The link between economics and design might be discovered at the scientific work of firms by R. Coase, where he identified functions beyond those associated with production termed "transaction costs", which included everything essential to how a firm undertook its business, design - among others [6]. J. Buchanan, conceived design as an activity that could be applied to almost anything whether it is a tangible object or an intangible system [9]. In recent years, Douglass C. North has emerged as a powerful influence in institutional thinking. He emphasizes the role of institutions in giving structure to life in a society. North asserts, similarly to adherents of Austrian theory, that when purchasing anything individuals make subjective choices on the basis of incomplete information [6]. P. Romer's emphasis on the missing element of technology, incorporating it directly into models of economic growth by explaining how knowledge is created and spread. Unlike the two conventional factors of production, labor and capital, he argues, ideas are not scarce. Therefore, a sustained flow of ideas for more efficient processes and new products potentially makes continuous growth possible. To labor and capital, Romer added knowledge as a production function, making it more plausible [6].

Searching the link between finance and design can be proposed finance design as a description of how a value network intends to capture monetary value from a particular service offering and how risks, investments and revenues are divided over the different actors of a value network [5]. In finance, the result of the finance design is the set of financial arrangements between the actors in the value network in which the profit, investment, cost, risk and revenue sharing among the actors is arranged. In turn, the investments and costs are closely related to the design choices made in the technology design. However, the question of who will supply investment capital is another important design variable in finance. The costs may also be influenced by the coordination costs of the value network. The risks that may exist in the other domains come with financial consequences. Typically, the design variables are not static, but change over time. So, they are dynamic and may respond to changes in other variables, either in finance or in other domains [5].
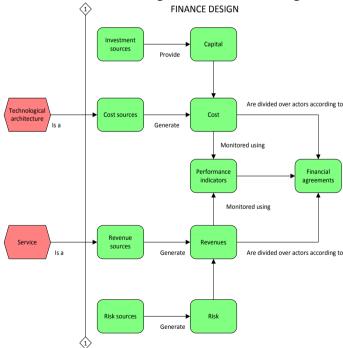
Figure no. 1. A detailed image of the finance design

FINANCE DESIGN

Source: E. Faber, P. Ballon, H. Bouwman, T. Haaker, O. Rietkerk, M. Steen, *Designing business models for ICT services*, 16th Bled Electronic Commerce Conference eTransformation, Slovenia 2003, p. 11-12.

Definition of design

The Industrial Design Society of America, define "design" as "the creation and development of concepts and specifications that optimize the functions, and value the appearance of products and systems for the mutual benefit of users and manufacturers [2]. Design might be defined as an activity aimed at creating, improving and sustaining human living conditions through the design and implementation of facilities or services included in the network of cultural, social and economic phenomena. The definition of design introduced by International Council of Societies of Industrial Design underlines the important role of design in shaping the culture-forming processes and directions of economics [10]. Other definition of design indicates that it is a creative activity whose aim is to establish the multi-faceted qualities of objects, processes, services and their systems in the whole life cycles. Therefore, design is the central factor of innovative humanization of technologies and the fundamental factor of cultural and economic exchange [7].

Design seeks to discover and assess structural, organizational, functional and economic relationships, with the task of:

- Enhancing global sustainability and environmental protection (global ethics);
- Giving profits and freedom to the human community, individual and collective;
- Final users, producers and market protagonists (social ethics);
- Supporting cultural diversity despite the globalization of the world (cultural ethics);
- Giving products, services and systems, those forms that are expressive (semiology) and coherent with (aesthetics) their proper complexity.

Accordingly, design is an activity involving a wide spectrum of professions in which products, services, graphics, interiors and architecture all take part [3]. Additionally, it is worth to underline the relation between design and innovation that is defined as the exploitation of ideas, i.e. the successful marketing new products and processes [7]. The output of innovative activity is a function of: R&D inputs, human capital inputs and geographical concentration [8].

The design analysis from the economics/finance perspective needs a closer look at money and its dematerialization. In general,

dematerialization covers a large field of ongoing evolutions: miniaturization of products, servicizing, and reducing material use by recycling and the shift from matter to information. In the context of this study, dematerialization occurs when digital content becomes disengaged from its carrier, and flows freely through networks and devices, while the carrier disappears. Money is dematerializing, which means, that coins and paper money are disappearing and being replaced by electronic payment transactions [1].

Money and design

It is said that recession provokes artists, designers to create some of their best work but for some people, money is the constant source of question regardless of the economic climate. In economics the main functions of money are: a medium of exchange, a unit of account, a store of value and occasionally in the past, a standard of deferred payment. The design perspective needs to add next function – a work of design/art [4].

Throughout its many evolutions, money has been designed using the latest technologies, whether they are metal forming techniques for coins or printing methods for paper banknotes. Designers and artists have played a key role in giving form to currency since its beginning. Today, money design practitioners are either graphic designers or highly specialized craftspeople who are well trained in the process of making money [4].

Money has come in many shapes and sizes over its long history. However the size of most banknotes and coins are very similar. Each bill is printed with is country of origin, value and date of issue. Banknotes also feature a number of security features like hologram stickers or special color changing inks. In turn, coins are issued in a number of smaller denominations and are differentiated by size, shape, texture and their visual design [4].

Picture no. 1. Currency design

Source: *Design boom*, http://www.designboom.com/design/money-design-and-history/ (13.02.2009).

As mentioned in the form of money, most coins and banknotes features a variety of subjects in addition to the country of origin, value and date of issue. Each currency is different. Portraits of politicians, members of royalty and cultural figures are probably the most iconic and common subject matter depicted on money. The other examples are: animals, plants, buildings, landmarks and landscapes. What is more, cultural scenes and themes are popular images in contemporary currency. These patterns are often inspired by motifs found in the currency's culture of origin or based on historical patterns taken from calligraphy or art [4].

Security has always been an important part of currency and money design. With new technology and printing techniques, today's banknotes and coins are the most sophisticated ever produced. Less priority is given to coins in terms of security. Banknotes, on the other hand, are carefully protected especially the most common denominations. Most money is printed using a heavy paper made with fibers that can be cotton, linen or specialty color fibers. Polymer bills offer a more durable solution and can be made with small transparencies that are hard to counterfeit [4].

Method/Methodology/Research model and hypothesis development

The purpose of this article is to analyze the influence of the money design on willingness to make purchases.

The main research problem (RP0) explored in this paper is: Does the money design has influence on the willingness to make purchases by

employees/employers at design studios, design students and students of economics/management?

The detailed research problems explored in this paper are:

- Q1: Does the money design has influence on willingness to make purchases by employees/employed at design?
- Q2: Does the money design have influence on willingness to make purchases by students of design (Poznań and Kielce)?
- Q3: Does the money design have influence on willingness to make purchases by students of management/economics (Kielce)?

The main hypothesis (H0) is as follows – the more experience in design practice the more important is money design.

The detailed hypotheses explored in this paper are:

- H1: Size and/or color of the banknotes and coins have an impact on the size of purchases;
- H2: Employees/employed at design, would do the shopping more often if they could pay with money designed by themselves.

Data analysis

To encourage response and speed the data gathering process, we constructed an Internet-based survey. The questionnaire was published in February 2014 and closed one month later.

The survey received a total of 65 responses (15 employees/employers at design studios; 18 design students - the Concordia Design in Poznań; 10 design students - the Jan Kochanowski University in Kielce and 22 economics or management students - the Jan Kochanowski University in Kielce). It needs to be added that, a number of limitations deserve to be highlighted. The small sample size raises the issue of generalizability.

For the employers of the design studios the money design is very important (60%). Students of management/economics from the Jan Kochanowski University in Kielce don't appreciate the money design (for 58% of respondents, the money design is not important).

Students of design from the School of Form in Poznań appreciated the importance of money design more than students of design from the Jan Kochanowski University in Kielce, that didn't.
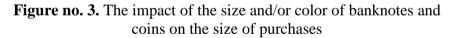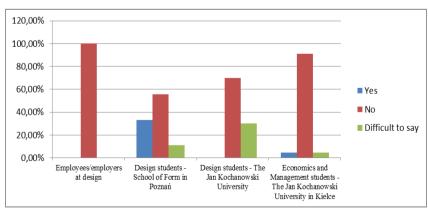
Figure no. 2. The importance of money design (banknotes and/or coins)

Source: Own analysis

For all respondents, the impact of the size and/or color of banknotes and coins on the size of purchases weren't important at the moment of purchase.
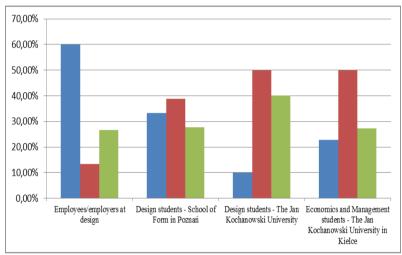
Figure no. 3. The impact of the size and/or color of banknotes and coins on the size of purchases

Source: Own analysis

Figure no. 4 indicates that, employees/employers at design studios would pay more often using designed money by themselves. On the other hand, the students wouldn't.

Figure no. 4. If you design the money (size, shape, color, imprints), would you pay more often with that money?

Source: Own analysis

Discussion and Conclusions

This study examined the main research problem, which implies, the money design has a greater influence on the willingness to make purchases on employees/employers at design, rather than students (design and/or management/economics).

The detailed research problems have been presented in the table below.

Table no. 1. The detailed research problems

Researched problem	Employees/ employers at design	Students of design – School of Form in Poznań	Students of design – The Jan Kochanowski University in Kielce	Students management and economics – The Jan Kochanowski University in Kielce
Does the money design has influence on willingness to make purchases by …	Research Problem no. 1. No	Research Problem no. 2a. No	Research Problem no. 2b. No	Research Problem no. 3. No

Source: Own analysis

The main hypothesis was confirmed - the more experience in design practice the more important is money design.

Table no. 2. The detailed hypotheses

	Hypothesis	Verification
H1	Size and/or color of the banknotes and coins has an impact on the size of purchases	No
H2	Employees/employed at design, would do the shopping more often if they could pay money designed by themselves	Yes

Source: Own analysis

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Study regarding the Quality of Accounting Information under the Conditions of using Creative Accounting

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Abstract
This paper aims to present actual problems concerning financial accounting information under increased use of creative accounting practices. For this purpose we present the current conceptual framework for financial reporting used in Romania and its limitations when using creative accounting and the role of accounting policies and principles in obtaining relevant accounting information. Finally, we will synthesize the main creative accounting techniques and their application to the consequences of economic entities.
Keywords: creative accounting, financial reporting, conceptual framework.

Introduction

Accounting is not a goal in itself. The role of accounting is to provide information to all of the users when they make economic decisions. As a result, the quality of the "accounting act" depends on the quality of information provided by it to the users by financial statements.

In recent years, due to the great financial scandals (Enron, Parmalat, Tyco, WorldCom, etc.) the credibility of accounting

information has suffered greatly. Generally these scandals were triggered due to the fact that these companies, taking advantage of loopholes in accounting regulations, presented in financial reports false information on the financial position and performance. According to some experts, these scandals "could have been avoided if they would have provided a transparent financial communication and if creative accounting practices would have been detected in time" (Dumitrescu, 2014).

The study tries to analyze to what extent the practice of creative accounting prejudice to the quality of accounting information or, on the contrary, a certain amount of creativity is in favor of increasing the quality of accounting information provided by financial statements or other financial reporting documents.

Research issue

To understand the steps of the present study we have to deepen the concepts that constitute its pillars, namely: the quality of accounting information and creative accounting techniques.

According to OMFP 3055/2009 the "qualitative characteristics are the attributes that determine the usefulness of information provided by financial statements". The same law states that "the four principal qualitative characteristics are understandability, relevance, credibility and comparability. (OMPF 3055/2009, section 2, subsection 2.2, section 23, paragraph 1).

These issues are also highlighted by the international accounting referential IAS / IFRS. Thus, *The General Framework for the Drawing Up and Presentation of Financial Statements* (revised from January 1st, 2009) present the four qualitative characteristics of accounting information as: understandability, credibility, reliability and comparability, making the specification that for a piece of information to be relevant and fair, the conditions that must be met are: timeliness, cost-benefit relationship and the balance between the qualitative characteristics.

The Conceptual Framework for Financial Reporting (issued by IASB in September 2010) towards *The General Framework for the Preparation and Presentation of Financial Statements* brings changes, both, in terms of the concepts that are used and in their content. First of all we have to note the replacing of some notions. For example, the phrase *"qualitative characteristics of financial statements"* was replaced

by *"qualitative characteristics of useful financial information"*, the term "*reliability*" by "*accurate representation*", etc.

Secondly, we make the distinction between fundamental qualitative characteristics (relevance/significance threshold, respectively accurate representation) and the qualitative amplifying characteristics (comparability, verifiability, timeliness and understandability), stating that if the first are mandatory, being the most important, those in the second category are desirable, recommended without being mandatory.

The term of creative accounting and its technique emerged in the 80s in the UK. As term it was equivalent to an "imaginative and intention accounting" and as a technique it designated the "techniques to maximize the benefits obtained by the company, resulted not from a better management of resources, but from accounting tricks in order to attract new investors "(Feleagă, 1996).

Characteristic for the coming years was the fact that, in the area of creative accounting, new accounting techniques were employed, each more "creative" that the other, which transformed the financial reports of technical situations in real "fiction novels". That is, until the scandals aroused by fraudulent reporting have drawn attention to the extent the phenomenon took and of the urgent need to intervene by the setters.

As a result, we should witness a "tempering" of the use of creative accounting practices, as well as an increase in "accounting education" of the users regarding the existence and consequences of their application. The question is whether it really happens or creative accounting has created new tools, more refined and difficult to detect.

Literature review

The literature presents a general overview of creative accounting insisting on the negative impact of its use on the financial information, without providing techniques for elimination of this phenomenon or whether there are positive aspects to this.

Thus, Barthes de Reyter and Gilbert Gerald (1992) consider that the main objective of creative accounting is to avoid the accounting rules that do not provide the desired image on the financial position and performance of the company.

Note also the definition proposed by Kamal Naser (1993) according to which "creative accounting represents the transformation of figures of financial accounting from what they are, in what

accountants want to be, taking advantage of the existing rules or ignoring some of the rules or all."

Colasse Bernard's view (1992) subscribes to the same idea, who believes that creative accounting consists of "*practices designed to give to the financial statements of a company the most flattering picture possible*" and "*the accounting information practices, often to the legal limit, practiced by certain companies, taking advantage of the limits of regulation and normalization, which seek to embellish their financial position and financial and economic performances* ".

In the Romanian accounting literature we find books on creative accounting or treating the subject in a broader context to many authors. Authors most frequently referred to are: Feleagă N. (with his work *Accounting Controversies accounting, conceptual difficulties and credibility of accounting* from 1996), Malciu L. (with his work *Creative Accounting* from 1999), Ristea M. and Dumitru C. G. (with their work *Caution and aggression in accounting treatments* from 2008). Dumitrescu A. S.'s work is worth to be mentioned: "*Creative accounting- From Idea to Money. With practical examples*" (Economic Publishing House, 2014), which makes not only a comprehensive research of the concept of creative accounting practices and its impact on the accuracy of the information in the financial statements of accounting, but also presents actual, practical techniques of creative accounting. The analysis of relationships between creative accounting and corporate governance are worth to be mentioned.

In addition to specialized books, there are articles that deal with the issue of creative accounting techniques and the consequences of their application on the quality of information provided by financial statements. In this respect it is interesting to note the results of a study made by a group of specialists in 2012 (Groşanu A., Răchişan P. R, Berinde S. R, *International research regarding creative accounting*, Annals of the University of Oradea - Economics, 1 (2), whose main declared objective was the " *the identification of main research areas in order to highlight the main existing gaps and outline some possible suggestions for future directions of research in this field*."

The study consisted in the analysis of the databases of some specialty journals considered relevant (14 journals were selected from which 9 were ISI indexed) and identification of articles that had as topic the creative accounting. The period of time analyzed was during 1990-2010.

The conclusion reached by the researchers is that the topic most often addressed is the analysis of creative accounting techniques, followed by the aspects concerning the consistency or inconsistency of accounting standards and corporate governance. Less treated proved to be the aspects of financial reporting and financial scandals generated by applying creative accounting, respectively the issue of true image and the independence of auditors. In the period covered by the study, researchers showed little interest for topics related to ethics in accounting, accounting reform and informational asymmetry for managers/investors.

Research methodology

In the purpose of the survey we've conducted an analysis of the main creative accounting techniques currently used and the impact their use has on the qualitative characteristics of accounting information namely: understandability, relevance, credibility and comparability, as well as future consequences of using such techniques.

Results of the study

Mulford and Comiskey (2002) identify five categories of creative accounting techniques: premature or fictitious revenue recognition, policies of excessive capitalization of expenses and of using long amortization periods, misreported of assets and liabilities, "creativity" manifested in the profit and loss account, and problems related to the cash flows reporting.

Next we will analyze what these techniques involve and how their use affects the quality of accounting information.

It is noted that the first two techniques aimed at reducing costs, respectively maximizing revenue. They are used for a "dressing up" of the result for maximizing it. This is often a "request" of the managers whose remuneration depends directly on the level of the company, level defined by profit.

For the first technique, we have to clearly distinguish between the premature recognition of revenue and recognition of fictions revenue. If the first is a pretty often practiced technique of the creative accounting, the second one is an illegal practice, a fraud.

Using this technique will not affect the intelligibility of accounting information, in turn will obviously affect the relevance and credibility.

Relevance will be affected to the extent that obviously distorted information will not be relevant for users, more than that, the decisions made on its account will be wrong. The credibility of information will also suffer to the extent that in the more or less distant future, it will always penalize a wrong decision taken on the basis of wrong information, such as that by which the distribution of an artificially "bloated" profit will be decided.

Comparability, as characteristic of accounting information theoretically will not be affected by premature recognition of revenue as long as the mode of recognition will be maintained from one year to another. In practice this is unlikely to be met because this is the technique of "smoothing" the result and of transfer of income from one exercise to another.

Regarding the second technique it actually involves two distinct ways: capitalization of expenditures on the one hand and the use of long periods of depreciation, on the other hand, both having the effect of reducing the costs of the period and thus increase the result. The first way involves recognition of some expenditures as immobilizations (constitution expenses, research and development expenses, costs of software development, etc.) that will be passed on expense in future tax years as the amortization process, so they are not recognized as expenses of the current year. The second involves distribution of the input value of assets to be amortized over a longer period of time, so the resulting value for each period will be less resulting in lower depreciation expense.

By this technique intelligibility and comparability of accounting information will not be affected, in turn they will affect the relevance and credibility.

The technique of erroneous reporting of assets and debts usually involves an overvaluation of assets (debts, stocks and investments) and an underestimation of debts. The purpose of this technique is to "beautify" the balance by presenting higher net assets.

This technique will not affect the intelligibility of accounting information; in turn credibility and relevance will be affected given that, by violating the principle of prudence, such a technique will generate distorted statements on the size of the debt and assets of a company. Decisions taken on these assets premises will be risky and will lead to de-capitalization of the company in the future.

The comparability of accounting information can not be ensured with this technique, because under evaluation of same elements of debt, respectively the over evaluation of the same elements of assets can't be made several years in a row.

A third technique of creative accounting involves manipulation of the result more in terms of nature of expenditure and revenue structures in order to modify the current result of the exercise. In this respect because the current result is influenced only by the operating and financial components, without the extraordinary one, this technique involves the recognition of expenses/extraordinary income as of exploitation or vice versa.

The influence of this technique on the qualitative characteristics of accounting information is given by the fact that they are affected by the recognition as being currents of some expenses/incomes with extraordinary character, which implies their lack of repetition, so their absence in future tax years. This aspect has an impact on the relevance and credibility of the financial statements and in this case the profit and loss account.

Under the conditions of liability accounting, a particular document in the annual financial statements is the cash flow statement. In this document, the techniques used will target an increase in cash flow generated by operating activities, which is why the operating expenses will be classified as elements related to the financing activity or the extraordinary activity.

Again the qualitative characteristics that will suffer will be the relevance and reliability of accounting information primarily, but also the comparability of information from one tax year to another and from one entity to another.

The practical experience of the authors on creative accounting techniques used by small and medium enterprises in Romania reveals the following specific issues in our country:
- the privileged user of accounting information is the state, by its tax authorities;
- the companies that have borrowed or intend to borrow money an important place hold the banks as a user of accounting information;
- in most cases, the techniques are used to decrease the taxable weight and therefore tax burdens. This means, in most cases, reducing the taxable profit.

The methods used for this purpose will be the opposite of those mentioned, respectively: non-recognition of some incomes or decrease of the value at which they are registered, non-capitalization of some expenses and their recognition as current expenses, decrease of amortization durations for increasing the amortization expenses.
- the techniques of "swelling" the result are used by companies in dealing with banks, even if they assume additional taxes;
- the techniques of over evaluating of both fix and circulating assets are commonly used. The fix assets will be over evaluated to increase amortization expenses, for tax advantage regarding local taxes or an increase in net assets.

As a final conclusion, on the use of creative accounting techniques in Romania, we should note that the Tax Code with its restrictions on the recognition of some expenses as being tax deductible limit the use of some of the techniques that were used to obtain a tax advantage.

Conclusions

Next we will try to synthesize the conclusions drawn from this study. First of all, it is obvious that there is creative accounting and it is practiced, both nationally and internationally. In most cases, the application of these techniques generates negative consequences for all users, including (or especially) to the internal users the decision makers of the company. Decisions made in the conditions of use of distorted information regarding the situation of the company and its performance will be bad and inevitably will have unintended consequences on the future of the company.

The increasing outcome will be obtained by using the techniques of over evaluation or of carrying out, before the end of the financial year, of some operations that generate profit. This technique will be met in the highly leveraged entities, companies that distribute dividends or those in which remuneration of the manager depends on the performance of the entity.

The artificial decrease of the result is made also through the mechanism for evaluation or for carrying out the year-end loss-generating operations. Generally, this technique is used out of tax considerations, the small and medium enterprises with low debt, by large companies, in order to avoid political costs and entities under the direct control or influence of the state.

As a final conclusion creativity in accounting is not bad as long as it is used to discover the best ways to record in accounting the economic operations in order to reflect, in the financial statements, a true and fair view of the assets and performance of the company, which actually is the objective of accounting.

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The influence of the European Union on the Range of Employees' Management participation in the Companies from Poland

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Abstract
Acknowledging the accession, and as a result, joining the European Union in May 2004 required Poland to make a number of changes, including a number that related to labor rights. These changes were partially based on resolving legal barriers in Polish law in order to bring them into compliance with the European Union's law. These efforts are reflected in the laws related to the so-called employee participation. Generally speaking, this is the right of workers to co-manage and be consulted in the activities of the enterprise for which they work. The most important provisions in this regard (those which Poland had to implement in the past few years) are, among others, the directives on the development of the European Works Councils and on the right of workers to establish councils of workers within their company. When the European Parliament and the Council of the European Union established the directives which referred to employee participation, it was the result of the promotion of social dialogue between representatives of management and representatives of workers (which is a

particular goal of the EU community and its member states). Unfortunately, in Poland these rights are not honored for the majority of employees.

Keywords: participation of employees, co-decision making, work council, European Works Council, workers' rights.

Introduction

Undoubtedly, an important element in everyone's life is the opportunity to participate in social and economic activities. This also applies to one's professional life. Therefore, every employee should have the right to cooperatively decide to participate in matters related to the company or associated with employees' job (in the company in which he is employed), either for himself or through those representing him. Given these rights, we can talk about the so-called employee participation. The term 'participation' derives from the Latin word 'participio' and means taking part in something, becoming involved in something. To describe this term in the simplest way "Participation of employees" means sharing, having influence and being co-decision makers in all activities which involve the company which they were hired into. Co-decision making must be based on the presumption that employees will be informed about the company's activities, they have the right to consult and negotiate and this right will be recognized and honored within the company.

When considering the last hundred and fifty years of the world's economic development and the acceleration of industrial development, the need for fighting and respecting those employees rights associated with appropriate working conditions, working hours, remuneration system, occupational health and safety, as well as the right to employee participation, must particularly be noted.

The changes may be observed in the European Union itself, which since the early years of its existence has put great emphasis on improving the working conditions and welfare of employees by designating certain minimum standards included in EU's regulations, especially through its directives. Directives are the legal acts obliging member states to adopting specific conditions into their national law. Since Poland has been a member country of the European Union for several years, it is obliged to adapt domestic laws conforming to the

directives of the European Union. Although the objective of the European Union in terms of legal policy is to reach all the citizens of all the member states, when referring to the regulations which are related to the right of workers' participation, the position of Polish workers is among the worst. Even though Poland is implementing the directives into Polish law, the majority of workers enjoy not the rights associated with the employee participation.

Material and Methods

The article aim to present the most important legislation in force proposed by the European Union authorities relating to employee participation and the corresponding Polish legal regulations. Presentation of selected labor rights will indicate how many legal options exist (unfortunately many are not available for most workers in Poland) in terms of employee participation. The presented data will indicate which of the several million workers employed in enterprises in Poland can benefit from rights relating to employee participation.

The basic legislation of the European Union in the field of employee participation implemented into Polish law

The European Union insists that all citizens of their member states are entitled to benefit from all of the same as employees. The legislation of the EU aims to unify or at least to establish a defined legal minimum level of involvement in the legislation of member states, including matters relating to employees' participation through the guarantees written into their domestic laws. In terms of the rights of the employees the legislation "aims to encourage companies and employees to anticipate and adapt to the changes they must deal with. Through the appropriate involvement of employees, it contributes to improving the dialogue between management and workers within transnational companies and to construct a climate which fosters the search for tools which combine flexibility and security."[1] There are many directives and ordinances related to the decision-making participation of employees

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1 The proposal for the European Parliament and the European Council of the directive on establishing the European Works Council or a procedure in community-scale companies and community-scale groups of companies for the purposes of informing and consulting employees (Brussels, 7.2.2008; com/2008/0419 final-cod 2008/0141), p. 3; Source: http://eur-lex.europa.eu/resource.html?uri=cellar:7b4b93eb-7e7d-441d-9942-246e87023c87.0003.03/DOC_1&format=PDF

within companies. The most important directives and ordinances of those which have been incorporated into Polish law are the following:

1. Directive 2009/38/EC of the European Parliament and of the Council of 6 May 2009 on the establishment of a European Works Council or a procedure in Community-scale undertakings and Community-scale groups of undertakings for the purposes of informing and consulting employees (Recast), (Text with EEA relevance), This directive is included in the Polish legislation in the Act of 5 April 2002 on European Works Councils[2].

2. Council Directive 2001/86/EC of 8 October 2001 supplementing the Statute for a European company with regard to the involvement of employees Council Regulation (EC) No. 2157/2001 of 8 October 2001 on the Statute for a European company (SE). This directive is included in the Polish legislation in the Act of March 2005, a European Economic Interest Grouping and European Company[3].

3. Directive 2002/14/EC of the European Parliament and of the Council of 11 March 2002 establishing a general framework for informing and consulting employees in the European Community. This directive is included in the Polish legislation In the Act of 7 April 2006 on informing employees and conducting consultations with them[4].

4. Directive 2003/72/EC of 22 July 2003 supplementing the Statute for a European Cooperative Society with regard to the involvement of employees[5], This directive is included in the Polish legislation in the Act of 22 July 2006 on the European Cooperative Society[6].

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2 The Act of 5 April 2002 on the European Works Councils (Journal of Laws 2002. No. 62, item. 556, as amended).

3 The Act of March 2005 on the European Economic Interest Grouping and European Company (Journal of Laws 2005 No. 62, item. 551).

4 The Act of 7 April 2006 on Employee Information and Consultation (Journal of Laws of 2006. No. 79, item. 550, as amended).

5 This Directive governs the involvement of employees in the affairs of European Cooperative Societies, as referred to in Regulation (EC) No. 1435/2003 of 22 July 2003 on the Statute for a European Cooperative Society (SCE).

6 The Act of 22 July 2006 on the European Cooperative Society (Journal of Laws of 2006. No. 149, item. 1077, as amended).

5. Proposal for a Council Regulation on the Statute for a European Private Company, Brussels, 25.6.2008[7].

Results and Discussion

According to the Article No. 1 above, the main goal of establishing the EWC directive was to fully inform employees hired into the companies or groups of companies which operate in two or more member countries and to agree to consult with them on company matters. In order to do so, it was necessary to establish the European Works Council or some other super national institution to make sure that workers would be informed and consulted regarding company matters. That is why the system of informing and consulting EWC should allow for the sharing of opinions in a timely manner without questioning its ability for adaptation. According to the Article No 2.1 of directive EWCs are established in companies and groups of companies which operate inside of the EU. Operating in the EU means hiring at least 1000 people within the EU territory including hiring of at least 150 workers from two or more member states. The goal is to inform and consult the workers. In turn, Article 9 describes the role of the European Works Councils and specifies the procedures required for informing and consulting employees. However, more details which are helpful in achieving the objectives of the directive related to the establishment of a European Works Council, Council's composition and powers, are included in Annex 1 of the directive. The Annex sets out, among other issues, that the information provided to the European Works Council shall relate in particular to the structure, economic and financial situation, the probable development, production and sale of the company or group of companies within the EU.

In Poland, the legal act which includes the directive's regulations is the Act on European Works Councils[8]. The Act on European Works Councils reflects the majority of the requirements of the directive. According to Article 29 of the Act on European Works Council, the

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7 Proposal for a Council Regulation on the Statute for a European Private Company, Brussels, 25.6.2008; 2008/0130 (CNS) KOM(2008) 396 and: European Parliament legislative resolution of 10 March 2009 on the proposal for a Council regulation on the Statute for a European Private Company (COM(2008)0396 — C6-0283/2008 — 2008/0130(CNS)).
8 The Act of 5 April 2002 on the European Works Councils (Journal of Laws of 2002. No. 62, item. 556, as amended).

Council has the right for information and consultation provided by the Central Board, particularly regarding the issues of:

- the structure of the company and group of companies which exist within the EU;
- financial and economic condition and the possible development of activities, including production, sales and investments;
- levels of employment and the possible increase/decrease in employment;
- implementing important organizational changes;
- introducing new working methods or new production processes;
- changing the localization of the company, working place or its important parts and the moving of production to another working place or company;
- joining or dividing companies or working places;
- resizing, closing either the company or working place or its important parts;
- group layoffs.

The goals of the European Company are set based on the preamble to Regulation No. 2157/2001. The European Company is to support European Companies organized as capital companies, especially joint-stock companies in combining economic potentials, establishing cross-border cooperation, and reorganizing their activity within the entire EU. The issue of labor rights, among others, has been addressed in paragraph 4 of Article 1 of the Regulation, which indicates that the participation of employees in the SE shall be governed by the provisions of Directive 2001/86 / EC and in legitimization of the Regulation, which establishes that the Directive 2001/86 / EC is to ensure that employees have a right to participate in issues and decisions affecting the life of their SE. Other social and labor legislation, in particular that dealing with the right of employees to information and consultation in accordance with the national legislation of the member states (incomplete sentence). The national legislation is subject to the applicable national law, which under the same conditions applies to public limited companies. The provisions included in the above mentioned directive and regulation have been implemented by the Act

on European Economic Interest Grouping and European Company[9]. In terms of the involvement of employees in the European Company, Article 97 of the Act on European Economic Interest Grouping and European Company indicates that the right to information and consultation of employees in particular relates to:

- the structure of EC and its dependent companies;
- financial and economic condition and the possible development of activities, including production, sales and investments;
- employment and its possible increase/decrease;
- implementing important organizational changes;
- introducing new working methods or new production processes;
- changing the location of the company, working place or its important parts and moving the production to another working place or company;
- group layoffs.

Unfortunately the list of companies registered as SE in the National Court Registry contains few companies. For example:

- MCAA Europejska Spółka Akcyjna, Brzeg Dolny,
- LETUMO SE, Wrocław,
- "AMREST HOLDINGS SE", Wrocław,

Another two are not located in Poland, but with Polish departments:

- ALPIQ ENERGY SE, Warszawa,
- LIMAGRAIN CENTRAL EUROPE SOCIETE EUROPEENNE, Poznań

The aim of the directive establishing a general framework for informing and consulting employees in the European Community will be accomplished by establishing general frameworks which include rules, definitions and agreements related to informing and consulting. The provisions included in Article 3 of the directive apply to enterprises employing at least 50 employees in any member state or in companies employing at least 20 employees in any member state. Whereby member states may choose the method for calculating the thresholds of employees employed. Article 4 of the directive provides certain practical arrangements for information and consultation which should include: information on the conduct of business activities and the

9 The Act of 4 March 2005 on the European Economic Interest Grouping and the European Company (Journal of Laws 2005 No. 62, item. 551).

economic situation; as well as information and consultation on the situation, structure and probable development of employment within the company and on any other anticipatory measures envisaged. This directive was implemented in 2006 and included provisions about informing employees and conducting consultations for them. These laws pertain only to those employers who undertake economic activity and employ no fewer than 50 workers. Article 4 of the Act states that the right for information and consultation appertain to employees' representatives who are members of workers council – chosen by workers from the candidates selected by employees. According to Article No. 13 the right to information consist in the employer passes on to the Work Council the information about:

- the economic condition and economic activities of the employer and all changes planned in this field;
- employment and its possible increase/decrease as well as all activities undertaken to sustain the level of employment;
- activities that may cause relevant changes in the organization of work or the employment.

The European Cooperative Society Act became effective on 18th of August 2006[10]. It was passed by the Polish Parliament on the basis of Directive 2003/72/EC of 22 July 2003 supplementing the Statute for a European cooperative society with regard to the involvement of employees and Council Regulation (EC) No. 1435/2003 of 22 July 2003 on the Statute for a European Cooperative Society (SCE). The provisions contained in Article 1 of the Act provide the rules for organization and operation of a European Cooperative Society (not covered by Council Regulation No 1435/2003 / EC) and the principles of involvement of employees in the European Cooperative Society.

Issues related to employee participation in the European Cooperative Society are included in the Title III of the Act. Article No. 73 of this Act states that a representative body is entitled to obtain information about the economic situation and prospects of the SCE and, as in the case of European company the right to obtain information and consultation concerning in particular:

- the structure of EC and its dependent companies;

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10 The Act of 22 July 2006 on the European Cooperative Society (Journal of Laws of 2006. No. 149, item. 1077, as amended).

- financial and economic condition and the possible development of activities, including production, sales and investments;
- employment and its possible increase/decrease;
- implementing important organizational changes;
- introducing new working methods or new production processes;
- changing the location of the company, working place or its important parts and moving the production to another working place or company;
- group layoffs.

Another piece of legislation related to the European Company is a regulation of the Council on the Statute for the European Private Company (Societas Privata Europaea, hereinafter "SPE"). This regulation is intended to facilitate labor rights for workers employed in small and medium-sized enterprises. In the justification of the regulation (presented in the part indicating an explanation of the proposal) and in Article 34 (Chapter VI: Participation of employees) and Article 38 (concerning the arrangements for employee participation in Chapter VII: Transfer of the registered office of the SPE), the Council referred to the employee participation justifying the need for its existence with the fact that the participation of employees in small companies takes place only in a few member states (eg. Sweden, Denmark) and determining the level of employee participation.

The regulation states that the rights of participation should be governed by the legislation of the member state in which the SPE has its registered office (the "home member state") and these rights should not be ignored and should be maintained on the appropriate level[11] (in accordance with the law of the country in which the registered office of the company is located) and when there are no appropriate employee participation rights, such rights should be negotiated. When negotiations are pending or are not concluded after moving the office, the negotiating parties should refer to the regulations used before the transfer. In addition, workers' rights other than rights of participation should remain subject to the directive on the EWC and to the directive on a general framework for informing and consulting employees in the European Community. According to the Article No. 47 of Council Regulation on

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11 According to the Article 38.2 (a) the level of employee participation is measured by the proportion of employee representatives in the administrative or supervisory body or their committees or of the management group which covers the profit units of the SPE, if the employee representation.

the Statute for a European Private Company these regulations should be examined by the Commission in terms of its use by EU member states until 30 June 2015.

The above outlines for the most, those important legal acts concerning the rights of employees related to employee participation primarily aimed to indicate the legal solutions available for employees. Although there are many legal solutions which provide employees with participation rights, the analysis based on statistical data shows that these rights are not available for the majority of workers employed in Poland. According to statistical data the majority of workers in Poland work in companies employing up to 49 people. This tendency has persisted for many years. The table below shows the number of companies that employed various numbers of workers in years 2004-2014.

Table no. 1. Companies of the national economy by size[1]

Number of employees	2004	2006	2008	2010	2012	30.06. 2014
0 -9	3 402 150	3 455 565	3 568 137	3 713 677	3 794 489	3 914 195
10 – 49	141 499	147 393	154 833	161 550	146 489	145 932
50 – 249	28 309	28 406	29 323	29 731	29 787	29 587
250 – 999	4 009	3 863	3 996	4 033	3 779	3 719
1000 and more	863	812	804	811	790	776
Total	3 576 830	3 636 039	3 757 093	3 909 802	3 975 334	4 094 209

Source: The Central Statistical Office of Poland, www.stat.gov.pl.
[1]Companies of the national economy included in the regional register

By analyzing this data, together with the Polish law (the implemented EU directives) associated with employee participation it may be noted that the number of companies does not translate into opportunities offered to employees in respect of their right to employee participation. Nearly 99% of entities operating in the Polish national economy are those whose employment ranges 0-9 workers (approximately 95%) and 10-49 (4%) workers. This means that employees do not have the possibility to use the rights from the legal acts discussed above. The right for that group of workers which is entitled by law to co-decide, consult and be informed is generally very limited in Poland. It should be noted that many of these entities are sole

proprietorship. From the point of view of employee participation this seems to be a comfortable situation for them, because of a dual role, namely the employee-employer. However, this is only an illusion. In most cases, these companies provide only the services. In fact, the real impact on their employment rights and in fact the absence of the employment rights, has the entities which they provide services for.

Many large and medium-sized companies limit the number of workers hired based on an employment contract. Employees willing to start working or current employees are encouraged to start their own business. This would result in providing the work services to the company while the company could reduce labor costs (related to recreational annual leave, sick leave). Such actions deprive employees (often former employees who agreed to this form of cooperation) of many labor rights including those stemming from the regulations of the Labor Code, the Law on Trade Unions, as well as the previously discussed legal acts related to employee participation. This applies particularly to people who run sole proprietorship often for the benefit of one entity (and as such are "forced" to do so) or to provide work services for a given entity based on their employment in another entity (outsourcing), or work based on a mandatory contract.

The situation is no better among workers in other groups of economic entities constituting only about 1% of the subjects, specifically, those enterprises which employ more than 50 people. This is due to the fact that not all acts listed in this article apply to this group. According to the data – available on the website dedicated to social dialogue – there are 3418 companies in which employees have work councils under the Law on Employee Information and Consultation[12]. Not all companies have EWC representatives, because according to the Directive and the Act on European Works Councils not all companies are cross border companies[13]. Entities that are part of a European

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12 The website monitored by the Ministry of Labour and Social Policy, Department of Social Dialogue and Partnership. Information on the amount of works councils is available in the database at this website as of 15.08.2014. Source: http://www.dialog.gov.pl/dialog-krajowy/informowanie-i-konsultowanie/rady-pracownikow/ 17.10.2014.
13 There are approximately 200 cross boarder companies in Poland. More information about the activities of the EWC, their premises, quantity, number of representatives is available in the database on http://www.ewcdb.eu/index.php?survey=later, provided by the European Trade Union Institute, 16.10.2013.

Company or a European Cooperative Society particularly do not exist in Poland. According to the National Court Register [14] there were eight companies registered as European Companies and only one company registered as SEC in Poland[15].

Conclusion

It would seem that the EU's influence on employee participation in Poland is significant. This influence is proven by numerous regulations and directives implemented into Polish law, which have given employees the right to information, consultation and negotiation. When analyzing the extent of these acts and the intent of the law, it can be concluded that Polish workers should not be satisfied. General analysis based on the data provided by the Central Statistical Office indicates the number of entities in the national economy (by size) and information from the National Court Register; the analysis showed that in Poland there are only a few entities in which employees can exercise their right to co-determination, involvement, consultation and information (1%). Most employees may benefit from the provisions of law included in the Employee Information and Consultation Act.

This situation may be changed in favor of employees by improving the legislation related to employee participation, among other matters, in the aforementioned Act for Employee Information and Consultation, so that works councils would also be established in companies hiring less than 50 employees[16]. Inconsistent regulations of labor law, tax law, different labor costs and various laws relating to business activities in each member state of the European Union also do not support the emergence and development of European companies and cooperatives. It is high time to implement the derivative on a European private company, because the derivative was designed to provide the

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14 On 17 October 2013 in the National Court Register were registered 8 European Companies and one European Cooperative Society, http://www.krs-online.com.pl , 17.10.2013.

15 European Cooperative SCE „Flandria" was initiated by SWP „Flandria", FWP and their Belgian partners: Escapo, De Lindeboom and National Hulpfonds. It is the first European Cooperative in Poland.

16 This act also should not "limit" the role of trade unions to represent workers only, because the intention of the European Parliament – in issued the resolution on the implementation of the directive declaring the right of workers to information and consultation – among others, declares that it is important "to include unions represented in the enterprise, in order to strengthen the social dialogue ".

employees from small and medium-sized enterprises with the same participation rights.

However, it should be noted that all changes should have their origin in the form of social dialogue and should balance the interests of both, employees and employers and this is an extremely difficult task.

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