



# Global Business Conference Proceedings

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# GLOBAL BUSINESS CONFERENCE PROCEEDINGS

Dubrovnik, 13-16 October 2010.

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## **The Coding Process Evaluation In The Measurement Of Advertising Effectiveness**

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### **Abstract**

The aim of the paper is to propose a simple approach to monitor and control the encoding phase, too often neglected by the doctrine and operators in the communication process. The chosen format is the television advertising. The object of investigation is the verbal text of the spot. The spots of six brands of deodorant were analyzed (Gillette, Infasil, Neutro Roberts, Borotalco, Dove and Lycia) to verify the level of understanding of the message and, if necessary, to investigate the reasons.

### **Keywords**

Advertising effectiveness measurement, communication coding process, communication decoding process, content analysis, deodorant industry

## Introduction

All the methods used for the measurement of the advertising effectiveness are mainly focused on two elements in the communication process: the recipient (in terms of audience, a memory, storage) and the feedback (in terms of attitudes, behaviors, opinions, etc.) They completely leave out the other elements (source code, resources, environment), essentially assuming that the communication process is conducted smoothly.

Essential for an effective communication process is to use the same code by the source and recipient. Otherwise, the recipient of the message will not understand or will give a different meaning from what the emitter wanted to convey and it will occur that phenomenon that Eco (1979) has called "aberrant decoding".

However, since as stated by Watzlawich, the message is what is understood, not what "was intended" to pass it becomes important to examine not just what you wanted to communicate, but what was actually communicated. Therefore the aim of the paper is to propose a simple approach to monitor and control the encoding phase, too often neglected by the doctrine and operators in the communication process.

## Literature Review

While recognizing a fundamental impossibility of measuring the overall effectiveness of advertising, it is appropriate to develop and apply methods and measures, including partial verification of results, given the level of advertising investment.

Regarding the difficulties of measuring the global effectiveness of advertising, this is due essentially to the following considerations (Corvi, 2007):

- the advertising policy interacts with other hardly isolated variables (behavior, marketing policies, financial etc.) and environmental factors (competition, economic situation etc.);
- the results of advertising have varied nature and not always are translatable into quantitative terms;
- advertising leads to long-term effects. Therefore, not always the results occur in the same period in which costs are incurred.

As regards, however, to the possibility of partial evaluations of measurable results, we can say that in literature and practice, basically two models have been applied, the dichotomous model and the three-dimensional model.

The dichotomous model is applicable mainly in product and brand advertising, aiming to isolate and evaluate separately the following:

- the effect on sales, which concerns the assessment of the suitability of advertising to influence the volume of sales or market share, regardless of the possible influence of other phenomena (Batra et al., 1995);
- the effect of communication, it refers to the ability to pass, with appropriate messages, a more or less significant concept to the public. This effect is examined in the literature following different approaches: sociological, semiotic, psychological, socio-psychological (some of the authors that studied the effect of communication are: Moingeon, 1993; Friedman, 1979; Taylor et al., 1996; Barthes, 1964; Durand, 1964; Mick, 1986; Mittelstaedt, 1990; Ray, 1982; Kapferer, 1990).

The major criticisms to the dichotomous model concern the partiality of the evaluations and their inability to provide reliable breakdowns of the effects achieved by the advertising and those generated by other business variables (marketing and communication ones). For these reasons it is sometimes preferred the three-dimensional model (Strong, 1925). It proposes a

hierarchy of communication effects (AIDA model by Lewis, 1898, and Dagmar model proposed by Russel H. Colley in 1961, just to mention the most common ones), namely the dimension of the cognitive (comprehension and memory), affective (emotions, and perceptions) and behavioral (intentions and actions) effects.

These models are used both during the planning of the advertising campaigns and in evaluating their effectiveness.

## Research

In order to analyze the message encoding in the advertising campaign, six television commercials have been taken into account. Therefore, the format analyzed is the "spot" advertising.

The objects of study are six brands of deodorant (Gillette, Infasil, Neutro Roberts Borotalco, Lylcia and Dove). The product type and brands analyzed were chosen on the basis of simple considerations:

- deodorant is a well known and frequently used product;
- it is present in large retail;
- the chosen brands are direct competitors in terms of price, target, method of communication, distribution;
- they are all characterized by high reputation;
- they realized competitive campaigns in the same period (homogeneity in the type of campaign), aimed at promoting the features and benefits of the specific brands.

Other brands of deodorant, in fact, are characterized by the presence in different distribution channels (perfumers, chemists, herbalists, flagship stores), by different price levels and by the use of different media.

For complete information, the following briefly describes the content of the commercials analyzed. The Gillette's spot (fig. 1) opens with the presence of a researcher of La Sapienza University who is also very attentive to innovations: having established, through the aid of a chart, the loss of effectiveness over time of many traditional deodorants, he suggests a totally revolutionary one. This is, precisely, the new deodorant from Gillette, which, thanks to its special technology, can become active and reactivated several times during the day, to ensure a performance unsurpassed.

*Figure 1: Some frames of advertisements Gillette*



In Infasil's spots (fig. 2) we can see two newlyweds who returned home after a long day of festivities on the occasion of their marriage. They relax happily on a big bed, starting fresh effusions. When the man is closer to the armpit of his wife a voice introduces the new Infasil deodorant "not to spoil a so special moment".

Figure 2: Some frames of the Infasil spot



In the Neutro Roberts' spot (fig. 3), however, there are a father and his child in the early morning as they prepare to exit.

The man, already lagging behind, is framed as he tries to comb her daughter quickly, while preparing a small backpack and reversing the entire contents on the floor and running wildly with the child to try to take the bus (which, however, leaves without them).

Then, he can be seen walking to accompany his daughter to school and rushing to the office where he attends a very important meeting.

Figure 3: Some frames of the advertisement of Neutro Roberts



Despite the stressful morning, full of incidents, the man realizes that his shirt is still intact, with no halo of sweat and thanks to its valuable ally, Neutro Roberts deodorant. It ensures maximum efficacy and an extraordinary dry.

The spot of Borotalco (fig. 4) is set in an airport, where a young boy, long overdue, is forced to carry heavy luggages and take off, its timetable leading among people crowding the only escalator accessible.

Figure 4: Some frames of the advertisement of Borotalco



The effort is enormous, but finally he manages to get to the check-in. The agent responsible for supervising asks him to go under the metal detector and, when the boy raises his arms for a control, we realize that under his armpits there is no trace of sweat: the credit is attributed to Borotalco deodorant, the only one with substances able to absorb the sweat, leaving him cool and dry.

The spot of Lycia (fig. 5) is a collage of shots that captures several women in their bathroom while getting ready: they all use the same deodorant brand.

Figure 5: A few frames of the advertisement of Lycia



The product, in fact, as stated by the voice in the background, is the only one able to ensure maximum effectiveness in preventing and neutralizing odors, leaving a pleasant sensation of freshness and well-being throughout the day.

The last brand considered is Dove (fig. 6). In the short clip you see some "real women" (as defined by the voice in the background) that, after testing for seven days, the deodorant show satisfied and smiling their smooth armpits, stating to feel their skin soft, velvety, protected and visibly more beautiful.

Figure 6: Some frames of the advertisement of Dove



## Methodology

To investigate the encoding of the message of the different brands of deodorant the technique of content analysis was applied to the verbal texts of the spots described.

It should be noted that, for the purposes of this survey, nor the visual elements (such as expressions of the actors, the colors used for the art, gestures, postures, movements), or auditory elements (as, for example, the sounds, melodies, sound effects) were taken into account. It is clear that all the aspects just mentioned are an integral part of the communication conveyed through the advertisement: what we want to examine in the present context, however, is the verbal message, a part from any other factor.

The words of the six spots, then, were carefully transcribed in order to facilitate the study and interpretation. The body, namely the set of texts considered for the research purposes was split according to the grammatical criterion, recognizing, as unit of analysis, a single word.

For the choice of the categories it was used a focus group composed of 12 people. The focus group was aimed not only to obtain the appropriate categories to classify the various units of analysis, but also to make a distinction between them, separating the "rational categories" (according to those involved, acting predominantly on cognitive and objective side) from the "emotional categories" (which, however, are taking on the most emotional and experiential side).

Reading the various texts has therefore suggested the identification of the following six categories (table 1), used to classify the various units of analysis:

- innovation, which includes all those terms such as "innovations", "invention", "new" "innovative", "invented", which refer to a revolutionary idea that was not there before;
- science, recalls all those expressions that in some way are related to science, research, medicine (part of this class words such as "researcher", "test", "university", "scientific");

- effectiveness, which are terms that refer to the validity of the product ("effective", "effectiveness");
- sensations, where this category refers the most emotional, or personal perceptions and impressions (think, for example, words like "fresh", "welfare", "feel", "beautiful", "feel")
- challenge, which includes expressions that refer to the hectic life in the context of challenge, comparison, getting involved (think, for example, words like "extreme", "test", "super", "outdated");
- specificity that includes all terms that are related to specific functions of the advertised product (think, for example, "active", "resume", "anti-odor," "specialist", "prevent", "offset", "absorbs").

In our case, the procedure was composed by the following phases. First, the texts of the advertisements have been transcribed, while creating the six categories (innovation, effectiveness, science, sensations, challenge, specificity), distinguishing each category with a different color, to make it instantly recognizable. After highlighting the various units and connecting the appropriate category, it was built a contingency table, a double entry table, characterized by the different brands of deodorant under investigation in column and categories previously identified in row. After classifying the various units of analysis in their respective categories, based on research objectives, we created a contingency matrix, containing precisely the frequencies of categories for each unit of context.

The data were then processed by the software QDA Miner, that makes the analysis of lexical correspondences to obtain a graphical representation of the associations between the rows and columns of the matrix in a plane defined by factorial axes.

In practice, thanks to this particular statistical technique for data processing, you want to get a real map of the positioning statement by the six categories examined in relation to brands.

*Table 1: Schematic summary of the various categories identified by focus group*

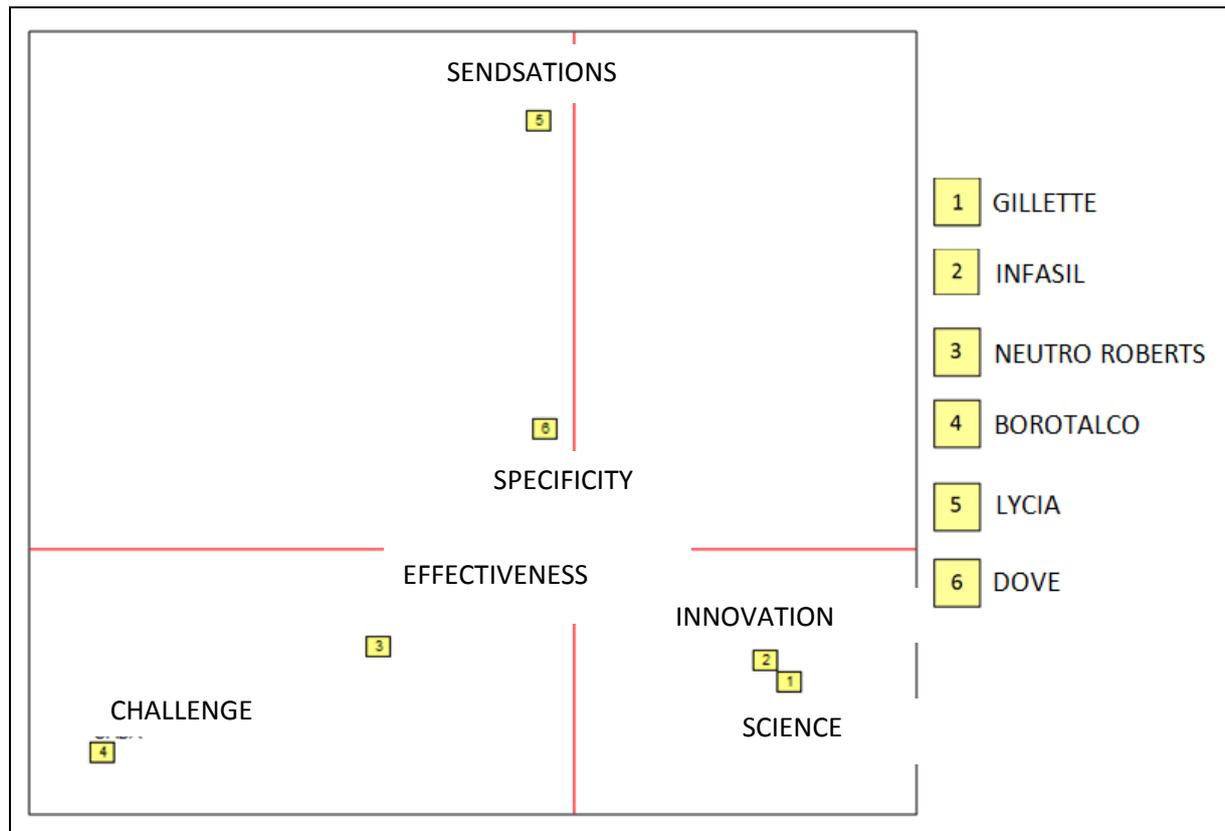
<b>Emotional categories</b>	<b>Rational categories</b>
✓ Innovation	✓ Science
✓ Challenge	✓ Effectiveness
✓ Sensations	✓ Specificity

## Results

The analysis of lexical correspondences, as explained above, has resulted in a representation of the message actually sent by the six brands with respect to the content categories examined. Given the number of rows and columns of contingency table initial (6x6), it is expected that the maximum number of factors extracted is equal to five.

The result obtained by the software is shown in figure 8. To correctly interpret the graph obtained, we used some indications provided by authors as Losito (1993) and Tuzzi (2003). First, the top three factors identified by the software explained in order of importance, respectively 40.14%, the 34.32% and 19.94% of the total inertia (for a total of 94.4% of inertia explained).

Figure 8: Plan projection of the point's row and column of points on the axes 1 and 2



Source: Authors

If each category and each brand are represented by a point (specifically, a line for each class and a column for each brand), the graphical representation of all the points allows the researcher to consider the proximity of two points line or two points column or the cross proximity between a point row and a point column.

In this case, for example, you could say that the sensations and challenge categories and Borotalco and Lycia brands (represented respectively by the number 5 and 4) have the most important positions in the graph, since they are far from axes origin.

In addition, you may notice that Gillette and Infasil (respectively identified by number 1 and 2) are very close, which means that they have similar profiles. Gillette and Infasil brands also lie close to the innovation and science categories: the position taken by mutual arrangements belong to different variables (in our case, Gillette and Infasil are two modes of column, while innovation and science are two line mode) must be evaluated with respect to positions taken by all modes, then to the whole situation. Having made this premise, we can say that the two brands in question are positively associated with innovation and scientific categories.

The brand Borotalco, marked by the number 4 in the chart, lies near the challenge category.

The same can be said of Lycia brand, identified by the number 5, with sensations.

If, however, we consider the brand Gillette (number 1) and the sensations category, you can easily see that they are placed in the chart in diametrically opposed positions to the axis center, which means that they show an inverse association.

Indeed, Gillette is located in the proximity of innovation and science, two categories far more "rational" than sensations, which identifies a more "emotional" sphere.

Even the coordinates of two points are important: Gillette (as well as innovation and science), in fact, has a negative position in the horizontal axis, while sensations has a positive position. If we focus now on specificity and effectiveness categories, we can immediately notice that they are very close to the origin of the axes: this is because they are the categories most shared by the brands tested (specificity, in fact, is present in 5 spots, while effectiveness in 3 spots).

## **Discussion And Conclusions**

In order to discuss the content analysis results we choose to compare them with what the different brands explained to be the main characteristics on their websites. In the following we will report similarities and differences in the web sites and television advertising presentations of the products.

### **Gillette**

Within its website, it describes that this is an innovative product (thanks to its revolutionary absorb odors technology) and it can demonstrate its effectiveness throughout the day, the two main categories associated to Gillette, therefore, are efficiency and innovation.

The content analysis of the verbal text of the spot, though, showed that Gillette tends to be associated with science and innovation categories: this highlights a partial discrepancy between what is explicitly stated by the company on its website and through the television spot.

### **Infasil**

Starting from what is explicitly stated by the company in its website, the deodorant is described as an extremely gentle and safe on the skin. Repeatedly, moreover, it is underlined that it is the only approved by AIDECO (the Italian dermatology and cosmetology association) and that it is effective not only for long time but also it is able to leave a pleasant sensation of freshness and protection in all circumstances.

Through the analysis of what is reported on the website, therefore, it has emerged the main categories associated are effectiveness, science and sensations.

Looking at the results of the application of content analysis, however, it can be detected that Infasil tends to be associated with innovation and science categories.

Again, so as to Gillette, there is a partial discrepancy between the placement and positioning explicitly communicated through the commercials.

### **Lycia**

In accordance with the instructions on the website (positioning explicitly stated) deodorant Lycia is described as a suitable product to prevent and neutralize odors thanks to its formula with compound onto absorbent and purifying extracts. It is also outlined as a highly effective deodorant, able to give a pleasant feeling of well being that accompanies you all day long.

On the website, therefore, several advantages of the deodorant are emphasized, which are within the sensation, specificity and science categories.

If we consider the position received through the spot, however, we note that the category most associated with the product is sensations.

Unlike explicitly stated within the website, then, Lylcia wanted to address its communication efforts to the most emotional features of the product, like the feelings and emotions that you can feel using the deodorant.

#### Borotalco

The website reports that Borotalco is a product that can absorb perspiration thanks to its formula with micro talc, leaving you cool and dry and ensuring effective and long lasting effects. The disclosed aspects, therefore, are many: they can be returned in the sensations and effectiveness categories.

If we consider the advertisement (as determined through the application of content), however, you can see that the category most associated with the deodorant is challenge.

#### Neutro Roberts

According to the website, the main features that are highlighted are long-term effectiveness, secure action on the skin (as dermatologic tested to minimize the risk of allergies) and feel dry at every time. From the description on the website, therefore we can say that the main categories associated with the deodorant are effectiveness, science and sensations.

If you consider the position obtained through the advertisement, however, although to a lesser extent than other deodorants tested, the categories most associated with the product are effectiveness and challenge.

#### Dove

In accordance with the instructions on the website, it is described as a unique product, with its quarter of a moisturizer, its effectiveness that lasts all day and his particular care and attention to the skin. In this case, therefore, the categories involved are primarily effectiveness and specificity.

The results achieved by the application of content analysis to the verbal text of the advertisement, however, show the most important category is specificity.

### **Managerial Implications And Future**

For the brands it becomes essential to focus solely on the unique characteristics of their deodorant, so as to convey to consumers an accurate positioning. To convey all the communication efforts in one direction (focusing on a specific product quality that distinguishes and identifies it from all others) supports the storage and recall process of the brand by consumers.

In our research it has been noted that, in virtually all cases analyzed, the positioning of the brand communicated through its advertising spot differs from what explicitly stated within the website. The content analysis has proved to be a very useful methodological support in order to verify what message has been really offered to the public though the coding process.

Obviously in future research it will be interesting to compare the message that the brands really coded with the one that the public was able to decode.

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## Can We Learn Any Leadership Lessons From A Monk?

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### Abstract

#### *Introduction*

Anyone who has explored the construct of leadership over the past 30 years has realized that there has been an explosion of studies on the subject matter. For those that are busy with their hands to plow they may not be aware that 37 years ago there was a leadership symposium at Southern Illinois University that concluded that the phenomena of leadership was some other social psychological construct. Then Burns (1978) wrote his seminal book that focused on the transformative nature of the leadership. He defined leadership as “leaders inducing followers to act for certain goals that represent the values and the motivations—the wants and needs, the aspirations and expectations of both leaders and followers” (p. 19).

Prior to this revelation, leadership theorists focused on a number of theories to help explain this phenomenon. At the turn of the 20<sup>th</sup> century Great Man Theory was the focus (Bass 1990). Then Stogdill (1948) put a halt to trait theory concluding that no specific trait was correlated with leadership other than an ever so slight correlation between intelligence and leadership. For Stogdill and his team of researchers leadership was really about initiating structure (i.e., task) or consideration (i.e., relationship). Throughout the 1950’s and into the early 1970’s there were several quality iterations (e.g., Situational Leadership Theory, Leader-Member Exchange, etc.) on the behavioral approach to leadership. Again, much fervor in leadership circles without any significant consensus or momentum on clarifying leadership. Bennis & Nanus (1997) indicated that there has not been a more researched and debated topic than the construct of leadership with little or no success at reaching consensus on what leadership is.

So let us explore the perspective of a monk who lived 1500 years ago to see what we might be gleam about leadership. Saint Benedict of Nursia (A.D. 480 – 547) has been credited by some for providing the structure that still exists in the modern organization. Much of what we know about Saint Benedict is found in the writings of Saint Gregory the Great, Second Book of Dialogues (2001, Order of St. Benedict). Saint Gregory told his readers about Benedict from Benedict’s writing of the Rule (i.e., a guide for monastic life). The Rule provides a framework for daily living that is to be followed by those monks who live and work in the monastery. Benedict’s Rule is the guide for monks who established new monasteries.

Dollard, Marett-Crosby & Wright (2002); Fargo (2002) and Galbraith & Galbraith (2004) wrote about Saint Benedict and how the Rule is aligned with business organizations today. This author is interested in exploring through a structured interview process how successful leaders who have attended a Benedictine college or university implemented and applied Benedictine values that aided in their leadership success.

Procedure

In this study a purposeful sampling will be the approach applied in order to obtain an information rich sample (Patton, 1990). Patton indicated that information rich sampling is at the focal point of qualitative studies because it typically uncovers the depth of analysis sought by researchers.

In this proposed study a female staff member from the College of Saint Benedict/Saint John's University was identified as an individual who could initially identify potential alums who fit the role of leader with a Benedictine values perspective. She provided the researcher with an initial list of successful Saint Benedict and Saint John's alums who are in leadership roles and have applied Benedictine values that has enhanced their success. Each one of the initially identified alums will be asked to identify 3 more alums that fit the description of a successful leader who utilizes Benedictine values.

Patton (1990) suggests the researcher conclude the sample gathering method when a point of saturation and redundancy occur. The point of saturation occurs when few new names are provided by alums. At this point the researcher will determine the cutoff point of which alums will be interviewed.

### *Conclusion*

Leadership is a complex construct to study. Burns (1978) suggested that leaders who transform the dynamic with their followers have created a special relationship. Saint Benedict too created a special relationship with his followers. This author is interested in understanding how Benedictine values can be incorporated more intentionally in future leadership courses.

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## **Publicity vs. Advertisement: The Comparison Of Consumer Attitudes For Advertisements And Publicities In Newspapers For Technological Products**

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### **Abstract**

Brands use advertisements and also publicities for communicate with consumers and their potential customers. The brands which produce technological products should use lots of communication materials and tactics for making consumers aware because of competition. There are lots of brands who supply technological products, so there is a very tough competition between them. In this view, brands should choose the most effective way to have a positive attitude in consumers' mind.

Publicity and advertisements are two tactics of marketing, public relations and communication. For a technology brand, which one is more effective and useful? Which one is better for reliability? Which is the most advantageous one for reaching the consumers? This research explores the attitudes towards to advertisements and publicities for technological products in newspapers. It's a qualitative research and 20 adult consumers who are related with technological products are interviewed for this study. An advertisement and publicity for an unknown monitor brand at Turkey is created. And they are placed in a newspaper for measuring the attitude towards the product and the brand.

The findings suggest that publicity and advertisements are both useful and effective; so, the brands should also use them properly. But, there are advantages and disadvantages for them; so the brands should choose the right tactic for the targeted attitude.

### **Keywords**

Advertising, publicity, attitude, technology, brand

## **An Empirical Analysis Of Current QM Initiatives Impact On Organizational Innovation And Flexibility**

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### **Abstract**

In recent years, managers have opted for implementing Quality Management in their firms. The market offers different alternatives for QM implementation (EFQM, ISO, Six Sigma, etc.). Benefits of each initiative, varies from case to case. This article designs a criterion for choosing among four alternatives (Quality Control, EFQM, Six Sigma and ISO 9000), according to the different effects that QM elements included in each initiative, have on innovation and flexibility capabilities. To do so, using a stepwise regression with dummy variables, it analyses 234 European organizations. The research concludes that QM elements included on Quality Control and ISO standards have the same effect on administrative and technical innovation, and operational and strategic flexibility. QM elements included in EFQM model have a deeper impact on administrative and technical innovation, and strategic flexibility. And finally, QM elements included in Six Sigma methodology have a deeper impact on operational flexibility.

### **Keywords**

ISO standards, EFQM model, six sigma, innovation, flexibility

## Limits To Growth And The Economic Crisis

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### Abstract

This paper compares and evaluates neo-classical and ecological approaches to economics in relation to climate change and Peak Oil. It examines the evidence for limits to growth and the options for creating economies that can function and provide prosperity without growth in a world reaching key resource and pollution limits.

### Keywords

Economic theory, Peak Oil, paradigm shift, limits to growth

## Introduction

Conventional explanations for the 2007 Global Economic Crisis refer to the US housing bubble bursting and the consequent collapse of complex financial instruments. If these explanations were correct, then bailing out the banks and propping up economies with massive fiscal stimulus packages might work to produce economic recovery. In this paper, I suggest an alternative explanation of the economic crisis and argue that current bailout and stimulus strategies will provide no more than a short term reprieve from the crisis and a temporary illusion of recovery. As a philosopher, I examine the causal adequacy of the ontological metaphors underlying theories and disciplines. In this paper, I compare the adequacy of theories and ontologies drawn from economics, on the one hand, and ecology on the other, in the context of explaining the 2007 economic crisis.

Mainstream economic modelling failed dismally to predict the 2007 Global Economic Crisis. In contrast, in June of 2005, having identified energy in general, and oil in particular, as a critical resource, I accurately predicted the likelihood of a 2007 economic crisis. I based my prediction on the evidence that we could expect supply shortfalls in 2007, because experts on global oil supply had shown there were not enough oil production projects in the pipeline to meet demand through 2007 (Skrebowski 2004, p.18). I predicted that this would lead “to either serious price rises or economic contraction at that point” (Harrison & Winter 2005, pp.8-10). My prediction that this would have a devastating impact on airline profitability, leading to bankruptcies, fare increases, and the peaking then decline of global tourism has been confirmed by events.

In the light of the failure of economic modelling, and of successful predictions based on resource limits and ecological principles, it is time to re-evaluate the merits of these competing approaches in relation to explanations of, and proposed solutions to the economic crisis.

## 1. Paradigms & Models

This paper compares mainstream economics views about sustainability with ecologically based views about sustainability.

I use Neumayer's examination of the validity of two “paradigms” of sustainability: Weak Sustainability (WS) on the one hand, and Strong Sustainability (SS) as the starting point of this discussion. He describes his account of WS as an “extension of neoclassical welfare economics (2003, p.1), while SS represents a “paradigm shift away from neoclassical environmental and resource economics towards an ‘ecological economics’” (2003, p.27).

WS asserts that human created capital can substitute for natural capital, and that as long as the sum of capital continues to grow, humans will be better off (Neumayer 2003, p.22). This paradigm makes no distinction between different sorts of capital. From this perspective, the destruction of the earth's food production capacity would be ok as long as there is a sufficient increase in capacity to produce things like mobile phones and televisions to grow the total sum of capital.

SS, in contrast, asserts that some elements of natural capital cannot be substituted for, and that they are therefore essential for human welfare. According to SS growth in human created capital cannot substitute for a decline of essential natural capital (Neumayer 2003, p.24). From this perspective, having more widgets cannot compensate for loss of food production capacity or liveable climate.

Neumayer suggests that as there is conflicting evidence as to whether economic growth is compatible with maintaining or improving environmental quality, “no general conclusions on the relationship between economic growth and the environment can be drawn” (2003, p.91)

and therefore, science can provide no guidance as to which paradigm “society should follow if it is committed to [Sustainable Development] SD” (2003, p.88).

While Neumayer takes the concept of “paradigm” from Kuhn, and claims to reject “naive’ or ‘dogmatic’ falsificationism” in favour of “sophisticated falsificationism”, in line with the arguments of Lakatos and Feyerabend (2003, pp.91-2), he clearly misinterprets their writings. Neumayer compares the arguments and evidence for WS vs. SS and says that “both paradigms are non-falsifiable under scientific standards” because they both “rest on certain assumptions as well as hypotheses and claims about the (distant future) that are non-refutable” (2003, p.88). He argues that because neither paradigm is “falsifiable” science “can give no unambiguous answer which paradigm of sustainability ... is correct” (2003, pp.88-91). Falsificationism is based on a hypothetico-deductive understanding of scientific theories. Both Popper (1972) and Positivism understand science in terms of a concrete analogy that maps the structure of formal deductive logic onto scientific theories. This mapping is shown in Table 1.

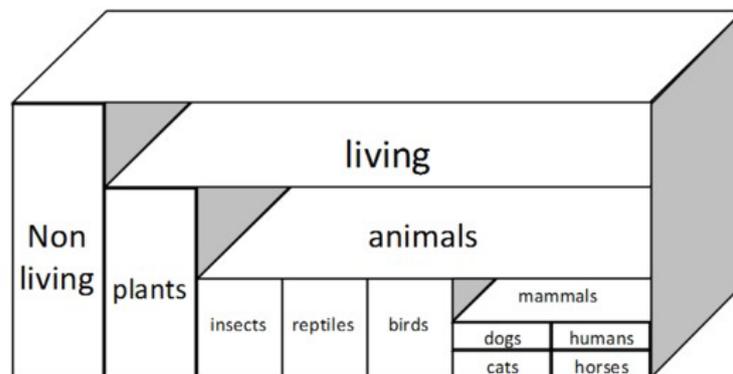
**Table 1: Mapping arguments onto scientific theories**

argument	scientific explanation
<b>premise:</b> <i>a</i> is an <i>x</i>	<b>initial conditions:</b> observable event <i>a</i> at (time) $t_1$
<b>warrant:</b> If <i>x</i> then <i>y</i>	<b>covering law (or theory or hypothesis)</b>
<b>conclusion:</b> So, <i>y</i>	<b>prediction:</b> observable event <i>b</i> at (time) $t_2$
If ' <i>y</i> ' is true, then the argument is true	If ' <i>b</i> ' is true, then the theory is true (Positivists)
If ' <i>y</i> ' is false, then the argument is false	If ' <i>b</i> ' is false, then the theory is falsified (Popper)

It is clear that Kuhn's introduction of the concept of “paradigm” is based on a rejection of this analogical understanding of theories as arguments (1962). Despite his obfuscating language, contrasting “naive” falsification with “sophisticated” falsification, it is also clear from Lakatos's discussion of “degenerating” and “progressive” problem shifts in science (1970) that his position on the nature of science is substantially similar to Kuhn's. Following Kuhn's and Lakatos's example, the examination of historical case studies has demonstrated that the distinction between science and non-science is not falsifiability (which Neumeyer accepts (2003, p.91)), and that falsification is not the mechanism which results in theory defeat.

Figure 1: Categorisation as sorting into containers

**Figure1: Categorisation as sorting into containers**



Lakoff argues that formal logic itself is based on a concrete analogy which maps containers onto classes; and part-whole relations onto subclass relations (1987, pp.366-7, pp. 456-9), like that shown in Figure 1. It is only in the special case where a situation can be understood in

terms of objects in containers in part-whole relations that formal logic is adequate for reasoning about the situation.

The relevance of formal logic for scientific reasoning depends on the idea that ideas and objects can be sorted into categories based on shared objective properties and characteristics as shown in Figure 1. However, the taxonomy in Figure 1 does not match “the way the world is”. Instead it reflects the sorts of distinctions our perceptual apparatus is capable of making. Complex, non-deterministic, evolutionary systems like the climate system or human economic systems do not have the properties required to be mapped by objectivist categories. Our understanding of these domains is based on analogies, models, and metaphors which are structured by non-transitive relations of similarity, not objective relations of identity and difference.

The main priority in science is not formal logical relations but in causal relations. What is important is not that a model share all the properties of the domain it models, but that the model's causal properties behave in a similar way to the causal properties of the domain we are trying to understand (Cartwright 1983, p.157).

Causal laws cannot be reduced to either logical conditionals or statistical correlation. Countervailing causes can operate and cancel out the effect of a cause, so that the absence of a consequent does not falsify the causal claim. We know smoking causes lung cancer, but not all smokers have lung cancer. Similarly, the existence of a correlation between two factors does not guarantee a causal relation. The actual causal factor may co-occur with the factor measured. So, for instance, in one study number of refrigerators owned was correlated with risk of heart attack, but there is no plausible causal story in which refrigerators cause heart attacks. The real test of our causal beliefs is whether they give us effective strategies for action (Cartwright 1983, p.37).

Concrete physical models are useful for scientists because they allow them to manipulate and test a proxy for the causal properties of the phenomena they are interested in. The fact that such models can't be falsified doesn't affect their usefulness.

Whereas Neumayer confuses theories with paradigms (2003, p.28), Masterman argues that the “construct sense of 'paradigm' ... is the fundamental one” (1970, p.76). She goes on to describe this construct sense of “paradigm” in terms of it being a “concrete analogy” that provides a “way of seeing”. Such a construct is either a physical “model”; a “picture”; an “analogy-drawing sequence of word-uses”; or a combination of these (1970, p.79). Science advances by testing and extending these concrete analogies to and beyond their limits. All analogies eventually fail, the point is to establish which model or analogy best accounts for some phenomena, and which is best suited to the task at hand, not to work out which is “correct”.

## 2. Economic Models

Whereas concrete analogies are explicitly recognised by research in the physical sciences, it is much less the case that the concrete analogies relied on in the social sciences are subject to explicit scrutiny or testing. In order to evaluate WS and SS, we need to identify the causal properties of the underlying concrete analogies or models of the relation between economy and environment, rather than restrict our attention to the assertions that follow from those models. WS reflects the mainstream economic view that the economy is either independent of nature, or that nature and natural resources are a subset of the economy. Figure 2 is a concrete image representing this understanding of the relationship between earth and economy.

Figure 2: The environment is part of the economy

### **Figure 2: The environment is part of the economy**



SS recognises that human beings and all our social and economic activities are a part nature, and dependent on the resources and environmental 'services' provided by the natural systems we are part of. Figure 3 is a concrete image representing this understanding of the relationship between earth and economy.

**Figure 3: The economy is part of the environment**



Having identified the concrete images that capture the underlying causal properties of the the competing models, we can then test their causal adequacy.

### 3. Evaluating Models

Because WS sees the economy as being outside of the environment, it does not recognise any environmental limits to growth. SS, on the other hand, does recognise environmental limits to growth. The question of limits, then, is a major causal feature distinguishing the two models. The Club of Rome raised the problem of resource constraints with their publication of Limits to Growth in 1972. Their scenario modelling showed that neither technology improvements nor resource discoveries could prevent ecosystem and human population collapse by the middle of the 21st century if consumption and population growth trends continued (Donella H. Meadows et al. 1972).

Whether rejecting the possibility of resource constraints (Neumayer 2003), or arguing for an end to economic growth in order to avoid ecosystem collapse (Jackson, 2009), economists continue to repeat old misrepresentations of the Limits to Growth, rather than check for themselves what Meadows et al actually said.

Neumayer, for example, claims that Meadows et al naively extrapolate "past trends without considering how technical progress and a change in relative prices can work to overcome apparent scarcity limits" (Neumayer 2003, p.46) This claim reflects received wisdom within

economics but totally misrepresents the nature of Club of Rome modelling. Their modelling does not involve extrapolation of past trends at all, but a systems model of the interactions of multiple variables. Meadows et al systematically varied assumptions about resource availability, technological advance, pollution control, agricultural outputs etc. What their modelling showed was that regardless of changes to these variables in the model, such as increased resource availability, technological advance, pollution control, efficiency gains, etc, the system led to overshoot and collapse, unless population and consumption were stabilised and reduced (Meadows et al 1972).

As Lowe points out, economists continue to falsely claim that Limits to Growth, said “we would run out of resources” (2003). Neumayer, for example, falsely claims “Meadows et al. prophesied that the exhaustion of essential mineral and energy resources would make economic growth infeasible some time in the 21st century” (2003, p.46 emphasis added). Tim Jackson—Economics Commissioner on the UK Sustainable Development Commission—who should have known better, repeats a variation of this false claim—that “Meadows expected to see significant resource scarcities before the new Millennium” (2009a, p.8 emphasis added). The economists Murphy & Wooden said that “World reserves of natural gas were projected [by the Club of Rome] to be exhausted about 10 years ago and reserves of aluminium about now” (2002, p.3 emphasis added). The ABC Four Corners interviewer perpetuated this myth in a show examining the Future Dilemmas report (Foran & Poldy 2002), claiming that “The Club of Rome ... provocatively warned that in a few decades [from 1972] food, oil and minerals would run out” (Fullerton 2002 emphasis added).

As Matt Simmons discovered, when he read the original Limits to Growth,

*“After reading The Limits to Growth, I was amazed. Nowhere in the book was there any mention about running out of anything by 2000. Instead, the book’s concern was entirely focused on what the world might look like 100 years later. There was not one sentence or even a single word written about an oil shortage, or limit to any specific resource, by the year 2000” (2000, p.10).*

Contrary to claims that Limits to Growth scenario modelling ignores economic claims about the impact of rising prices, substitution, and technological progress (Neumayer 2003, p.46), their scenarios took account of all these market responses, and showed that none of them were sufficient to avoid collapse. Their modelling showed that if resource scarcity is postponed, increases in pollution lead just as inevitably to collapse (Meadows et al. 1972). As Matt Simmons reports,

*“the book’s conclusions were quite simple. The first conclusion was a view that if present growth trends continued unchanged, a limit to the growth that our planet has enjoyed would be reached sometime within the next 100 years. This would then result in a sudden and uncontrollable decline in both population and industrial capacity. ...*

*“The book... is an interesting mixture of simple, tried and true economic laws, combined with a terrific dose of logic” (2000, p.14).*

Meadows et al updated their data, re-ran their scenarios and published revised reports in 1992 and 2004, and demonstrated that their modelling had stood the test of time. Matt Simmons reports that

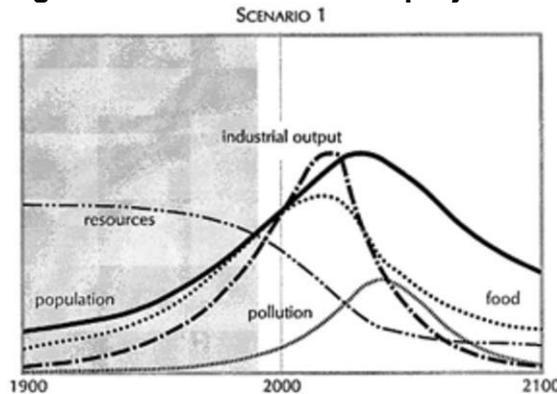
*“The most amazing aspect of the book is how accurate many of the basic trend extrapolation worries which ultimately give rise to the limits this book expresses still are, some 30 years later. In fact, for a work that has been derisively attacked by so many energy economists, a group whose own forecasting record has not stood the test of time very well, there was nothing that I could find in the book which has so far been even vaguely invalidated. To the contrary, the chilling warnings of how powerful exponential growth rate can be are right on track (2000, pp. 15-16).*

The major change Meadows et al (2004) made to their conclusions in their subsequent reports were that failure to act on their original recommendations means the resulting overshoot of

carrying capacity has resulted in permanent damage to the underlying environmental resource base of earth, so that the foreshadowed collapse will be worse and the subsequent steady state that can be achieved will be lower.

A recent CSIRO analysis tested the original Limits to Growth scenario modelling against critical indicators since its publication in 1972 (Turner, 2008). It found that the 40 years of actual data since the initial report from the Club of Rome closely fits the standard run (Figure 4) of their model which was based on business as usual growth projections (Turner, 2008, p.37). This is a much better track record of forecasting than any economic model has been able to meet.

**Figure 4: Business as usual projections**

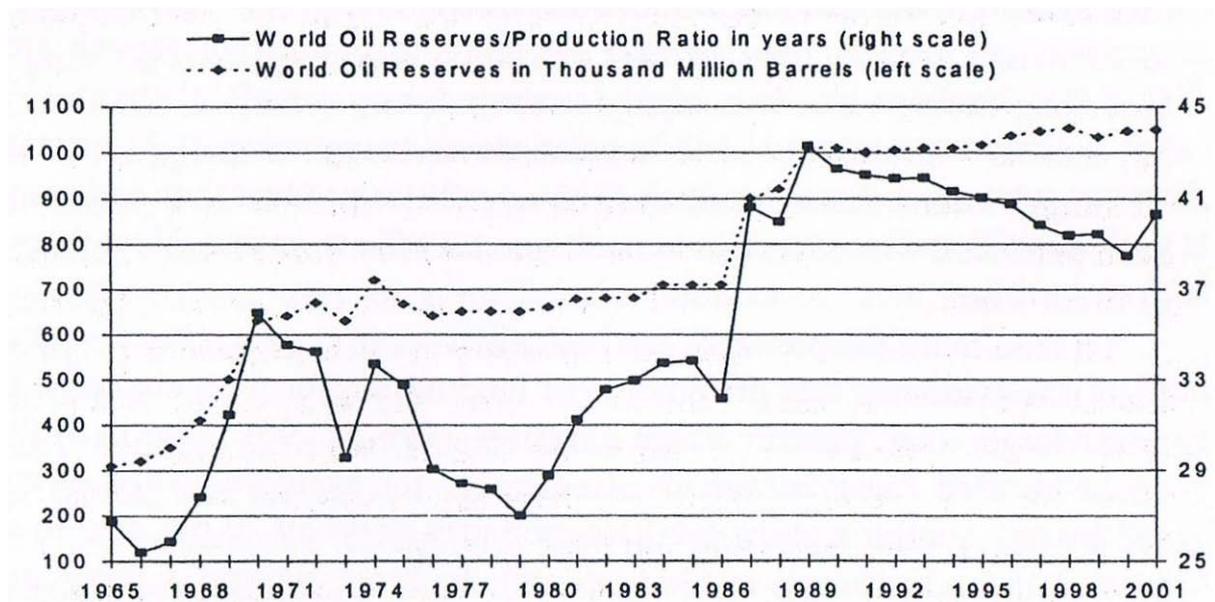


Source: Meadows et al 1992

#### 4. Resource Limits

Mainstream economists continue to deny that resource constraints will limit economic growth. Despite the evidence that Club of Rome modelling fits the observed data, economists continue to argue that availability of most resources, including oil, have increased (Neumayer 2003, p.118).

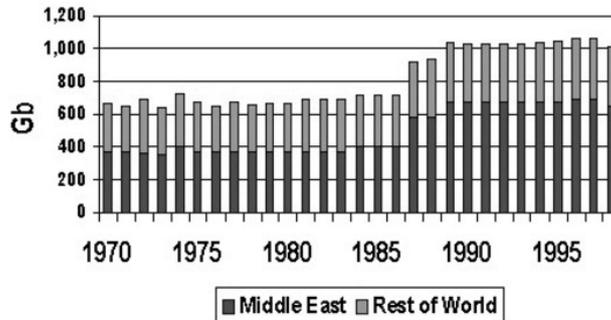
**Figure 5: World Oil Reserves**



Source: Neumayer Fig 4.1 (2003, p.116), from British Petroleum, various years.

Referring to data in Figure 5, Neumayer claimed that ‘Reserves of both energy and non-energy resources have by and large persistently been rising over time’. He claims this provides historical evidence that resource constraints can be overcome by “substitution and technical improvements”(2003, p.118). He says that while “there is no guarantee that this fortunate trend will continue into the future ... the available evidence so far seems to strongly support the substitutability assumption of WS with respect to natural capital as production input” (2003, p.119).

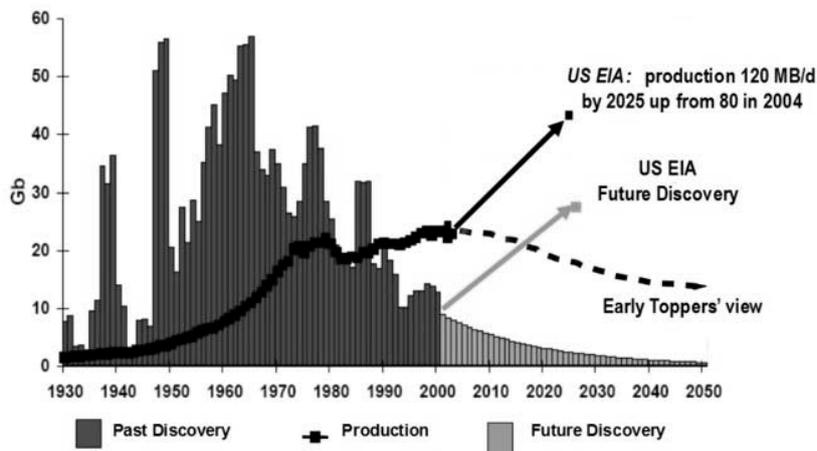
**Figure 6: Revised BP figures**



Source: Campbell 2002

Colin Campbell showed what was wrong with the oil discovery figures relied on by Neumayer. As shown in Figure 6, the large increases in reported reserves during the late 1980’s were simply due to OPEC quota wars. Figure 6 shows that when discoveries are backdated to when they actually occurred, it shows that discovery has peaked and that the reserves to production ratio is declining (Campbell 2002) .

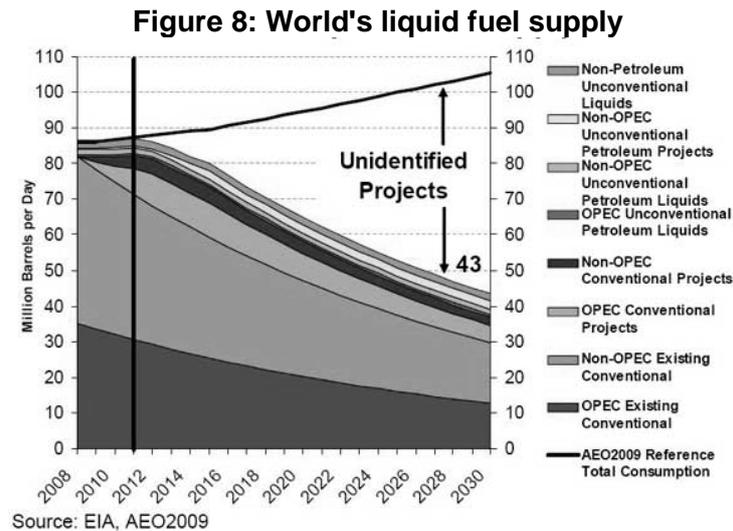
**Figure 7: Oil discovery & production**



Source: ASPO 2003, p2, with the addition of US EIA discovery & production forecasts

Figure 7 shows the corrected discovery and production trends (ASPO 2003, p.1), with the addition of unrealistic US Energy Information Administration (EIA) forecasts for future production. These forecasts are based on US Geological Survey (USGS) 5% projections. The Early Topper view is in line with actual discovery trends. For production to increase in line with EIA projections discoveries would have to increase at a scale totally at odds with the declining discover history.

Last year even the US EIA admitted that conventional oil production peaked in 2008 and all oil liquids will peak by 2012 (Auzanneau 2010). As can be seen, there are no projects online that can meet the projected shortfall in supply.



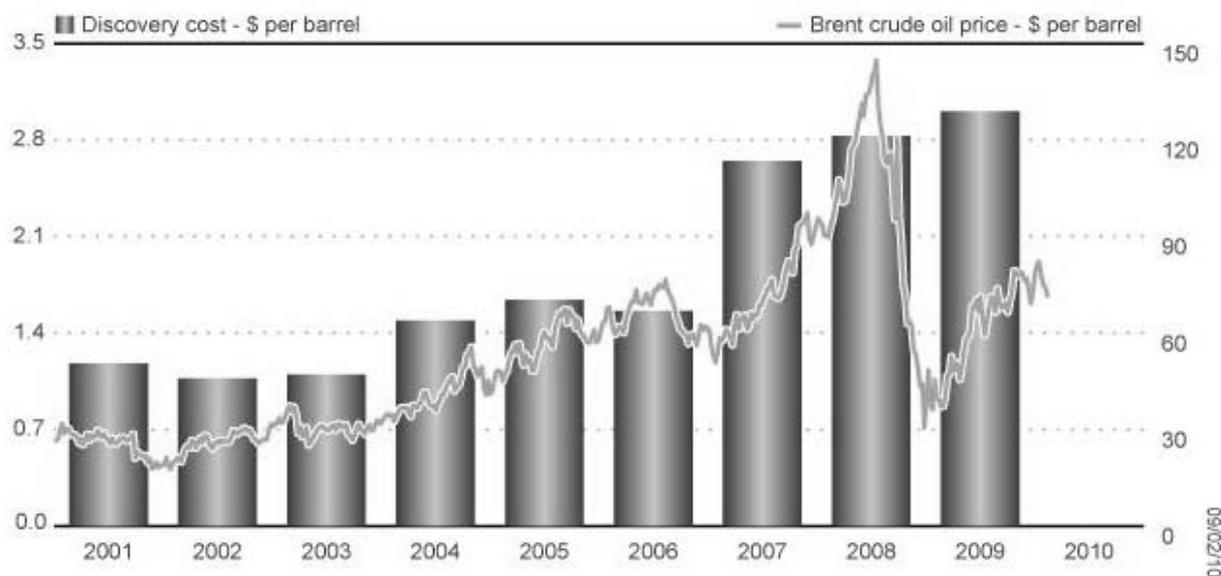
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Source: Auzanneau 2010

Oil geologists like Campbell have been forecasting since the late 1990s that production of conventional oil would peak and decline sometime between 2005 and 2010 (2002). As there is a 4 to 6 year lag between discovery and production, it has been known since 2004 that discovery to that date was insufficient to meet anticipated increases in demand by late 2007 (Skrebowski 2004), depending on the extent to which rising prices resulted in demand destruction. As can be seen from Figure 8, the picture has not significantly changed since then.

In relation to oil discovery and production, none of the predicted economic responses to scarcity have succeeded in successfully addressing oil supply difficulties. While economists claim that higher prices will result in increased exploration and hence increased discovery, the history of oil exploration and discovery does not support this optimism. When oil prices rose in the early 1980s exploration took off but the discovery trend did not move from its overall decline rate (Campbell 2002). From 2002 oil was under \$40/b and the oil majors were losing money on exploration, spending \$2 for every dollar of oil found in 2003 (Boxell 2004).

From 2000 the oil majors were sacking exploration staff and maintaining reported reserves by buying up other companies (Antosh 2003). Rationally, the oil majors are increasingly relying on takeovers to maintain their reserves, rather than exploration. While higher prices increased the exploitation of low grade or difficult to extract unconventional oil resources, this was not sufficient to compensate for the decline rate in existing fields. And while technological progress enabled some additional production to occur, its main effect appears to have been to increase extraction rates and accelerate depletion (2003, p.46 emphasis added). While oil prices have increased since 2003, costs of exploration and production have increased too (Johnson 2010; Phillips 2008; Fowler).

**Figure 9: Oil exploration costs rise**

Sources: Thomson Reuters, Wood Mackenzie Exploration Service

Reuters graphic/Scott Barber



Source: Barber, 2010

As can be seen from Figure 9, the ratio of cost of exploration to price of oil are worse now than in 2003. For exploration to be profitable, oil prices have to return to the peak prices of 2008, however, this price induced the global financial crisis.

Mainstream economics believe there is no limit to the expansion of human capital as a result of substitution of one resource for another, and technological improvements. Hamilton's (2009) analysis of the "Causes and Consequences of the Oil Shock of 2007-08" calls the idea of substitutability into question in relation to oil. He confirms that oil supply fundamentals played a critical role in triggering oil price rises and the subsequent collapse of the housing bubble and financial crisis. Hamilton argues that the unprecedented rise in oil prices contributed to the collapse of the housing bubble—houses that required long commutes were the first affected (2009, p.39). According to Hamilton (2009), high oil prices were a key factor in the decline of the US auto industry, which in turn increased unemployment and reduced disposable income – exacerbating the housing collapse and financial crisis in a vicious cycle.

Whereas economic theory treats all commodities as equivalent, the critical role of rising oil prices and supply constraints in triggering the 2007 economic crisis shows that oil plays a special role in the economy. Oil is particularly critical in relation to the availability of all other resources. Oil supply shortfalls and resulting price rises shortfalls will evaporate the apparent abundance of other mineral resources whose remaining low grade reserves are only economic to exploit in a world of abundant and cheap oil. Already the flow on from oil and gas production limits is constricting phosphorous and fertiliser production—we are facing peak fish, peak fresh water, peak soil and peak food. Some commentators have described it as "peak everything". Tim Jackson, Economics Commissioner for the UK Sustainable Development Commission shows that fossil fuel consumption remains positively correlated with GDP (2009). If economic theory were right about scarcity leading to substitution of one resource with an equivalent one, shortfalls of oil production would be dealt with by the replacement of oil by other fossil fuels or alternative energy sources. This has not happened. Instead rising oil prices have crashed the economy before they reached prices that resulted in an explosion of renewable energy projects sufficient to replace the shortfall of oil in the economy. The response of the economy to Peak Oil conflicts with the assumptions of WS.

## 5. Pollution Limits

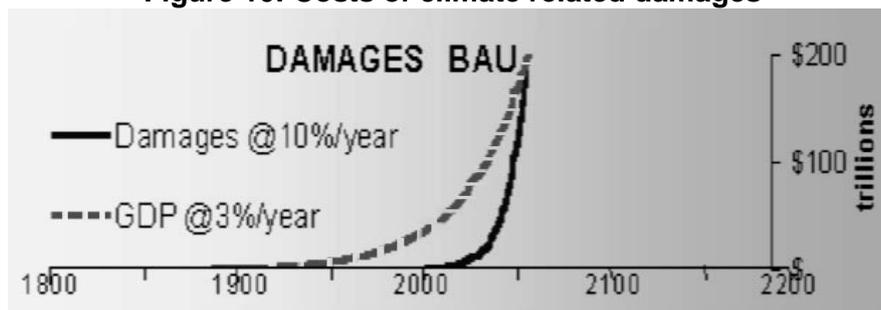
On the pollution side of the Club of Rome ledger, greenhouse emissions from profligate fossil fuel consumption are wrecking the climate. If we accelerate our exploitation of dirty fossil fuels like tar sands, shale oil, coal gas & oil, and sea bed methane in order to meet the shortfall caused by declining production of conventional oil, we will simply accelerate our rush to climate catastrophe.

The latest scientific reports show we are on the edge of a tipping point into catastrophic climate change—runaway warming which would render the planet uninhabitable for most life forms, including humans (Wadsell 2007; Hansen et al 2009). To reduce the risk of catastrophic climate change to a still worrying 13% we need significant action between now and 2012, and CO<sub>2</sub> levels will need to be stabilised at between 350 and 375 ppm by 2050 (Elzen & Meinshausen 2009).

WS assumes that the economy is outside the environment and hence that human welfare is not dependent on ecosystem health. The evidenced that global warming has the potential to transform the climate to the extent that it is no longer compatible with human well being, or even that millions of people will die, have their houses or lives damaged, be displaced, lose their livelihood, and the environmental conditions that allow people to feed themselves or access necessities like water shows that we are part of the environment, not outside it as WS asserts.

Standard neo-classical assumptions about future growth, and assumptions that underestimate costs of climate inaction lead to flawed economic models that underestimate costs of climate change. Nelson (2007) argues against treating “simplified aggregate, summary measures” as if they were “a chunk of solid facts” (p8). In order to evaluate problematic mainstream economic assumptions about substitutability and “technological fixes for any problem that may arise” (Nelson, 2007, p9) in relation to the evidence regarding impacts of climate change, we need to move beyond uni-dimensional analyses that convert all environmental impacts to dollar values. We need to explore the physical impacts and what they mean for human lives.

**Figure 10: Costs of climate related damages**



Source: Dlugolecki (2002) and Global Commons Network 2000

Over the last century the economy has grown at an average of three percent per year. Figure 10 shows damages due to weather related phenomena have been growing at ten percent per year for the past decade. By 2065 the cost of these damages will exceed projected growth in GDP – assuming GDP can continue to grow at this rate with these sort of damages (Dlugolecki 2001). Despite this projection ignoring the impact on GDP of oil peak and decline, it is indicative of the scale of costs of unmitigated climate change. If Peak Oil results in increased exploitation of energy intensive and polluting fuel sources like shale and tar sands, the consequences and costs could be worse.

Going beyond the simple aggregate measures favoured by economists in the evaluation of the costs of action to reduce the risks of runaway global warming, and rejecting economic assumptions about substitutability, also raises doubts about the optimistic estimates of minimal cost of such action.

However, if we do a risk analysis rather than a cost benefit analysis, the cost of being wrong about WS are much greater- indeed catastrophic, as compared to the risks of being wrong about SS. If we look beyond monetary measures of costs of climate change and examine the scientific case for risks of extreme costs of climate change, the case for favouring SS rather than WS is even greater.

As Limits to Growth modelling predicted, and contrary to assumptions of WS, we are on the horns of a resource and pollution dilemma.

## **6. Economic Health**

Jackson demonstrates that while the current economic system is dependent on economic growth for its stability. It is in principle possible to redesign the economic system to deliver prosperity and stability without economic growth, however, this entails a fundamental challenge to the principles of organisation of the current system (Jackson 2009, p.168).

According to Kennedy growth is driven by interest rates. Moreover, she shows that interest has a regressive impact on wealth distribution – systematically transferring wealth from the poorest 80% to the richest 20%.(1995, p9). Kennedy shows that replacing interest charges with a circulation fee (a charge for holding onto money) the economy changes to a natural growth pattern instead of its current cancerous growth pattern.

Kennedy describes a successful trial of a circulation fee between 1932 and 1933 in the Austrian town of Wörgl (1995, p.24) which ran from 1932-1933, in response to the economic collapse of the Great Depression. It demonstrates the effectiveness of just one of the available alternatives to inflationary stimulus packages. While the rest of Europe was suffering severe unemployment during the depression, Wörgl reduced its unemployment rate by 25% in one year and the money raised by the holding fee was used to pay for public works. The holding fee secured the money flow by treating money as a government service subject to a use fee and put money on the same basis as all other goods and services. Money deposited in banks to be available as interest free loans to borrowers was exempt from the 1%/month holding fee (Kennedy (1995). The experiment was closed down by the Austrian National Bank, which saw it as a threat to its monopoly over money supply (1995, p.26).

The Swedish JAK Members bank has been operating as an interest-free savings and loan bank since 1997 and provides a model of how banking can operate in the absence of positive interest charges (JAK Medlemsbank 2010). Replacing interest with holding fees provides us with one way of responding appropriately to economic contraction without the risk of rampant inflation and destruction of value posed by excessive deficit spending or the pain of “austerity measures” in the face of state bankruptcy. Jackson (2009a) provides us with a raft of additional policy options that build economic welfare without requiring economic growth.

## **Conclusion**

The evidence for Peak Oil, and evidence for dependency relation between economic growth and oil consumption supports SS not WS. The evidence for potentially devastating costs of climate change supports SS not WS and means we cannot afford not to reduce emissions even if it is costly for the economy. What we need to do is change how our economy works so it is not dependent on growth. Exponential growth is a feature of infections and cancers, not of healthy organisms. We need a healthy economy not a growing economy, and we should stop equating the two.

Oil demand destruction as a result of the 2007 economic crisis temporarily brought demand below production constraints. However, demand growth in emerging economies like China and government stimulus packages in declining economies are pushing demand back above supply capacity. Relying on stimulus packages we can at best expect to stagger from financial crisis to financial crisis, with forecast oil production declines forcing a process of bumpy economic contraction. Unless we redesign our economies to function—even flourish—without growth, economic recovery will prove a mirage. It is time to face up to the fact we live on a finite planet with finite resources.

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## Lifestyle Research With Focus Group Interviewing

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### Abstract

#### *Problem Statement*

Lifestyle research in Hungary has been conducted relying on a great number of attitudes, product categories and brands. In spite of this, value orientation and consumption concept of certain lifestyle groups is not subtle enough. The transitions between the individual lifestyle groups are not known, nor do we know in which areas of consumption the differences between lifestyle groups are the most or the least (or not at all) conspicuous. In our research, we intend to explore how much a special type of segmentation – lifestyle-based segmentation – can be used in a Hungarian market setting. For this, we formed our lifestyle-based segments first with qualitative, then with quantitative research methodology. Afterwards we examined these segments in terms of validity with focus group research. We already described the first qualitative and quantitative results in previous studies; our present study is about the focus group research.

#### *Theoretical background*

Speaking of applicability of lifestyle research in Hungary, we briefly need to mention to what extent domestic conditions affect the applicability of the method. Compared to Western countries, the level of discretionary income is much lower. Consequently, experience from previous research (Utasi 1984; Fábián et al. 1998; Hankiss 1999; Hankiss-Manchin 1996; Hankiss 2005; Németh, Veres and Kuba 2007) suggests that in many segments, price fundamentally influences consumer decisions, therefore the determining power of their means may distort or even suppress the effect of lifestyle characteristics on consumption.

### *Research*

Basically, we wish to find the answer to the question what explanatory force lifestyle typologies have and whether it is indeed outdated to analyse consumption patterns based on traditional socio-demographic and status characteristics in Hungary. To answer the above questions, we launched our two-step research. In the first step we gather information through in-depth interviews on everyday activities and consumption of people belonging to a lifestyle group.

In the second step, we made a questionnaire survey. The sample was selected from Southern Hungary (and a control sample from Budapest), aged between 18-75. The sample was selected from a mailing list using a systematic method. All in all, 2,690 people answered. We distinguished eight segments with cluster analysis by involving all the variables and factors.

The results of the in-depth interviews and the survey phase have appeared in previous publications, hence in this study we want to focus on some of its major findings. These results of the in-depth interviews point to the assumption that in our country's economic conditions, prices and discretionary income are very often a limitation for even average or slightly above-average layers of society whenever they choose from products and services or brands.

The analysis of the quantitative data leads us to the conclusion that the eight clusters, even though they overlap in certain dimensions, clearly separate from one another and show an acceptable degree of inner homogeneity. There is an interdependent relationship between status, consumption and lifestyle. We can obtain well-founded results, when the three areas are jointly interpreted.

In certain segments, status has proved to be a dominant factor determining consumption. This is especially true for lower status where the income limit largely determines consumption. In these cases, the influence of lifestyle is rather restricted. The influencing role of lifestyle has proved to be especially important when analysing the consumption of the middle class. We must note, that the middle class, being typically broad in advanced countries and which has called this kind of segmentation into life, is rather narrow in our country and, based on current trends, continuously shrinking. It poses the question again which is our investigations main dilemma.

We intended to refine the description of seven out of the given eight segments with focus group research; we left the eighth (very poor) group out of the study because their consumption is restricted by their income to such an extent that the lifestyle factors do not have a relevant influence on them. The interviewees' recruitment was carried out with snowball method; the criteria were the gender, the age (aged between 20 and 60) and the qualifications. The composition of every focus group was heterogeneous according to these aspects with the number of participants being between five and nine.

The focus group interviews consisted of two major parts: in the first part we asked the participants about their shopping habits and attitudes to brands, and in the second unit about the description of consumption groups (given to every participant on separate cards). Since according to our view (and the completed test interview) the query of all descriptions at the same time would have been quite a huge effort for the participants and it would have made the interviews monotonous and extremely long, we confronted the participants in each focus group with three descriptions each. The focus groups were formed approximately within one month; each of them was video and sound recorded, of course with assuring the participants' anonymity. In the following, we outline our research findings. We searched for and found answers to the following questions in the description of each group:

- Does the group determined by the description exist, and if yes, which are the characteristics based on which they recognised or identified it with concrete persons?  
The members of the group thought that all the eight segments exist. In almost every case they found an acquaintance that they considered fitting in a certain group. The

most important characteristics were the individual's brand choice and his/her attitude to sales and discounts.

- Are there any contradictions or disturbing part in the description? They found it disturbing if the same characteristic (for example: he/she budgets money, looks for sales; the products used at home are not branded) occurred in the description of more segment? Based on the results we had to modify the characterisations in a way that one feature should be possibly connected to one group.
- What other characteristics would they link to the consumer belonging to the given group? We received the most results from the research in this respect. The members of the focus groups "brought abstract descriptions (connected with quantitative results) we provided to life". They enriched the description with several factors (spending free time; giving reason for brand choice; other brands we had not listed but characterised the group) which made our findings more complex.
- What is the group's socio-demography like?
- One of the most appalling results of our research was that the focus members typically did not explain the consumption of each group with financial situation and status. In their opinion, a well-to-do person also can be a sales hunter, and a poorer commoner may also aim for exhibitionism by purchasing certain well-known brands.

### *Conclusion*

In the considerably complex field of lifestyle research we regarded amalgamating the qualitative and quantitative methods important. A qualitative exploratory phase proved to be useful for composing the quantitative research. A more important finding is that it is practical to examine and validate the results of the quantitative phase with the help of further qualitative technique and focus groups. In our present study we received important information regarding both the general findings and the certain developed segments from the focus group research. We were able to make the scientifically described abstract segment descriptions much more human and more interpretable with these results. The majority of the participants of the focus groups considered the groups we characterised as existing and they could link concrete persons to the certain characterisations. At the same time, it is important to note that in certain cases connecting the given person resulted in that they thought over the other characteristics connected to the group based on the given person's characteristics. In accordance with our preliminary expectations, it was relatively rare – although it occurred – that the interviewees identified themselves in the descriptions. Based on this, later on we suggest completing the researches dealing with lifestyle typology with a final, qualitative step.

### **Keywords**

Segmentation, lifestyle, focus groups

## **Ukraine's Global Strategy In The Post-Crisis Economy: Developing An Intelligent Nation To Achieve A Competitive Advantage**

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### **Abstract**

The first decade of the 21<sup>st</sup> century has demonstrated, beyond a doubt, the economic and societal transformation brought about by the exponential evolution of computer and communications technologies. Thomas Friedman's book "The World is Flat and the astounding growth of MySpace, Facebook, YouTube and other social networks are but a few of the signs that the pace of change and transformation continues to accelerate.

Businesses in Ukraine need the technological infrastructure that high speed broadband networks offer to achieve a competitive advantage in world markets. While the country has abundant resources and capable human capital to afford it the opportunity to become an Intelligent Nation the current socio-political situation does not reflect itself as being at the collaborative stage. To proceed, a consensus is necessary amongst politicians, in particular, together with business executives and academics to determine a future strategic direction for the country. If this is achieved there is every possibility of i-Ukraine becoming an exciting and rewarding reality for a country poised to create a buoyant economy benefiting all of its citizens.

### **Keywords**

Ukraine, intelligent community, competitive advantage

## Ukraine Background

Ukraine occupies the largest geographic area in Europe and has an estimated population of 46 million, three-quarters of whom are ethnic Ukrainian and approximately 22% are Russian. Other major ethnic groups represented include Belarusians, Moldovans, Crimean Tatars and Bulgarians. Since independence the official language is Ukrainian, however, Russian is still widely used especially in the eastern parts of the country. Ukraine relies heavily on its natural resources to drive the economy. These resources consist mainly of large mineral deposits, coal, grains and sugar. Exports are inclusive of these resources as well as transportation equipment, machinery and other industrial products.

Ukraine was admitted to the WTO on May 16, 2008 which dramatically opened the country's market to exports as well as investment. Record amounts of FDI (Foreign Direct Investment) have entered the country over the past several years which, prior to 2008, totaled US\$29 billion. However, the global financial crisis slowed FDI in 2008 and further slowed it in 2009.

Ukraine's GDP fell 14 percent and national debt increased by 59 percent during 2009. Newly elected president Victor Yanukovykh has vowed to lift the country out of its economic crisis. Ukraine has been, and still is, faced with corruption and weak laws. The court system is flawed discouraging many foreign investors. Businesses suffer from over regulation and too much government involvement in their strategic decision making. Although past President Victor Yushchenko made some improvements in the business climate, particularly relating to the ease of starting a business as well as the ease of conducting business, the present investment and business climate is poor and the country remains in an economic crisis. The newly elected president Viktor Yanukovykh appointed Mykola Azarov whose name, in some circles, is synonymous with government corruption, ruinous taxation rates and hostility to small business.<sup>1</sup> A recent Commonwealth of Independent States (CIS) report noted that Ukraine's economy was falling twice as fast as the CIS average and four times as fast as Central Europe. Additionally, industrial output in the country was down a stunning 32% during the first quarter of 2009.

The buoyant economy, the bubble, Ukraine enjoyed over the years prior to 2008 has burst. FDI has dried up and prices for its major export commodities have declined. Ukraine did not require an economic strategy to prosper while FDI was pouring in and metal prices, in particular, were rising. Still, today, the country does not have a strategy for economic growth. It is critical, and time is of essence, that the country devise a strategy that includes legal reform, less regulation, less government interference and a simpler and less burdensome tax system. According to a rating system that investigates the ease of paying taxes the Ukraine ranks 180<sup>th</sup> out of 181 countries.

Ukraine is now waking to the fact it must work toward a more favorable business climate to not only attract FDI but also to allow businesses to operate without the bureaucratic and regulatory burdens they are presently faced with. Businesses must also face the fact they operate in a global environment and they need to be responsive to global markets. Similar to what companies are faced with in other countries, companies within Ukraine must trim costs and improve efficiencies to be globally competitive. This often means downsizing and certainly means careful evaluation of the supply chain to eliminate all non essential costs, all redundancies as well as maximizing productivity. In order to manage supply chains effectively they need to be equipped with appropriate information software to provide necessary information, such as inventory and schedules in real time.

Volodymyr Lanoviy, president of Market Reforms Center and a former economics minister discounts government action, thus far, in giving subsidies to industries to improve their capabilities to compete globally. "No subsidies will help these enterprises as they don't use

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<sup>1</sup> Alexander J. Motyl, professor, Rutgers University. Article published in the Wall Street Journal.

new production techniques and so don't have prospects on international markets," Lanoviy remarked. (Kiev Post, June 19, 2009) According to Oleksandr Shlapak, first deputy head of the presidential secretariat, Ukraine has failed to combat the global economic crisis and, in fact, has shown itself to be weaker than other countries facing the crisis. "We do not see such a steep decline in industrial production in any other country," Shlapak said. (BBC Worldwide monitoring, July 16, 2009) He estimates the decline of Ukrainian exports in July, 2009 to be about 60% from the previous year.

Since Ukraine gained its independence on August 24, 1991 it has had difficulty capitalizing on its capable human capital, its abundant resources and its strategic geographic trade position between two major markets, the European Union (EU) and the Commonwealth of Independent States (CIS). Clearly the country needs to readjust policies to enhance the economy. However, the political turmoil the country presently faces makes it difficult to find consensus among politicians as to what strategic direction the country should follow. Ukraine's competitive position lags significantly behind most recent EU Accession countries and behind CIS member countries such as Russia, Kazakhstan and Uzbekistan. In fact, the 2008 World economic Forum reports that the Ukraine's overall competitiveness ranked 73<sup>rd</sup> out of 131 countries.<sup>2</sup>

### **A Project Carried Out Annually Titled, "Ukraine Business Enabling Environment Project" Outlines The Urgent Need For Reform In The Country**

Public and private institutions in the Ukraine rank 115 out of 131 countries and are the weak spot in Ukraine's competitiveness landscape. Reform in this area should be a priority. This is important because a well-functioning institutional framework is critical at Ukraine's current stage of development. Public institutions are opaque and inefficient, plagued by corruption and favoritism; an efficient legal framework is lacking; and weakly defined property rights affect business operations. Because the overall weak security situation in the country imposes unnecessary costs on business, the issue of unreliable police services must be addressed. Underdeveloped private institutions are among the most serious competitive weakness of the Ukraine and the issue of weak corporate governance standards should be addressed urgently. These issues [in particular] undermine investor confidence.<sup>3</sup>

At present the International Finance Corporation (IFC) is involved with a project to create a favorable environment for the development of small and medium businesses and to improve the overall investment climate in Ukraine. The objectives of the project are:

- To streamline and simplify business inspections and business permits for small to medium enterprises.
- To simplify technical regulations i.e. standardize.
- To monitor the business environment through representative surveys.
- To conduct outreach, information and advocacy work to ensure adoption and implementation of reforms.

This project is working in consort with Ukraine's government. The task is monumental as most procedures in place in Ukraine still relate more toward the Soviet "command and control" economy rather than toward the present global economy.

Vice President of the United States, Joe Biden, on a July, 2009 visit to Ukraine talked about Energy Freedom. "Your economic freedom depends on your energy freedom more than on any other single factor." The Ukraine presently obtains 70% of its gas requirements from Russia and is struggling to meet monthly payments to OAO Gazprom who has all but shut off gas supplies three times during the past three years. Although the reason generally accepted

<sup>2</sup> Ukraine Competitiveness Report 2008.

<sup>3</sup> Ukraine Business Enabling Environment (BEE) Project.

for the gas restrictions is price disputes Author Norm Bedford was given the impression by a government official that one of the reasons is the Ukraine has been stealing gas. Biden promised U.S. support for Ukraine on the apparent conditions that the country overhaul its energy system (Ukraine uses energy only one-third as efficiently as the European average), fight corruption and build lasting political institutions.

An additional freedom at stake now in Ukraine is the freedom of speech. Under a proposed Article 34-1 change to the Constitution “the use of mass media to misinform society and for anti-constitutional purpose” would be forbidden. Such information “is prohibited and shall be punishable; licenses of the mass media disseminating such information shall be revoked by a court decision without the right to reinstate.”<sup>4</sup> Diana Dutsyk a political observer with the Ukrainian Center for Independent Political Research indicates, “It is hardly possible to overcome the economic crisis by restricting political freedoms. In the modern world political freedoms are the institutional means of ensuring other fundamental freedoms, including economic ones.” The 2004 Orange Revolution set the stage for a positive attitude toward freedom in Ukraine. Dutsyk notes that freedom will determine Ukraine’s place on the geopolitical map and its prospects for the future.

### **Ukraine’s Current Competitive Global Situation**

Personal interviews and research in Kiev as well as research of current literature have led Author Norm Bedford to conclude that Ukraine does not have a current strategy to compete globally. Ukraine is considered a “transitioning economy,” however, transition is occurring very slowly. Reforms such as legal and tax are not moving ahead and are impeding the ability of businesses to compete. An additional burden on business is the high level of corruption in the country causing companies and their officers to have little trust in their politicians. Government departments are inefficient and businesses have to deal with complex forms and regulations to move their agendas (strategies) forward. To complicate the situation further, regulations continuously change and government administrators differ on how they should be interpreted. Thus, even though a company may come forward with a carefully thought strategy that complies with present regulations there is the risk that components of the strategy will not be approved. An appeal is always possible but, unfortunately, the legal system is not advanced enough to mediate such disputes and is generally considered to be inefficient.

Although Ukraine looks to the west Author Norm Bedford felt, while conducting research in the country, that Ukraine still looks toward the east in some of its business attitudes and certainly some of its political attitudes. Indeed, similar to other former socialist countries, transitioning to a market economy has presented many challenges. Learning how to compete is probably the major challenge and that introduces the need to be efficient, productive and produce a quality product. According to the World Trade Organization (WTO), which opened its doors for Ukraine’s membership in 2008, the country is slow in this learning process and has one of the weakest global performances. The European Bank for Reconstruction and Development (EBRD), which tracks transition indicators, found Ukraine has made little progress in its ability to compete and also found that its enterprises resembled more those found in socialist economies than in market economies.<sup>5</sup>

Intellectual Property Rights (IPR), or the lack thereof, also hamper business and again the legal system is unable to handle related issues. This not only frustrates business but also deters entrepreneurs as well as potential investors. Presently Small to Medium Enterprises (SME’s) are not playing a particularly major role in Ukraine not only because of the lack of IPR but also because of the lack of government assistance to improve their competitive capabilities. Technology enhancement, for example, is not a priority yet technology is a major

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<sup>4</sup> Kyiv Post, June 19, 2009.

<sup>5</sup> EBRD

driver on the global competitive playing field. It is unfortunate that a portion of the vast amounts of FDI that previously entered the country were not directed toward technology. As a result, the ability of Ukrainian companies to absorb technology is limited by international comparison. The internet has only minimally found its way into public usage with 3.9 personal computers per one hundred people in comparison with Estonia, for example, which has 48.9 personal computers per one hundred people.<sup>6</sup> FDI has invested heavily into information and communication technology (ICT) infrastructure in Estonia which is allowing the country to move away from low cost production and into higher value added production. This move by Estonia is important as countries such as Romania, which recently joined the EU, offer cheap labor thus less expensive (low cost) goods. Ukraine is now finding it more difficult to compete globally with its low value added products. Their labor costs are still relative low, however, non-wage labor costs are high and estimated by the World Bank at 38.8% of a worker's salary.

### **Creating the Intelligent Nation i-Ukraine; A Nation of Intelligent Ukrainian Communities**

The Intelligent Community movement began slowly twenty years ago driven by the continuing advances and declining costs in computer networks to the point where they began expanding from business and government systems into consumer and general societal applications. Moving through the last decade of the 20<sup>th</sup> century and into the 21<sup>st</sup> century, the continuing improvements in performance and decline in costs of ICT, (Information, Communications and Technology) has enabled the astounding growth of Apple to become the world's most valuable brand. New generations of smart phones, the iPad and other products are appearing daily. The result is the dramatic transformative impact of the evolving Intelligent Community movement as evidenced by IBM's substantial investment in The Smarter Planet and Cisco's "Smart Connected Community" initiative.

Singapore's Intelligent Island and Silicon Valley's Smart Valley initiatives in the early '90s were two pioneering examples of Intelligent Communities. For the past fifteen years the New York based Intelligent Community Forum has annually selected the Intelligent Community of the Year. During the same period the initiatives and achievements of the finalists have been even more astounding as the communities have grasped the benefits and opportunities of evolving information and communications technology. The city of Taipei won the award in 2005 and when its mayor, Mr. Ma, was subsequently elected president of Taiwan he introduced a national program in 2008 to create i-Taiwan. Today, many cities in Taiwan are competing to be the leading intelligent communities in Taiwan, thereby creating a nation of Intelligent Communities or i-Taiwan, the Intelligent Nation.

Glasgow, Scotland is another successful example. In 2004 it was recognized as the Intelligent Community of the Year because they created 60,000 jobs when they transformed themselves from a heavy industry, ship building economy to a knowledge economy and, in the process, reduced their unemployment rate from 16% to 6%.

In May this year, the creation of i-Canada was announced with author Bill Hutchison as its Board Chair and in the first two months more than three hundred organizations and leaders signed up to participate in creating, i-Canada, the Intelligent Nation. Ukraine can do the same with committed leadership and an effective plan.

With the development of Intelligent Communities and Intelligent Nations gaining a foothold in countries such as Taiwan, Singapore and Canada which, in turn, is giving companies and their communities in these countries a competitive advantage in the global economy it seems an appropriate time for Ukraine to consider the benefits of becoming a nation of Intelligent Communities. For this to occur there needs to be increased collaboration between business and government, between technology leaders and academia and between financial institutions

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<sup>6</sup> The Ukraine Competitiveness Report 2008.

and company executives. There also needs to be support for creating a globally competitive and cost effective high speed broadband infrastructure, locally and nationally. Various strategies have emerged around the world for implementing globally competitive ultra broadband community infrastructures. Indeed, the process of equipping Kiev with broadband is underway.

One of the most radical approaches was implemented in Vasteras, Sweden when they found their economy was performing poorly compared to Stockholm. This was at a time when Stockholm introduced a series of economic development initiatives. Vasteras citizens decided that they needed to implement one of the world's leading open access high speed broadband systems to reverse the downward trend in their economy. To achieve their goal they raised private funds by canvassing door to door and charging a one-time fee of US\$4500 per home to construct and connect homes and business to a new network.

In 2009 two credible reports were published relating to open access broadband infrastructures. One was financed by the Federal Communications Commission (FCC) and the other by the Organization for Economic Cooperation and Development (OECD). Both studies promoted the benefits of open access public networks as cost effective and offering important competitive strategic advantages.

New open access ultra broadband infrastructures with their next generation of collaborative ecosystems will support the rise of New Silicon Valleys throughout the world and Kiev, in particular, and Ukraine in general are ideally positioned to benefit significantly from such infrastructure. In fact, Kiev could be the economic engine of the region. Of utmost importance is the ability of business, government and academia to collaborate and innovate. However, the new applications and content that capitalizes on the potential of this infrastructure will only occur through effective collaboration within the community. Collaboration in Silicon Valley, for example, was promoted through breakfasts, dinners and socials which are legendary in the success of the Valley. The "Collaboration Ecosystem" in an Intelligent Community is Layer 3 in the i-COA model (Appendix 1).

The environment for creating an Intelligent Community begins with strong and decisive leadership in Kiev and Ukraine. The interest and support of government as well as the business community and academia to create an Intelligent Community must exist. Innovation and collaboration by all stakeholders (government, business and academia) provide the engines of growth and the foundation that leads to long term sustainable competitive models of economic growth and prosperity for all citizens. Benefits being achieved by the world's leading Intelligent Communities include FDI, economic growth, job creation and social prosperity. Exporters in i-Ukraine will have greater access to global markets. The talented youth of Ukraine will find challenging opportunities at home rather than having to move out of the country. Global resources whether they be materials, finance or even education that contributes to the building of a knowledge workforce will be more accessible to Ukraine.

Assuming, therefore, there is an interest in creating i-Ukraine the issue becomes the approach to achieving the goal. i- Ukraine will really be a collection of Intelligent Communities which means that local community leaders have to be committed. Kiev may take the lead although the smaller communities have often been the first to mobilize in other countries. In Canada Calgary, Waterloo, Fredericton and Moncton have been the leaders. Dundee and Glasgow were the first British communities to achieve awards from the Intelligent Community Forum and in Japan it was the small community of Mitaka.

When a local community becomes interested what do they need to do? First, they need to create an Intelligent Community Advisory Council of leaders from the economic and social sectors relevant to their community. The Council then needs to recruit and establish a steering committee and a separate committee for each sector relevant to that community. The sector committees will oversee the creation of the plan for their sector and the steering

committee will create an overview document showing how the plans will be pulled together to establish their Intelligent Community. Participants in developing the plan can be recruited from a blend of universities, business, social agencies and government. It has to be a joint effort.

### **The Role Of Innovation**

If the community has some economic development and job creation goals they will want to consider developing clusters of innovation with innovative companies. Achieving that goal requires an effective collaboration ecosystem. This is Layer 3 previously referred to in the five layer i-COA model. California's Silicon Valley and other industrial clusters succeeded because of their collaboration ecosystems. Other elements are also important for creating globally competitive clusters and these include anchor companies, investment capacity and a supply of talented young people. In the 1960s Boston had more of these elements than California's Silicon Valley and yet Silicon Valley surpassed the Boston area to create a larger, more influential and wealthier industrial cluster than Boston. It was Silicon Valley's Collaboration Ecosystem that was ultimately its key success factor.

It is helpful for all community plans to reflect on and include strategies around each of the layers in the i-COA Model. This model has evolved over a number of years to reflect the elements of the international communities that have won the Intelligent Community Award from the Intelligent Community Forum in New York.

Many different business, social and community applications will be relevant to the communities who wish to become Intelligent Communities. For example it is likely that all communities will be interested in the provision of interactive health care into the home. It means visiting the clinic without leaving home for certain ailments and circumstances. It allows the elderly to age better in their homes as long as possible which means that implementing remote measurements of blood pressure, temperature and other simple characteristics should be considered along with the ability for the citizen to engage in regular dialogs with the health clinic through an interactive TV set. Provision of the same interactive facility in the home for other citizens will mean that initial consultations for various ailments will be achieved through a dialog with a nurse or doctor for the first one or two consultations. Many times that is all that is required. Imagine the convenience for the citizen and the opportunity for reduction in facilities and costs in clinics and hospital outpatient facilities!

Some communities may have a manufacturing base in which case new logistics systems will be important elements in their intelligent community plans. Others may focus on financial services or some of the new knowledge industries like computer gaming, film other media industries. They will need very high speed broadband communications at low cost to become globally competitive and attractive to young knowledge workers with graphics design skills. In summary, there will be a wide range of applications and opportunities for all communities.

The issue will be which communities will take up the challenge to move forward. A high level country wide plan can support the local communities by featuring conferences, exhibitions and traveling road shows to motivate and support these communities and then focus on the communities that have the greatest interest in moving forward. When the "laggards" see the success of the "early adopters," they too will increase their interest in becoming intelligent communities and ultimately Ukraine will become i-Ukraine, a new Intelligent Nation.

## Will i-Ukraine Become A Reality?

There are some indications that the socio-political situation in Ukraine might not yet be fully prepared for the creation of an Intelligent Nation. Even though the Orange Revolution was seen as a democratic triumph the political and judicial systems in Ukraine are still weak and severely lacking many important characteristics that feature democracy in Western countries, such as transparency and accountability. As a result the Ukrainian political reality is haunted by both nepotism and corruption and in this context the relationship between business and politics has become seriously compromised. Ukraine, in deference to other post-soviet countries, does have a functioning multi-party system, however, that system does, to a large extent, promote personal or group interests rather than political representation. Selling a post on the party list to business representatives has become a major source of income for the political parties. In the national, as well as local parliaments, a significant majority of the MPs are business representatives. Their political participation enables them to lobby for favorite bills at the same time as their position as MPs guarantee them immunity from persecution. As noted by Wolowski, "in this system, political power is first of all a means of supporting, generating and maximizing economic profit."<sup>7</sup> The main stakeholders in this game are the so called oligarchs, the powerful entrepreneurs that made huge fortunes acquiring former state assets undergoing privatization and who dominate much of Ukraine's political, financial and media markets. Although a main promise of the Orange revolution's leaders was to get rid of corruption and reduce the influence of the oligarchs, the general consensus concludes that the revolution failed to deliver on both accounts. Puglisi points out that this is not entirely surprising given that a number of big and medium sized businessmen were actively supporting President Yuchshenko's campaign in 2004 and also became part of his administration after the revolution.<sup>8</sup>

Another problematic issue to overcome for the creation of an Intelligent Nation is the state of the Ukrainian higher education system. With most of the old Soviet institutional structures (as well as a lot of the staff) intact, universities in the country are haunted by heavy bureaucracy and an outdated attitude towards the way research is being conducted. One problem is natural and engineering sciences are continuously being prioritized while social sciences such as sociology, psychology, economics, business, and management are missing the attention and resources that could make them more attractive nationally as well as internationally. Furthermore, the Ukrainian research system rewards local scientific activities rather than international (when it comes to, for example, publications and conference participation) which means that Ukrainian trained researchers are lacking the competitive international advantage of their colleagues in other countries. This has led to a "brain-drain" as most Ukrainians who did their PhD abroad decided to stay there, rather than returning to Ukrainian academia.<sup>9</sup> While many scientists are frustrated with this situation and are demanding reforms there are certain parts of academia that still appear to be opposing change.<sup>10</sup> This could be related to the difficulty of leaving the Soviet mindset behind, referred to by Myhyl:

Having learned how to manipulate discourses in the Soviet era, many contemporary Ukrainian social scientists have changed their rhetoric only superficially. They have adopted the officially sponsored discourse, without divesting themselves of the former Soviet mode of thinking. All of this has contributed to the continuation of a basically Soviet style of scholarship, which carries only a veneer of the new, indicating the possibility of cognitive dissonance. This staying power of past social learning is reinforced by the continuity of academic institutional structures, and their staff.<sup>11</sup>

<sup>7</sup> Wolowski, P. (2008) Ukrainian Politics after the Orange Revolution: how far from democratic consolidation? – In: Fisher, S. (ed.) *Ukraine Quo Vadis? Chailiot Papers n°108*. European Union Institute for Security Studies, Paris, pp. 43.

<sup>8</sup> Puglisi, R. (2008) A Window to the World? Oligarchs and Foreign policy in Ukraine – In: Fisher Sabina (ed.) *Ukraine Quo Vadis? Chailiot Papers n°108*, European Union Institute for Security Studies, Paris

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<sup>11</sup> Myhul, I.M. (2002) Ukrainian Social Knowledge and Secession – In: Coppieters, B., Huysseune, M. (eds.) *Secession, History and the Social Sciences*, VUB Brussels University Press, Brussels, pp. 66.

It is probable the unwillingness these scientists to reform is linked to their losing influence and privileges in the process. Corruption is a major problem in the Ukrainian higher education system. Despite promises by authorities to battle corruption in the educational field it is actually considered to be one of the industries in the country most affected by this phenomenon. Osipian lists a number of expressions that corruption in academia takes. Bribes, he writes, ...are but the most explicit manifestations of corruption in education. Other forms of corruption include embezzlement, extortion, misuse of university property, ghost instructors, fraud, nepotism, cronyism, favoritism, kickbacks, gross waste in educational management, sexual misconduct, unauthorized private tutoring, cheating, and research misconduct.<sup>12</sup>

Specifically corruption can, in this context, be exemplified by assigning a high grade to a student in exchange for a bribe or keeping ghost instructors on the payroll.<sup>13</sup> On a higher level, corruption links the state with the academia. Politicians use state funding as a tool to influence the curriculum, ideology, and behavior of faculty, administrators and students. This interaction also enables cooperative academics to join local and central state administrations as well as businesses linked to the state officials.

Still, in spite of the rather gloomy picture painted above certain development after the Orange revolution still makes it possible to hope that changes are on the way. When in 2005 the United Nations launched an initiative to foster a dialogue on Corporate Social Responsibility (CSR) in Ukraine this was very well received both by state and business representatives. According to Kesarchuk, CSR could become one of the major means of legitimization for the oligarchs. This is interesting given that some researchers predict that the oligarchs will play an important role in the political and economical development of the country, if the relationship between state and businesses is reformed. In her words, "employment of the Western-coined concept such as CSR can help the oligarchs persuade the population that they are businessmen who speak a common language with the world community." The effort by some of the oligarchs to transform themselves into respected businessmen could be interpreted as a positive first step as it has involved a number of projects in the spheres of health, culture, education, and human rights.<sup>14</sup>

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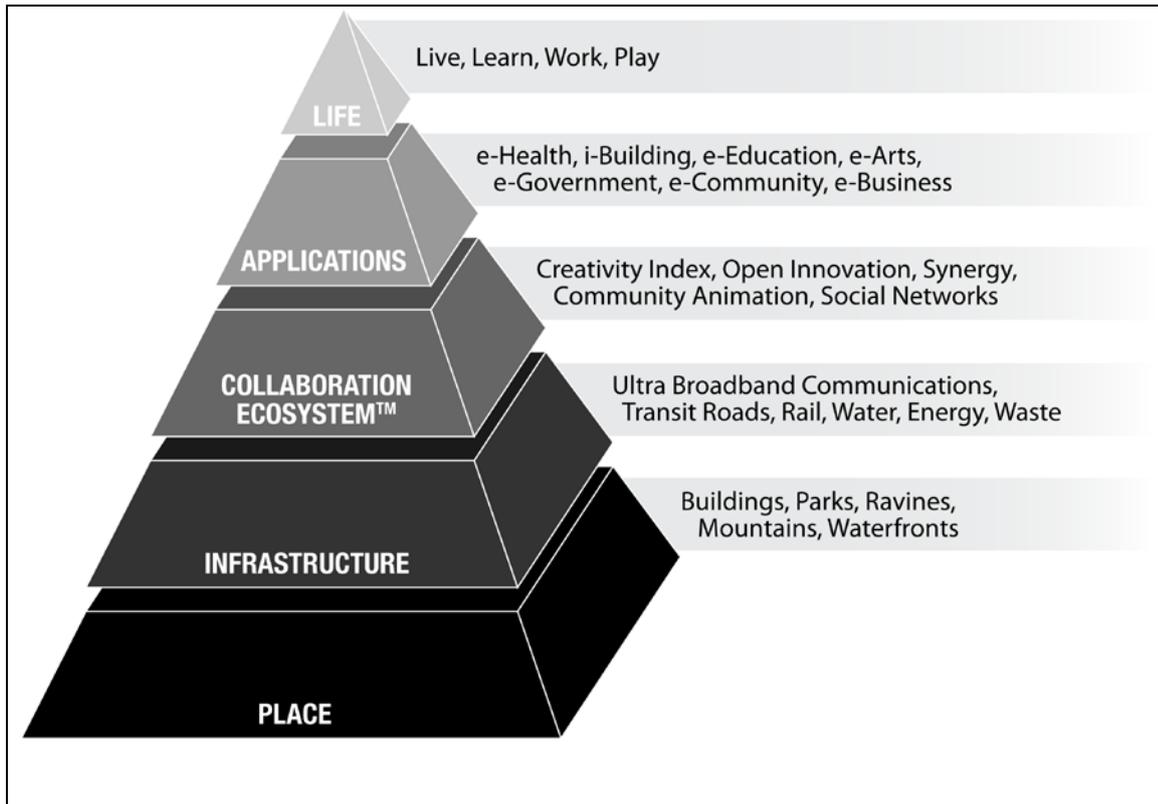
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## Appendix 1

Figure 1: *i*-COA: Intelligent Community Open Architecture Model



Source: *i*-COA® Intelligent Community Open Architecture® Available for Open Source Use at No Cost © 2010 All Rights Reserved, Hutchison Management International

## **Expenditure On The Welfare State And Economic Growth (Old And New Postsocialist EU Countries)**

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### **Abstract**

The paper examines whether redistribution policy is bad or good for economic growth by analyzing government expenditure on the welfare state in the old and new postsocialist EU countries from the mid-1990 to 2008. Due to the differences among countries fixed effect is included in the model using panel data. We find negative association between the mean values of expenditure on the welfare state in several time periods and the subsequent GDP growth rate for EU-25 and also for the subsets (EU-15 and EU-10) of the EU countries. When taking into account explicitly the government budget constraint the same conclusion can be drawn. Welfare state expenditures have statistically significant negative coefficient confirming the postulated hypothesis of a negative impact on the growth rate. For the postsocialist countries of the EU the results are mixed.

### **Keywords**

Government expenditure, welfare state, European Union

## Introduction

The welfare state exists to a certain degree in all Member States of the European Union. The theoretical arguments support the existence of different forms of the welfare state not only for well-known equity reasons but also in efficiency terms.

The term „welfare state“ is used in this paper (Barr, 2004) as a shorthand for the state's activities in four broad areas: cash benefits, health care, education and housing. In broad terms the contemporary welfare state comprises cash benefits and benefits in kind.

The demographic development in Europe will question the long-term sustainability of public finances in EU (putting aside the current fiscal problems thanks to financial and economic crisis). The assessment carried out regularly by the European Commission summarizes the projected change in age-related expenditure as a share of GDP over the long term. These expenditures (pensions, health care, education etc) represent the main bulk of spending on the welfare state. Projected changes from 2010 to 2030 and 2050 show the increase especially in Cyprus, Slovenia, Spain, Luxembourg, the Czech Republic, Hungary, Ireland and Belgium (European Economy-Public Finances in EMU, 2008, 2007). Summarizing, both the old EU countries and recently acceded Member States will face considerable sustainability gaps.

The Lisbon European Council of March 2000 called for the emphasis of public finances to be broadened from its focus on stability to include the contribution they can make for growth and employment. In the debate concerning the quality of public finances the stress has been laid on the quality of public spending. The attempt to develop an indicator of the composition of public spending as a hybrid classification that uses both national accounts and functional classification of government expenditure was made (European Economy-Public Finances in EMU, 2002). To judge the contribution of public spending items to efficiency, the 11 separate components are divided into 4 different categories, according to their presumed impact on economic efficiency. Whereas interest payments as a category of spending are always bad for efficiency, expenditure on the welfare state are embodied in the three remaining categories. Old age and survivor, compensation of employees and collective consumption are good if expenditures are contained, bad otherwise. Unemployment benefits and other social protection expenditures are good if they are not too low or too high. Education, research and development, public investment, health care and active labor-market policies are always good, provided that they do not exceed a high value.

Putting aside this very general and naturally uncertain conclusion of European statisticians' vis-à-vis the efficiency, the partial conclusion which can be drawn from this attempt is that it is possible to improve the composition of public expenditure while at the same time reducing its level.

Conventional wisdom says that redistribution through cash payments and benefits in kind is growth decelerating because of negative incentive effects on economic agents. On the contrary, some authors suggest that redistribution may be good to a certain degree. In the development models (Brown, Jackson, 1994) in the developed phase of the economy there is less need for infrastructural expenditure or for the correction of market failure. Instead transfer payments (in cash or in kind) become the main items of expenditure. But once such forms of expenditure become established, they are difficult to reduce. They also increase with heightened expectations and through the effect of the above mentioned ageing population in EU Member States.

Public spending is seen as having an important role in supporting economic growth but it also is a key variable influencing the sustainability of public finance. Over the last year the importance of quality of public finance has been brought to the forefront of public debates.

Enormously increasing public deficits caused by different stimulus packages raise the pressure to use resources more efficiently. From this point of view some progress has been made by looking at the composition of expenditure by functions of government (COFOG) which we utilize in this paper by measuring the extent of the welfare state.

The remainder of the paper is organized as follows. In Section 2 we summarize the most relevant literature stressing the different possible approaches. In Section 3 we present trends in expenditure on the welfare state in the Member States of European Union. In the following section partial approach-simple correlations with mean values has been discussed. In Section 5 the attention is concentrated on the explicit use of government budget constraint-both expenditure and taxes are analyzed and some conclusions are drawn. In Section 6 we discuss the caveats and further research.

## Literature Review

The relationship between government expenditure and economic growth can be examined from different angles of approach. Masson (2000), having analysed in what areas should a European fiscal policy operate, finds no support for the view that redistribution is favourable to growth (15 EU countries in the period 1993-98). The negative correlation is much smaller for convergence-corrected growth.

Gerson (1998) suggests that well-targeted government expenditures on health, education and infrastructure should have a positive impact on growth. Spending on social services to maintain the social fabric may increase growth if it contributes to political stability. The evidence on education and health spending is not conclusive.

Clements, Faircloth and Verhoeven (2007) estimate spending and output in good (actual output is above potential) and bad times emphasizing the statistically significant impact of the output gap on spending in the period 1989-2005 in Latin America.

Akitoby, Clements, Gupta and Inchauste (2004) apply an error-correction approach, distinguishing the short-term variations between spending and output from any longer-term relationship and using data for 51 developing countries for the period 1970-2002. They find that in many countries short-run cuts in spending, or surges in government outlays, will eventually be erased as the government spending/GDP ratio returns to its long-term average.

Arpaia and Turrini (2008) examine the process of adaptation of government expenditure to changing potential output. The possibility of distinguishing the long-run from the short-run impact permits to measure the average speed of adjustment of government expenditure to its long-term relation (3 years in the sample of EU-15 countries over the 1970-2003 period). Estimates of the long-term elasticity of expenditure are fairly robust over time and across countries.

Furceri and Poplawski Ribeiro (2008) show in a very great sample of 160 countries from 1960 to 2000 that smaller countries tend to have more volatile government spending arguing that the larger size of a country decreases the volatility of government spending because it acts as an instance against idiosyncratic shocks and leads to increasing returns to scale. The results highlight the need for small countries to undertake fiscal adjustments in order to reduce macro-fiscal vulnerabilities and improve their economic growth prospects.

Hauer and Kyobe (2008) concentrate on the efficiency of government spending as one of the key issues in public finance. In EU countries higher efficiency of spending seems to be the only way to avoid that public services are squeezed out between the opposing forces of age-related expenditure and rising tax competition. The dataset encompasses 114 countries on all income levels from 1980 to 2006. The most resounding conclusion is that higher government

expenditure relative to GDP tends to be associated with lower efficiency in the respective sector and that richer countries exhibit better public sector performance and efficiency (they focus on the health and education sectors).

Afonso and Furceri (2008) suggest that social contributions (size and volatility) have a sizeable, negative and statistically significant effect on growth in a paper analyzing a set of OECD and EU countries in 1970 to 2004. Total expenditure seems to impinge negatively on the real growth per capita, in particular. Transfers have a positive and significant effect for the EU countries.

Afonso and Alegre (2008) test whether a reallocation of government spending can enhance economic growth in a set of European countries in the period 1970-2006 applying modern panel data techniques. Their theoretical model summarizes the key findings of the relationship of public expenditure with economic growth. They are able to identify the negative impact of social security contributions on economic growth. On functional expenditure the study points to a negative impact of health and social protection expenditures on production and the growth-enhancing behavior of public expenditure on education.

It was probably L. Helms (1985) who underscored first the importance of considering the incentives provided by expenditures as well as taxes recognizing the government budget constraint. Similarly Mofidi and Stone (1990) stressed that state economic performance is dependent not only upon taxes, but also upon the types of expenditures the taxes finance. Kneller, Bleaney and Gemmell (1999) and Bleaney, Gemmell, Kneller (2001) tried to evaluate the role of fiscal policy in both neoclassical and endogenous growth models by examining the impact of various sub-divisions of expenditure and taxes on growth.

### **Trends In Expenditure On The Welfare State**

Under the heading expenditure on the welfare state we understand in the first part of the paper spending by government on 4 items at the first level (division) of COFOG classification (The international Classification of the Functions of Government. Manual on sources and methods of the compilation of COFOG statistics, Eurostat, 2007):

- GF.10 Government expenditure on social protection
- GF.09 Government expenditure on education
- GF.07 Government expenditure on health
- GF.06 Government expenditure on housing and community amenities.

Usual cross-section identifiers in panel analysis are for new countries: Bulgaria (BG), Czech Republic (CZ), Estonia (EE), Hungary (HU), Lithuania (LT), Latvia (LV), Poland (PL), Romania (RO), Slovenia (SI), and Slovakia (SK). For old EU countries: Austria (AT), Belgium (BE), Germany (DE), Denmark (DK), Greece (EL), Spain (ES), Finland (FI), France (FR), Ireland (IE), Italy (IT), Luxembourg (LU), the Netherlands (NL), Portugal (PT), Sweden (SE), United Kingdom (UK).

The broad-brushed description of the development of these expenditures (as percentage of GDP) reveals the well known fact, that the ratio of welfare state spending is higher in the majority of EU-15 than in EU-10.

Table 1: Welfare state spending - main descriptive statistics (% of GDP)

	mean	maximum	minimum	stand.dev.	observations	time period
AT	35.39	37.40	33.40	1.38	14	1995-2008
BE	30.64	31.40	29.30	0.63	14	1995-2008
DE	32.86	34.30	30.70	1.02	14	1995-2008
DK	38.36	39.80	36.80	0.95	14	1995-2008
EL	24.85	28.70	22.20	1.93	14	1995-2008
ES	24.24	25.70	23.20	0.82	14	1995-2008
FI	34.80	39.80	32.20	2.48	14	1995-2008
FR	36.86	37.60	35.70	0.61	14	1995-2008
IE	21.94	24.50	19.00	1.47	13	1995-2007
IT	29.63	31.20	28.80	0.72	14	1995-2008
LU	26.81	28.50	24.60	1.28	14	1995-2008
NL	27.65	29.40	26.00	0.91	13	1996-2008
PT	27.81	31.30	24.50	2.44	13	1995-2007
SE	38.59	42.60	35.90	1.89	14	1995-2008
UK	28.21	30.90	25.90	1.62	14	1995-2008
BG	22.20	23.70	20.00	1.25	8	2000-2007
CZ	25.19	27.20	23.10	1.38	14	1995-2008
EE	22.29	25.40	19.90	1.81	14	1995-2008
HU	28.24	30.10	25.60	1.44	7	2001-2007
LT	21.57	23.60	20.20	1.28	9	2000-2008
LV	21.84	24.60	20.00	1.15	13	1996-2008
PL	28.84	30.60	26.90	1.33	7	2002-2008
RO	19.58	21.10	19.00	0.81	6	2002-2007
SL	29.97	31.00	27.70	1.00	9	2000-2008
SK	23.56	25.90	20.40	1.50	14	1995-2008

Source: Author's calculations.

For 6 from 15 old EU countries (Austria, Denmark, Spain, Finland, Ireland and Sweden) the maximum level of spending was reached in 1995 (taking into account our data set) and since then the path is downward. The exceptions are Greece, Italy and UK with peak in 2007 (may be it is not a chance-these countries have to cope with enormous difficulties vis-à-vis the sustainability of public finances). The same can be said for Hungary (the peak in 2006), whereas the majority of EU-10 countries exhibited the peak at the beginning of the 21<sup>st</sup> century.

Table 1 shows expenditure on the welfare state as a percentage of GDP to give an idea of the size for concept of the welfare state is significant first of all in Scandinavian (in Sweden peaking even at 42.6% in 1995, in Denmark 39.8% and in Finland 39.8% in the same year) countries supplemented by France (37.6% in 2004), Austria (37.4% in 1995) and Germany (34.3% in 2003). On the other end the lowest level has been in Ireland (maximum 24.5% in 1995 with a downward path since this year till 2000 when again an upward path begins).

In the sample of EU-10 countries only Slovenia, Hungary and Poland exhibit values comparable with those of EU-15, with Baltic countries, Romania and Bulgaria having the ratio hovering around 20% of GDP.

Government spending on the welfare state appears relatively stable across countries in both sub-samples with outliers Portugal and Finland (high standard deviations in EU-15). From the Table 1 the differences among countries can be noted at the first sight. To compare the weight of differences and commonalities we apply a test whether fixed effect should be included in the model using our panel data. To do this the standard F-test is used to check fixed effects against the common constant method (the pooled OLS method) of estimation (the endogenous variable is GDP growth rate). The latter method implies that there are no

differences between the EU countries and that the hypothesis of a homogeneity in this data set is justifiable. The method assumes a common constant for all EU-25 countries and ignores the differences. In the fixed effects method the constant is treated as country specific, hence the model allows for different constants for each EU country.

In our case the fixed effects method is preferable, hence it means all basic factors specific to a particular welfare state and not varying over time are statistically significant.

EU member states differ as regards their preferences for the size of the welfare state and there is a considerable dispersion in the level of relevant expenditure/GDP ratios. Sign for the explanatory variable (expenditure on the welfare state) is minus even in this simple static model and is statistically significant.

The variant of the static fixed effect method with cross-section specific coefficient <sup>15</sup>has 20 different coefficients with a minus sign (14 significant at 10 percent level of significance). From remaining 5 coefficients with a plus sign 2 are statistically significant.

Partial conclusion which can be drawn from this static picture is that even neglecting time lags the association between GDP growth and expenditure on the welfare state has been negative.

Disentangling the expenditure on the welfare state we see in Table 2 that the decisive item is expenditure on social protection representing over 50% of welfare state expenditure. Important are also expenditure on health and education whereas expenditure on housing and community amenities are negligible and represent not shown residual in the Table 2.

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<sup>15</sup> Not shown here.

Table 2: Composition of welfare state spending

	spr		edu		hea	
	mean	%WE	mean	%WE	mean	%WE
AT	21.03	59.4	5.84	16.5	7.66	21.6
BE	17.79	58.1	5.87	19.2	6.64	21.7
DE	21.44	65.2	4.24	12.9	6.24	19.0
DK	23.56	61.4	7.24	18.9	6.91	18.0
EL	17.16	69.1	2.89	11.6	4.42	17.8
ES	13.40	55.3	4.43	18.3	5.41	22.3
FI	21.79	62.6	6.23	17.9	6.34	18.2
FR	21.37	58.0	6.28	17.0	7.51	20.4
IE	9.74	44.4	4.46	20.3	6.38	29.1
IT	17.95	60.6	4.71	15.9	6.21	21.0
LU	16.66	62.1	4.59	17.1	4.75	17.7
NL	17.39	62.9	5.03	18.2	4.37	15.8
PT	13.97	50.2	6.75	24.3	6.50	13.4
SE	23.61	61.2	7.11	18.4	6.61	17.1
UK	15.63	55.4	5.39	19.1	6.21	22.0
BG	12.99	58.5	4.08	18.4	4.50	20.3
CZ	13.04	51.8	4.54	18.0	6.43	25.5
EE	10.61	47.6	6.76	30.3	4.41	19.8
HU	16.24	57.5	5.73	20.3	5.39	19.1
LT	10.97	50.9	5.72	26.5	4.52	21.0
LV	11.62	53.2	5.61	25.7	3.65	16.7
PL	17.11	59.3	5.93	20.6	4.50	15.6
RO	9.77	49.9	3.85	19.7	3.97	20.3
SL	16.73	55.8	6.31	21.1	6.33	21.2
SK	13.38	56.8	3.71	15.7	5.50	23.3

Source: Author's calculations

The mean values of ratio of the expenditure on social protection on the total welfare expenditures are very high in Scandinavian countries, but also in Greece and Germany. Under 50% they are exhibited in Ireland, Estonia and Romania. As concerns the impact on the economic growth they are regarded to be unproductive.

Following the endogenous growth theory the expenditure on education are growth supporting (the highest ratios are seen for the Baltic states and Portugal). From the table one can deduce that not only the ratio of welfare state expenditures on GDP, but also their composition is relevant.

### Partial Approach-Simple Correlations With Mean Values

The relationship of economic growth to the composition and level of government expenditure has been investigated for many years (Hendrick and Myles, 2006 and many others). One of the often discussed questions is the direction of causality. Keynesian propositions treat government expenditure as an exogenous factor, as the right-hand side variable and GDP growth as the left-hand side variable in the regressions.

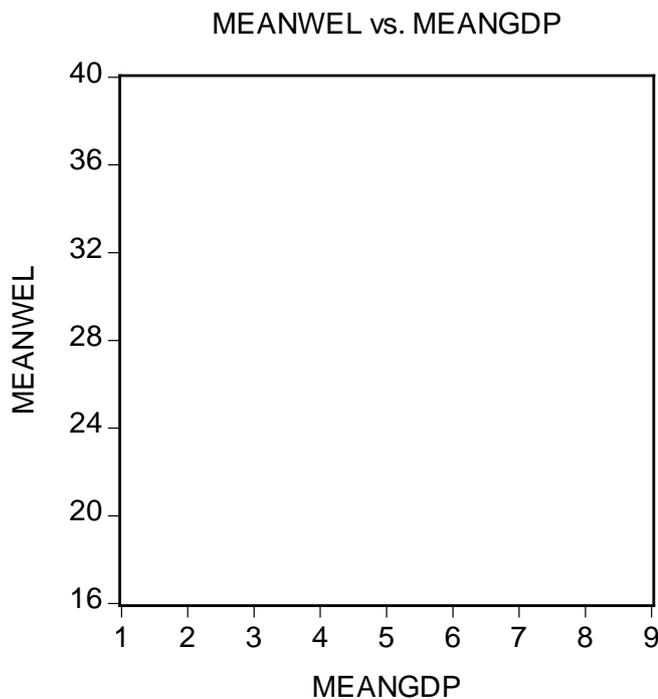
On the other side, government expenditure can be seen as being determined by the preferences of the population as expressed through the political system. Wagner's law implies that government expenditure can be treated as an endogenous factor relating government expenditure to GDP via the income elasticity of demand for government provided goods and services.

In the dynamic setting we in what follows correlate expenditure on the welfare state and GDP growth rate taking into account that in addition to the autoregressive behavior of economic growth the expenditure items induce an impact on growth distributed across several years (Afonso, Alegre, 2008).

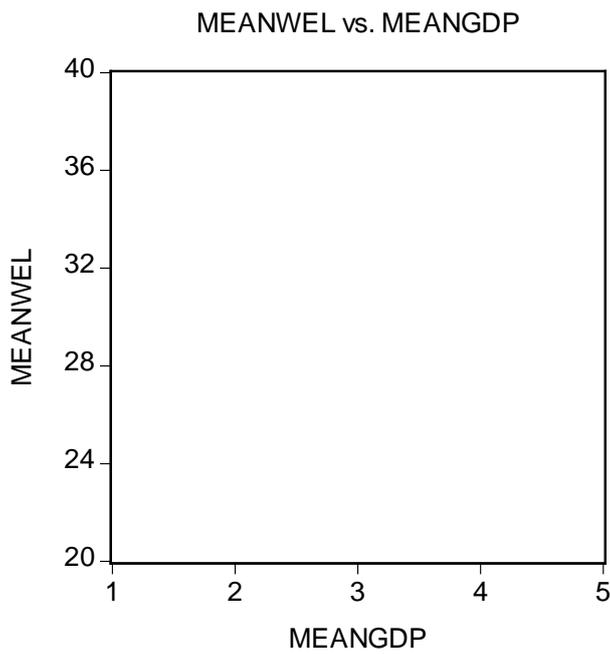
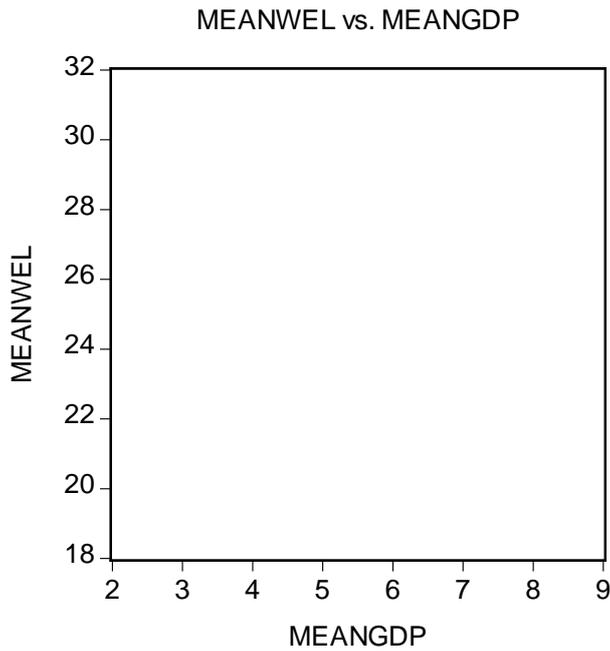
In this way the relationship can be estimated under the different forms of dynamic models. Due to the data limitations, especially for EU-10, we account for the longer-term relationship by using of variables expressed in larger frequency periods (Masson, 2000). Four spending items serving as a proxy for the extent of the welfare state are the mean values for 2002-6 and sub-periods 2002-4, 2004-6, respectively and the subsequent growth rates of GDP are the mean values for 2006-8 assuming the causality runs from expenditure on the welfare state to GDP. This selection of the periods is dictated by the data availability which does not allow taking into account a longer period.

Figures 1-3 reveal the negative association between the mean values for expenditure on the welfare state and the subsequent growth rate of GDP for the 3 sample dataset.

*Figure 1: Expenditure on the welfare state and GDP growth rate, EU-25 (mean values of expenditure 2002-6 and GDP growth rate 2006-8)*



Figures 2-3: Expenditure on the welfare state and GDP growth rate, EU-10 and EU-15 (mean values of expenditure 2002-6 and GDP growth rates 2006-8)



Estimated correlations of expenditure on the welfare state and subsequent GDP growth rates are summarized in Table 3.

*Table 3: Correlation matrices for mean values (expenditure on the welfare state 2002-6, GDP growth rates 2006-8)*

		GDP growth rates	Expenditure on the welfare state
EU-25	GDP growth rates	1	-0.6588
	Expenditure on WS	-0.6588	1
EU-15	GDP growth rates	1	-0.3516
	Expenditure on WS	-0.3516	1
EU-10	GDP growth rates	1	-0.6267
	Expenditure on WS	-0.6267	1

Negative correlation is smaller for EU-15 and much higher for EU-10. If we divide the period 2002-2006 into two parts, then for EU-25 for expenditure on the welfare state in 2002-4 the impact on the GDP growth rates in 2006-8 gives the negative correlation -0.6267. The expenditure in 2004-6 influenced the mentioned GDP growth rates with a higher negative correlation -0.6954.

Having disentangled expenditure on the welfare state we calculate similarly correlations for the three main items: social protection (SPR), education (EDU) and health (HEL).

*Table 4: Correlation coefficients for mean values (expenditure on social protection, education and health 2002-6, GDP growth rates 2006-8)*

	SPR	EDU	HEL
EU-25	-0.5800	-0.3611	-0.6962
EU-15	-0.1417	-0.4304	-0.6051
EU10	-0.4175	-0.5882	-0.3869

As expenditure on social protection represents the prevailing part of expenditure on the welfare state a relatively low coefficient for EU-15 (-0.1417) is not a surprise. On the contrary a negative coefficient between expenditure on health and GDP growth rates for EU-15 is surprisingly high.

Among the EU-10 a closer look reveals the differences between the “central” countries (the Czech Republic, Hungary, Poland, Slovakia and Slovenia) and the “peripheral” countries (Bulgaria, Estonia, Latvia, Lithuania and Romania). In the latter group the differences between the mean values of expenditure on the welfare state and GDP growth rates are higher confirming the development theory.

Table 5: Central and peripheral postsocialist EU countries (mean expenditure on the welfare state 2002-6, mean GDP growth rates 2006-8)

	GDP means	WSE means
Central		
CZ	5.73	26.66
HU	2.30	28.72
PL	6.07	29.48
SI	5.70	30.26
SK	8.63	23.36
Unweighted average	5.69	27.70
Peripheral		
BG	6.33	22.62
EE	5.13	20.84
LT	6.83	20.72
LV	7.23	21.46
RO	7.57	19.52
Unweighted average	6.62	21.03

Higher growth rates and lower expenditure on the welfare state distinguish “peripheral” postsocialist EU countries from their “central” counterparts which are catching up on EU average more quickly.

Longer time series of the main item of expenditure on the welfare state-social protection is in some papers represented by social payments on the basis of ESA 95 neglecting the differences between COFOG and ESA 95. The ESA 95 transmission programme compares categories for COFOG analysis and ESA 95 transactions (Manual on COFOG Statistics, 2007, Statistics in Focus, Economy and Finance, 2005). The programme shows the breakdown by function and transactions: the column headings refer to the ESA 95 transaction codes and the row headings to the COFOG divisions. We use data from the transmission programme (data for 2003, million Euro) to compare social protection data in the COFOG classification having been utilized in the first part of this paper and the social payment in ESA 95.

Table 6 discovers the measure of bias when using Social protection (division 10 of COFOG) instead of a sum of some headings from ESA 95. Under social payments in ESA 95 one understands Social benefits other than social transfers in kind (D.62) plus three sub-headings of Social transfers in kind (D.63).<sup>16</sup> Firstly, Social security benefits, reimbursements (D.6311). Secondly, other social security benefits in kind for which the service is produced by market producers and purchased by general service is produced by market producers and purchased by general government units or NPISHs.

Table 6: Significance of Social protection (COFOG) for Social payment (ESA 95) in EU-25 (Social protection in % of Social payment)

AT	BE	DE	DK	EL	ES	FI	FR	IE	IT	LU	NL	PT
79.0	71.5	75.6	91.2	100	83.6	90.7	79.2	90.6	87.6	77.8	76.5	79.5
SE	UK	CZ	EE	LT	LV	HU	PL	SI	SK			
86.9	100	68.5	82.3	85.1	96.9	89.2	99.8	85.1	97.5			

Source: Author's calculations based on Table 3 (Statistics in Focus, 2005).

In some countries, first of all the Czech Republic, but also Germany, Denmark and the Netherlands Social protection (COFOG) represents only about  $\frac{3}{4}$  of Social payment in ESA 95

<sup>16</sup> If the services are produced by non-market producers (D.63122 and D.63132) and also Transfers by individual non-market goods or services (D.632) they are excluded from Social payments (Eurostat expenditure item).

according to the breakdown for 2003. These differences must be kept in mind when using longer time series of Social payment.

### Government Budget Constraint – Expenditure And Taxes

Following Helms (1985), Mofidi and Stone (1990) and Kneller and others (1999) in this part of the paper we explicitly recognize the government budget constraint linking the fiscal variables and budget balance (surplus or deficit).

The findings of the mentioned authors underscore the importance of considering the incentives provided by both expenditures and taxes. A key feature of this approach is to recognize that it is not meaningful to evaluate the effects of tax or expenditure changes in isolation: the sum of the uses must identically equal the sum of sources; both the sources and the uses of funds must be considered. With a comprehensive accounting, taxes and expenditures form budget identity, implying perfect multicollinearity. Therefore, some item must be omitted to obtain precise estimates of coefficients of the remaining items. But then the government budget constraint prevents changing one of the variables while holding the rest constant and the associated coefficients are unidentified. The point can be put formally.

The rate of growth of real GDP,  $g_{it}$  in country  $i$  at time  $t$  is a function of control variables,  $Y_{it}$ , and a vector of fiscal variables,  $X_{jt}$  :

$$g_{it} = \alpha \sum_{i=1}^k \beta_i Y_{it} + \sum_{j=1}^m \delta_j X_{jt} + u_{it} \quad (1)$$

Assuming that all elements of the budget (including the budget balance) are included, so that

$$\sum_{j=1}^m X_{jt} = 0$$

One element of  $X$  must be omitted in the estimation of equation (1) in order to avoid perfect collinearity. The omitted variable is effectively the assumed compensating element within the government's budget constraint.<sup>17</sup> Thus, if we rewrite equation (1) as:

$$g_{it} = \alpha + \sum_{i=1}^k \beta_i Y_{it} + \sum_{i=1}^{m-1} \delta_i X_{jt} + \delta_m X_{mt} + u_{it} \quad (2)$$

and then omit  $X_{mt}$  to avoid multicollinearity, the identity  $\sum_{j=1}^m X_{jt} = 0$  implies that the equation actually being estimated is :

$$g_{it} = \alpha + \sum_{i=1}^k \beta_i Y_{it} + \sum_{j=1}^{m-1} (\delta_j - \delta_m) X_{jt} + u_{it} \quad (3)$$

The standard hypothesis test of a zero coefficient of  $X_{jt}$  is in fact testing the null hypothesis that  $(\delta_j - \delta_m) = 0$  rather than  $\delta_j = 0$ . It follows that the correct interpretation of the coefficient on each fiscal item is as the effect of a unit change in the relevant item offset by a unit change in the omitted category (see equation 3), which is the implicit financing element. In this way not only the expenditure on the welfare state are estimated but also their financing is taken into account. If the category chosen to be omitted is altered, the estimated coefficients of the included items will change.

If we omit expenditures on the welfare state, then the estimated coefficients on the tax and remaining expenditure items (productive and other) represent the effect of increasing that item

<sup>17</sup> See for example Kneller and others (1999) pp.174-5. The authors try to discriminate between the neoclassical growth model (Solow) and endogenous growth models (Barro, Lucas) by analyzing the impact of various sub-divisions of expenditures (productive and nonproductive) and taxes (distortionary, nondistortionary) on economic growth.

through an exactly offsetting change in welfare state expenditures. These expenditures are the reference point.

Our regression analysis uses two control variables<sup>18</sup> – private investment as a ratio to GDP in current prices and labor force growth. Taxes are distortionary (direct plus social contributions received), indirect (taxes linked to imports and production) and other taxes and fees (the difference between total revenue and two enumerated taxes). Expenditures are productive (gross fixed capital formation of the general government plus other capital expenditure, including capital transfers), expenditure on the welfare state (see the first part of the paper) and other expenditures (the difference between total expenditure and two enumerated items). Budget balance (net lending) supplements the government budget constraint. To remove the effects of the business cycle and taking into account the lagging impact of variables we follow the standard practice of taking 3- and 5 year forward moving average of growth rates of real GDP. We apply static panel econometric techniques examining short-run (first year) effects. From different forms of panel data estimator model selection prefers the fixed effects model (one-way error model with country intercepts).

Firstly we show the results for the whole sample of 25 countries (see Table 7).

*Table 7: Regression results (EU-25)*

Estimation technique: 3-and 5-year forward moving average  
Dependent variable: growth rate of real GDP

Omitted variable:	Indirect taxes		Welfare expenditures	
	a)	b)	a)	b)
Control var.				
Priv. inv.	0.166 (5.11)	0.179 (5.53)	0.167 (5.13)	0.175 (5.54)
Labour force growth	0.133 (3.41)	0.100 (2.18)	0.133 (3.40)	0.100 (2.22)
Fiscal var.				
Distortionary taxes	-0.013 (-0.83)	-0.040 (-0.41)	-0.223 (-4.14)	-0.326 (-8.43)
Indirect taxes	----	-----	-0.210 (-3.85)	-0.322 (-8.30)
Other taxes	-0.018 (-5.91)	-0.016 (-8.73)	-0.229 (-4.21)	-0.338 (-8.72)
Productive exp.	0.188 (2.81)	0.110 (2.55)	0.400 (5.32)	0.434 (8.57)
Welfare exp.	-0.203 (-3.72)	-0.298 (-7.24)	-----	-----
Other exp.	0.156 (2.68)	0.100 (1.56)	0.369 (5.20)	0.412 (5.92)
Budget balance	0.216 (4.44)	0.015 (0.42)	0.425 (10.23)	0.326 (10.87)
Adjusted R <sup>2</sup>	0.881	0.910	0.881	0.910
No. of observations	251	213	251	213

Note: t-statistics in parentheses. a)3-year forward moving average; b)5-year forward moving average.

Country intercepts are included in the regression.

The control variables have proper signs and are statistically significant in both cases (ad a, ad b, respectively). We could enrich the list of control (conditioning) variables (initial GDP, terms of trade, aged dependency ratio), but we are not primarily interested in their discussion.

<sup>18</sup> The number of control variables could of course be increased .

In the case ad a) the fiscal variables have all the expected (proper) signs and in the majority of cases are statistically significant. When welfare expenditures are omitted, estimated tax and remaining expenditures coefficients represent the effect of an increase in that item that arises from an offsetting change in welfare expenditures. The results indicate that (at sample means) changes in all 3 kinds of taxes that are allocated to increase welfare state expenditures (with productive and other expenditures held constant) decrease the dependent variable in both ad a) and ad b) cases.

The coefficients of productive and other expenditures are positive indicating that with taxes held constant, increases in these 2 expenditure items (at the expense of welfare state expenditures) are associated with higher growth rate. The coefficients exceed in magnitude those of taxes (e.g. ad a) in Table 7 0.400 for productive expenditures and 0.223 for distortionary taxes), hence the net impact of a tax-financed increase of productive expenditures on the dependent variable is positive (0.177).

Distortionary taxes, according to the theory, reduce growth but the coefficient is large only when welfare expenditures are omitted fiscal variable. In this case the point estimate suggests that (at the sample means) an increase by one percentage point of GDP decreases the 3-year forward moving average growth rate of real GDP by 0.223 percentage points. Other taxes and fees exhibit similar coefficients.

Productive expenditures, on the other hand, have a significant positive coefficient suggesting that an increase by one percentage point of GDP raises the rate of growth of 3-year forward moving average of real GDP by around 0.20 and 0.40 percentage points. Welfare expenditures have a statistically significant negative coefficient confirming the postulated hypothesis of a negative impact on the growth rate.

In the case ad b), allowing a greater time lag, the fiscal variables have again proper signs (minus for taxes, plus for expenditures with the exception of expenditures on the welfare state.

In the Table 8 we examine the differences between EU-15 and EU-10.

Table 8: Regression results for EU-15 and EU-10

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 Estimation technique: 3-year forward moving average  
 Dependent variable: Rate of growth of real GDP  
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Omitted var. :	Indirect taxes		Welfare expenditures	
Control var.	a	b	a	b
Priv.inv.	0.123 (2.71)	0.056 (1.11)	0.116 (2.53)	0.056 (1.13)
Labour force gr.	0.058 (0.87)	0.199 (4.14)	0.066 (0.98)	0.195 (4.11)
Fiscal var.				
Dist. taxes	0.287 (2.76)	- 0.007 (-0.48)	-0.235 (-3.90)	0.017 (0.13)
Ind. Taxes	-----	-----	-0.597 (-4.83)	0.024 (0.20)
Other taxes	-0.077 (-0.55)	-0.010 (-2.42)	-0.605 (-5.61)	0.014 (0.12)
Prod. Exp.	0.010 (0.08)	0.261 (2.22)	0.562 (5.78)	0.232 (1.67)
Welf. Exp.	-0.525 (-4.50)	0.041 (0.34)	-----	-----
Other exp.	0.076 (0.72)	-0.241 (-1.89)	0.597 (8.29)	-0.267 (-1.70)
Budget balance	-0.043 (-0.42)	0.401 (3.59)	0.494 (10.08)	0.368 (3.61)
Adjusted R <sup>2</sup>	0.801	0.782	0.801	0.783
No.of observation	163	88	163	88

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Note: t-statistics in parenthesis. a) EU-15; b) EU-10.

The main differences between EU-15 and EU-10 are:

- Private investment as a factor of growth has proper sign, but is statistically insignificant in EU-10. The coefficients are larger and significant for EU-15. Labor force growth is very important and significant in EU-10.
- Distortionary taxes are statistically insignificant in EU-10 and the signs are not proper in all cases.
- Productive expenditures have proper sign in all cases and are mainly significant stressing the growth enhancement role of capital expenditures in both subsamples.
- The expenditure on the welfare state has a large and significant negative coefficient in EU-15, but an improper statistically insignificant sign for EU-10. In these countries with a lower ratio of welfare state expenditure on GDP these items are not yet so growth retarding as in EU-15.
- Budget surplus supports the growth especially in EU-10.

### Caveats And Further Research

Theoretically there are several channels through which government expenditure can impact economic growth. The composition, efficiency and effectiveness of expenditure is one of the five dimensions of the quality of public finance. A set of indicators has been identified for each of the five dimensions. Composite indicators (Public Finances in EMU, 2009) try to measure (as benchmarks the authors used the unweighted EU-15 average) the quality of public finance.

Tables in Public Finances in EMU, 2009 show the positions of member states. As concerns composite indicators the tables (pp.77,78) reveal (data from 2007) that no country outperformed in all dimensions, but some countries showed weaknesses In a number of

areas. The postsocialist, recently acceded EU members get high scores in the composition of expenditure (the majority of them over the EU average), however, this is not yet fully reflected in outcomes (especially health).

Government expenditure analyzed in our paper does not yet mean the efficiency in spending. Assessing efficiency can serve as a benchmark to guide expenditure rationalization by focusing cuts in relatively inefficient areas of spending.

Mattina and Gunnarson (2007) assessed the efficiency of public spending by comparing expenditure on health, education and social protection (the main parts of our proxy for measuring the extent of the welfare state) to outcome indicators, such as mortality rates, standardized test scores and poverty risk. Multiple outcome health model comprising 22 European countries reveals that both low-spending and low-outcome countries (Latvia and Poland) and high-spending and high-outcome countries (Sweden and Italy) are relatively efficient. Multiple outcome education efficiency model shows that relatively efficient are Hungary, Poland and Bulgaria and relatively inefficient Estonia, Slovenia and Latvia (in the sample of our EU-10 countries), with Slovakia, the Czech Republic and Romania in the middle of the ranking table.

A range of measurement techniques is applied by Afonso, Schuknecht, Tanzi (2006) in the analysis of public sector efficiency in the postsocialist members of EU compared to that in emerging markets. According to the authors countries with lean public sectors and public expenditure ratios not far from 30 percent of GDP tend to be most efficient. They stress that calls to allocate a given, or a larger share of national budgets to health and education assume the identity between expenditure and benefits, but the two can be widely different and this difference is central to the concept of efficiency. The same conclusion has been drawn in a newer paper of these authors (2006) applying public sector performance (PSP) and public sector efficiency (PSE) scores.

The message is clear: especially postsocialist new EU Member States can considerably increase the efficiency of government expenditure on the welfare state by improving the outcomes and restraining the spending taking into account a negative association between this kind of expenditure and economic growth.

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## National Productivity Of The Southeast Asian Countries

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### Abstract

Southeast Asia is a region with abundant natural resources. Its half billion people provide a sufficient labor force for economic activities. Each year, a collective gross domestic product (GDP) of nearly one trillion US dollars is generated. The ten countries of the Association of Southeast Asian Nations (ASEAN), Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam, have close political, economic, and cultural relationships. Following the lead of Japan and the four tigers of Asia- Hong Kong, Korea, Singapore, and Taiwan, the flying-geese model properly explains how this region has experienced impressive economic development in the 1980s and 1990s.

Despite the Asian financial crisis of 1997, which threatened the economy of many countries in the region, the region recovered in a very short period of time to attain a high growth rate. The ratio of exports and imports to GDP in the region is over 20%, which is higher than the world average. As the ASEAN Free Trade Area (AFTA) becomes a reality, trade in this region is expected to be more vigorous than before, which will undoubtedly trigger the growth of world trade and GDP. Southeast Asia thus has the potential of becoming an economic giant in the world. It is worthwhile to investigate the performance of this region in economic development.

The purposes of this paper are twofold. One is to propose a method for measuring the national productivity and the other is to use that method to measure the national productivity of the ten Southeast Asian countries. From the viewpoint of labor productivity and capital productivity, the ten countries are classified as high-productivity, low-productivity, labor-intensive, and capital-intensive countries. Together with the indicator for representing living standards, GDP per capita, the Southeast Asian countries are categorized into four types: fast growing-moderate living standards, fast growing-low living standards, stable growing-high living standards, and slow growing-low living standards. Categorization facilitates inference regarding their characteristics and stage of economic development. More importantly, weak areas are identified for future improvement.

### Keywords

Productivity, competitiveness, Southeast Asia

## **Nepotism, Favoritism And Cronyism: A Study Of Their Effects On Organizational Trust At SME In Turkey**

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### **Abstract**

Nowadays it is accepted all around the world that SME (small and medium size enterprises) have great importance on economically development, employment and divisional development. On the report about the district of European Community; It is well defined that SME' are the source of vitalism and dynamism of the economy, as their contribution to the economic system by their effect on industrial, commercial and service fields and their contributions on employment in all work places with their numbers and their different activities.

The recent study on SME' which has attracted economy and business literature, has revealed that those kinds of enterprises have magnificent roles on economic and social development. It is exactly the same in Turkey, too. SME' have great potential in all around Turkey as for their percentage in the sector, their production amount, employment they provided, and value they created.

SME', which have an important place in economic system and great contribution on industrial effort, have been struggling with many serious problems. Most of those problems reveals from the own features of the enterprises.

In the world and in Turkey, most of the SME' have family company structure. Although there are many advantages of being a family company and sharing the authority and responsibility among the members of the family, there are still some disadvantages.

At first they are not able to find qualified staff. Human Resources and Training is real big problem for small and medium size enterprises. As those kinds of enterprises produce

different kinds of work, and they work in a labor intensive way, the staff working for them must be well rounded and qualified.

In the literature, to employ someone without caring skill, ability, experience and education level, to promote that person and give him better working conditions than the others because of relative relations is called nepotism.

At present the word nepotism is used for people who misuse the position on benefit of the family and it is well observed in the developing countries where traditional association and relationship is experienced. As the assignment relied on the family ties is called nepotism, assignment relied on the friendship is called cronyism. Work loss and failure is unavoidable for the countries where employment is made by favoritism, without caring success and ability criteria just by nepotism and cronyism.

If there is nepotism or cronyism in an organization, and if the other workers feel themselves as second class workers, and the management do not take any action to avoid this situation, It means the alarm bells are ringing for the organization.

Workers who would feel themselves unimportant in time, they will start to search for better conditions and honor for themselves. This situation will relatively effect to the organizational confidence which is related to the satisfaction and efficiency of the workers. It is well known that the confidence fact is extremely important for the long term profitability of the organization and welfare of the members of it. Findings of many researches made on that aspect have shown that the confidence fact reduces the cost of process regarding inspection mechanism and organization structure, increases info sharing and as a result prevents dissociation and uncertainty on given decisions for the organization.

Starting from this point, our study is based on the effects of nepotism and cronyism on organizational confidence for SME in Turkey.

### **Keywords**

Nepotism, favoritism, cronyism, organizational trust, SME

## Introduction

When family businesses are mentioned, the very first thing that comes to the mind is small businesses. It is thought that family businesses perform better than large businesses and it is also thought that family businesses do not perform better due to various reasons affecting corporate performance like favoritism to a relative, conflicts between generations, and equity-sharing problems (Mc Farlin, 2008).

It increasingly attracts the attention that employees frequently find jobs with the help of the relatives, friends, and acquaintances and companies ask for the reference of their employees to fulfill the job openings. Ioannides and Loury emphasize in their research that informal relations are frequently used in many countries' labor market (2004). But selection process that is based on family ties and social relations favors individuals related to the company while it harms individuals that are not related to the corporation although they can be more adequate and expert. People may want their relatives to be employed although they are not the best employees in the market since they care their relatives and they get benefit when their relatives find jobs. Besides, individuals that are connected to a network with old friends can be preferred due to the reasons unrelated to performance like fidelity, mutual kindness, and self-sacrifice (Ponzo, 2010)

The term nepotism that is derived from the Latin word 'nepos' meaning nephew is defined in the Webster's Third New International Dictionary (Merriam-Webster, 2000) as employing nephews or other relatives due to their relations rather than their professional competencies. As for favoritism, it is defined as bestowing privilege upon friends, colleagues, and acquaintances in the areas of employment and career decisions. "Cronyism is defined as giving preference to politicians' particularly to cronies (close friends of long standing), especially as evidenced in appointment of hangers-on to office without regard to their qualifications" (Ashour 2004).

There are studies emphasizing that nepotism is more likely in large firms and nepotism is dominant in smaller firms in less developed countries (Hayajenh, Maghraki, Al Dabbagh, 1994; William, Laker, 2005).

Some researchers believe that nepotism reduces or removes the cost of search for employee, selection of the employee and search for the talent (Ponzo, 2009; Bellow, 2003). Some researchers believe that employees make connections with individuals with similar talent and abilities. So, businesses give priority to recommendations given by high performance employees about the job applications. Because they believe that employees who have similar abilities with the current ones will be hired (Montgomery, 1991). This can be interpreted as the fastest way to hire qualified employees.

Business managements frequently face with uncertainty during employee selections. Firstly, firms can not exactly know the productivity and the characteristics of the potential employee candidate. Secondly, potential employee candidate do not have sufficient information about the job (whether he/she can meet the expectations of the offered job, responsibilities, and career benefits, etc.). As a result, in order to maintain high performance and low turnover in businesses, informal communication can provide information about both the characteristics of the potential employee candidate that cannot be observed and potential employee candidate's quality of work (Simon & Warner, 1992).

However studies examining relations within the family, recruitment process and firm performance has shown that poor choices are often made.

One of the negative effects of nepotism on human resource management, recruitment and placement practices is the fact that individuals are employed because of friendship and consanguinity. These individuals may not perform as good as adequate candidates since they

may not have adequate knowledge and professional competencies. This situation cause unproductiveness among current employees in the business and may have a negative influence on the organizational justice, motivation and harmony. There may be disagreements between present employees and employees that are hired due to their consanguinity. These can cause productive employees to leave their jobs and they can make comments to their clients, colleagues, and acquaintances about the corporation which may have negative effects on the corporation, operations of the corporation and the image of the corporation (Arasli, Tümer, 2008).

On the other hand, economists consider nepotism as an obstacle that result in unproductiveness and waste on the change of the commercial institutions in a healthy way (Bellow, 2003). Family business under the influence of nepotism provides employment and authority to family members even though they are insufficient. This can mislead the company manager's perceptions about the relatives employed by the company and may decrease the efficiency of the auditing and makes it hard to discipline employees who are also family members (Schulze,2003). Similarly, it is stated that in case of nepotism, efficiency will be low in auditing employees who are also family members. According to this point of view, nested parent-child relationship may cause parent-business owners make deviations in evaluations and make wrong comments about their children (Lubatkin,2005; Schulze,Lubatkin& Dino,2003; Schulze, Lubatkin, Dino & Buchholtz, 2001). Employees who are family members may forget their responsibilities since they can use resources for inefficient projects without any concerns about being fired (Ben-Amar& Andre, 2006; Villalonga&Amit,2006) and since they believe they will not be fired without doing anything (Lubatkin,2005, Perez-Gonzales,2006).

In nepotism which may be defined as transfer of management among generations existing in family businesses, in many countries (Scoppa, 2009),when the founder of the company retires, he/she hands over the company to the heir rather than the company manager (Buckart,2003;Bertrand and Schoar,2006).

This generally reflects the preferences of the founder who is satisfied with the fact that the heir manages the firm's profit. Nevertheless, various studies underlines that performance reduces in the presence of family heirship (Perez-Gonzales, 2006). The more the negative feeling about the organization, the less the level of trust among employees (Polat, 56, 2009). Trust is an important factor in increasing the organizational and individual performance because studies put forth a close relationship between organizational trust and performance (Lafferty and Lafferty, 2001).

What reveal the trust in the system are the written rules and the consistency of agencies that set up rules in the application of rules. The trust has arisen from the faith in protecting individual rights with the written rules of the system (Esmer, 1999).

The word trust is defined in Merriam-Webster Online Dictionary (2004) as "assured reliance on the character, ability, strength, or truth of someone or something."

Stanley (2005) states trust is a relationship. Employees need a confident relationship with their managers. This applies to all kinds of businesses and lack of trust has a significant effect on the performance of the organization. Without the organizational trust, the probability of reaching organizational goals is either little or impossible. Trust is the basic human value that should be developed in every organization (Smith, 2005).

Smith, in his study "How to achieve organizational trust within an accounting department" searches for an answer to which behaviors build up trust in organizations (2005). According to Smith, the most important behaviors in developing organizational trust are as follows: honesty, openness, consistency, competency and caring about employees and what they are saying and feeling.

Trust has an influence on various variables like job satisfaction, organizational justice, and organizational commitment, the ability to solve problems, to take risks and creativity in the organization.

Organizations in which the perception of trust is high, communication channels are open and employees are more prone to collaborate. Moreover, as the level of perception of trust increases, it has more positive effects on the development of the organizational characteristics such as organizational innovation, learning, creating a desirable organization, knowledge generation, handing over authority, and the organization's environmental compliance. Organizational trust lowers the intention to quit the job, absenteeism, turnover rate and thus the efficiency increases. Trust raises the performance of the individuals, the group, the department and the organization by both effecting aforementioned variables and directly (Polat, 2009).

### **Purpose**

The purpose of the research is to analyze the effect of nepotism, favoritism, and cronyism on the organizational trust of the employees in family businesses. One of the ways to identify problems in management science is to ask employees' opinion. In this frame, answers are sought to questions:

- What are the difficulties and concerns of employees related to nepotism, favoritism, and cronyism in SMEs in Turkey?
- Do the nepotism, favoritism, and cronyism affects the employees' trust to the organization that they work for?

### **Methodolgy**

The methodology of this research is based on qualitative research methodology and procedure.

### **Participants**

Participants work for a SME in the textile sector in Istanbul. Purposeful sampling is used in determination of the participants. It is paid attention to the absence of consanguinity between the firm owner and the participant or any other acquaintances and in total 38 participants is chosen. Each participant is informed about the aim of the research and voluntary participation procedure and invited to the research voluntarily. Nicknames including employee1-employee38 are given to the employees to protect their identities.

### **Data Collection Tools**

Qualitative data collecting methods are used to collect the relevant data for explaining the research questions. Data collection tool of the research contains semi-structured interview protocol and observation. One to one interviews are conducted with each participant and interview forms are filled and their voice records are also taken. Afterwards, audio records are converted to texts. During the interviews "favoring a relative" is used instead of nepotism, "favoring an acquaintance" is used instead of favoritism, and "political favoring" is used instead of cronyism.

### **Data Analysis**

Of all the quantitative data analysis methods, inductive descriptive analysis and content comparison methods are used in the analysis of the interview data (Coffey & Atkinson, 1996; Marshall & Rossman, 1999; Miles & Huberman, 1994).

In descriptive analysis, data collected are described in a systematic and open way in accordance with the previously determined topics. These descriptions are explained and interpreted, reason-result relations are examined and conclusions are reached (Yıldırım ve Şimşek 2005). For this reason;

The topics, which are “difficulties in the firm and concerns of employees” and “employees’ perception of justice and trust”, were developed with the data analysis considering literature, the aim of the research, the question of the research, interview notes, and records. Data are chosen, defined and have been brought together in a significant and logical manner. Associations between findings have been tried to be made.

It is asserted that using concepts and terms like “reliability”, “validity”, and “generalization” which are characteristics of quantitative research is not appropriate for explaining a qualitative research reports (Patton, 2002; Stenbacka, 2001) and authors of this paper agree with this. Direct quotations from participants’ comments were made to document the participants’ opinions and to prove ‘the accuracy’ and ‘the credibility’ of the research findings.

## **Findings**

### **Difficulties in the Firm and Concerns of Employees Due To Nepotism, Favoritism and Cronyism**

Participants’ comments throughout the interviews can be summarized with the following statements;

- Sometimes competences (Skills and capabilities) are not taken into consideration in employing and promoting. Only consanguinity is taken into consideration.
- Being a subordinate to a person who does not have sufficient qualities is irritating.
- Even though there is no need for an employee, positions may be opened for family members who want to work.
- I have concerns about not being promoted since I do not have consanguinity with the company owners.
- Employees who are family members or acquaintances receive salaries more than the work they do and their positions. This unfair salary policy may annoy me and other employees.
- Employees who are family members or acquaintances have flexible working hours. Most of the time they start later and at the end of the day they leave the job earlier. Moreover, they take the day off more frequently. They do not have sufficient time for work and as a result they both slowed down the workflow and have a negative influence on us.
- Employees who are family members or acquaintances use more useful offices on their own. Other employees use smaller rooms and several employees share the same office.

### **The Effect of Nepotism, Favoritism, and Cronyism on the Employees’ Organizational Trust**

Statements of participants are categorized as follows;

- Unfair implementations shake my confidence to the firm.
- The fact that my managers prefer relatives and acquaintances in handing over their authority makes me feel nothing.
- I feel defenseless in the workplace against practices and behaviors that I can not control.
- I can not be certain that the firm I worked for will strive at my benefit or at least behave in a way not harming me.
- I sometimes suspect that communication channels are open.
- I have concerns about the fact that relatives or acquaintances ranked with me know the decisions taken in advance.

- I am uncomfortable about the fact that relatives and acquaintances violate the authority and responsibility.
- Sometimes I do not feel confident about my future both economically and socially. Fear of losing my job and concerns for the future may affect my productivity.
- Employees are not aware of their informal communications.
- I am anxious that employees, who are owners' relatives or acquaintances, may stab me in the back.

Employees' perception of trust is affected by traits specific to the individual like personality traits, resemblance to others, tendency to trust. Main variables determining trust can be categorized as follows; organizational culture, leadership, communication type. These variables may affect the employees' level of trust in a positive or negative way. For instance, the more the organizational support, equality, job satisfaction, justice, commitment, the more the trust. In spite of that, the more the negative feeling against the organization, the lower the level of trust (Polat, 2009). As a result, it is found that nepotism and favoritism create unfairness, dissatisfaction and negative feelings in the business that is examined and they shake the confidence of employee.

## Result

Results we found are in compliance with the literature about hiring less skilled employees due to their family and social relations and that leads to the poor performance of the firm (Perez-Gonzales,2006; Bandiera,2007; Kramarz & Nordstorm Skans,2007). Evidence shows that firms are strategically limited to certain areas related to work in utilization of unofficial networks. If employers are aware that hiring an individual who is recommended by family members will not be productive, he/she may not use this method in hiring white-collar employees and may use it for hiring blue-collar employees.

Open organization culture is formed easily, communication channels are open, and employees are more prone to work collaboratively in the organizations with high level of trust. Furthermore, as the level of trust increases, it has more positive effects on the development of the organizational characteristics such as organizational innovation, learning, creating a desirable organization, knowledge generation, handing over authority and resource, and increasing the organization's environmental compliance and group commitment. It is observed that confidence of the employees in the examined firm is shaken as a result of the implementations towards employees who are family members.

This research is limited to the examined company and it may lead researchers to quantitative studies to be done in the future.

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## **Globalization In The World Pharmaceutical Industry**

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### **Abstract**

World pharmaceutical industry has been changing profoundly as it has been steadily concentrating and consolidating in the last decade. According to our survey, we may underline the intensive marketing way of thinking and marketing management represents an extremely important operational and even strategic function for proper business performance and long-term strategic orientation for the world pharmaceutical companies. Moreover, we may even conclude that intensive consolidation of the world pharmaceutical industry is definitively market driven and conditioned by strategic marketing management issues, like lack of brand new products, increased competitiveness, fast globalization process, intensive global marketing and sales activities, changed structure of competitors, fight for global market shares and customers' loyalty. We may estimate that marketing management is to play even more important and especially the highest top priority strategic role in the future globalization and consolidation processes of the world pharmaceutical industry.

### **Keywords**

Pharmaceutical industry, globalization, consolidation, marketing management

## **Government Corporate Control - Not Corporate Social Responsibility The Lack Of A Level Playing Field And Questionable Profit Making Advantage Should Force The Setting Of CSR Levels Into Government Hands In A Post Financial Crisis World'**

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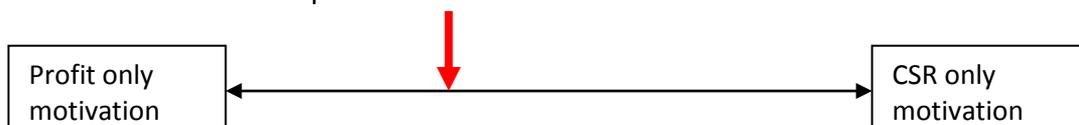
### **Abstract**

Corporate Social Responsibility is an interesting question. It is perhaps not unreasonable that an organization that uses the resources of a society - and in so doing benefits financially - should also make a positive contribution to that same society, and certainly should not be the cause of any lasting negative impacts on the natural environment or the community.

The problem is that an organization exists to create profit for its owners, and any positive contributions it makes to society, or any minimization of its own negative impact, detracts from its ability to make money. It is also fair to say that the corporate business world provides products and services we all need, and is only able to attract and organize the capital it uses to provide these products and services because of the profit it generates.

The argument then simply boils down to a balance between profit and corporate social responsibility.

If profit and corporate social responsibility are two ends of a continuum then all profit making organizations must exist at a point somewhere on the continuum.



What then, is the reasonable point on this continuum?

This question is obviously very difficult to answer. In order to find an answer one must consider factors such as the size of the organization, its relative profit, the impacts it has, the level of competition it faces and of course, all factors must be considered in terms of timeframes and the prevailing economic landscape.

Put another way: Regardless of our personal views on this topic we must accept that there is no one, single point on the continuum to which all organizations should reasonably aspire. If only life was that simple!

A further complication is that we live in a globalizing world, and this means that any organization existing in more than one region may be subject to different levels of competition

and government legislation in each region – suggesting a different ‘reasonable’ point on the continuum for each area of operations.

What then, should a reasonable corporation do?

This article suggests a ‘black box’ analysis approach to an organization’s operations – the author’s KCSRA approach. This black box analysis generates the following formula, which must balance for acceptable CSR:

$$\text{Cost of HCI} + \text{Cost of STMI} + \text{Cost of STFI} + \text{Cost of LTUO} = \text{STDO} + \text{PROFIT}$$

The formula makes the following assumptions:

- Profit = STP + Net Present Value of LTP
- Profit is at least equal to IRR of the organization
- LTP is realizable within the acceptable investment timeframe of the organization

The equation applicable to any company should be subject to government scrutiny and guidelines. For example, the cost of Short Term Mined Inputs (STMI) must be set by government legislation. This then means that determining levels of Corporate Social Responsibility effectively becomes a government responsibility.

The author further suggests that if a company decides on a higher level of CSR than that determined by the formula (i.e., where the costs (impacts) shown on the Left Hand Side of the formula are lower than the advantages shown on the RHS) it is simply putting anti-competitive strain on it’s own profit making ability. In other words, higher levels of CSR produce a non-level playing field in which the most philanthropic and socially responsible companies will find themselves ultimately unable to compete for market or capital, particularly in a post financial crisis world.

That said, higher levels of CSR can still be legislated by government, and can then apply to all organizations equally, thus negating economic disadvantage – and silencing market cynicism!

## **Keywords**

Social responsibility, CSR, black box approach, government legislation, level playing field

## **Communicating With Sports Fans - Case Of A Professional Ice Hockey Team**

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### **Abstract**

The aim of this paper is to study the communication to fans of a professional ice hockey team. The communication and involvement of the fans is seen as an important issue from the perspective of managing the brand of a professional team and fans as a customer base. This paper is based on the analysis of quantitative data from 1012 respondents and secondary sources have also been used. The paper shows which communication channels are used by the fans to receive information on the sports team and what social media they would like to be used for this purpose.

### **Keywords**

Sports marketing, marketing communication, social media, brand management, customer relationship management

## Channels Of Communication In Sports Marketing

The importance of sports marketing is growing (Graham et al., 2001). Sport is becoming increasingly commercialized and professional from the perspective of marketing communications and customer relationship management. Mason (1999) defines sports marketing as the activities designed to meet the needs and wants of sports consumers through exchange processes. Sports companies are competing for a rare commodity of their fans, their time and attention. When it comes to the fans as a target group and as an audience it is expected that they have a very positive attitude towards the sports team. This probably makes it easier for the sports team to get their message through.

Sports teams often the most important asset is their brand (Bauer and Sauer, 2005). The brand is built and strengthened with active and co-ordinated communication activity. Even though the brand of the sports team is important also the loyalty of the customer base is important. Beech and Chadwick (2007) emphasize the relationship marketing perspective on sports marketing. Loyal customer base provides steady cash flows which secures the operations of a firm. This is also the case with professional sports teams. Being able to communicate with the fans is important while building and increasing customer loyalty among fans.

Traditionally communication to the fans has been taken place through broadcasting channels like newspapers, television and radio. However, this approach could be described more as communicating to the fans and not that much as communicating with the fans. Webster (2007) calls broadcasting type of marketing as traditional marketing (old marketing) and social media marketing as new marketing. According to him firms are aiming for dialogue and the establishment of long-term relationships with customers.

Also mass media as a communication channel is very difficult to be controlled by the sports team itself. In mass media there is more or less journalistic content which is done by journalists. Here journalists could be seen as mediators between the sender (the sports team) and the respondents (the fans).

However, the Internet and social media especially provides means to the sports team to communicate with its fans. This particular article concentrates on studying what communication channels the fans do follow and what they would like to be used while following the news coverage and other information covering their favorite sports team.

From the perspective of a sports team, professionalism in marketing communications includes among others clear definition of target group, active definition of the message, careful selection of proper communication channels, involving the respondents (the fans) to a continuous dialogue and so on. Grönroos (2004) implies that in case the interaction with the customers as well as the planned communication processes are successfully integrated and targeted towards customers, it may support active dialogue within the customer relationship. Duncan and Moriarty (1998) argue that communication is the foundation of the customer-focused marketing efforts.

In order to be able to communicate effectively with the fans and build customer loyalty the management of sports teams have to understand what motivates fans to attend sports events Tomlinson et al. (1995). Mohr and Nevin (1990) argue that while planning and implementing marketing communication it is beneficial for marketing channel outcomes when a marketing communication strategy matches the channel conditions (structure, climate, and power).

There is an increasing importance for organizations to implement integrated marketing communication (Schultz and Schultz, 2003; Yeshin, 1998; Kitchen et al., 2004). Integrated marketing communication intends to improve marketing communication's return on investment while reducing budgets of mass media advertising and concentrating on segmented or

personalized communication with consumers. Christensen et al. (2008) define integrated communications as the notion and the practice of aligning symbols, messages, procedures and behaviors in order for an organization to communicate with clarity, consistency and continuity within and across formal organizational boundaries.

Keller (2001) identifies the difficulty for marketers to choose among diverse means of communication channels and options available. It is believed that this is the case also with sports companies. Scott (2007) argues that it is possible to leverage the potential of web-based communication to establish a personal link with the audience. The increasing usage of the Internet and Web 2.0 technologies such web applications as Facebook, Twitter and MySpace have become very popular among consumers. According to (Maymann, 2008) private and public organizations are increasing their use of social media to attract new customers indicating that they find value in the practice. Jaokar et al. (2009) define social media marketing as an interaction with a set of online social media conversations from marketing perspective. Weber (2007, p. 115) suggest that social media marketing can be used to achieve various marketing objectives including improving customer relationships, increasing sales revenue, building awareness of various activities. From the perspective of sports teams communication with its target audience also building and maintaining fan loyalty could be seen as a major objective. This is assumed to increase the brand equity of the sports team.

While communicative objectives vary, also utilization of different kinds of social media can be varied depending on the business or other goal the sports team is about to meet (Gillin, 2008). Social media allows consumers and fans of the sports team to become active subjects, while they are able to write their own blogs, microblogs, participate in online forums and comment on others. While the most communication channels traditionally used for corporate marketing communications purposes only allow firms to talk to their customers, social media also facilitate customer-to-customer communication. This makes social media a 'hybrid element of the promotion mix' (Mangold and Faulds, 2009). It is suggested that firms should carefully consider their mix of various social media and try to find a suitable combination of social media that also takes into account the preferences of the target group. In the case of a sports team this means that in case a major portion of the fans prefer a certain social media as a channel then it should be used accordingly.

While mobile phones are very personal devices, mobile advertising can often be regarded as intrusive, although relevance and added value can increase consumer acceptance (Patel 2001). Using mobile phones and other mobile devices provides increasing opportunities in the area of sports marketing. One of the major advantages of using mobile marketing is that it allows marketers to communicate with their target group without location or time barriers. With the use of databases marketers would be able to allocate individualised content including mobile advertising messages.

It is assumed that in mobile messaging the message content has a major influence whether the target group perceives value in receiving this kind of communication. It is assumed that some members of the target group are willing to receive messages in high frequency while some would prefer just occasional communications via mobile device. In case mobile communications would be applied in sports marketing it is suggested that some kind of database marketing would be applied in order to modify the message and the frequency of sent messages.

### **Data Collection And Research Findings**

The data was collected with an Internet survey during winter 2010. The population of this research consists of fans of a professional ice hockey team in Finland. The survey was advertised in the sports teams' web pages, on a popular online forum concentrating on ice hockey and on Facebook's community page of the sports team. Each of these websites

provided a link to the Internet survey questionnaire. All together the amount of respondents was 1012. Eventhough there was no sampling method used while collecting the data it is expected that due to the large amount of respondents the data represents the population quite well.

At first it was asked what is the source of information the fans follow.

*Table 1: Source of information covering the sports team (N=1008)*

Newspapers	70,8 %	714
Advertorial of a local newspaper covering the sports team	40,6 %	409
Sports team's website	83,3 %	840
Internet's social media	33,1 %	334
Other internet sources	40,9 %	412
Outdoor advertising	10,7 %	108
Game event	22,3 %	225
Customer happening	2,5 %	25
Television	31,0 %	312
Radio	33,3 %	336

It seems that traditional broadcasting channels like newspapers (70, 8 %), radio (33,3 %) and television (31,0 %) still serve many fans as source of information covering the sports team. However, modern Internet based media shows even more promise while providing information for sports fans; sports team's own website is followed by a large majority of the fans (83,3 %), Internet's social media (33,1 %) and other Internet sources (40,9 %). One important aspect while communicating to the sports fans is the controllability of the communications. It is evident that the sports team is better able to control the content of its own website than for example the journalistic content of newspapers, radio, or television. It is possible that due to the Internet based data collection method the responses related to Internet usage are somewhat skewed. However, it is assumed that the respondents represent the population quite well.

Table 2: Respondents willingness to follow the sports team through social media (N=954)

Facebook	45,6 %	435
Twitter	2,1 %	20
Irc-galleria	4,5 %	43
YouTube	27,7 %	264
MySpace	1,0 %	10
I do not follow social media	39,1 %	373

While it was asked whether the respondents do follow social media and would they be willing to follow the communication related to the sports team. It seems that majority of the respondents (60,9 %) already follow social media in general. Facebook seemed to be most popular (45,6 %). Online video community YouTube (27,7 %) was also popular. Microblogging service Twitter (2,1 %) and online community MySpace (1,0 %) were not that popular. Irc-galleria (a popular online community among Finnish teenagers) was not that popular among the respondents ( 4,5 %). It is possible that Facebook's popularity among the population is little bit overemphasized while some of the respondents came to the web survey through a link that was posted in the Facebook's online community.

Even though mobile marketing and advertising may provide lots of opportunities it seems that at the moment the fans are not that willing to receive messages to their mobile phones from the sports team. While respondents willingness to receive messages to their mobile phones only 26,1 % (260) were willing to receive them. This is in line with the findings of Rettie et al. (2005).

## Conclusions And Implications

It is seen that being able to provide information and communicate with the fans the sports team is strengthening loyalty of its customer base and building its brand. This research paper shows what communication channels the fans of a professional ice hockey team follow in order to get more information on their favorite sports team. It seems that traditional media like newspapers, radio and television are followed by a lot of fans. However, it seems that there is growing potential using social media in sports marketing. In case the sports team is willing to become more professional in their marketing communications they should put more emphasis on social media a make a move from more or less broadcasting kind of communications to communication with their fans. Social media is already a natural element of the channel mix in sports teams marketing communication activities.

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## **Social And Economic Impact Measurement - Lessons For CSR From Community Development Finance Reporting**

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### **Abstract**

This paper presents an innovative holistic social impact measurement model for social enterprises. The model was developed to provide the conceptual and methodological underpinnings of a training programme for social enterprises, called SIMPLE, specifically designed to develop capabilities to systematically measure their impacts. The SIMPLE model employs the use of the quadruple bottom line (4BL) concept for impact measurement; capturing financial, economic, social and environmental impacts.

The SIMPLE impact model & methodology has been tried and tested on over 50 social enterprises through a series of training courses and embedding support sessions. It offers a 5 step approach to impact measurement called Scope It; Map It; Track It; Tell It & Embed It. These steps help social enterprise managers to conceptualize the impact problem; identify & prioritize impacts for measurement; develop appropriate impact measures; report impacts and to embed the results in management decision making.

A case study of corporate social responsibility reporting from the UK community development finance sector will demonstrate the social and economic impact measures that emerged by applying the SIMPLE impact methodology.

It is a flexible management tool which can be used at a deeper level to support strategic decision making. Lastly, the paper will consider the relevance and applicability of the SIMPLE 4BL impact model for CSR reporting by private sector organizations.

### **Keywords**

The SIMPLE model, social impact measurement model, social enterprises

## Reactions of Marketing Departments in Croatian Food Industry on Recession Challenges

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### Abstract

In 2009 the research with regard to the position of marketing in Croatian food companies in a period of global financial crisis and recession in Croatia was conducted. Croatian food industry is very important for the whole Croatian economy and the biggest market players in the Croatian food industry are also some of the strongest companies in Croatia. In most of the cases marketing is primarily seen in Croatia as promotional activities which are planned according to the previously defined marketing budget. Food companies in Croatia spend a great part of their budget on promotion which includes advertising on the television or radio, billboards and newsletters. Therefore, the first aim of the conducted research was to find out whether food companies in Croatia decrease budgets for their marketing activities in a period of global financial crisis and recession.

In order to execute the activities and set a successful marketing strategy it is necessary to set clear marketing objectives and make a marketing plan. It is widely known that it is easier to run the company and plan the activities when the economy conditions are favorable, but in the period of recession it becomes a challenge. Steidl (2009, p. 2) explains that "it is not difficult to manage during periods of growth, when poor decisions and inefficiencies are masked by growing revenue pools but recession is a different story altogether." Therefore, the second aim was to identify whether the marketing objectives of food companies in Croatia have changed during the period of global financial crisis and recession in Croatia.

The objective of this study was to make a research in the Food companies in Croatia, in their marketing departments, in order to find out what actions the Croatian food companies take regarding their marketing activities in the period of global financial crisis and recession. The presumed thinking is that the food companies in Croatia in this period of recession react in panic and decrease the budgets for their marketing activities in order to lower the costs. In order to successfully implement their marketing plan the companies set the objectives which are the key factors of their marketing strategy. During this period of global financial crisis which has had the impact on Croatia and where Croatia has entered a recession, the marketing objectives had to change. Through qualitative research method of in-depth interview, marketing managers of food companies in Croatia were interviewed. The in-depth interviews were conducted and the answers were analyzed by the means of content analysis.

The first proposition of the research was that Food companies in Croatia decrease budgets for marketing activities in a period of global financial crisis and recession in Croatia and the second proposition was that marketing objectives in food companies in Croatia have been changed because of the global financial crisis and recession in Croatia. Both propositions were confirmed by the research. Detailed content analysis gave some of the implications of possible correlations which should be questioned in more detail in new scientific researches. There could be the correlation between continuous market research, fear of decrease in sales and decision of decreasing of the marketing budget. Majority of companies which did not

decrease the marketing budget have experienced growth and no fall in sales. The same thing happened with the company which strongly and continuously changed their whole business strategy towards low-cost leadership. And finally, majority of companies which did not change their marketing objectives have stated that in the aforementioned period they are ingratiating with customers what ensures their strong position on the market.

**Keywords**

marketing, global financial crisis, recession, qualitative research, content analysis

## **A Longitudinal Study Of The Attitude Toward Advertising (2003-2010)**

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### **Keywords**

Advertising, longitudinal, attitude, measurement

### **Introduction**

Research on advertising as a multidimensional phenomenon goes back to the 1960s. Most of the studies analyze the validity of the measurement and/or measure the attitude in one country. In recent years, some authors compare cultural differences between citizens of several countries.

Even though there is a wide agreement on how to measure the concept of attitude toward advertising, there is still a deficiency in its longitudinal measurement. A diachronically study would show, not only the evolution of the general attitude measured, but also the variations occurred in the different beliefs about the advertising. The descriptive analysis could suggest to the public administration guidelines to adjust advertising regulation, to the announcements new strategies to manage advertising, and to the academic researchers theory and empirical knowledge.

### **Research Objectives**

The objective of the research is to observe the evolution of the attitude toward advertising since 2003. And the specific objectives are: a) to analyze the validity and reliability of the scale used to measure the attitude toward advertising, b) to measure the attitude toward advertising today, and c) to observe its evolution.

## Conceptual Background

The study of perceptions and beliefs about advertising was the subject of a great deal of research in the twentieth century. The seminal work has come to be that of Bauer and Greyser (1968). They proposed a two-dimensional model for the attitude toward advertising, with several items in each dimension. Greyser and Reece (1971) and Jobber (1974) continued using it later.

On the conceptual level, Sandage and Leckenby's (1980) research is especially relevant, because they found the difference between advertising as a social institution and the instruments used by the advertising. The contribution of Muehling (1987), who distinguished attitudes and beliefs, was also significant<sup>19</sup>.

On the empirical level, Anderson et al. (1978a, 1978b) were the first who applied factor analysis to study the structure of the concept 'attitude toward advertising'. Later, Dubinsky and Hensel (1984) used the same methodology. So did most of the researchers since the 80's.

Since the 90's, some authors have studied the differences in the attitude toward advertising between countries and/or cultures. For example, Durvasula et al. (1993, 1999) or Ferle and Lee (2003) focused on in Asia. In Europe Martín, and Beerli (2008) compared attitudes toward advertising among four different European countries (Germany, Spain, France, and the United Kingdom). And Petrovici et al. (2007), Petrovici and Marinov (2007), and Marinov et al. (2008) focused on in Bulgaria and Romania.

Other researchers analyze differences among different countries in terms of cultural and historical traditions, religious backgrounds, and political regimes. This is the case of the study carried out by Mikhaillitchenko and Whipple (2006), comparing attitudes in the USA, Russia, and Iran. Turkish and New Zealander consumers' attitudes had also been compared by Ashill and Yavas (2005). And, finally, Truong et al. (2009) focused on the comparison of the United States and France.

Finally, it is remarkable the study of Bush et al. (1999) who focused on how consumer socialization theory related factors shape the attitude toward advertising for African-American and Caucasian young adults.

The review of these studies, points out the multidimensional nature of the construct. The dimensions can be classified in two levels: the "personalized" level -beliefs related to the capacity of advertising to inform and entertain-, and the "institutional" level -beliefs that transcend the experience of the individual.

Therefore, the first two hypotheses of this research are:

H1: Attitude toward advertising is multidimensional.

H2: A personalized level and an institutional level can be distinguished in the attitude toward advertising.

The previous studies also show that the general attitude toward advertising as an institution and the opinion about the informative or aesthetic value of the advertising use to be favorable. Beside, individuals believe that advertising manipulates. So the related hypotheses are:

H3: The attitude toward advertising as an institution is favorable.

<sup>19</sup> Andrews (1989), Andrews et al. (1991), Alwitt and Prabhaker (1992 and 1994), Pollay and Mittal (1993), Haytko and Matulich (1993), Berné et al. (1994), Mittal (1994), Mittal and Lassar (1996), Rodríguez del Bosque et al. (1995), Royo (1996), Manso-Pinto and Diaz (1997), Ewing and Caruana (1999), Davila (2001), Ramaprasad (2001), Beard (2003), Sohail and Saed (2004), Xiaoli (2006), Dutta Bergman (2006), Savel'Eva (2007), or Wells et al. (2008) continue with this pattern.

H4: The opinion about the informative value of the advertising is favorable.

H5: The opinion about the aesthetic value of the advertising is favorable.

H6: The surveyed individuals believe that advertising manipulates.

In relation with the evolution of the attitude of advertising, some authors (Anderson et al., 1978; Royo, 1998; Rodríguez-Bobada and Sánchez, 2002; and, Mujika, 2003) postulated that the perception of the power exerted by advertising on the market has increased. The related hypothesis is:

H7: The beliefs of the surveyed individuals indicate an increase in the power exerted by advertising.

## **Methodology**

This research administered an improved version of the original measurement applied in 2003. The creation of this measure required to define the construct, to generate a list of items, to perform a pilot test, and to contrast validity and reliability.

A review of the literature and a discussion with different researchers in the area enabled to define correctly 'attitude toward advertising in general'. This research indicated that the dimensions are a) the general attitude toward advertising as an institution, b) informative value, c) aesthetic value, and d) manipulation.

The survey instrument consisted of 33 items and the respondents were asked to answer 5 point Likert-type questions. The questionnaire was self-administered to Spanish university students. The valid responses were 391 in 2010; in 2004 were 265, and in 2003 were 386.

In order to check the number of factors conceptualized in the theoretical model, an exploratory factorial analysis was performed. Then, reliability analysis was performed. Cronbach's alpha coefficient was calculated. New variables were generated. These were linear combinations created by the regression model. Then, t-tests and ANOVA analysis were performed.

## **Results**

Factor analysis and reliability analysis together made possible to purify the measurement. Items that did not accord with generally accepted indexes were eliminated, or alternatively reassigned.

The factor analysis and reliability results allow us to accept H1 and 2. We can distinguish the general attitude toward advertising as an institution, informative value, aesthetic value, and manipulation. The first dimension constitutes the "institutional" level. Last three dimensions represent the personal experiences of the consumer or the "personalized" level.

Once the model was validated, t-tests were performed. H3 and H4 are validated, but H5 and H6 are not accepted. The surveyed individuals have a positive general attitude toward advertising as an institution and their opinion about the informative value of the advertising is favorable. They also think that advertising doesn't manipulate. Instead, their opinion about aesthetic value of the advertising is negative. These results do not support the theory that advertising fosters the power of the market.

Regarding the evolution of the attitude toward advertising, there're significant differences for the three years. H7 is only partially accepted. The general attitude toward advertising as an institution and the opinion about the informative value of the advertising are more favorable in 2010 than in 2004 and in 2003. The opinion of those surveyed in 2010 is also more favorable

than previous years with the ability of the advertising to manipulate. Instead, the evolution of the aesthetic value of the advertising is negative. The scores in 2010 are more negative than in previous years.

## Conclusions And Implications

The validated model distinguishes two different levels: the “personalized” level, which is formed by informative value, aesthetic value, and manipulation, and the “institutional” level, which is constituted by the general attitude toward advertising.

As regards the results, the general attitude toward advertising as an institution is favorable. The informative value is also well rated. And the surveyed individuals don't agree with the manipulation capacity of advertising. So, the attitude toward advertising in general is positive. Instead, the aesthetic value is negatively criticized. It seems as if advertising is ceasing to be entertaining and fun. These results don't support the theory that says advertising fosters the power of the market.

Regarding the evolution of the attitude toward advertising, there is a positive evolution. But the beliefs about the aesthetic value are now less favorable than in the previous years. This evolution could be the result of the different media consumption behavior in 2010 and in the previous years. TV consumption is being substituted by Internet. While TV consumption is decreasing -in 2003 the Spanish TV viewers consumed 246 minutes and in 2009 consumed 220 minutes-, the penetration of Internet in Spanish households is increasing -in 2003 the penetration of Internet was 13,6% and in 2009 was 35,5%- ([www.aimc.com](http://www.aimc.com)).

Therefore, the way that individuals are acquiring skills, knowledge, and attitudes is changing, and so is with their attitude toward advertising.

Administration, advertisers, and advertising researches may take account of this changes occurred. Briefly, they must be alert to the consumer socialization process.

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## **The Tourism destination Brand as an Important Tool in Positioning on the Competitive Tourism Market – Case of Dubrovnik**

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### **Abstract**

On the more competitive tourism market branding has become a powerful force in the tourism industry. Although the concept of branding has been applied extensively to products and services, tourism destination branding is a relatively recent phenomenon. In particular, tourism destination branding remains narrowly defined to many practitioners in destination management organizations and is not well represented in the tourism literature.

A destination brand represents a dynamic interaction between the destination's core assets and the way in which potential visitors perceive them. It is the sum of tourists' perceptions, feelings and attitudes towards the destination, based on the way in which they have experienced the destination or on how it has presented itself to them.

Tourism destination brand is an important and fundamental tool that helps tourism destinations to compete more effectively for visitors on the tourism market and also assist in the projection of a destination's overall image. A tourism destination brand is a competitive identity. It makes a product or destination distinctive and differentiates it from all others competitors on the tourism market. Research amongst consumers to understand how tourists view destination is one of the most important phases in brand development. Therefore the aim of this paper is to build up the tourism destination brand from an assessment of the destination's main strengths to a distillation of its essence applying the five-stage Brand Pyramid brand-building model of the Dubrovnik tourism destination.

### **Keywords**

Tourism destination, Destination Brand, Tourism Market, Brand Pyramid, Dubrovnik

## **Can organizations meet their environment and social reporting obligations even in a financial crisis? Towards an effective sustainability management accounting system**

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### **Abstract**

To achieve sustainable development, organizations need to disclose three areas of performance - economic, social, and environment - to support stakeholders' interests as well as improving internal management decisions. This results in environmental and social cost information that needs to be incorporated in disclosures in the form of a triple bottom line. However, as these costs have been treated as overhead by traditional accounting such activity based costing (ABC) approach, this results in cost information inaccuracies when preparing environmental and social performance disclosures. To overcome some of these deficiencies in current systems, this study develops a conceptual model for a Sustainability Management Accounting System (SMAS) to improve the identification and measurement of environmental and social impact costs. A SMAS also provides companies with a way to improve cost allocation and analysis efficiency thus creating more accurate cost accounting data and meeting their reporting obligations even in hard times. The paper describes preliminary analysis undertaken to date. It would appear that most firms are focussing on reporting externally their social performance more than environmental indicators.

### **Keywords**

Activity based costing (ABC), environmental management accounting (EMA), social management accounting (SMA), sustainability management accounting system (SMAS), global financial crisis (GFC), environmental cost, and social cost.

## Introduction

Nowadays, sustainable development reporting incorporating economic, social, and environmental performance is of significant concern to companies' stakeholders (Berkel 2003). Companies are required to disclose financial reporting in the form of a triple bottom line while incorporating environmental and social costs to not only support interests of stakeholders but also to enhance internal management decisions on these costs. The need of organizations is to provide more accurately cost accounting data of environment (Gadenne & Zaman 2002) and social impacts (Gray 2002) in order to more accurately prepare companies' disclosures. As a result, environmental costs need to be captured from both internal and external organizations while social expenditures need to be considered to collect as social costs. This facilitates companies becoming more environmentally and socially aware organizations while adding value to sustainable organizations to ensure corporate sustainability is achieved in the eye of stakeholders and marketplaces (Gale 2006; Jacob 1994; Sikdar 2007). In addition, as the global financial crisis (GFC) has made it harder for organizations to act responsible in their reporting disclosures, companies could face with difficulties in improving their financial/economic performance. Thus, what is recovered is a system that is efficient and effective in data capture and reporting to not add more financial burden during the recovery phase from the GFC.

However, as traditional management accounting has collected environmental and social impact costs as overheads, this has resulted in cost accounting data being hidden among productions and services processes (IFAC 2005; UNDSO 2001). In addition, social costs have been ignored as a measure to support working performance and develop living standard of employees, as they cause increases in total product costs (Hazilla & Kopp 1990). This creates inaccuracy in cost accounting data for environment and social impacts when incorporated in sustainable development reporting (Berkel 2003; Gadenne & Zaman 2002; Gray 2006). Companies are not able to support stakeholders' interests based on imprecise environmental and social performance disclosures. Apart from that, a holistic system for sustainability accounting has not been widely introduced to companies for ensuring their sustainability (Gadenne & Zaman 2002; Spence 2009). An effective management accounting system for environmental and social impact costs is needed by organizations to enhance cost measurement and identification. This could help companies to fully cost more accurately accounting data of environment and social impacts to support sustainable development reporting (Gray 2006; Gray et al. 2001). In the after match of the GFC, any system that reduces costs of reporting is welcomed by organizations.

Hence, this study identifies the development of a conceptual model of a Sustainability Management Accounting System (SMAS) as an effective management accounting tool for sustainable organizations. A developed SMAS aims to capture more accurate of cost accounting data of environment and social impacts. Environmental management accounting (EMA) and social management accounting (SMA) concepts and practices are integrated to help in cost identification and measurement. To improve accuracy of cost accounting data, activity based costing (ABC) approach is expanded to help in the cost allocation and analysis using cost drivers or cost centers before assigning cost information to an appropriate production activity. As a result, a SMAS conceptual model provides companies with a way to effectively measure and identify environmental and social impact costs while creating cost accounting data to support sustainable development disclosures and for enhancement of internal management decisions. Companies successfully create better relationship with their stakeholders by providing disclosures through triple bottom line and/or corporate social responsibility (CSR) reporting to support their demands. This assists companies to add value as sustainable organizations thus ensuring corporate sustainability in the eyes of stakeholders and marketplaces (Berkel 2003; Gadenne & Zaman 2002). Relevant literature is provided in the following section to support environmental and social cost identification and measurement while identifying key terms to inform the development in a design of a SMAS.

## Relevant literature

As the need of companies is to create more accurate environmental and social cost information to support sustainable development reporting, it helps create better relationship with their stakeholders (Berkel 2003). Environmental and social costs therefore need to be prepared more precisely when used for disclosures (Berkel 2003; Carbon Trust 2005; Gadenne & Zaman 2002; Hubbard 2009). This can help reduce stakeholders' pressures on the development of economic, social, and environmental performance. This study fuses three theories - deep ecology theory, Marx's labor theory of value, and stakeholder theory - to examine where ethical and moral obligations in providing cost information (Donaldson & Preston 1995; Drengson & Inoue 1995; Shaw 2009; Yee et al. 2008) of environment and social impacts.

### *Theoretical perspectives*

**Deep ecology theory** is applied in the theoretical design of SMAS using shallow ecology to explain ethical and moral responsibilities of companies to measure environmental costs and to manage uses of resources, energy, and water (Devall & Sessions 1985; Jacob 1994). Meanwhile, deep ecology helps explain why measuring reductions of emissions and wastes would help to reduce negative impacts on the environment and society (Jacob 1994). Deep ecology theory was developed by Naess in 1973 to explain improvement in qualities of humans and the environment by reducing environmental pollution and avoiding extractions of natural resources (Devall & Sessions 1985; Drengson & Inoue 1995). Naess was also trying to deeply question how best ecological patterns need to be maintained in order to improve human lives, environment, and natural systems (Devall & Sessions 1985). In addition, the theory also indicates that the movement of shallow and deep ecological management approaches seek questioning as to where ethical and moral actions are taking responsibilities to reduce negative impacts on society and the environment (Barrow 1999; Drengson & Inoue 1995). Thus, by applying deep ecology theory, this helps examine identification of environmental cost information when providing environmental performance disclosures to support stakeholders' concerns. However, deep ecology appears to have not been used before to examine the identification of social issues (Jacob 1994). This research also uses Marx's labor theory of value to explain measurement of social impact costs.

**Marx's labor theory of value** helps explain measurement of social impact costs while creating surplus value or maximizing profits in selling large quantities of products in markets (Jasch & Stasiškienė 2005). Karl Marx developed a concept of surplus-value(s) to explain a company's interest in measuring costs of production processes while producing large quantities to support high consumers' consumptions in markets (Little 1986). To realize the surplus-value contained in products (under capitalism), the products must be sold in the market at a price reflecting the labor time of average (in terms of efficiency) producers (Marx 1976, 1978, 1981). Therefore, both workers and capitalist business owners are concerned with efficient production, training and skilling of the workforce, and selling products demanded by consumers (Marx 1976, 1978, 1981). Otherwise the surplus-value produced in the factory by workers cannot be realized, and even part or all of the original capital invested in production maybe wasted (Marx 1981; Yee et al. 2008). Thus, in employing Marx's labor theory of value helps explain measurement of social impact costs while creating surplus value or maximizing profits in selling large quantities of products in markets (Jasch & Stasiškienė 2005). Companies also need to provide cost information for social internal decision making and stakeholders' concerns. In doing so, stakeholder theory is employed to examine collecting more cost information for both environmental and social impacts.

**Stakeholder theory** helps in the identification of a company's stakeholders and explains the ethical and moral obligations of management to consider the interests of these stakeholders (Freeman 1984; Freeman & Reed 1983). This research applies stakeholder theory to explain

associating disclosure with economic and social performance by combining three dimensions – stakeholder power, strategic posture, and economic performance (Ullmann 1985). Thus, in the design of SMAS, stakeholder theory helps determine key concerns and objectives of stakeholders while explaining ethical and moral obligations in measuring environmental and social costs. These concerns are translated into measures, which in turn will be incorporated as system characteristics for data inputs required for reporting and internal decision making. This can create more accurate cost information supporting environment and social internal decision making and external disclosures. However, as there is considerable disagreement in the literature on definitions, this study reviewed relevant literature of terminologies used to support the focus of the study in order to define key terms of accounting and its expanding roles for a developed SMAS.

Consequently, in the designed SMAS, these fused theories help in creating more accurate cost information for internal management decisions thus fully costing products and/or services. Companies can also prepare financial disclosures to create better relationship with their stakeholders when disclosing through the form of a triple bottom line and/or corporate social responsibility (CSR). However, there is some confusion in the literature on definitions in relation to terminologies used to support the focus of the study. This study therefore provides relevant literature to define key terms of accounting and its expanding roles for a developed SMAS.

#### *Accounting and expanding roles*

**Activity based costing (ABC).** Traditional management accounting has been widely used to measure cost of inputs (materials and labor) while treating all other costs as overheads. It usually adopts activity based costing (ABC) to help in cost allocation and analysis. For environmental costs, management accounting has historically treated these as overheads (Hill, McAulay & Wilkinson 2006) using activity based costing (ABC) approach for cost allocation based on cost drivers. ABC has not (to date) separately identified the costs associated with environmental and social impacts recognizing these costs as overhead costs. Thus they are hidden among other production and service processes (IFAC 2005; Milne 1996; UNDSO 2001). Companies are now having difficulties in measuring (for example) reductions and control of environmental costs and contaminants (Bose 2006; Gale 2006; IFAC 2005; Pramanik, Shil & Das 2007; Qian & Burritt 2007; UNDSO 2001). As a result, companies are not able to fully cost successfully for setting correct prices of products and services (Englund & Gerdin 2008; Lamberton 2005; The Sigma Project 2003). Thus, extending the application of the ABC approach to separately identify environmental and social impact costs from overheads before allocating to individual product costs is appropriate for this study (Căpusneanu 2008; IFAC 2005; Sendroiu et al. 2006). This can create more accurate cost information to support internal decision-making and flow on to external reporting and disclosures as they then incorporate sustainability accounting concept.

**Sustainability accounting (SA)** is a new approach to accounting and reporting to facilitate companies' developments in three dimensions – economic, social, and environment (Ball 2002; Milne 1996). Sustainability accounting has recently supported disclosures using a triple bottom line report in order to improve internal decision making and to inform stakeholders (Ball 2002; Bennett, Bouma & Wolteres 2002; Taplin, Bent & Aeron-Thomas 2006). A number of current studies, e.g. (Lamberton 2005; Schaltegger & Wagner 2006; Taplin, Bent & Aeron-Thomas 2006), have examined sustainability accounting in terms of physical and monetary measurement to improve financial management. Nonetheless, Gray (2006) pointed out that sustainability accounting should incorporate improvements in social and environmental reporting as external disclosures in order to create shareholder value for sustainable organizations. Furthermore, sustainability accounting provides a company with measurement of all costs so full cost accounting is implemented to support internal and external disclosures through sustainability reporting and corporate social responsibility (CSR) reporting (ICAEW 2004; Lamberton 2005; The Sigma Project 2003). As a consequence, the sustainability

accounting concept is appropriate for this study to support a developed SMAS, as it is concerned with environmental and social cost measurement for disclosures of environmental and social performance. In a design of SMAS, sustainability accounting involving in environmental accounting (EA) and social accounting (SA) concepts is considered using environmental management accounting and social management accounting to support the theoretical framework of a SMAS.

**Environmental management accounting (EMA)** is a subset of environmental accounting (EA) that is used to provide environmental costs information to support internal decision making (IFAC 2005; Bent and Richardsen 2003 cited in Pittman & Wilhelm 2007; The Sigma Project 2003). As environmental accounting helps evaluating internal and external costs of the environment while providing environmental disclosures for management decision, EMA is employed for cost identification and measurement (UNSD 2001). By UNSD (2001), it was mentioned that EMA aims to reduce negative impacts on the environment while improving material efficiency (thus adding value to an organization). EMA is mainly measured in both physical units such as materials, energy, water and wastes, and monetary units such as environmental costs, earning and savings (UNSD 2001). However, environmental management accounting practices (EMA) were uncovered by Gadenne and Zaman (2002) in Australian companies as well as accountants' perceptions in providing EMA information for reporting purposes. Claims were made by Gadenne and Zaman (2002) that Australian companies appeared to develop business strategies to meet the requirements of socially and environmentally sensitive organizations. However, they identified the need for environmental costs recording using ABC to be integrated in financial reports as well as a need to develop appropriate EMA systems (Gadenne & Zaman 2002). In discovering the relationships between environmental performance and economic performance of an electricity company in the United States, Burnett and Hansen (2008) found that decreasing pollution enabled the company to create eco-efficiency. Furthermore, they found that it is better if the implementation of environmental accounting included an environmental management accounting systems (Burnett & Hansen 2008). This enables companies to measure environmental costs from unit inputs (raw materials, energy, and water) as well as non-product outputs (wastes and emissions) (Gale 2006), while evaluating reductions of these costs and contaminants (IFAC 2005).

Thus, by employing EMA concepts and practices, companies can identify and measure environment costs and allocate to the individual product costs while providing more accurate information of these costs (Burritt, Herzig & Tadeo 2009). Companies can also improve environmental performance (UNSD 2001) while promoting themselves as environmentally aware organizations (Burritt, Herzig & Tadeo 2009). Essentially, environmental cost information is able to support business decision making in managing resources by recording the use and flows in physical (resources, energy, and water) and monetary (financial, cost savings, and earnings) units (Burritt, Herzig & Tadeo 2009). This study therefore considered environmental management accounting (EMA) concepts and practices as appropriate for the development of a SMAS conceptual model. EMA is applied to identify costs of environmental impacts, use and flows of resources, energy, and water as well as to measure reductions of contaminants. EMA records environmental costs information more accurately to support disclosure of environmental performance but currently does not cover social issues (IFAC 2005), which is a key contribution of this study. Therefore the study integrates social management accounting (part of social accounting approach) into the development of a SMAS. This may assist companies to become more involved in sustainability management accounting (Jasch & Stasiškienė 2005).

**Social management accounting (SMA)** facilitates companies' recording and measurement of social costs for internal decision making and supports disclosures of social performance, which is a subset of social accounting (SA). Social accounting has been introduced to organizations concerned with improvements in negative impacts on society, humanity, and (to some extent) the environment thus creating cost information to support corporate social responsibility

reporting (CSR) (Cullen & Whelan 2006; Richmond, Mook & Quarter 2003). In relation to this, social management accounting provides companies with a way to measure cost accounting data of social impacts to enhance social internal decision-making as well as preparing costs for social performance disclosures. Companies disclose social performance of organizations while providing more accurate cost information on significant concerns to stakeholders (Gray 2002; Gray et al. 2001). However, social costs have not been measured much because they are sometimes recorded as a company's overheads or other expenditures rather than as costs of products (Hazilla & Kopp 1990) if at all. As social costs have historically been ignored by traditional management accounting (using ABC to identify and allocate to product costs). This has resulted in companies not using social accounting to improve their social performance (Mobley 1970). Thus, disclosures on social performance in the form of corporate social responsibility (CSR) reports have become more complex as costs of social impacts have recently been captured (Tinker, Lehman & Neimark 1991).

Pyatt and Roe (1977) developed a social accounting matrix (SAM) framework to improve the whole area of wage rates in Sri Lanka, they found that employing SAM to improve qualities of life of employees and laborers in Sri Lanka was successful as a new way to develop economic performance. However, SAM did not include development of social performance (Quarter & Richmond 2001). Consequently, western organizations have disagreed on the ability of social accounting to reduce social impacts to support stakeholders' concerns (Tinker & Gray 2003). In addition, social accounting has not been successfully employed by companies as it is seen purely as raising production costs, particularly in the GFC environment. Thus a new conceptual model or framework for accounting for social costs is needed (Mook, Richmond & Quarter 2003), this is not seen as a cost but rather adds value as firms recover from the GFC. The proposed SMAS conceptual model therefore should integrate economic and social performances to add value to enhance sustainability of organizations (Mook, Richmond & Quarter 2003). Apart from that, due to increased concerns of stakeholders, companies are being pushed to improve qualities of society, humans, employees, and the environment by measuring social costs in order to support disclosure of social performance (Geibler et al. 2006). In doing so, companies can create better 'green' and 'social' qualities of products and services while gaining greater benefits from higher economic performance in the long-term (Sendroiu et al. 2006). This also improves social internal decision making (Borga et al. 2009; Jasch & Stasiškienė 2005). Spence (2009) also suggested that further study should be undertaken in social accounting to consider incorporating social impacts of organizations to add value to their social and economic performance. Combining environmental and social issues could go a long way to improving accounting's approach to these concerns (Gray 2002). If social accounting could be developed and incorporated into an accounting framework or model, it could assist companies to become more socially and environmentally aware organizations (Gray 2002).

As a consequence, social management accounting (SMA) should be applied in measuring social impact costs which are related to improvements for society, employees, humanity, and the environment. This would provide companies with a way to create more accurately cost information to support internal decision-making and disclosures of social performance. Companies could also become more socially and environmentally aware organizations while creating positive reputations as 'green and socially responsible producers' in the eyes of stakeholders and market places. As a result, environmental management accounting, social management accounting, and activity based costing concepts and approaches become key motivators for this study while underpinning the theoretical framework of a Sustainability Management Accounting System (SMAS), as shown in **Figure 1**.

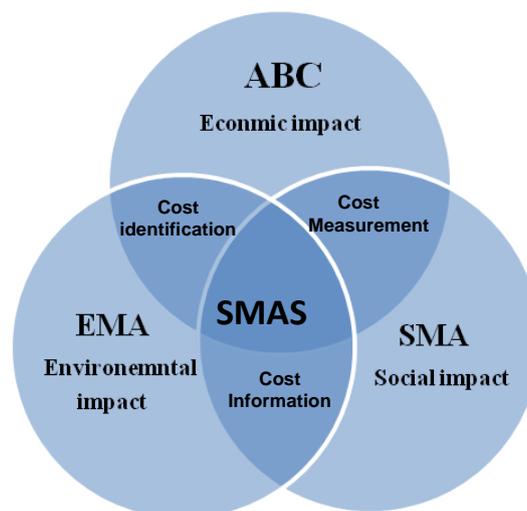
#### *Gaps in the literature*

As an activity based costing (ABC) approach appears in traditional management accounting has recognized **environmental costs** as overheads (in the main), this results in companies having difficulty in measuring environmental cost information from both internal and external

organizations (Beer & Friend 2005; Bose 2006; Gale 2006; IFAC 2005; Qian & Burritt 2007; UNDSO 2001). Thus, **ABC** needs to be further developed (within the proposed conceptual model) in order to more accurately analyze cost (and quality) information on the environment before allocating to a single production activity (Gadenne & Zaman 2002; Hubbard 2009; Nachtmann & Al-Rifai 2004). Although, environmental management accounting is an appropriate accounting tool designed for environmental costs management (Burnett & Hansen 2008; Burritt & Saka 2006; Sendroui et al. 2006), it rarely incorporates **social impact costs** which are becoming significant concerns for stakeholders and the public (IFAC 2005). This results in social costs being ignored but if measured could significantly cause increases in production costs (Hazilla & Kopp 1990; Mook, Richmond & Quarter 2003) while possibly effect by benefits in the form of added social value. In addition, based on the literature review, it is purported that there was no complete a holistic model identified that contained the necessary characteristics of the proposed SMAS.

To fill these gaps, this study proposes to develop a conceptual model for a Sustainability Management Accounting System (SMAS) into a holistic system combining **environmental management accounting (EMA)** and **social management accounting (SMA)** to help in the identification and measurement of environmental and social impact costs. SMAS will also apply an **activity based costing (ABC)** approach to help cost analysis and allocation or cost drivers, as suggested by previous studies (Gadenne & Zaman 2002; Hubbard 2009; Nachtmann & Al-Rifai 2004; Sendroui et al. 2006; Snoo 2006). As these concepts are not widely explored in the literature, particularly in relation to social performance, an integration of EMA and SMA within a SMAS could fill part of the gap to help in cost identification and measurement. In the meantime, applying activity based costing (ABC) concepts in relation to allocating cost of environmental and social costs to a single product has not been completely successful. Additionally, **environmental costs** need to be separately identified and allocated to individual costs of products in order to expose them rather than being concealed in overheads while measuring reductions of these costs and contaminants (benefits). Meanwhile, **social impact costs** need to be measured in order to develop social performance reporting addressing significant concerns of companies' stakeholders. Companies are now seeking appropriate accounting approaches and systems to relate existing financial reports to **triple bottom line reporting** to more accurately and fully disclose social and environment performance to interested stakeholders.

**Figure 1. Accounting concepts underlying the Sustainability Management Accounting System (SMAS)**



## Research design

### *Research questions and propositions*

One main research question was posed to fill the key gaps identified from the literature that aimed at investigating system characteristics within companies that could be employed for environmental and social identification and measurement. Without a holistic system this is difficult to accomplish. In order to be able to conceptualize an information system, system characteristics need to be identified and evaluated so that the most appropriate characteristics can be built into a SMAS. This would give more realistic costs on which to support disclosures as the costs of products or services could be more fully captured. To develop the conceptual model for a SMAS, it is necessary to enunciate the systems characteristics required that meet the informational needs of sustainable organizations drawing on best environmental and social management practices while being consistent with accounting concepts. Thus the main research question solicits these system characteristics for a SMAS.

**RQ1:** *What system characteristics could companies employ in their sustainability management accounting systems to meet the needs of EMA and SMA practices while adding sustainable value to organization?*

This study seeks to identify a set of system characteristics that could separately identify costs of environment (rather than as overheads) while measuring reductions of these costs and contaminants (IFAC 2005; Snoo 2006). Also the system characteristics identified could measure social impact costs as separately identifiable expenditures of organizations (Hazilla & Kopp 1990) to capture full costs of products and provide cost information for companies' disclosures (Bebbington et al. 2001). These characteristic capture data on metrics that are identified as environmental and social management accounting best practices. In order to arrive at the set of best practice characteristics, research sub questions need to be answered as follow.

**SR1:** *To what extent do current accounting systems capture environmental costs to support environmental disclosures for enhancement of internal management decisions?*

**SR2:** *How are companies intending to change their accounting systems to meet environment and social performance disclosure needs that will support future reporting requirements?*

**SR3:** *To what extent is world best practice in environment and social accounting systems and reporting being adopted by manufacturing companies in Australia?*

Answers to these research sub questions solicit current and future practices as to the characteristics of an information system and whether Australian manufacturing companies have adopted world's best practice. This study posed four propositions that focus on appropriateness of, and improvements in, employing systems characteristics solicited and comparing these characteristics with Australian firms that have adopted best practice.

**P1:** *Best practice companies identify costs of environment and social impacts as well as measure reductions of contaminants to reduce negative impacts on humans, society, employees and the environment.*

**P2:** *Best practice companies more accurately provide environmental and social costs information for external reporting disclosures to support stakeholders' demands and management decisions.*

Best practice companies employ system characteristics of sustainability accounting concepts to separately identify environmental costs from overhead expenditures before allocating to a single product. In doing so, companies are able to measure reductions in these costs as well as resources, wastes, solids, and emissions in physical and monetary units. Also, social costs

are measured and controlled to reduce negative impacts on society, employees, and the environment. Best practices companies are able to provide more accurate cost information to enhance environment and social internal decision-making and to create more precise external reporting. In addition, companies are enabled to meet their reporting obligations of energy consumptions and emission abatement under National Greenhouse and Energy Reporting (NGER) requirements and Global Reporting Initiative (GRI).

**P3:** *A SMAS provides best practice companies with an enhanced environmental and social costs management system to create sustainable development reporting for internal management decisions while adding corporate sustainability in the eye of stakeholders.*

**P4:** *A SMAS provides best practice companies with a mechanism to add value in economic, social, and environment areas of performance.*

As a consequence, system characteristics of best practice companies were employed to support the development of a sustainability management accounting system (SMAS) conceptual model. A SMAS could provide companies with an accounting system to continue improvements in environmental and social cost identification and measurement. By having a SMAS, companies are more concerned about reducing negative impacts on the environment and society when reporting their progress in using less energy and emissions abatement. Companies are now able to provide triple bottom line reporting when disclosing the development of economic, social, and environmental performance to add value as sustainable organizations. In the following section, the theoretical framework developed to underpin this investigation as the starting point of a SMAS conceptual model.

#### *Theoretical framework*

The study sought to identify appropriate system characteristics of sustainability accounting that could be employed by companies from different manufacturing sectors. Thus, Figure 2 consolidates the appropriate literature into an integrated theoretical framework as the starting point for this study. Firstly, Australian manufacturing companies could employ system characteristics of sustainability accounting concepts to identify and measure environmental costs from physical inputs (quantities) such as resource extractions, energy, fuels, oils, and/or chemical (upstream) and those arising as non-product outputs such as wastes, solids, and emissions (downstream) (Gale 2006; IFAC 2005; Qian & Burritt 2007; UNDSO 2001). Companies could also measure social costs from product responsibilities and improvements in society, humans, and employees which may cause increases in total costs of products (Gray 2006; Jasch & Stasiškienė 2005; Mook, Richmond & Quarter 2003; Pittman & Wilhelm 2007). In doing so, cost information of environmental and social impacts could be used to successfully support sustainable development reporting while disclosing environmental and social performance of organizations (Berkel 2003; Gadenne & Zaman 2002; Hubbard 2009; Lamberton 2005; Richmond, Mook & Quarter 2003). At this stage, of the study, system characteristics will be identified from concepts contained in environmental management accounting (EMA) and social management accounting (SMA) that are currently used or to be used. The most appropriate system characteristics of sustainability accounting will be extended drawn from best management accounting practices identified by this study to be utilized in the conceptual model of a SMAS.

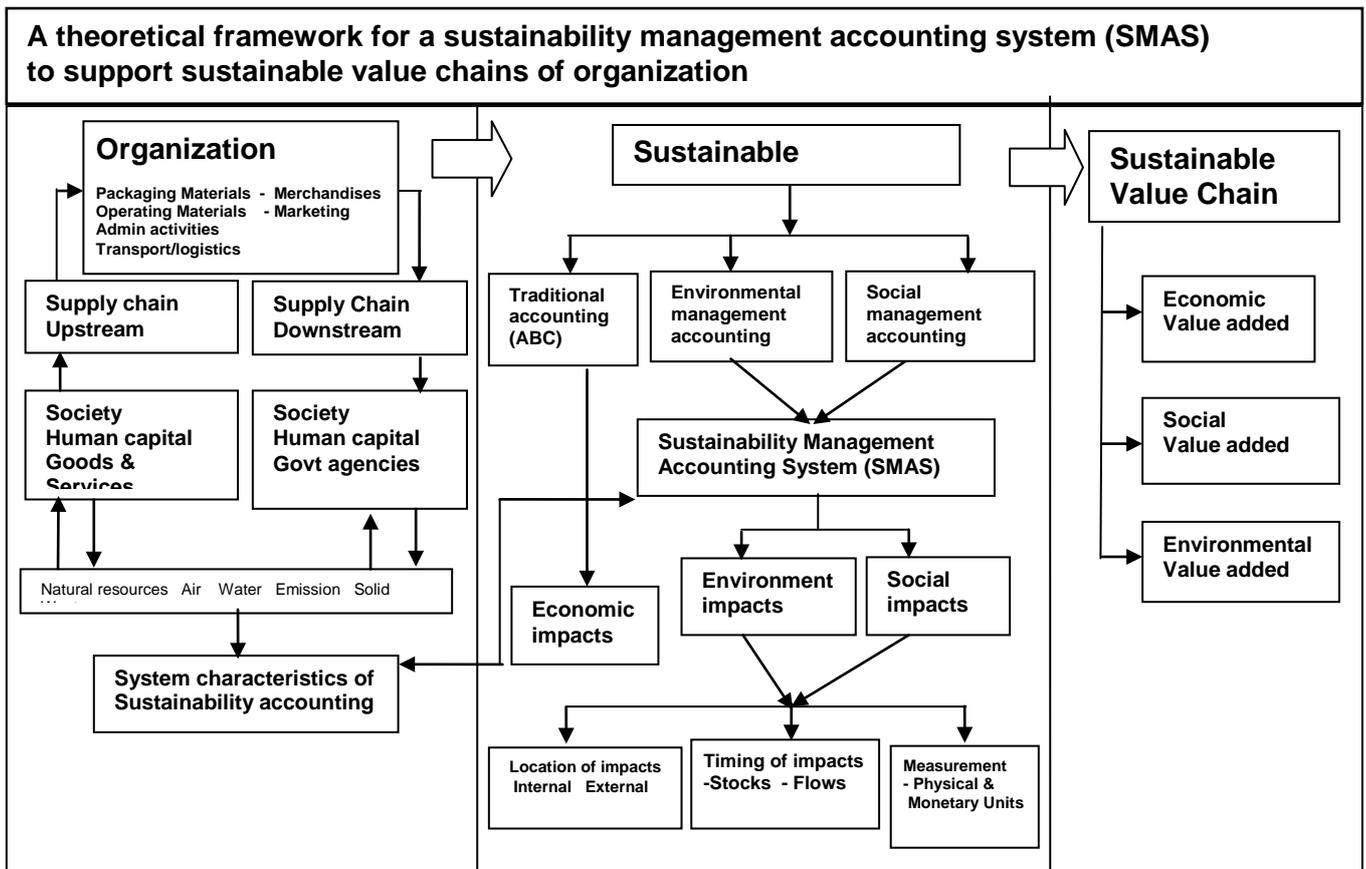
Secondly, best practice companies identifying and measuring costs of environment and social impacts from internal and external (suppliers and customers) organizations provide cost accounting data to support financial disclosures (Bartolomeo et al. 2000; Burritt & Saka 2006; IFAC 2005; Sendroui et al. 2006), as required by environmental management accounting (EMA) concepts (IFAC 2005; UNDSO 2001). *Deep ecology* will be employed to examine the full extent of measuring reductions in physical inputs (materials, energy, and water) to possibly reduce production costs and contaminants (emissions and wastes) (Barrow 1999). Meanwhile, to measure social costs, companies can identify expenditures for the development of social performance in relation to the quality of employees, society, and green environment (Mook,

Richmond & Quarter 2003; Richmond, Mook & Quarter 2003). Based on social management accounting (SMA) concepts, companies can capture costs of social impacts to support disclosures using SMAS rather than being buried in overheads (Gray 2006; Gray et al. 2001). *Marx's labor theory of value* will be applied to help identify costs relating to improvements in skills, knowledge, and qualities of employees while maximizing profits from higher consumption (Marx 1874 cited in Keen 2001; Little 1986; Marx 1978). This could help companies to create higher profits when products are sold in a larger volume in marketplaces (Jasch & Stasiškienė 2005). As a consequence, companies collect environmental and social impact costs to fully cost products while allocating to appropriate production activities or to incorporate these costs to individual products or cost centers (activities) by expanding activity based costing (ABC) (Neumann et al. 2004).

An expanded ABC could help in the development of cost analysis and allocation while more accurately creating information to measure production costs of activities as well as reductions in contaminants and control costs (Armstrong 2006; Căpusneanu 2008; Northrup 2004; Sendroiu et al. 2006). Companies can then employ cost information of environmental and social impact to enhance management decisions while providing disclosures to support stakeholders' demands (Nachtmann & Al-Rifai 2004). *Stakeholder theory* is applied in the framework to examine ethical and moral obligations to provide cost accounting data to disclose environmental and social performance in order to add value to sustainable organizations in the eyes of stakeholders (Freeman 1984; Freeman & Reed 1983). In doing so, a SMAS could track and report timing of impacts that are related to movements in stocks and flows of products/services to disclose costs and benefits of operational performance of organizations. SMAS could effectively manage timing impacts in changing value of stock and flows of materials in production processes (The Sigma Project 2003) that may have significant impacts on costs and benefits tracked from external impacts on economic, society, and the environment (The Sigma Project 2003). Thus, the measurement of environmental and social costs need to be more accurate when providing cost information to support financial reports and disclosure of environment and social performance (IFAC 2005; The Sigma Project 2003; UNDSO 2001).

Finally, the SMAS theoretical framework provides companies with a way to disclose these three areas of performance through integrated triple bottom line reporting to stakeholders and the public (Borga et al. 2009; Schaltegger & Wagner 2006; Sikdar 2007). By incorporating three fused theories in the theoretical framework, it supports a SMAS conceptual model to fully collect direct costs from materials and labor and indirect costs of overheads as well as social and environmental costs (Bebbington et al. 2001; ICAEW 2004; Lamberton 2005). This meets the requirement of sustainability accounting concepts and practices for enhancement of management decisions and environmental and social disclosures (Goodland 2002; Gray 2006; Jasch & Stasiškienė 2005). Companies could create sustainable value chains by managing the three areas of economic, social, and environmental performance (Ball 2004; Berkel 2003; Lamberton 2005; Taplin, Bent & Aeron-Thomas 2006; Wahaab 2003). Figure 3-1 illustrates the theoretical framework development that is the starting point for the development of a sustainability management accounting conceptual model.

Figure 2: Theoretical framework for SMAS



## Research methodology

### *Approach*

This study applies mixed methods combining quantitative and qualitative approaches to collect and analyze data using triangulation for credibility, thus avoiding social bias and building stronger results (Creswell 2009; Gorard 2004; Neuman 2006). As an exploratory study, this study employs a quantitative survey to identify system characteristics of sustainability accounting that are used and are intended to be employed by companies for social and environmental cost measurement. The results of the survey are used to compare with an analysis of management accounting best practice using qualitative methods. Meanwhile, a qualitative approach (case studies) are used to investigate management accounting practices and system characteristics of companies from different manufacturing sectors identified (from the survey) as adopting best practice.

### *Sample and data collection*

To select a sample group, this study employed simple random sampling to select 1,000 Australian manufacturing companies from five sectors (two-hundred from each sector) including paper and furniture products, machinery and equipment, constructions, automobile and metal products, and mining and chemical industries (PricewaterHouseCoopers 2009) to be surveyed. Meanwhile, the companies studied were selected by utilizing a purposive sampling method. Thus, manufacturing companies that apply management accounting best practice to measure costs of environment and social impacts as well as evaluate reductions of these costs and impacts were targeted. The purposive sampling method assisted this study to

select appropriate cases for investigation to gain a fuller understanding of best practices used among sectoral groups (Neuman 2006; Patton 1990; Yin 2009). Management accountants dealing with environmental and social issues were appropriately targeted for data collection.

#### *Data collection*

Quantitative research methods were employed to survey 1,000 Australian manufacturing companies. A set of questions was provided using environmental and social performance indicators from Sustainability Reporting Guidelines by GRI (2006) to investigate what characteristics of sustainability accounting systems are used by organizations for environmental and social cost measurement and identification. Chief accountants, controllers, chief financial officers, and management accountants dealing with environmental issues (Gadenne & Zaman 2002) were requested to complete a survey questionnaire. The questionnaires solicited current practices and system characteristics which are being employed as well as respondents' attitudes, opinions, and points of views as to what system characteristics should be incorporated into a SMAS for manufacturing company and their future intentions to incorporate characteristics into their systems. Following the survey, qualitative data will be gathered from fifteen companies from the same sectors used for the survey using interviews of management accountants to gain a richer understanding of environmental and social cost measurement and identification.

#### **Preliminary data analysis**

Based on a small sample from respondents this section describes some preliminary analysis of quantitative data received to date of writing this paper. The responses to sup questions, SR1, SR2, and SR3, were analyzed using cluster analysis. Hierarchical cluster analysis (Hair et al. 1998; Manning & Munro 2007) was used to identify how often data was collected and reported while determining on each observation belonging to each frequency group (not at all, monthly, quarterly, half yearly, and yearly). Then agglomerative methods of hierarchical cluster were employed to agglomerate all objects into individual clusters while minimizing similarities (final cluster) using the maximum distance of the complete linkage approach (Hair et al. 1998). So each object (environmental and social performance indicators) fell into its own cluster based on frequency depending on the nature of responses. The results of preliminary data analysis are interpreted below.

**Table 1: Overall index of measurement indicators of environmental and social performance reporting**

<b>Overall index of measurement indicators</b>			
<b>Rank (%)</b>	<b>CI (%)</b>	<b>CE (%)</b>	<b>FI (%)</b>
Max 100			
51-60			
41-50			20
31-40			
21-30	20	20	40
11-20	20		
1-10	40	40	40
No reporting 0	20	40	
	<b>100%</b>	<b>100%</b>	<b>100%</b>

\*CI = Current practice – internal reporting, CE= Current practice – external reporting, FI = Future intentions

Overall non-financial performances reporting for both current and in the future are summarized by the index of measurement indicators. Based on the indicator measures used in the survey, the maximum reportability index is 100% at which level a company reports on all indicators

adopted by this study from the literature and Australian/international standards. Analysis shows that companies are at the lower end of scales currently but do significantly intend to measure costs of environment and social impacts in the future (Table1). Current reporting practices by companies appear to be biased towards reporting internally with less emphasis on external reporting (Gadenne & Zaman 2002; Gale 2006; IFAC 2005). Thus changing to a holistic accounting system that could support future intentions may help companies to more accurately report information on environment and social impacts to support environmental and social performance disclosures (Gadenne & Zaman 2002; Gray et al. 2001) while not substantially increasing reporting costs.

To analyze if there are any differences between environment and social measure being reported, the sample was further disaggregated into these two components. The environment indicators index shows that there are higher levels of reporting by some firms both internally and externally but a significant percentage do not report currently. This can tentatively be interpreted as companies showing concern about identifying and measuring environmental costs to support disclosures while having difficulties in capturing these costs, as they are hidden among production processes (IFAC 2005; UNDSO 2001). All firms indicated that they will report in the future (Table 2). Companies will therefore need to change their accounting systems in order to capture more accurate cost information to precisely prepare financial disclosures (Berkel 2003; Gadenne & Zaman 2002). By changing accounting systems, firms could more efficiently evaluate reductions in environmental costs and contaminant such as wastes, emissions, and/or waste disposal thus reducing negative impacts on the environment and society (Burnett & Hansen 2008; Gale 2006).

**Table 2: Environment measurement indicators index**

<b>Environment indicators index</b>			
<b>Rank</b>	<b>CI (%)</b>	<b>CE (%)</b>	<b>FI (%)</b>
Max 100			
51-60			20
41-50			40
31-40	20	40	20
21-30	20		
11-20			
1-10			20
No reporting 0	60	60	
	<b>100%</b>	<b>100%</b>	<b>100%</b>

\*CI = Current practice – internal reporting, CE= Current practice – external reporting, and FI = Future intentions

Social indicators index reported by Australian manufacturing companies are measured social costs and impacts of doing business (Table 3). Companies currently measure costs of social impacts and report internally at a higher level than environment impacts with only 20 % not reporting any measures currently and all reporting externally. This tentatively can be interpreted as manufacturing companies are significantly concerned about measuring social costs to create more precise social performance disclosures (Gray 2001, 2006). For future intentions, companies wish to capture social costs to support social disclosures indicated by their responses that they place a higher priority over environmental measures. Again, companies need to change their accounting system for social cost measurement in order to efficiently capture these costs to support social disclosures (Gray 2006; Richmond, Mook & Quarter 2003).

**Table 3: Social measurement indicators index**

<b>Social indicators index</b>			
<b>Rank</b>	<b>CI (%)</b>	<b>CE (%)</b>	<b>FI (%)</b>
Max 100			
51-60			20
41-50			
31-40			
21-30	40	40	20
11-20	40	20	20
1-10		40	40
No reporting 0	20		
	<b>100%</b>	<b>100%</b>	<b>100%</b>

\*CI = Current practice – internal reporting, CE= Current practice – external reporting, and FI = Future intentions

### **Conclusion**

An effective management accounting information system is required by manufacturing companies to efficiently measure costs of environment and social impacts. This is because there are increased concerns shown by companies' stakeholders that require organizations to provide disclosures incorporating economic, social, and environmental performance in the form of triple bottom line reporting. As a result of these tentative findings, manufacturing companies are intending to measure costs of environment and social impacts to meet requirements of environmental management accounting (EMA) (IFAC 2005; UNDSO 2001) and social management accounting (SMA) (Gray 2006; Gray et al. 2001) concepts and practices. Companies report these impacts internally and externally while creating cost information to enhance environmental and social disclosures (Burritt, Herzig & Tadeo 2009; Gadenne & Zaman 2002; Gray 2006). Nonetheless, as environmental and social impact costs are hidden among production processes, companies are having difficulty in providing cost accounting information (Gale 2006; Sendroui et al. 2006). Thus, changing accounting systems could help companies to fully cost products/services as well as create more accurate information to support companies' disclosures (Gray 2006; Gray et al. 2001). From this very preliminary analysis, Australian companies have a long way to go to meet world's best practices and add value to be considered as sustainable organizations in the eyes of stakeholders and marketplaces. Further qualitative data to be gathered will probe companies' intentions so that this study can employ management accounting best practices adopted by companies in order to develop a sustainability management accounting system (SMAS) conceptual model.

Thus, developing a SMAS as proposed is an appropriate way to assist companies in their developments of a holistic management accounting system to support the demand of their stakeholders. With a holistic system that incorporates economic (financial), environmental, and social data captured at sources of transaction, one time only, in both monetary and physical units will help minimizing costs of recording and reporting. Companies can then employ environmental and social information to support disclosures through the form of a triple bottom line and/or corporate social responsibility (CSR) reporting. This report helps companies to improve their internal management decisions in relation to environmental and social cost measurement and identification. The right SMAS can also provide organizations with the ability to report energy consumption and emissions under NGER and meet requirements of GRI.

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## European Sectors And Conditional Measures Of Extreme Market And Credit Risk

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### Abstract

The objective of this paper is to determine how relative market and credit risk changes among European sectors during times of extreme market fluctuations. Ten sectors comprising the S&P Euro index are compared prior to and during the Global Financial Crisis (GFC). Market risk is measured using Value at Risk (VaR) and Conditional Value at Risk (CVaR) which measures risk beyond VaR. Credit risk is measured using the Merton / KMV Distance to Default (DD) model, and our unique Conditional Distance to Default (CDD) model, which measures extreme credit risk. Differences are found between conditional and non-conditional outcomes, and sectors which were most risky prior to the GFC are found to be different to the riskiest sectors during the GFC. The insights into extreme sectoral risk provided by the study are important to investors in portfolio selection, and to banks in setting sectoral concentration limits.

### Keywords

Market risk, credit risk, value at risk, conditional value at risk, distance to default

## Introduction

The extreme financial market volatility and severe bank stresses of the GFC have highlighted the importance of understanding and measuring extreme market and credit risk. In Europe, in particular, financial markets and the banking sector have experienced tremendous instability, with the GFC promptly followed by a sovereign debt crisis.

The inclusion of both market and credit risk in this paper is due to the fact that the understanding of sectoral risk is important to both investors in determining portfolio mix and to banks in setting policies such as credit concentration limits, pricing, and lending officers' loan approval authority limits for each industry. The interaction between market and credit risk is sufficiently important that the Bank for International Settlements (BIS) set up a task force to examine the link between the two. The BIS (2009) task force reported that market and credit risk are driven by the same underlying forces, which interact significantly in determining asset values, and that default may be affected by fluctuations in these asset values.

This study compares market risk prior to and subsequent to the onset of the GFC using VaR and CVaR (which measures risk beyond VaR). To measure credit risk we use the structural credit model of Merton (1974) and KMV (Crosbie & Bohn, 2003) which incorporates a combination of fluctuations in market asset values and the debt / equity structure of the borrower's balance sheet to measure DD. We also use CDD which is our unique measure applying CVaR methodology to the measurement of extreme credit risk. The question explored by this study is whether there is a difference between industry risk rankings using traditional credit measures such as VaR and DD as opposed to CVaR and CDD measures of extreme risk. We also examine whether industry rankings change during the extreme conditions of the GFC as compared to pre-GFC.

The study finds that European industry rankings change when using CVaR as compared to VaR. Similar results are obtained for credit risk when using CDD as compared to DD. In addition, those industries that were most risky prior to the GFC are not the same industries that were risky during the GFC. Thus relative industry risk changes as economic circumstances change. It is precisely at times of extreme risk that companies are most likely to fail or default, causing losses to investors and lenders. This means that it is important for investors and lenders wishing to minimize extreme risk to include measures such as CVaR and CDD in selecting portfolio mix.

As background, Section 2 provides a brief overview of the risk climate in Europe brought about by the GFC and Sovereign Debt Crisis. Section 3 provides background to VaR, CVaR, DD and CDD. Data and Methodology are discussed in Section 4, followed by Results in Section 5 and Conclusions in Section 6.

## The Risk Setting in Europe

A combination of the GFC and the Sovereign Debt Crisis has led to a prolonged period of financial instability in European markets. As happened in the US and other Global markets, the GFC led to a need in Europe for financial sector support programmes and macroeconomic stimulus to be provided by Central banks and Governments. Examples include the 2008 UK Government £500bn financial support package and liquidity support measures provided by the Bank of England (BOE) and European Central Bank (ECB), such as extension of maturity terms on refinancing operations and allowing banks to swap illiquid securities for liquid ones. Following an emergency summit in Paris in 2008, Euro area governments provided co-ordinated support measures to banks such as increasing deposit insurance, providing guarantees on new bank bond issues and making capital injections into banks. Asset relief measures were also introduced to remove or insure toxic bank assets (European Central Bank, 2009).

2010 heralded a sovereign debt crisis in Europe amidst concern that Greece would default on high debt levels and that the crisis would spread to other vulnerable countries such as Portugal and Spain. Conditional upon severe austerity measures such as cuts on public sector allowances, freezes on wage increases, and increased taxes, a bailout package which included low interest loans was provided to Greece by the International Monetary Fund and other Eurozone countries. In May 2010 Europe's Finance Ministers approved a €750 billion rescue package to improve financial stability across Europe, allowing Eurozone countries to draw on the fund in need and providing access to loans guaranteed by the EMU member states and the European Central Bank (ECB). The ECB also introduced measures to reduce volatility in financial markets and improve liquidity such as commencing open market operations by buying government and private debt securities.

These events all provide a climate of extreme risk for investors and banks, leading to the need to for accurate measurement of extreme risk. Background to the measurements used in this study, is provided in the following section.

### **Background to Risk Measurements Used in this Study**

Market Risk is measured in this study using VaR and CVaR. VaR, which measures potential losses over a specific time period within a given confidence level, is a well understood and widely used metric for measuring market risk. The concept has been incorporated into the Basel Accord as a required measurement for determining capital adequacy for market risk. VaR has also been applied to credit risk through models such as CreditMetrics (Gupton, Finger, & Bhatia, 1997), CreditPortfolioView (Wilson, 1998), and *r*Transition (Allen & Powell, 2009b)

Despite its wide use, VaR has undesirable mathematical properties; such as lack of sub-additivity (Artzner et al., 1999; 1997). Perhaps the biggest shortcoming of VaR is that it is focused on risks below a specified threshold and says nothing of the risks beyond VaR. The measurement has been criticized by Standard and Poor's analysts (Samanta, Azarchs, & Hill, 2005) due to VaR being applied inconsistently across institutions, as well as lack of tail risk assessment.

Conditional Value at Risk (CVaR) measures extreme returns (those beyond VaR). Pflug (2000) proved that CVaR is a coherent risk measure with a number of desirable properties such as convexity and monotonicity, amongst other desirable characteristics. CVaR has been applied to portfolio optimization problems by several studies, including Rockafellar and Uryasev (2002; 2000), Andersson et.al (2000), Alexander et al (2003), Alexander and Baptista (2003) and Rockafellar et al (2006). Allen and Powell (2009a, 2009b) explored CVaR as an alternative method to VaR for measuring market and credit risk in an Australia.

Credit risk in this study is measured using the Distance to Default (DD) structural approach of Merton (Merton, 1974) and KMV (Crosbie & Bohn, 2003). The model measures DD based on a combination of fluctuating asset values and the debt / equity (leverage structure) of the borrower.

The importance of fluctuating asset values in measuring credit risk has been raised by the Bank of England (2008), who make makes the point that not only do asset values fall in times of uncertainty, but rising probabilities of default make it more likely that assets will have to be liquidated at market values. Examples of studies using structural methodology for varying aspects of credit risk include asset correlation (Cespedes, 2002; Kealhofer & Bohn, 1993; Lopez, 2004; Vasicek, 1987; Zeng & Zhang, 2001), predictive value and validation (Bharath & Shumway, 2008; Stein, 2007), fixed income modelling (D'Vari, Yalamanchili, & Bai, 2003), and effect of default risk on equity returns (Chan, Faff, & Kofman, 2008; Gharghori, Chan, & Faff, 2007; Vassalou & Xing, 2002).

Besides fluctuating assets, the other key component of structural modelling is the borrower's leverage ratio. In particular, the leverage ratios of banks have come under close scrutiny during the financial crisis, with many requiring additional capitalisation. The leverage ratios in this study range from 5.3% for Financials to 53% for Health Care. BOE (2008) report that during the GFC "system-wide vulnerabilities were exposed...rooted in uncertainties about the value of banks assets...amplified by excessive leverage". As probabilities of default increase, there is greater likelihood of assets needing to be liquidated at market prices, and BOE thus express a need for market participants need to revalue their assets with greater weight placed on mark to market values giving rise to reduced asset values and a need for increased capital. The detailed methodology behind the measurements discussed above, is provided in the following section.

## Methodology

### Data

The study includes all S&P Euro stocks. This index represents the European region, including 180 stocks with geographic and sectoral diversity, and a total Market Cap of €2.1 trillion. We obtain daily returns for 10 years from Datastream, divided into two periods: pre-GFC and GFC. For the pre-GFC period we use the 7 years prior to 2007. 7 years aligns with Basel Accord advanced model requirements for measuring credit risk. The GFC period includes the 3 years from 2007 – 2009. The Merton KMV model requires balance sheet data for each entity (equity and debt) which we also obtain from Datastream.

### Market risk measurement

Our methodology involves calculation of VaR and CVaR. To calculate VaR, we use the parametric methodology of RiskMetrics (J.P. Morgan & Reuters, 1996), who introduced and popularised VaR. This is the most commonly used VaR method. Following RiskMetrics, daily equity returns are calculated for each of the years in our data sample using the logarithm of daily price relatives. From the standard deviation ( $\sigma$ ) of these returns, VaR is calculated at a 95% confidence level, and based on standard tables,  $VaR_x = 1.645\sigma_x$ . CVaR uses the same methodology as VaR, except we use the average of the returns beyond VaR (i.e. the worst 5% of returns).

### Credit risk

The Merton / KMV structural approach to estimating distance to default (DD) and probability of default (PD) is used. This model is then modified to incorporate an extreme risk component called Conditional Distance to Default (CDD) and Conditional Probability of Default (CPD). The structural model holds that there are 3 key determinants of default: the asset values of a firm, the risk of fluctuations in those asset values, and the leverage (the extent to which the assets are funded by borrowings as opposed to equity). The firm defaults when debt exceeds equity. DD and PD are measured as follows:

$$DD = \frac{\ln(V/F) + (\mu - 0.5\sigma_v^2)T}{\sigma_v\sqrt{T}} \quad (1)$$

$$PD = N(-DD) \quad (2)$$

Where  $V$  is the market value of the firm,  $F$  = face value of firm's debt, and  $\mu$  = an estimate of the annual return (drift) of the firm's assets.

Market value of assets is obtained using the approaches outlined by KMV (Crosbie & Bohn, 2003) and Bharath & Shumway (2008). Initial asset returns (for every day) in our data set are

estimated from our historical equity data (obtained as per section 4.2) using the following formula, where  $E$  is the market capitalization of the firm:

$$\sigma_V = \sigma_E \left( \frac{E}{E+F} \right) \quad (3)$$

The daily log return is calculated and new asset values estimated every day following the KMV iteration and convergence procedure. We measure  $\mu$  as the mean of the change in  $\ln V$  as per Vassalou & Xing (2002). Following KMV, we define debt as current liabilities plus half of long term liabilities.

Conditional distance to default (CDD) is defined as DD based on the worst 5% of asset returns. The standard deviation of the worst 5% (CStdev) is substituted into formula 1 to obtain a conditional DD:

$$CDD = \frac{\ln(V/F) + (\mu - 0.5\sigma_V^2)T}{CStdev_V \sqrt{T}} \quad (4)$$

and

$$CPD = N(-CDD) \quad (5)$$

## Industry Ranking

We rank each industry according to risk (for each of our risk measurements including VaR, CVaR, DD and CDD), for the pre-GFC and GFC periods. A Spearman Rank Correlation Test is used to determine association between pre-GFC and GFC outcomes.

## Results

This section presents a comparison of pre-GFC outcomes for VaR and CVAR to those during the GFC, followed a comparison of DD and CDD outcomes over the two periods.

The table shows daily VaR and CVaR. VaR is calculated at a 95% confidence level, being the standard deviation of daily returns multiplied by 1.645 as per normal distribution tables. CVaR represents the average of the worst 5% of asset returns. The pre-GFC period incorporates the 7 years to 2006. The GFC period includes years 2007 – 2009. Rankings are from 1 (lowest risk) to 10 (highest risk). A negative change shows deterioration in risk ranking. A Spearman Rank Correlation Test is applied to determine correlation between pre-GFC and GFC rankings. Significance in ranking correlation at the 95% level is denoted by \* and at the 99% level by \*\*, with a '-' indicating no significance.

**Table 1. VaR and CVaR Results**

<i>VaR:</i>				<i>VaR</i>		<i>VaR</i>	
	<i>VaR</i>	<i>VaR</i>	<i>Change</i>	<i>Rank</i>	<i>Rank</i>	<i>Diff in</i>	<i>Diff in</i>
<i>Sector</i>	<i>Pre GFC</i>	<i>GFC</i>		<i>Pre GFC</i>	<i>GFC</i>	<i>ranks</i>	<i>ranks<sup>2</sup></i>
Consumer Discretionary	0.0239	0.0341	-0.0102	7	5	2	4
Consumer Staples	0.0142	0.0210	-0.0068	1	1	0	0
Energy	0.0224	0.0363	-0.0139	4	7	-3	9
Financials	0.0240	0.0424	-0.0184	8	10	-2	4
Health Care	0.0235	0.0264	-0.0029	6	3	3	9
Industrials	0.0224	0.0368	-0.0144	5	8	-3	9
Information Technology	0.0431	0.0355	0.0076	10	6	4	16
Materials	0.0200	0.0390	-0.0190	3	9	-6	36
Telecomm. Services	0.0322	0.0260	0.0062	9	2	7	49
Utilities	0.0168	0.0329	-0.0161	2	4	-2	4
	0.0231	0.0339	-0.0108				140.00
						<i>n</i>	10
						<i>r</i>	0.152
						<i>t</i>	0.434
						<i>critical value 95%</i>	2.306
						<i>critical value 99%</i>	3.355
						<i>significance</i>	-

<i>CVaR:</i>				<i>CVaR</i>		<i>CVaR</i>	
	<i>CVaR</i>	<i>CVaR</i>	<i>Change</i>	<i>Rank</i>	<i>Rank</i>	<i>Diff in</i>	<i>Diff in</i>
<i>Sector</i>	<i>Pre GFC</i>	<i>GFC</i>		<i>Pre GFC</i>	<i>GFC</i>	<i>ranks</i>	<i>ranks<sup>2</sup></i>
Consumer Discretionary	0.0524	0.1070	-0.0546	7	10	-3	9
Consumer Staples	0.0441	0.0538	-0.0097	3	3	0	0
Energy	0.0389	0.0655	-0.0265	1	5	-4	16
Financials	0.0496	0.0816	-0.0320	4	9	-5	25
Health Care	0.0521	0.0534	-0.0013	6	2	4	16
Industrials	0.0543	0.0699	-0.0156	8	7	1	1
Information Technology	0.0767	0.0669	0.0097	10	6	4	16
Materials	0.0504	0.0743	-0.0240	5	8	-3	9
Telecomm. Services	0.0590	0.0496	0.0094	9	1	8	64
Utilities	0.0392	0.0641	-0.0249	2	4	-2	4
	0.0499	0.0714	-0.0215				160.00
						<i>n</i>	10
						<i>r</i>	0.030
						<i>t</i>	0.086
						<i>critical value 95%</i>	2.306
						<i>critical value 99%</i>	3.355
						<i>significance</i>	-

As per Table 1, using VaR, Consumer Staples is shown to have the lowest risk both prior to and during the GFC. From a CVaR perspective, the lowest risk industry rankings are different, with lowest risk accorded to Energy pre-GFC and Telecommunication Services during the GFC.

The Spearman rank correlation test shows no association between those industries that had the highest market risk pre-GFC and those that were riskiest during the GFC. The industry showing the greatest improvement in ranking between the two periods is Telecommunications. The Financial sector showed the greatest ranking deterioration on a CVaR basis, and the materials sector on a VaR basis. Whilst eight out of ten sectors showed deterioration in VaR and CVaR during the GFC, two industries (Telecommunications and Information Technology) showed an improvement. This is due to the pre-GFC period including the burst of the dot-com bubble, which severely affected these high-tech sectors. The deterioration in Financial sector

rankings is expected, given that banks led the GFC, and the problems that were experienced by this sector as outlined in the Section 2 of this study.

The upper two graphs in Figure 1 show actual VaR and CVaR. The solid bar (pre-GFC) goes from lowest to highest risk, showing a steady progression in risk. The non-solid bar (post-GFC) shows a completely different pattern, illustrating the difference between the pre-GFC and the GFC outcomes. The bottom two graphs in Figure 1 illustrate those industries which had the greatest shift in rankings, notably Materials, Energy, Financials and Industrials on the downside and Health Care, Information Technology and Telecommunication Services on the upside.

**Figure 1. VaR and CVaR Values and Ranking Changes**

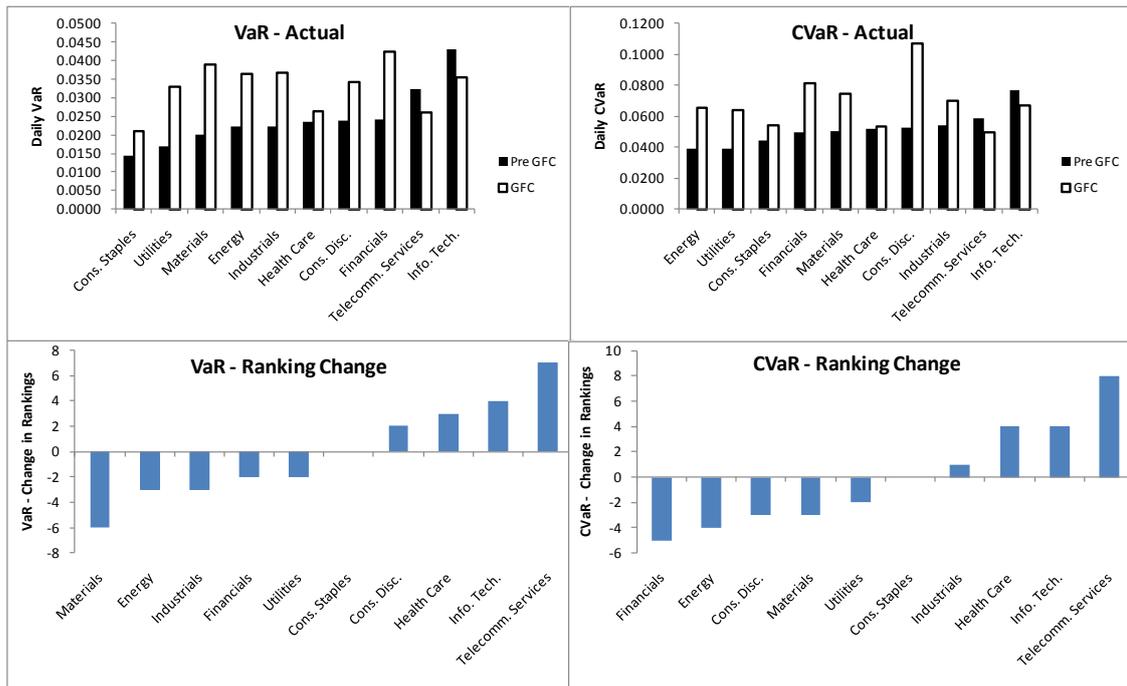


Table 2 shows DD and CD values and sector rankings. Consumer Discretionary, Financials, Utilities and Energy have fared the worst in terms of movement in rankings. The Consumer Discretionary and Financials Sectors both illustrate how rankings can change during extreme circumstances. Pre-GFC, both groups show worse CDD rankings than DD rankings, and both groups show deterioration in rankings during the GFC. During the GFC, Financials rank worst on both a DD and CDD basis. Entities in this sector come precariously close to default during the worst 5% of the GFC, with a CDD of 0.65 equating to a PD of 25% using equation 5. This is due to a combination of the high volatility and high leverage as shown by the equity ratios. Financials are operating on capital ratios of approximately 5%, which is much lower than other sectors.

DD (measured by number of standard deviations) is calculated using equation 1. CDD is based on the worst 5% of asset returns and is calculated using equation 4. Pre-GFC incorporates the 7 years to 2006. GFC includes 2007 – 2009. Rankings are from 1 (lowest risk) to 10 (highest risk). A negative change shows deterioration in risk ranking. A Spearman Rank Correlation Test is applied to determine correlation between pre-GFC and GFC rankings. Significance in ranking correlation at the 95% level is denoted by \* and at the 99% level by \*\*, with ‘-’ indicating no significance. The equity ratio is the total equity as per the firm’s balance sheet as a percentage of total assets.

**Table 2. DD and CDD Results**

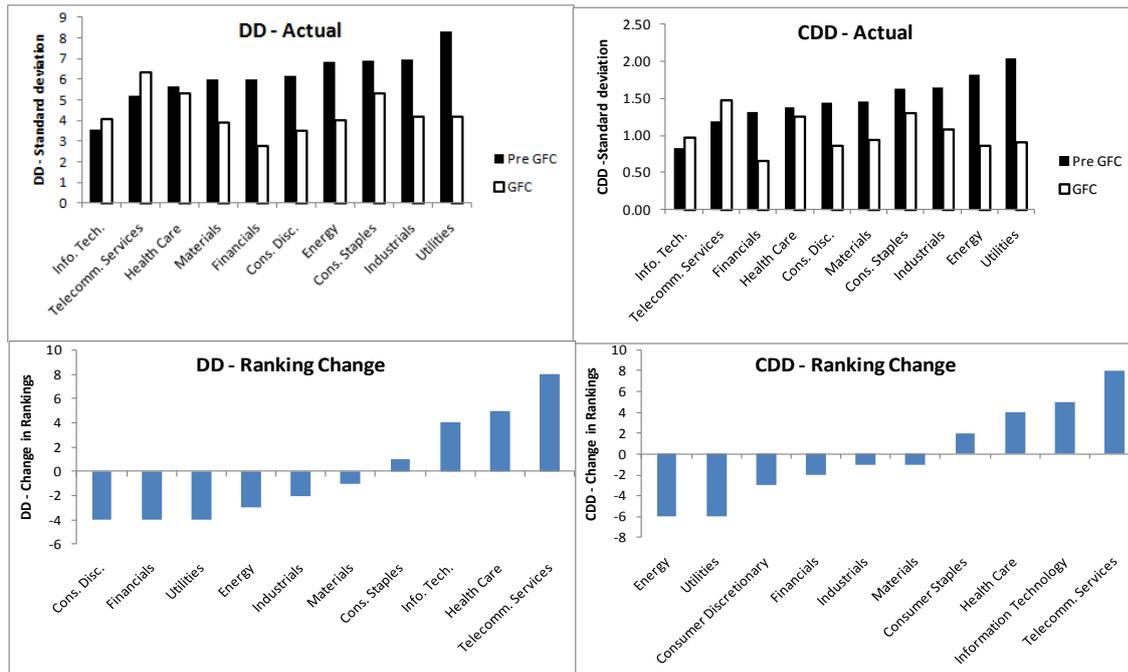
<i>DD:</i>				DD	DD			
Sector	DD Pre GFC	DD GFC	Change	Rank Pre GFC	Rank GFC	Diff in ranks	Diff in ranks <sup>2</sup>	Equity
Consumer Discretionary	6.13	3.48	-2.66	5	9	-4.00	16.00	28.0%
Consumer Staples	6.88	5.30	-1.58	3	2	1.00	1.00	31.3%
Energy	6.82	3.98	-2.84	4	7	-3.00	9.00	36.4%
Financials	6.00	2.77	-3.23	6	10	-4.00	16.00	5.3%
Health Care	5.62	5.30	-0.33	8	3	5.00	25.00	53.0%
Industrials	6.94	4.19	-2.75	2	4	-2.00	4.00	26.6%
Information Technology	3.56	4.07	0.51	10	6	4.00	16.00	44.0%
Materials	5.98	3.88	-2.10	7	8	-1.00	1.00	43.2%
Telecomm. Services	5.20	6.32	1.12	9	1	8.00	64.00	29.4%
Utilities	8.31	4.15	-4.16	1	5	-4.00	16.00	26.6%
	6.14	4.34	-1.80				168.00	
					<i>n</i>		10	
					<i>r</i>		-0.018	
					<i>t</i>		-0.051	
					<i>critical value 95%</i>		2.306	
					<i>critical value 99%</i>		3.355	
					<i>significance</i>		-	

<i>CDD:</i>				CDD	CDD			
Sector	CDD Pre GFC	CDD GFC	Change	Rank Pre GFC	Rank GFC	Diff in ranks	Diff in ranks <sup>2</sup>	
Consumer Discretionary	1.45	0.86	-0.58	6	9	-3.00	9.00	
Consumer Staples	1.62	1.31	-0.32	4	2	2.00	4.00	
Energy	1.81	0.87	-0.95	2	8	-6.00	36.00	
Financials	1.31	0.65	-0.66	8	10	-2.00	4.00	
Health Care	1.38	1.25	-0.13	7	3	4.00	16.00	
Industrials	1.65	1.09	-0.57	3	4	-1.00	1.00	
Information Technology	0.83	0.96	0.14	10	5	5.00	25.00	
Materials	1.46	0.94	-0.52	5	6	-1.00	1.00	
Telecomm. Services	1.20	1.48	0.28	9	1	8.00	64.00	
Utilities	2.04	0.91	-1.12	1	7	-6.00	36.00	
	1.38	0.75	-0.63				196.00	
					<i>n</i>		10	
					<i>r</i>		-0.188	
					<i>t</i>		-0.541	
					<i>critical value 95%</i>		2.306	
					<i>critical value 99%</i>		3.355	
					<i>significance</i>		-	

Figure 1 illustrates differences between pre-GFC and GFC outcomes. The completely different pattern in solid and non-solid bars in the top 2 graphs illustrates how relative risk has changed between the industries, and the bottom two graphs illustrate how this impacts on industry rankings.

**Figure 2. DD and CDD Values and Ranking Changes**



The less discretionary sectors such as Consumer Staples and Health Care fare well on all measures. Health Care's improvement in rankings during the GFC is due to a combination of relatively lower volatility and a stronger equity ratio. Telecommunications and Technology show significant improvement in credit rankings due to the lower volatility noted in the earlier discussion on VaR and CVaR.

**Conclusions**

The study has shown how relative sector risk changes during extreme circumstances for both market and credit risk. Those industries that were riskiest pre-GFC are not the same industries that were riskiest during the GFC, and even within each of the two periods, there are changes in risk rankings using conditional as compared to non-conditional metrics. This has important implications for investors or lenders. Portfolio decisions made on non-conditional measures such as VaR may not accurately identify the highest risk sectors. Conditional measures such as CVaR and CDD will assist in identifying those sectors having the highest risk during the most extreme circumstances, which is when firms are most likely to fail.

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## **Decline In Exports And Excessive Borrowing Appear As Decisive Factors Of The Global Economic Crisis**

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### **Abstract**

This paper aims to present the specifics of the application of multiple linear regression model. The economic (financial) crisis is analyzed in terms of gross domestic product (dependent variable) which is in a function of the foreign trade balance (on one hand) and the credit cards, i.e. indebtedness of the population on this basis (on the other hand), as independent variables, in the USA for the period from 1999 to 2008. We used the extended application model which shows how the analyst should run the whole development process of regression model. This process began with simple statistical features and the application of regression procedures, and ended with residual analysis, intended for the study of compatibility of data and model settings. This paper also analyzes the values of some standard statistics used in the selection of appropriate regression model. In practical researches, we usually face the situation of testing a number of models, for the purpose of finding the "best" model (based on the given criteria). Comparison of the model is carried out with the use of the Statistics PASW 17 program.

### **Keywords**

Multiple linear regression model, statistical tests, multiple ANOVA table of decomposition

## **Introduction**

The starting point of our analysis is the assertion that the great economic crisis is caused by the separation of the real sector and the financial sector. First, we analyzed data from BEA agencies for the period from 1992 to 2008. These data show us that the U.S. international trade in goods recorded a negative sign from year to year, yet the international trade in services recorded a positive sign. This figure shows a decline in the real sector, on the other hand the growth of the service sector, in which we include the banking sector.

These data show us that at one point there was separation of real sector and the financial sector, which ultimately resulted in the emergence of the global crisis. In further analysis we come to the conclusion that the main culprits of the last crisis are American consumers who on average have 9 credit cards, so they repaid the loan from the first credit card with loan from another card, thereby making a vicious financial circle that eventually collapses like a house of cards.

The collapse comes at a time when funds remain fully captured in the financial sector. In fact, consumers at one moment are not using the money from credit cards to purchase goods, they are using them to cover the debt on credit cards. Reduction of purchasing goods causes reduction in demand of those goods (products). Decline in demand for products from the real sector has the causal effect on the reduction of production and therefore the emergence of high unemployment and reduce of the gross domestic product. Article concludes with what extent the reduction of export products from the real sector and balance on credit cards affect the movement of gross domestic product.

Possible development directions are related to making efficient management of the finance sector and limiting the numbers and opportunities of using credit on credit cards. These directions lead us to the appearance of state intervention.

## **Application**

Our application is based on analyses of the economic (financial) crisis in terms of gross domestic product as dependent variable, which is in a function of the foreign trade balance (on one hand) and the credit cards, i.e. indebtedness of the population on this basis (on the other hand), as independent variables, in the USA for the period from 1999 to 2008.

First, we analyzed BEA data for U.S. International Trade in Goods and Services for period from 1999 to 2008.

Table 1: U.S. International Trade in Goods and Services for period from 1999 to 2008 (in millions of dollars)

Period	Balance		
	Trade	Goods	Services
	Annual		
1992	- 39,212	-96,897	57,685
1993	-70,311	-132,451	62,141
1994	-98,493	-165,831	67,338
1995	-96,384	-174,170	77,786
1996	-104,065	-191,000	86,935
1997	-108,273	-198,428	90,155
1998	-166,140	-248,221	82,081
1999	-265,090	-347,819	82,729
2000	-379,835	-454,690	74,855
2001	-365,504	-429,898	64,393
2002	-421,601	-482,831	61,230
2003	-495,035	-549,012	53,977
2004	-609,987	-671,835	61,848
2005	-715,269	-790,851	75,582
2006	-760,359	-847,260	86,901
2007	-701,423	-830,992	129,569
2008	-695,937	-840,252	144,315

Source: The Bureau of Economic Analysis – BEA

Here we can conclude that trade in goods has negative sign, which means that import of goods is bigger than exports of goods, and trade in services has positive sign, which means that export of services is bigger than import of services.

This led us to conclusion that there was a disturbance in the real sector. The real sector is the basis for economic development, so bearing this in mind, we continue with further analysis. The aim of further analysis is to determine why there was a growth of trade in services and decline of trade in goods. In further analyses we used data about consumer credit in the period from 1999 to 2008.

Table 2: Consumer Credit: 1999 -2008 (in billions of dollars)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	1,607*	1,741	1,892	2,000	2,104	2,219	2,314	2,418	2,551	2,702*

\* Authors adjustments of data for 1999 and 2008 (adjustments are for analyses; other data are from Federal Reserve System)

Source: Board of Governors of the Federal Reserve System, 6<sup>th</sup> March 2008.

We used data from Eurostat, the Statistical Office of the European Commission, which give us percentage change of GDP volume for the United States in period from 1999 to 2008.

Table 3: Growth rate of GDP volume – percentage of change on previous year

USA	Percentage change of GDP on previous year
1999	4.8
2000	4.1
2001	1.1
2002	1.8
2003	2.5
2004	3.6
2005	3.1
2006	2.7
2007	2.1
2008	0.4

Source: Eurostat, 2009.

From these data we can see decrease of GDP from year to year.

### Specifics Of The Applications Of Multiple Regression Model In The Analyses Of The Effects Of Global Financial Crises

Business and economic analysis has certain unique characteristics in comparison with the analysis that is done in other disciplines. Multiple regression is a very important tool for economists. We begin with the implementation which illustrates an important task of regression model specifications. Model specification includes selection of exogenous variables and functional forms of models. The economic crisis is analyzed in terms of GDP (dependent variable, Y) which is in a function of the foreign trade balance (independent variable,  $X_1$ ) and credit indebtedness of people in the U.S. (independent variable,  $X_2$ ) for the period from 1999 to 2008.

The analysis of defined problem and selection of variables define the specification of the model in general form:

$$\hat{Y} = b_0 + b_1 X_1 + b_2 X_2$$

The model specification strategy was conditioned by the goals we want to achieve. One goal was to predict the dependent or output variable, GDP. Another objective was to assess the marginal effect of each independent variable. Marginal change is more difficult to assess because the independent variables are associated not only with the dependent variable but also with each other.

If two or more independent variables change in mutual direct linear relationship, it is difficult to determine the individual effect of each independent variable on dependent variable. Now we will consider a multiple regression model in more detail.

Coefficients  $b_j$  are constant coefficients of linear variables  $X_j$ , which show the average effect of each independent variable on the population of values of dependent variable Y. Specifically, the coefficient  $b_1$  expresses the change of GDP with respect to each unit change in foreign trade balance and the coefficient  $b_2$  expresses the change of GDP with respect to each unit change in credit indebtedness.

Therefore, we have:

$$b_0 = \bar{y} - b_1\bar{x}_1 - b_2\bar{x}_2$$

$$b_1 = \frac{\sum d_2^2 \sum d_1 d_y - \sum d_1 d_2 \sum d_2 d_y}{\sum d_1^2 \sum d_2^2 - (\sum d_1 d_2)^2}$$

$$b_2 = \frac{\sum d_1^2 \sum d_2 d_y - \sum d_1 d_2 \sum d_1 d_y}{\sum d_1^2 \sum d_2^2 - (\sum d_1 d_2)^2}$$

Solving this model, we have:

$$b_0 = 12,9449902842$$

$$b_1 = 0,0000117775$$

$$b_2 = -0,0077485802$$

We obtain the following model

$$\hat{Y} = 12,945 + 0,0000118X_1 - 0,00775X_2$$

We will now explain the meaning of the obtained regression coefficients. The regression coefficient  $b_0 = 12,944902842$  shows that the zero level of the foreign trade balance and credit indebtedness, GDP amounted to 12.945 %.

Value  $b_1 = 0,0000117775$  indicates the average change (increase) in GDP when the foreign trade balance increases by the unit, provided that credit indebtedness remains unchanged (this is a direct relation between the dependent and independent variables).

By analogy,  $b_2 = -0,0077485802$  indicates the average change of GDP when credit indebtedness increases by the unit and the foreign trade balance remains constant (this is the inverse relation between the dependent and independent variables because the regression coefficient has a negative sign).

Since the regression coefficients are absolute indicators, the phenomena included in the model are commonly reported in different measurement units, and it does not make sense to use them to compare their mutual influence of independent variables on the dependent variable.

In the analysis we introduce the coefficient of multiple determination to explain the variation percentage of GDP, explained by the mutual influence of independent variables included in the model:

$$R_{Y/X_1X_2}^2 = \frac{b_1 \cdot \sum d_1 d_y + b_2 \cdot \sum d_2 d_y}{\sum d_y^2} = 0,68.$$

The coefficient of multiple determination indicates that 68% of the variance of GDP is explained by the mutual influence of the foreign trade balance and credit indebtedness. What remains, i.e. 32 %, is the share of unexplained variability and shows the influence of those factors not included in the model.

To use a previously shown regression equation for assessing and predicting the value of GDP, first we must test the significance of overall model. To test the validity of the model, we use the F schedule. As realized value  $F=7,34$  is greater than table value  $t=4,74$  (with a 5% risk), we conclude that we should reject the null hypothesis (that the foreign trade balance and credit indebtedness do not affect the GDP), i.e. that the model is adequate.

The second part of the paper is devoted to the analysis of the economic crisis in terms of GDP (the dependent variable, Y) which is in a function of the foreign trade balance (the independent variable,  $X_1$ ) and the indebtedness of population of the United States on credit cards (as the most important part of the credit indebtedness of people from the first part of the analysis, the independent variable,  $X_2$ ) for the period from 1999 to 2008.

*Table 4: Foreign Trade balance and Credit Cards debt outstanding*

Years	GDP (%)	Foreign Trade balance (import-export) in mil. \$	Indebtedness of the population on credit cards in billions \$
1999	4.8	265090	651
2000	4.1	379835	<b>680</b>
2001	1.1	365504	711
2002	1.8	421601	743
2003	2.5	495035	776
2004	3.6	609987	811
2005	3.1	715269	847
2006	2.7	760359	<b>886</b>
2007	2.1	701423	925
2008	0.4	695937	967
<b>Total</b>	<b>26.2</b>	<b>5410040</b>	<b>7997</b>

Source: Eurostat 2009, The Bureau of Economic Analysis – BEA, The Nilson Report, Carpinteria, CA, Twice-monthly newsletter

We obtain the following model

$$\hat{Y} = 15,762 + 0,000011X_1 - 0,02392X_2$$

We will now explain the meaning of the obtained regression coefficients. The regression coefficient  $b_0 = 15,7624735068$  shows that to reach the zero level of the foreign trade balance and indebtedness of the population on credit cards, GDP has to amount to 15.762 %.

The value  $b_1 = 0,00001101181$  indicates the average change (increase) in GDP when the foreign trade balance increases by the unit, provided that indebtedness of the population on credit cards remains unchanged (this is a direct relation between the dependent and independent variables).

By analogy,  $b_2 = -0,0239180366$  indicates the average change of GDP when indebtedness of the population on credit cards increases by the unit and the foreign trade balance remains constant (it is the inverse relation between the dependent and independent variables because the regression coefficient has a negative sign).

In this case the coefficient of multiple determination is obtained in this way:

$$R_{Y/X_1X_2}^2 = \frac{b_1 \cdot \sum d_1 d_y + b_2 \cdot \sum d_2 d_y}{\sum d_y^2} = 0,584613.$$

The coefficient of multiple determination indicates that 58 % of the variance of GDP is explained by the mutual influence of the foreign trade balance and indebtedness of the population on credit cards. What remains, i.e. 42 %, is the share of unexplained variability and shows the influence of those factors that are not included in the model.

To test the validity of the model, we use the F schedule. As realized value  $F=4,93$  is greater than the table value  $t=4,74$  (with a 5% risk), we conclude that we should reject the null hypothesis (that the foreign trade balance and indebtedness of the population on credit cards do not affect the GDP), i.e. that the model is adequate.

In our analyses we used also Multiple ANOVA for model verification (first solution). The results of a Multiple ANOVA statistical test shows that F ration is 241,2. The probability of this result, assuming the null hypothesis, is 0,00.

As realized value  $F=241,2$  is greater than the table value  $t=5,49$  (with a 1 % risk), we conclude that the model is adequate.

## Conclusion

In this paper we have presented the necessary foundations for the application of multiple regression procedures. The aim is to identify and analyze causes of the last economic crisis on a global level, based on theoretical and methodological research, as well as their impact on the reduction of economic activities of modern economies.

The practical contribution of the paper is reflected in the creation of new empirical evidence which prove that the decrease of exports and excessive credit borrowing are the key driving factors causing last global crisis. Policy makers are to use our results to focus their activities in this direction.

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## The Most Important Global Trends, Which Influence The Marketing Of The Next Decade

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### Abstract

The environment of economic activity of the twenty first century has been rather turbulent so far. In this fast altering situation there is a growing interest from the side of the economy and the society as a whole to find some solid forecasts, which may give directions to the future activities. Due to the high turbulence the forecasts made by anybody are however rather uncertain. In spite of this uncertainty, the paper tries to summarize those major trends, which will characterize the environment of the business activity in the next decades and which will have an important impact on the marketing activity in the coming years. The study lists these striking trends as follows:

1. The global warming: the emergence of social and societal marketing
2. The after-effects of the global recession: the changing buying behavior
3. Power-shift in the world economy: the rise of the cultural side of international marketing
4. Demographic trends effecting the marketing of the coming years
5. The trend of proliferation
6. Speeding up of the technological development

### Keywords

Future trends, climate change, crisis, demographic changes, proliferation, technological changes, marketing in the future

## **Introduction**

The environment of economic activity of the twenty first century has been rather turbulent so far. In this fast altering situation, there is a growing interest from the side of the economy and the society as a whole to find some solid forecasts, which may give directions to the future activities. Due to the high turbulence the forecast made by anybody are however rather uncertain. In spite of this uncertainty, the paper tries to summarize those major trends, which will characterize the environment of the business activity in the next decades and which will have an important impact on the marketing activity in the coming years. The paper discusses these trends in the followings.

## **The Global Warming: The Emergence Of Social And Societal Marketing**

The worries about the climate change have started already more than three decades ago with natural scientist reporting about the global warming and its consequences on the humanity. Even politicians have already driven the attention to this contingency. It is enough to refer to the famous Bruntland Report, which was on the agenda of the 42<sup>nd</sup> Assembly of the UNO under the title "Our Common Future" in 1987. On the 19<sup>th</sup> page the report writes: "There are also environmental trends that threaten to radically alter the planet, that threaten the lives of many species upon it, including the human species. .... The burning of fossil fuels puts into the atmosphere carbon dioxide, which is causing gradual global warming. This 'greenhouse effect' may by early next century have increased average global temperature enough to shift agricultural production areas, raise sea level to flood coastal cities, and disrupt national economies."

In the second half of the nineties the president of the European Commission Jacques Delors appointed the Forward Studies Unit of the European Commission under the co-ordination of three experts Bertrand, Michalski, and Pench (1999) to elaborate on the possible future scenarios of the world and Europe. In the sixth volume of the Scenarios Europe 2010 the authors state that according to their knowledge the biggest danger lies in the strong correlation between the economic activity and the deterioration of the natural environment that is the possibility of an ecological danger.

The extreme climate events of the last years drew even more attention to this process. In spite of the overall awareness of the danger supranational bodies failed to come to an agreement, which would be able to slow down or reverse the climate change.

The uncertain future of our world immediately raises the question: what can be done and who should do that? It seems worthwhile to list the participants of this very serious game. With a certain level of generalization, three parties can be listed:

Firstly, the consumers: People who have been socialized to measure and demonstrate personal and family success and happiness in increased consumption of material goods. In marketing literature however the expression and definition of sustainable consumption has emerged and a discussion and dispute has started about it (Schaefer and Cane, 2005; Webb et al., 2007). The socially responsible consumer was defined already in mid seventies first by Webster (1975, p. 188): "a consumer who takes into account the public consequences of his or her private consumption or who attempts to use his or her purchasing power to bring about social change".

Secondly, the profit oriented organizations. Their first and most important goal is to produce more and more income for their owners and this objective is in strong correlation with the increase of sales and increase of consumption. Since the danger of ecological changes has emerged and as it has become the concern of civil organizations, the social responsibility has started to appear in the strategy of companies (CSR) as well.

The third type participants of this game are the elected leaders of the population (governments and other bodies of regulation). Their role is twofold: regulation and persuasion.

Looking at the environmental and ecological dangers it looks almost sure that traditional marketing will undergo radical changes. The most striking future trends are the following:

### *Social Marketing Will Gain In Importance*

Government, NGOs, civil organizations will have the obligation to influence consumption, to promote a change for sustainability i.e. they have to make a kind of social marketing. The share of social marketing both in academic research and in the practice is rather small compared to business marketing. The evolution of social marketing has been somewhat hindered by a lack of definitional clarity and consensus. It has often been confused with related - but quite distinct - marketing concepts such as societal marketing, socially responsible marketing and non-profit marketing.

The emergence of social marketing means a sort of paradigm shift in marketing theory and practice. The essence of marketing has been so far to create, deliver and promote more and more tangible and intangible goods to satisfy customers' needs. Any kind of marketing effort to reduce consumption seems contradictory for marketing experts. Besides, the need to clarify the objectives of social marketing urgent necessity of "re-tooling" of this new type of marketing has emerged. The traditional four Ps need a rather new and different approach (Paettie & Paettie, 2008):

- The first P is not a product but a proposal or offer (use bike instead of cars, the new is not always better than then the existing one, etc.).
- The second P the price cannot be regarded as customers' monetary cost, rather a kind of energy, or psychological cost of changing existing behavior patterns.
- The third P is in this new concept is not the availability of goods, but the way how to access the socially more beneficial alternatives.
- In addition, the fourth P is not promotion but a very comprehensive social communication.

Summarizing it can be stated that the marketing of the future will pay greater attention to social marketing.

### *Bigger Attention Of The Research Of Sustainable Consumption*

The ecological sustainability of our planet requires radical changes in the consumption patterns. There is not enough convincing results in the research about what type of consumption should be avoided and what type the population should prefer. Research has started and partial results have already been published (Schaefer and Crane, 2005; Webb et al., 2008, and others), but the picture is not clear, yet.

The marketing of the future will pay more attention to the research of sustainable consumption and to the methods of its measurement. These researches by their nature should be interdisciplinary involving the co-operation of other human sciences and even natural sciences. The responsibility of these researches will be very high: the arguments of social marketing and even the direct regulations and rules of governments will be based on the results of these researches.

### *The Change Of Business Marketing — The Revolution Of Societal Marketing*

It is also easy to forecast that in the corporate strategy of the big multinational companies sustainable development and socially responsible marketing (CSR) will have a dominant role. They do not have other choices since anti globalization movements, the pressure of governments, consumer movements, green organizations enforce this change. An Internet survey including 25 000 respondents from 175 countries showed that 71% of them were not satisfied with the present state of the environment, and 67% is expecting further deteriorating (Amin, 2003, p. 374.). After the UNO summit about the sustainable development ([www.johannesburgsummit.com](http://www.johannesburgsummit.com)) in 2002 (under the title: 3P — people, planet, prosperity) the global companies regard obligatory to deal with environmental problems. Their efforts and results are usually published as an appendix of their financial statements. Some of these companies can even make a competitive advantage by focusing on sustainability. An article of Business Week (January 2, 2008) cites Toyota, GE, and Wal-mart as positive examples. These companies require sustainability also from their suppliers. As a result a virtuous business cycle starts: “companies seeking sustainability look for sustainable products and services, which provides further opportunities for sustainable companies.” And “at the end of the day, when companies compete on sustainability, the planet will be the big winner”— states the article (Douglas, 2008) very optimistically.

The matter of fact is that the real situation is not so optimistic. It is really true that social responsibility has appeared in the marketing communication of the big companies and philosophy of CSR is diffusing into the strategy of many corporations, but few companies has reached the point when they are ready to say that the customer is not always right. Just have a look at the most environment polluting car industry! Toyota or Honda (which got in 2007 the title of the “greenest car manufacturer of the year”) can rightly boast of their hybrid cars, but they do not want to stay out of the business to satisfy the increased demand of the gasoline eating SUVs (Like Toyota Land Cruiser V, or Honda Pilot).

The positive picture is spoiled by the fact that lots of these big companies have outsourced their most polluting activities to less developed countries, which decrease their own ecological footprint but the total footprint remained the same (or even worsened) globally.

In the future, we have to count with the activity of global companies coming from the emerging countries. They have or will have to adapt their activities according to the norms of Corporate Social Responsibility, it is sure however that they also do not want to stay out of those business possibilities should they be polluting or not which were used by the Western companies earlier.

Summarizing, it is almost sure that the idea of sustainable development and social responsibility is diffusing and this is the trend, which will shape the marketing of the future. The change is not revolutionary but scientist and politicians have to welcome every incremental change. To research and manage this field is their responsibility and they should not leave it as the private hobby of a few natural scientists. The change has started all over Europe: we can find centers of sustainability at the major Universities in France, England and Germany or even in Hungary.

If governments, consumer movements and companies act in the global interest of the earth then there is a chance that by the end of the next decade CSR will not be an extreme strategy rather it will be an organic part of the organizations DNA.

### **The After-Effects Of The Global Recession: The Changing Buying Behaviour**

The global economic recession started in 2008 seems to come to its end in the second half of 2010. Macroeconomic indicators show certain recovery even in those countries, which were hardest hit by the recession. It is too early to say that the recession is completely over; pessimistic scenarios predict a possible second downturn wave. Even if it is not happening

regional and local problems like the Greek, Portugal and Spanish budget problems, the hectic fluctuations of the exchange rates, etc., bode well that the world economy in the coming decade will not be as prosperous and smooth going as it was before the recession.

During the recession, manufacturing companies of consumer goods and services reported about a radical change of consumer buying behavior even in the markets of the most advanced countries. Radical decline of the per capita consumption expenditures across the demographic segments, postponing of certain consumer investments, trading down i.e. in a considerable switch from specialties to commodities, and in an increased market share of lower priced private labels characterized the changes.

During the recession a new value consciousness has emerged as the dominant buying behavior, i.e. consumers have continuously made trade-offs in price, brands and convenience. Companies waiting the consumer behavior to get back to normal may be disappointed: consumer surveys (Egol et al. 2010, Cetelem, 2010) show that consumers do not want to return to the old habits of the hedonistic consumerism. According to the Cetelem consumer survey made in 12 European countries 64% of the respondents shared the opinion, that the crisis brought long lasting changes is the consumer buying habits. Majority of the consumer prefer saving over spending, they prefer low prices over convenience. The trade-off in price and convenience opened the room for the hard discount stores. While in Italy 36 thousand retail shops were close in 2008 the discount chains like Shop Prezzofisso, Eurocity and others were flourishing. In UK more than 1500 discount store are operating, in Germany 40% of groceries are bought in discount stores, which enjoy an annual growth of more than 10%. Besides, the discount shopping is undergoing a democratization process: earlier their target segment contained students and housewives, now even high ranking managers or free lancers are not ashamed to visit them. "Everybody wants to save" as one of the manager of a discount store said. It is not accidental, for example, that the "below 1 Ł" chains start to open stores in the elite residential areas of Cambridge or Oxford.

If we accept that consumer behavior has changed in an enduring way, companies seeking for success are compelled to adapt their marketing strategies to these new trends. Firstly, they have to identify new consumer segments according to their differences in price-sensitivity, in shopping behavior across product categories; secondly, they have to adjust their product and service offers and pricing strategies and thirdly, they have to address their differentiated marketing messages and promotional offers accordingly (Quelch and Jotz, 2009; McPartlin et al, 2010).

Summarizing this new trend Philip Kotler talks about even a new marketing paradigm, a new value centric era called Marketing 3.0. "Marketing 3.0 is the era where marketing practices are very much influenced by changes in consumer behavior and attitude. It is the more sophisticated form of the consumer-centric era where the consumer demands more collaborative, cultural, and spiritual marketing approaches" (Kotler et al., 2010).

## Power-Shift In The World Economy: The Rise Of The Cultural Side Of International Marketing

The last decades witnessed the rise of the big emerging countries giving lots of work to the international economics. Chindia (China and India), BRIC or BRICS (Brazil, Russia, India, China and South Africa) are abbreviations to be found in every analysis about the world economy. The global crisis started in 2008 has even accelerated the process of their escalation, since their annual economic growth rate stayed in the positive range even in the hardest times outperforming the advanced world.

Forecast for the next decade are shocking. According to the BMI (Business Monitor International) estimation by 2018 (BMI, 2010), the emerging countries' GDP will be equal with the developed world GDP, and therefore will equate to around 50% of global GDP, up from roughly 35% of today, with BRIC countries all ranked in the top 6 countries of the world on a US\$ GDP basis (Table 1).

Table 1: The top 10 countries by share of global GDP in 2008 and in 2018

Country	GDP, % of World GDP		GDP Global Rank		GDP Per Capita	
	2008	2018	2008	2018	2008	2018
United States	24.1	20.2	1	1	47,469	64,574
China	7.2	14.3	3	2	3,214	10,413
Japan	8.2	4.8	2	3	38,602	40,729
India	1.9	4.4	12	4	991	3,500
Russia	2.7	4.3	9	5	11,327	33,323
Brazil	2.6	3.8	10	6	8,194	19,244
Germany	6.1	3.7	4	7	44,555	47,937
United Kingdom	4.5	3.4	6	8	43,620	54,440
France	4.8	3.1	5	9	44,829	48,976
Italy	3.9	2.4	7	10	39,198	42,753

Source: Business Monitor International Ltd.

The result will be a major rise in levels of GDP per capita in the developing world. Although they still remain the main destination of outsourcing and manufacturing investments the emerging world with a steep increase of the population's income and purchasing power will become more and more a very attractive market opportunity not only for the multinational but also for small and medium sized enterprises from all around the world.

To be successful on these markets companies planning to enter must change their marketing proved to be efficient in the Western world. If they want to depart from their today practice i.e. targeting only the affluent top end of the emerging markets, and want to reach larger segments they have to understand the local conditions. Globalizations in this respect, requires radical localization, localization of the product or service, the pricing, the distribution and the communication. Moreover, this localization needs lots of learning about the new cultural, political, geographical, etc aspects of the environment (Dawar and Chattopadhyay, 2000, Khanna, et al, 2005, Tse, 2010).

Khanna et al. give a good example for the need of understanding, for example, the thorny relationships between ethnic, regional, and linguistic groups in emerging markets. "In Malaysia, for instance, foreign companies should enter into joint ventures only after checking if their potential partners belong to the majority Malay community or the economically dominant Chinese community, so as not to conflict with the government's long-standing policy of transferring some assets from Chinese to Malays. This policy arose because of a perception that the race riots of 1969 were caused by the tension between the Chinese haves and the Malay have-nots. Although the rhetoric has changed somewhat in the past few years, the pro-Malay policy remains in place."

This necessity to understand the emerging world in details will give a rise to the cultural aspect of international marketing and to the international marketing research techniques both in the academia and in the practice.

### **Demographic Trends Effecting The Future Marketing**

When focusing to environmental issues, focusing to the power shift going on between the advanced and emerging world we tend overlook some very important demographic issues, which will top the political and business agenda in the near future.

According to the optimistic scenarios due to the decreasing birth rate of the advanced world and to the birth regulations in the developing countries the growth of the earth's population going to slow down and will stabilize and peak approximately at the level of 9-10 billion around the mid of this century (UN, 2004). Looking into the details of this general forecast we can recognize some striking trends that have started already and that will have (or already have) their effects on the business and marketing activity even within the coming years. Due to the lack of place, the study will deal with only two of the several demographic trends.

#### *The Aging Population In The Western World*

The first issue is the ageing demographic structure of the advanced world. In the mid the twentieth century the share of people above 60 in the globe was around 8%. According to the forecasts within 100 years, it will go up to 20-25%. In addition, many countries notably almost all European countries and Japan have already reached this share (UN, 2009); just to show some examples: Japan 30%, Italy 26%, Germany 25%, Croatia 23% Hungary 22%, etc. In spite of this fact, the majority of the companies with some extreme exceptions declare the young (15-45) generations as their main target market. They somehow ignore the fact that one quarter of the populations is already an attractive market. Why? Maybe because as Bill Virgin (2005) writes "marketing to young people is fun, marketing to old people, by contrast, is boring too boring to bother with, except for three inconvenient facts: There are a lot of old people out there. The number of old people is growing. And they're the ones with the money." In the United States (where the share of the 60+ customers is lower), some companies have already recognized this fact and started to implement marketing strategies to target this growing segment (Byron, 2009). "The demographic issues are where the climate issues were 5 - 10 years ago: everybody heard about it, but nobody cared" (Hori et al., 2010)

The demographic forecasts suggest that it has a fairly high possibility the senior consumers, because of the growing life expectancy even divided into sub segments of 50+, 60+, 70+ or 80+, will become one of the new targets of many consumer goods companies' marketing activity during the coming decade.

#### *The Growing Share Of The Economically Active Women*

When talking about demography it is worthwhile to mention another tendency highly ignored by the policy makers and business leaders. This is the appearance of "the third billion" as Augirre and Sabbagh puts it (Augirre and Sabbagh, 2010). The analogy of the "billion" is taken from the two billion new Chinese and Indian participants of the world economy. The third billion are women. According to a new study by the Boston Consulting Group, women are now poised to drive the post-recession world economy, thanks to an estimated \$5 trillion in new female-earned income that will be coming on line over the next five years ([Foroohar](#) and [Greenberg](#), 2009). According to the analysis of Booz & Co., based on ILO statistics, by the end of the next decade one billion of women between the age of 20 and 65, who are today

either “not prepared” or “not enabled” or both will enter the mainstream of the economy and with their purchasing power will become a dominant part of the market. This movement, besides giving a special impetus to the economy, will provide huge challenges to the marketing activity of almost every company.

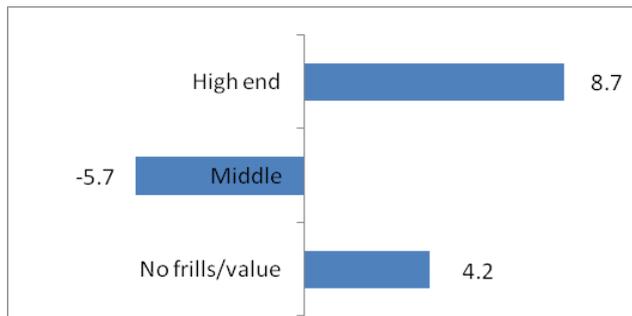
### **The Trend OF Proliferation**

Analyzing the markets across the different product categories, it looks evident that the marketing environment is undergoing tremendous change. The new world order of digitalization has brought about the fragmentation of the markets, the appearance of new market segments, the clutter of new products, new brands, new channels, new pricing points and new communication vehicles. The process is called proliferation. It started already some years ago and most probably, it will be one of the major trends influencing marketing in the coming decade(s). Proliferation is there on every front (Webb, 2006; Court et. al, 2007).

#### **Brand Proliferation**

Due to the increased competition and the affluent information availability, consumer needs are getting more and more divers. Companies across many product categories try to react to these trends by constantly launching new products, by adding new varieties to their product lines. This product proliferation strategy from the side of the firms has certain logic: broader product lines may increase demand faced by the firm, it can affect costs; it can deter new entries (Bayus and Putsis, 1999). Although the clutter of new, developed, or altered products may have company logic, it has unfavourable consequences overall markets. Gerzema and Lebar (2009) reports, for example, that according to Datamonitor statistics near 60 thousand new products were introduced worldwide in 2006, more than double than some years ago. An average supermarket holds around 30000 brands threefold than some year ago. This phenomenon causes three problems: first consumers have hard time to assess the brands and find noticeable differences among them. Second consumers do not find any creativity in the majority of the new brand and (third) consequently they are losing trust in these brands.

The movement of brands in the market used to have exact directions. Shapiro (2002) in a Harvard teaching note explains these movements. According to Shapiro there are three kinds of goods: commodities, specialties and ‘the great in-between’. Specialties constitute the high end of the market: they offer great customer value and they have competitive differentiation. While specialties usually provide higher margin the natural endeavour should be to move from commodities to specialties (which is called sometimes as ‘premiumization’). Due to the brand proliferation, the real movement is however opposite. Every new product starts (or want to start) as a specialty. In the struggle to gain competitive advantage competing firms operating in the same business area will imitate the new products rather fast making it more and more difficult to find the important points of differentiation. From the consumers’ point of view, many times it becomes difficult to distinguish functionally their offers from each other. This process is discussed in the literature under the notion of ‘commoditization’ (Karmarker 2004; Davenport 2005). The two opposite movements is ending up in a rapid polarization of the market structure. This process is well demonstrated in Figure 1, which was made by McKinsey & Company surveying 25 industries worldwide (Knudsen et al., 2005).

*Figure 1: The Disappearing Act*Notes:

1. Nominal growth rate of products and services in tier relative to market average for these products and services, 1999-2004, CAGR (Compounded Average Growth Rate), %.
2. 25 industries or product categories — 10 in Europe, 9 in North America, and 6 at global level; growth rate for each tier represent weighted average of industries and product categories studied.

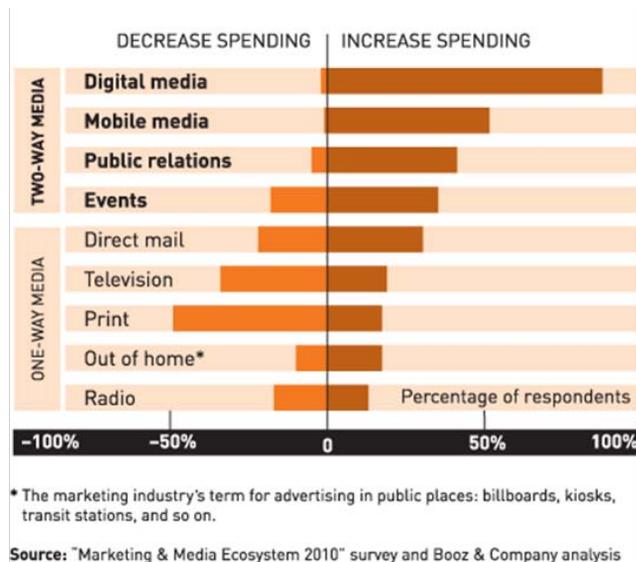
Taking into account the changing and enduring consumer behaviour during and after the recession adding up with the growing markets of the emerging countries with their lower per capita purchasing power it is without say evident that downward will be the dominant movement in the coming decade.

*Proliferation Of The Communication Vehicles*

The proliferation in the communication channels means that during the last 5 to 10 years beside the traditional channels the new digital media has stepped forward with different means offered for companies to communicate with their customers. There is a revolution going on within the marketing and advertising 'ecosystem'. The metaphor of 'ecosystem' was used by Vollmer (2009: 3), who writes that this ecosystem is a dynamic, interconnected community of marketers, advertising agencies and media, which is at the same time "a brutal competitive arena, where a kind of 'digital Darwinism', or survival of the fittest, hold sway, rapidly distinguishing winners from losers."

In the coming decade the revolutionary new channels will become mainstream. According to the "Marketing and Media Ecosystem" survey the media offering two-way communication will outperform those of the traditional one-way channels (Figure 2).

Figure 2: Marketers' Interest in the Two-way Media



Here is a good example presented in 2010 in the article of Knowledge @ Emory titled Marketing's New World Order: Consumers Talk Back—and Everyone Hears: "Pepsi always outspent Coke on the Super Bowl, says Tim Halloran, a Goizueta adjunct marketing instructor and brand management consultant. 'That was their big deal.' That is, until this year.

For the first time in 23 years, Pepsi ran no ads during this (2010) year. Instead of investing in a flashy 30-second spot, the company poured money into creating a new online social media campaign, the [Pepsi Refresh Project](#), through which it promises to hand out millions of dollars in support of 'ideas that will have a positive impact'. 'This is a huge departure', says Halloran. 'For Pepsi to walk away from the Super Bowl, it really gives you an overarching idea of where the trends are today.'

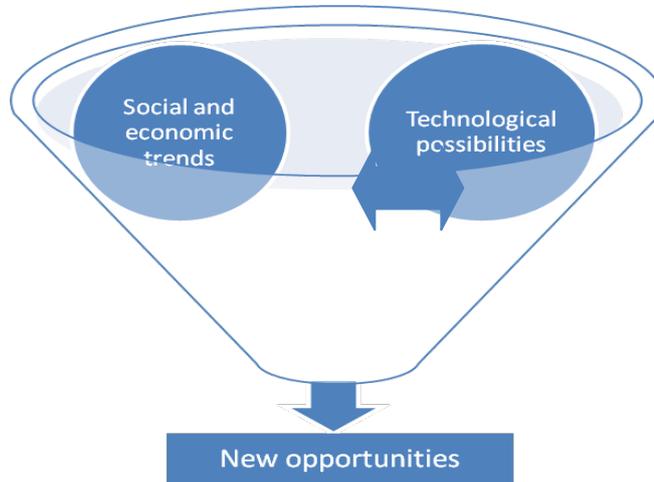
In other words, Halloran says, 'it's a whole new marketing ballgame. And Pepsi is not alone on the playing field. As social media networks and developments in high technology continue to break down traditional barriers between companies and consumers, and as those customers become increasingly sophisticated and discerning about the products they buy and use, companies are being confronted with enormous changes in marketing and brand management', Goizueta experts say. Gone are the days of the marketing one-way conversation, with a company telling its customers what to think about its products and services. Today marketing has truly become, for the first time ever, a two-way conversation."

### Speeding Up Of The Technological Development

The paper tried to list those important global trends, which will have a strong impact on the business and marketing activity all over the world. So far one important field has not been touched directly: this is the ever growing speed of the technological development. This field is so comprehensive and so important that it is hard to incorporate, even its main trends, into the framework of this study. One thing is sure: all the trends mentioned before are affected by the technology; and vice versa, directions of technological development are and will be affected by the social, economic and marketing trends. The interrelation between the social and economic trend and the technology is shown in Figure 3.

Let us just consider the climate change: the roots of the whole problem lie in the carbon dominated industry. To change it may give a strong impetus to the research and development of the carbon free energy resources, and may open era of a new technological development — as suggested by Nobel Prize laureate Krugman, and others (Makhijani, 2007).

*Figure 3: The Interrelation of Social and Economic Trends and Technology*



Talking about the trends in technology it is not viable to list all the possible inventions and innovations which will determine the technologies over the different product groups, instead this study emphasizes two forthcoming phenomenon having strong effect also on the marketing of the future.

#### *The Emergence Of The Open Innovation*

The notion of open innovation has been introduced in the literature by Henry Chesbrough (2003) who argued that involving external partners of the company (external research laboratories, suppliers, universities, customers and even competitors) into the firm's R&D activity will give better results than the traditional way named by him as 'closed innovation'. Open innovation is the way how successful IT companies work already. Chesbrough argues in his writings that this mindset can increase the return of R&D even in traditional industries like carmakers or chemical goods producers.

The notion 'innovation' is not limited however only to products or technologies. Innovation also implies to marketing (Reketye, 2003). Open innovation in the field of marketing means to involve external partners into the process of inventing and implementing new marketing actions, using new marketing means and creating new forms for deciding how and to what the marketing budget should be spent. In this respect the voice of the companies' existing and potential customers is of utmost importance. In addition, the IT revolution creates the methods how customer oriented companies can uphold a continuous conversation with their customers. Have a look at the Web Site of Lego! The use of Lego Mindstorms NXT software (<http://mindstorms.lego.com/en-us/community/default.aspx>) helps to develop from their young customers successful product designers. Another example is the campaign of Pepsi already mention in this paper. Instead of spending millions on the super bowl they ask their customer communities to help to decide how this budget should be spend (<http://www.refresheverything.com/>). American Express made very similar project under the name "American Express Members Project" (<http://www.takepart.com/membersproject>). In addition, IBM's "A Smarter Planet" program can be listed among these initiatives ([http://www.ibm.com/smarterplanet/us/en/?cm\\_re=masthead--solutions--smarterplanet](http://www.ibm.com/smarterplanet/us/en/?cm_re=masthead--solutions--smarterplanet))

The above-mentioned experiments can be considered as the use of open innovation in the field of marketing. The success of these projects will accelerate the distribution of this kind of two-way marketing communication in the future.

### *The Issue Of The “Digital Convergence”*

Parallel with the appearance of the digital technology and its separate use the notion of digital convergence has emerged both in literature and practice. The concept says that all industries where digital technology has certain role will eventually come close to each other and when the convergence will be strong enough these industries may merge into one. This was the case with information technology (IT) and communication technology (CT): they are already called ICT.

From marketing perspective, the convergence of information technology, telecommunication, consumer electronics, and entertainment has special meaning. In other words, it has a high probability that technologies will evolve in a new innovative network, which may change the lifestyle of people, households and even companies. One thing is not clear yet: what will be the dominant platform of this new network. Will it be the TV or the PC? Nobody can decide it now. Anyhow, marketers have to prepare to the necessary changes of their communication activity.

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# The Impact Of Knowledge On Perceived Fairness On Revenue Management

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## Abstract

Revenue Management, whilst being a well accepted pricing technique by marketing practitioners, has raised several issues of perceived fairness from the customer's point of view. This has been researched in various industries which fulfill necessary pre-requisites of applying revenue management. The focus of previous research has been on the impact of information (Choi and Mattila 2006), familiarity (Taylor and Kimes 2010) and other areas. The authors here wished to investigate the role of knowledge as defined as "the range of one's information and understanding" (Merriam Webster online dictionary 2010) in the perceived fairness of revenue management. Fairness was examined within an ethical framework which concludes that a fair price is the one fetched in open markets (Elegido 2009) because this is appropriate for revenue and management pricing, rather than focusing on difficult to measure concepts such as "impartial" and "honest price setting" favoured by authors such as Kaufmann et al. (1991). Hence, the authors argued that knowledge has an impact on perceived fairness of revenue management practice.

The methodology was based on an exploratory approach using scenarios as other researchers on this subject have done (Choi and Mattila 2009; Kimes and Wirz 2003). Four scenarios on customers' perceived fairness were used. Knowledge was measured on an attitudinal scale and with categorical variables. A convenience sample was taken from a student population at an international school of hotel management. SPSS statistical software was used to analyze the results. Correlation, regression and a one-way MANOVA tests were applied to test for significance and effect size. The various calculations did not show strong significance hence these results were not in line with previous research, despite the use of the same methodology (scenario technique).

The limitations of this research were that the study was exploratory in nature and was intended as a pilot study.

## Keywords

Revenue management, perceived fairness, knowledge

## Introduction

The practice of demand-based pricing, also called revenue management evolved over the last decades and it is now "widely accepted as a method for maximising financial returns in service industries where demand is variable, and fixed cost are a high proportion of total costs" (Palmer and McMahon-Beattie, 2008, p.189). Revenue management has been practiced extensively and majorly in airlines (Weatherford, 2003), hotels (Bitran and Mondschein, 1995, Kimes, 1989), restaurants (Thompson and Sohn, 2008), car rentals (Geraghty and Johnson, 1997, Carol and Grimes, 1995), cruise lines (Kimes, 1989, Ladany and Arbel, 1991, Gallego and van Ryzin, 1994), broadcasting (Cross, 1998) and many other service providers with capacity constraints to maximize potential revenue earned. The basic principle deals primarily with providing the right product or service to the right customer at the right time via the right distribution channel with two strategic levers being capacity management and pricing strategies to gain control of customer demand (Withiam, 2001). However, there is some evidence that customers have a potential distrust in companies applying variable pricing, especially of this is not transparent and the rules are not clearly explained (Palmer and McMahon-Beattie, 2008, p.190). Various researchers have conducted surveys on customers' perceived fairness of revenue management practices in different service industries (Choi and Mattila, 2009, Palmer and McMahon-Beattie, 2008, Rohlfs and Kimes, 2007, McGuire and Kimes, 2006, Choi and Mattila, 2004, Kimes and Wirtz, 2003, Kimes and Wirtz, 2002). Almost all of this research focussed on customer's perception of fairness based on the impact of information, pricing and rate fencing about revenue management practices provided to customers. McGuire and Kimes identify three factors regarding perceived fairness, such as reference transaction, social justice and familiarity (McGuire and Kimes, 2006, p.123).

## Knowledge

So far no research was conducted on knowledge as independent variable impacting perceived fairness of revenue management. Knowledge has been defined as "a characteristic of a person that influences that person's behavioral potential" (Hunt 2003) as Hunt searches to link knowledge and behaviour in his study. Previous studies all either search to link knowledge to behaviour or use knowledge in a non-business environment or finally accept knowledge as being present without explicitly defining it.

This study, whilst putting knowledge in a business context is not examining the behaviour subsequent to different levels of knowledge but a perception as a result of different levels of knowledge. Therefore the meaning chosen for this study was the more conventional Merriam Webster online dictionary one of "the range of one's information or understanding" and the more archaic definition they offer as "a branch of learning" which is backed up by the inclusion of learning as a synonym of knowledge.

## Knowledge versus information

It is important to distinguish between the terms 'knowledge', and 'information'. The authors of this paper seek to differentiate between knowledge as a function of learning and "information" which refer to facts or impressions put forward by the sellers of a product in order to influence the purchaser favourably. The research proposed here relates to the learning of a concept and the effect of that learning on the perception of fairness of revenue management. Given that knowledge can be defined in many ways, the measurement of knowledge might also be achieved in many ways. The most accessible to many researchers is the self-measurement method chosen here. Whilst this method has the obvious disadvantage of the heterogeneity of measurement between respondents it sets basic parameters. In a controlled environment such as a school where the curriculum has a course entitled Revenue and Pricing Management it may be assumed that knowledge is acquired in the course and is not present in any broad way before the course.

Current research relating to the concept of perceptions of fairness in pricing, respective revenue management has examined the following constructs relating to revenue and pricing management techniques. Customers characteristics or factors relating to the demand situation (Kimes and Chase, 1998) in Taylor and Kimes (2010), cultural aspects within a disclosure framework (Choi and Mattila, 2006), and familiarity, brand class and purpose of travel (Taylor and Kimes, 2010) and across channels (Choi and Mattila, 2009). Taylor and Kimes (2010) study has shown that familiarity with revenue and pricing management techniques was the key factor affecting perceptions of fairness (more familiarity created better acceptance). The difference between familiarity and knowledge becoming important here as these authors prone the concept that the sellers should provide information to customers to increase familiarity and this study looks at the role of acquiring knowledge through learning. Choi and Mattila's 2006 study indicated that communication concerning revenue and pricing techniques should vary by culture whilst their 2009 research concluded that a multi channel pricing strategy influences the consumers' perceptions of fairness but that the price frame and norm perceptions have a role to play too. Therefore this study examines the acquisition of knowledge through a learning process.

### **Ethical framework**

A definition of the "fairness" of a price is required, for this purpose literature of an ethical nature was consulted. Elegido (2009) differentiates between a substantive definition such as that of Kaufmann et al. (1991) "a fair price is one that is just and both honestly and impartially determined and conveyed" and one that the Salamanca school members would prefer which determines the price in absolute terms not mentioning how the price was calculated. His article then takes the concept from many ethical and business points of view and conclude that the "best indicator of a good is the price that it fetches in an open market" (Elegido 2009). He notes that whilst recent popular marketing publications devote a lot of time and space to the concept of pricing, they regularly ignore the concept of the ethics of pricing. The definition put forward by the Salamanca school fits the purpose of the study here as the revenue and pricing management technique is an open market technique. Furthermore, Kaufmann et al's (1991) concepts of justness and honesty may vary across cultures which could affect the results in an international student survey such as the one undertaken here. Also the survey conducted here uses the knowledge level as a variable, this contradicts the concept of impartial conveyance in Kaufmann et al's (1991) definition.

This research paper aims to investigate the impact of knowledge on revenue management on the customers' perceived fairness; hence this study aims to add new knowledge to existing research on perceived fairness. Thus, the authors hypothesizes that:

#### **Hypotheses 1<sup>0</sup>**

Knowledge does not have an impact on perceived fairness of revenue management.

#### **Hypotheses 1<sup>a</sup>**

Knowledge does have an impact on perceived fairness of revenue management.

In the next step the authors will investigate if there are statistically significant differences in age groups regarding perceived fairness. Therefore, the authors hypothesizes that:

#### **Hypotheses 2<sup>0</sup>**

Different age groups do not perceive revenue management practice as unfair.

#### **Hypotheses 2<sup>a</sup>**

Different age groups perceive revenue management practice as unfair.

## Methodology

The authors follow a positivist paradigm, arguing that reality can be measured by observation and within the methodology the researcher is independent from the subject. As there is already a considerable amount of research conducted on perceived fairness of revenue management, the authors utilize a deductive approach, testing a hypothesis on the impact of knowledge on perceived fairness of revenue management. The research design used is a non-experimental design. The research design is based on a cross-sectional study observing subjects at one time, by collecting data via questionnaires.

The methodology is based on surveys conducted by other researchers (Kimes, 2002, Choi and Mattila, 2009). A scenario-based survey method was applied, which was commonly used in previous research on perceived fairness of revenue management practices (i.e. Choi and Mattila, 2009, Kimes and Wirtz, 2003). Hence, this should justify the questionnaire in terms of validity and reliability. The survey included four scenario-based questions measuring customers' perceived fairness, three questions on knowledge about revenue management practices and three demographic questions regarding age, sex and student level, i.e. undergraduate or graduate level.

### Box 1

#### A Sample Scenario

*Imagine that you need to travel to Geneva to get a very early flight home and thus, you want to book a standard room in hotel for one night. .*

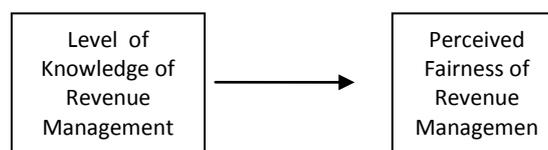
*You research the following two hotels (A and B) of well-known brands. The two hotels seem to be comparable with each other.*

*To enquire the rates, you call the hotels directly, and the hotel A reservation agent inform you that the room rates vary according to the day of the week, length of stay, number of days in advance you make your booking and room category.*

*The hotel B reservation agent does not provide any information about the hotel pricing policy.*

Knowledge was measured using an ordinal scale. In addition, the participants Respondents were asked to rank their knowledge of revenue management practices. Two scenarios resulted from multi-channel pricing strategies (Choi and Mattila, 2009) and two scenarios from disclosure of information (Choi and Mattila, 2006). The participants were asked to rate the level of perceived fairness on a seven-point acceptability scale in which 1 was strongly disagree and 7 was strongly agree. The questionnaire was based on previous research on perceived fairness (i.e. Choi and Mattila, 2009) and explained in the first section briefly the nature and purpose of the study. The questionnaire was pre-tested on content validity by discussing it with a panel of experts, comprising three marketing professors within the school to ensure validity and reliability. Next the questionnaire was administered to a small sample (20x) of students who were drawn from the population of interest. After having completed a plausibility check, data analyses for the pilot questionnaire were carried out using statistical software SPSS version 16. The outcome was used to adjust 2 questions within the questionnaire.

**Figure 1 Research Model**



The survey was then administered to a convenience sample of undergraduate and graduate students at the Les Roches School of International Hotel Management in Bluche, Switzerland. The participation in this study was voluntarily and all questionnaires were completed anonymously. Students have been chosen since they are likely to travel around and home and therefore, they will have to stay at hotels. The hotel industry has been chosen as the industry is not only applying revenue management for a long time but the industry still faces issues with perceived fairness of revenue management practices (Choi and Mattila, 2009, Rohlf and Kimes, 1997). The convenience sample was chosen in line with previous research (i.e. Choi and Mattila, 2009, McGuire and Kimes, 2006, Kimes, 2002) and as this study acts as a pilot study to investigate the effect of knowledge of revenue management on perceived fairness of revenue management. A total of 34 valid responses were collected from 60 participants, this is a 56,6% response rate.

## Results

SPSS statistical software, version 16, was used to analyse the results. 34 valid responses have been received. Slightly more male (55, 9%) than female (44, 1%) students responded. The distribution of age was skewed towards the higher age; age-wise there are two groups, "19 and under" (20, 6%) and "20 and above" (79, 4%). Another question asked for the student level, as possible indicator for level of knowledge. It may be assumed that students, just enrolling for undergraduate studies have another level of knowledge of revenue management practices as students on post-graduate level, had a course in revenue management. The frequencies show 58, 8% on undergraduate level and 41, 2% on post-graduate level.

**Table 1a, Frequencies, Age**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19 and under	7	20,0	20,6	20,6
	20 and above	27	77,1	79,4	100,0
	Total	34	97,1	100,0	
Missing	System	1	2,9		
Total		35	100,0		

**Table 1b, Frequencies, Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	19	54,3	55,9	55,9
	Female	15	42,9	44,1	100,0
	Total	34	97,1	100,0	
Missing	System	1	2,9		
Total		35	100,0		

**Table 1c, Frequencies, Student Level**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undergraduate	20	57,1	58,8	58,8
	Graduate	14	40,0	41,2	100,0
	Total	34	97,1	100,0	
Missing	System	1	2,9		
Total		35	100,0		

**Table 2, Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Rate Knowledge	34	1,00	6,00	3,7941	1,49300	-,554	,403	-,593	,788
Scenario 3.1	33	1,00	7,00	4,0303	1,99193	-,145	,409	-1,267	,798
Scenario 3.2	32	1,00	7,00	4,4688	2,12488	-,363	,414	-1,181	,809
Scenario 3.3	31	4,00	7,00	6,1290	1,08756	-1,103	,421	-,036	,821
Scenario 3.4	31	1,00	7,00	3,0323	1,55957	,732	,421	,244	,821
Valid (listwise) N	29								

The mean score for Knowledge Rating indicates a relatively average level of knowledge given the scale the author used (1 to 7). For the scenarios, the mean scores 3.1 and 3.2 are above 4, indicating that there was some level of agreement in terms of fairness perceptions. Interestingly the mean score for scenario 3.3 is very high with 6.13 (a high level of perceived fairness). The mean score for scenario 3.4 is quite low (a relatively low perception of fairness). The standard deviation shows variances, especially for scenario 3.1. and 3.2. When the standard deviation is above 1, this means that there is wide variation in responses. Any standard deviation below 1 indicates little variation in responses. From the table above it can be seen that the distribution of scores shows a negative skewness of rate knowledge, scenario 3.1 to 3.3., indicating a clustering of scores at the high end. Scenario 3.4 demonstrates a positive skewness, indicating a cluster at the low level.

**Table 3. Assessing Normality**

		Statistic	Std. Error	
Rate Knowledge	Mean	3,8966	,25952	
	95% Confidence Interval for Mean	Lower Bound	3,3649	
		Upper Bound	4,4282	
	5% Trimmed Mean	3,9406		
	Median	4,0000		
	Variance	1,953		
	Std. Deviation	1,39757		
	Minimum	1,00		
	Maximum	6,00		
	Range	5,00		
	Interquartile Range	2,00		

	Skewness		-,478	,434
	Kurtosis		-,410	,845
Scenario 3.1	Mean		4,0690	,37116
	95% Confidence Interval for Mean	Lower Bound	3,3087	
		Upper Bound	4,8293	
	5% Trimmed Mean		4,0766	
	Median		4,0000	
	Variance		3,995	
	Std. Deviation		1,99877	
	Minimum		1,00	
	Maximum		7,00	
	Range		6,00	
	Interquartile Range		4,00	
	Skewness		-,303	,434
	Kurtosis		-1,237	,845
Scenario 3.2	Mean		4,3793	,39831
	95% Confidence Interval for Mean	Lower Bound	3,5634	
		Upper Bound	5,1952	
	5% Trimmed Mean		4,4215	
	Median		4,0000	
	Variance		4,601	
	Std. Deviation		2,14499	
	Minimum		1,00	
	Maximum		7,00	
	Range		6,00	
	Interquartile Range		3,00	
	Skewness		-,323	,434
	Kurtosis		-1,211	,845
Scenario 3.3	Mean		6,0690	,20421
	95% Confidence Interval for Mean	Lower Bound	5,6507	
		Upper Bound	6,4873	
	5% Trimmed Mean		6,1322	
	Median		6,0000	
	Variance		1,209	
	Std. Deviation		1,09971	
	Minimum		4,00	
	Maximum		7,00	
	Range		3,00	
	Interquartile Range		1,00	
	Skewness		-1,010	,434
	Kurtosis		-,243	,845
Scenario 3.4	Mean		2,8621	,26132
	95% Confidence Interval for Mean	Lower Bound	2,3268	
		Upper Bound	3,3974	
	5% Trimmed Mean		2,7912	
	Median		3,0000	
	Variance		1,980	
Std. Deviation		1,40723		

	Minimum	1,00	
	Maximum	6,00	
	Range	5,00	
	Interquartile Range	2,00	
	Skewness	,592	,434
	Kurtosis	-,084	,845

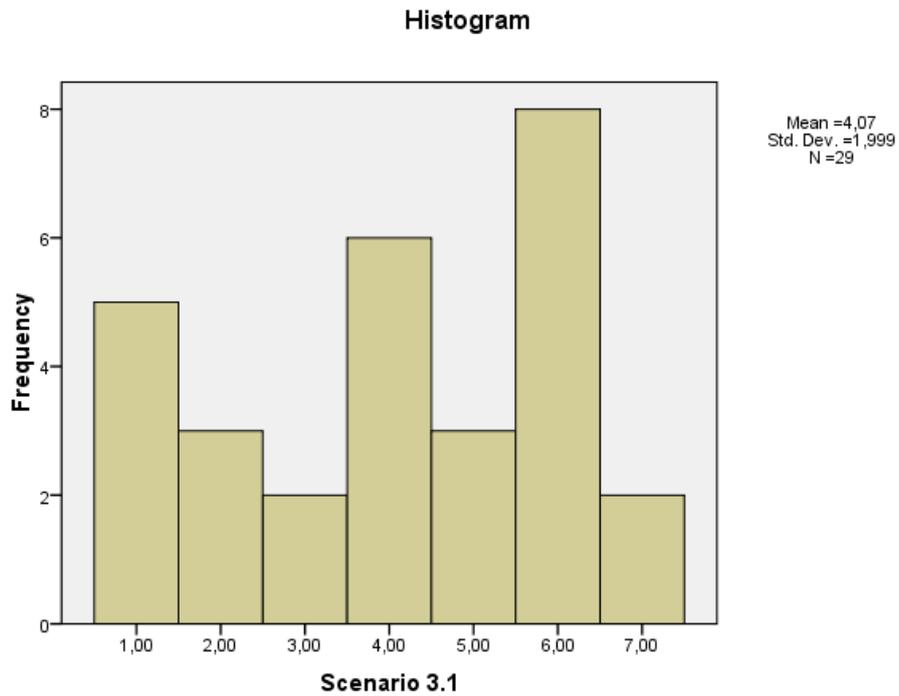
**Table3a Kolmogorov-Smirnov**

**Tests of Normality**

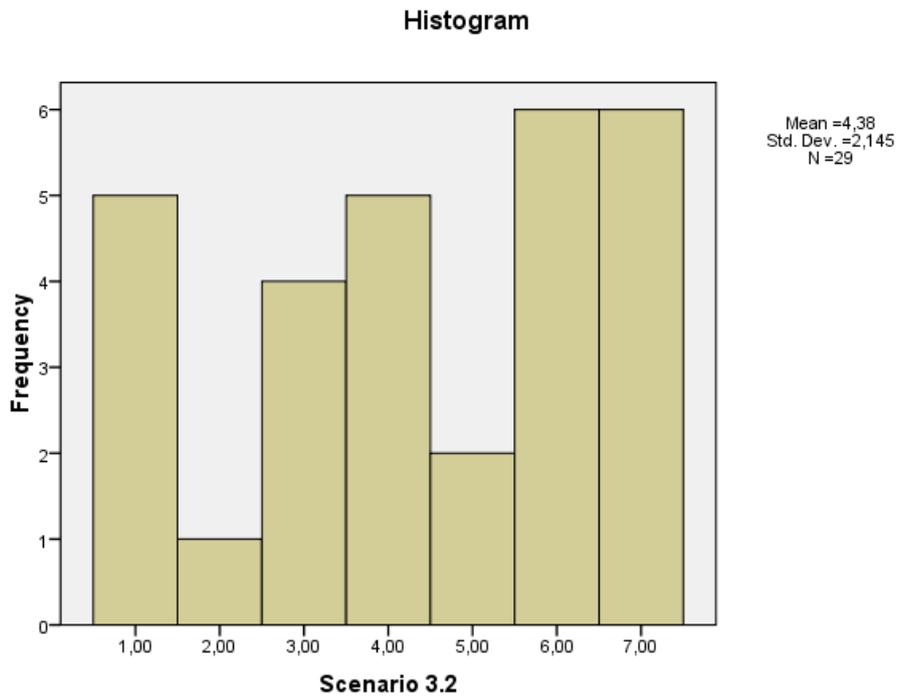
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Rate Knowledge	,185	29	,013	,926	29	,044
Scenario 3.1	,178	29	,020	,896	29	,008
Scenario 3.2	,189	29	,010	,889	29	,005
Scenario 3.3	,268	29	,000	,755	29	,000
Scenario 3.4	,178	29	,019	,913	29	,020

a. Lilliefors Significance Correction

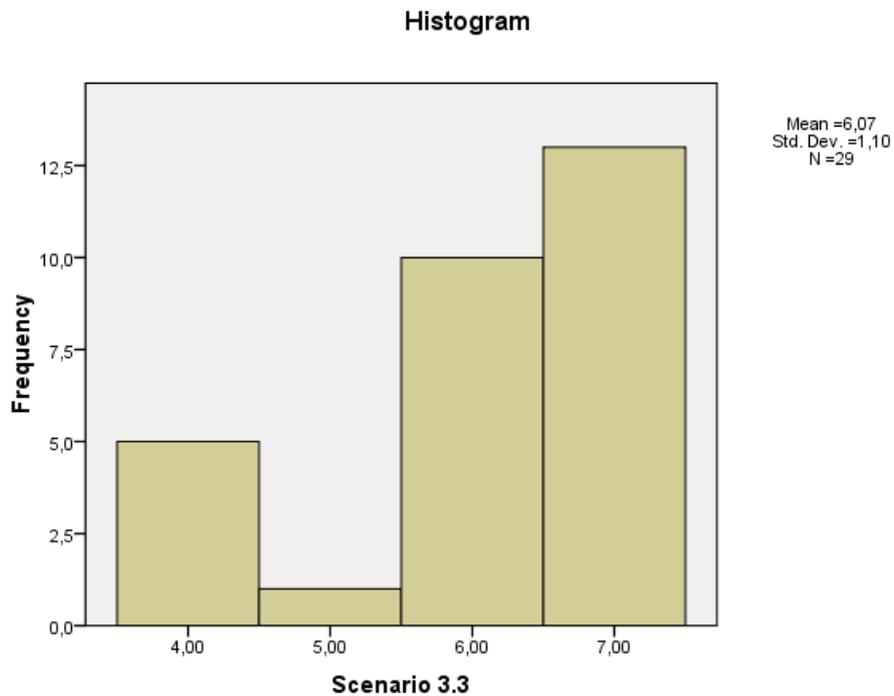
**Graph 1a, Histogram Scenario 3.1**

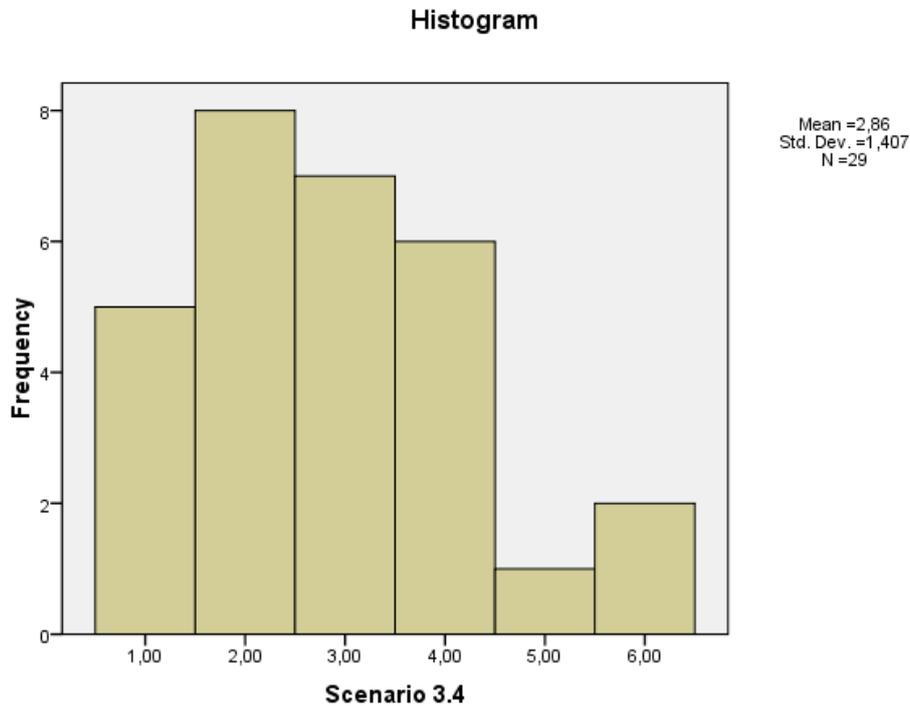


**Graph 1b, Histogram Scenario 3.2.**



**Graph 1c Histogram Scenario 3.3**



**Graph 1d Histogram Scenario 3.4**

A comparison of the 5% trimmed mean and the mean for all variables show that they are virtually identical, indicating that the extreme scores do not have a strong influence on the mean and that there are not many outliers. Therefore it is not necessary to remove any values.

In the next step the author checks the reliability in terms of internal consistency, using Cronbach's coefficient alpha (table 4).

**Table 4. Reliability**

Cronbach's Alpha	Cronbach's Alpha	N of Items
,315	,330	5

**Item Statistics**

	Mean	Std. Deviation	N
Rate Knowledge	3,3000	1,56702	10
Scenario 3.1	5,2000	1,81353	10
RFair2	6,1000	,99443	10
Scenario 3.3	6,0000	1,15470	10
RFair4	6,0000	,66667	10

**Inter-Item Correlation Matrix**

	Rate Knowledge	Scenario 3.1	RFair2	Scenario 3.3	RFair4
Rate Knowledge	1,000	,602	-,307	-,368	,638
Scenario 3.1	,602	1,000	-,074	-,106	,368

RFair2	-,307	-,074	1,000	,097	,335
Scenario 3.3	-,368	-,106	,097	1,000	-,289
RFair4	,638	,368	,335	-,289	1,000

### Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	,090	-,368	,638	1,007	-1,732	,134	5

### Item-Total Statistics

	Scale Mean if Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Rate Knowledge	23,3000	6,456	,310	,798	,083
Scenario 3.1	21,4000	4,489	,468	,412	-,218 <sup>a</sup>
RFair2	20,5000	10,944	-,084	,594	,417
Scenario 3.3	20,6000	12,044	-,250	,161	,539
RFair4	20,6000	8,711	,565	,730	,099

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

### Scale Statistics

Mean	Variance	Std. Deviation	N of Items
26,6000	11,378	3,37310	5

From the above table the Cronbach's alpha is relatively low at, 315. However, Pallant (2007) argues that with small samples Cronbach alpha can be quite small. Another explanation for a low Cronbach alpha value might be due to the limited amount of items. The Inter-Item Correlation Matrix shows some negative values for two scenarios (3.2. and 3.3.). Pallant argues that this could be "indicate that some of the items have not been correctly reverse scored" (Pallant, 2007, p.98). In this study the author has reversed items correctly, i.e. "Fair2" to "RFair" and "Fair4" to "RFair4".

The Corrected Item-Total Correlation shows some low and also negative values indicating "that the item is measuring something different from the scale as a whole" (Pallant, 2007, p.98). Hence Pallant recommends removing items with low item-total correlations. Since the measurement of perceived fairness is based on only four different scenarios, so removing items with low item-total correlations is not applicable.

Next the authors use the Mann-Whitney U Test (non-parametric test) to compare the scores of two different age groups.

**Table 5, Mann-Whitney U Test**

	Age	N	Mean Rank	Sum of Ranks
Scenario 3.1	19 and under	7	11,14	78,00
	20 and above	26	18,58	483,00
	Total	33		
Scenario 3.2	19 and under	7	17,64	123,50
	20 and above	25	16,18	404,50
	Total	32		
Scenario 3.3	19 and under	6	9,83	59,00
	20 and above	25	17,48	437,00
	Total	31		
Scenario 3.4	19 and under	7	18,71	131,00
	20 and above	24	15,21	365,00
	Total	31		

**Test Statistics<sup>b</sup>**

	Scenario 3.1	Scenario 3.2	Scenario 3.3	Scenario 3.4
Mann-Whitney U	50,000	79,500	38,000	65,000
Wilcoxon W	78,000	404,500	59,000	365,000
Z	-1,831	-,371	-2,007	-,918
Asymp. Sig. (2-tailed)	,067	,711	,045	,359
Exact Sig. [2*(1-tailed Sig.)]	,074 <sup>a</sup>	,721 <sup>a</sup>	,067 <sup>a</sup>	,391 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: Age

The z-value of all scenarios is negative (-1,831, -, 371, -2,007 and -, 918) with significance levels for scenario 3.1 of ,067, for scenario 3.2 of ,711, for scenario 3.3 ,045 and for scenario 3.4 of ,359, indicating non-significance for these scenarios.

The age group 20 and above shows a higher mean rank for scenario 3.1 and scenario 3.3 but almost similar results for scenario 3.2 and scenario 3.4.

To present the results, Pallant (2007) recommends reporting the median ranks of the different age groups (table 6).

**Table 6 Median Scores for Age Groups****Case Processing Summary**

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Scenario 3.1 * Age	34	97,1%	1	2,9%	35	100,0%
Scenario 3.2 * Age	34	97,1%	1	2,9%	35	100,0%
Scenario 3.3 * Age	34	97,1%	1	2,9%	35	100,0%
Scenario 3.4 * Age	34	97,1%	1	2,9%	35	100,0%

**Report**

Age		Scenario 3.1	Scenario 3.2	Scenario 3.3	Scenario 3.4
19 and under	N	7	7	7	7
	Median	3,0000	5,0000	6,0000	3,0000
20 and above	N	27	27	27	27
	Median	5,0000	5,0000	7,0000	3,0000
Total	N	34	34	34	34
	Median	4,0000	5,0000	7,0000	3,0000

The Mann-Whitney U test does not reveal statistical significance in perceived fairness for the scenarios apart from scenario 3.3. Hence, Pallant (2007) recommends computing an effect size statistic where the  $r$  value is calculated by dividing the  $z$  value through the square root of  $N$  (34 cases). The  $r$  value for scenario 3.1 is 0.34, showing a medium effect size following Cohen (1988). The  $r$  value for scenario 3.2 is 0,06 (small effect), whereas the  $r$  value for scenario 3.3 is 0,34 (medium effect) and for scenario 3.4 is 0,17 (small effect). The limitation for this test is that the distribution of the both age groups is very unbalanced. It seems although that the age group of 20 and above perceive revenue management as slightly fairer than the age group 19 and below.

In the next step the authors perform an one-way MANOVA test in order to investigate age differences in perceived fairness of revenue management. The advantage of using MANOVA against the use of ANOVA tests is that MANOVA creates a new summary dependent variable, in this case out of four scenarios (Fair 1, RFair2, Fair3, RFair4). Limitations in the use of MANOVA are based on the sample size, normality, outliers and other factors. On the other hand, researchers argue that MANOVA is quite robust in terms of violation of normality (Pallant, 2007).

**Table 7 MANOVA**

		Value Label	N
Age	1,00	19 and under	2
	2,00	20 and above	8

**Descriptive Statistics**

Age		Mean	Std. Deviation	N
Scenario 3.1	19 and under	4,5000	,70711	2
	20 and above	5,3750	1,99553	8
	Total	5,2000	1,81353	10
RFair2	19 and under	6,0000	1,41421	2
	20 and above	6,1250	,99103	8
	Total	6,1000	,99443	10
Scenario 3.3	19 and under	6,0000	,00000	2
	20 and above	6,0000	1,30931	8
	Total	6,0000	1,15470	10
RFair4	19 and under	5,5000	,70711	2
	20 and above	6,1250	,64087	8
	Total	6,0000	,66667	10

**Multivariate Tests<sup>b</sup>**

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	,992	147,124	4,000	5,000	,000	,992
	Wilks' Lambda	,008	147,124	4,000	5,000	,000	,992
	Hotelling's Trace	117,699	147,124	4,000	5,000	,000	,992
	Roy's Largest Root	117,699	147,124	4,000	5,000	,000	,992
Age	Pillai's Trace	,185	,283 <sup>a</sup>	4,000	5,000	,878	,185
	Wilks' Lambda	,815	,283 <sup>a</sup>	4,000	5,000	,878	,185
	Hotelling's Trace	,226	,283 <sup>a</sup>	4,000	5,000	,878	,185
	Roy's Largest Root	,226	,283 <sup>a</sup>	4,000	5,000	,878	,185

a. Exact statistic

b. Design: Intercept + Age

Analysing the outcome from the MANOVA test it must be considered that the sample size is limited to N -10. Pallant (2007) recommends looking at the Pillai's Trace test in case of a small sample size to check for statistically significant differences among groups, in this case age. The sig. value for age is ,185, hence, there is no statistical significance.

**Table 7a Levene's Test of Equality of Error Variances**

	F	df1	df2	Sig.
Scenario 3.1	,992	1	8	,348
RFair2	,267	1	8	,620
Scenario 3.3	3,200	1	8	,111
RFair4	,037	1	8	,852

Tests the null hypothesis that the error variance of the dependent variable is equal across groups. a. Design: Intercept + Age

Inspection of the table "Levene's Test of Equality of Error Variances" indicate that the assumptions concerning the equality of variances (sig.value ,348, respective ,620, ,111 and ,852) are not violated. Therefore, Pallant (2007) argues that one can assume equal variances.

**Table 7b, Tests of Between-Subjects Effects**

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Scenario 3.1	1,225 <sup>a</sup>	1	1,225	,345	,573	,041
	RFair2	,025 <sup>b</sup>	1	,025	,023	,884	,003
	Scenario 3.3	,000 <sup>c</sup>	1	,000	,000	1,000	,000
	RFair4	,625 <sup>d</sup>	1	,625	1,481	,258	,156
Intercept	Scenario 3.1	156,025	1	156,025	43,989	,000	,846

	RFair2	235,225	1	235,225	212,034	,000	,964
	Scenario 3.3	230,400	1	230,400	153,600	,000	,950
	RFair4	216,225	1	216,225	512,533	,000	,985
Age	Scenario 3.1	1,225	1	1,225	,345	,573	,041
	RFair2	,025	1	,025	,023	,884	,003
	Scenario 3.3	,000	1	,000	,000	1,000	,000
	RFair4	,625	1	,625	1,481	,258	,156
Error	Scenario 3.1	28,375	8	3,547			
	RFair2	8,875	8	1,109			
	Scenario 3.3	12,000	8	1,500			
	RFair4	3,375	8	,422			
Total	Scenario 3.1	300,000	10				
	RFair2	381,000	10				
	Scenario 3.3	372,000	10				
	RFair4	364,000	10				
Corrected Total	Scenario 3.1	29,600	9				
	RFair2	8,900	9				
	Scenario 3.3	12,000	9				
	RFair4	4,000	9				

- a. R Squared = ,041 (Adjusted R Squared = -,078)
- b. R Squared = ,003 (Adjusted R Squared = -,122)
- c. R Squared = ,000 (Adjusted R Squared = -,125)
- d. R Squared = ,156 (Adjusted R Squared = ,051)

The above output shows that the sig. value for age and the four scenarios, such as scenario 3.1, RFair2, scenario3.3 and RFair4 is greater than ,05, hence there is no significant difference between age groups. The direction of the effect indicates that the age group “20 and above” rate perceived fairness of revenue management higher than the age group “19 and below”. But it must be considered that the sample size is too small to generalize (N=10).

**Table 7c Estimated Marginal Means**

**Age**

Dependent Variable	Age	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Scenario 3.1	19 and under	4,500	1,332	1,429	7,571
	20 and above	5,375	,666	3,840	6,910
RFair2	19 and under	6,000	,745	4,283	7,717
	20 and above	6,125	,372	5,266	6,984
Scenario 3.3	19 and under	6,000	,866	4,003	7,997
	20 and above	6,000	,433	5,001	6,999
RFair4	19 and under	5,500	,459	4,441	6,559
	20 and above	6,125	,230	5,595	6,655

The results from the above chart show that the mean scores of the age group “20 and above” for three scenarios (scenario 3.1, RFair2 and RFair4) are higher than for the age group “19 and under”, although the actual difference is small. Hence, the proposed hypothesis 1<sup>a</sup> is not supported.

Next, non-parametric correlations (Spearman's rho) are calculated to explore the relationship between knowledge of revenue management and perceived fairness of revenue management, based on four different scenarios (table 8).

**Table 8 Correlation**

			Rate Knowledge	Scenario 3.1	RFair2	Scenario 3.3	RFair4
Spearman's rho	Rate Knowledge	Correlation Coefficient	1,000	,177	-,309	,064	,327
		Sig. (2-tailed)	.	,326	,356	,733	,160
		N	34	33	11	31	20
	Scenario 3.1	Correlation Coefficient	,177	1,000	,016	-,110	,114
		Sig. (2-tailed)	,326	.	,964	,556	,634
		N	33	33	11	31	20
	RFair2	Correlation Coefficient	-,309	,016	1,000	,108	,335
		Sig. (2-tailed)	,356	,964	.	,767	,344
		N	11	11	11	10	10
	Scenario 3.3	Correlation Coefficient	,064	-,110	,108	1,000	,071
		Sig. (2-tailed)	,733	,556	,767	.	,766
		N	31	31	10	31	20
	RFair4	Correlation Coefficient	,327	,114	,335	,071	1,000
		Sig. (2-tailed)	,160	,634	,344	,766	.
		N	20	20	10	20	20

The correlation coefficient for the variables rate knowledge and scenario 3.2 has a negative sign in front, indicating a negative correlation that means as knowledge increase, perceived fairness will decrease. All other variables show low to moderate positive correlation coefficients. Hence, by analyzing the direction of the relationship of the variables it can be concluded for the sample of students that the more knowledge they have regarding revenue management, the more they perceive revenue management as fair apart from scenario 3.2. Analyzing the strength of the relationship it can be concluded that there is a quite weak (small to medium) relationship between the variables. Based on this calculation there appears to be no "statistically significant" relationship between a person's knowledge of revenue management and the various scenarios of perceived fairness. The small sample would generate no significant correlations though.

In the following step the authors calculate a regression on the four scenarios (table 9). Multiple regression will be used to explore the predictive power of knowledge despite the fact that it is argued that "it is not the technique to use on small samples, where the distribution of scores is very skewed" (Pallant, 2007, p.148).

**Table 9 Regression**

Independent Variables	Regression 1 Scenario 3.1			Regression 2 Scenario 3.2			Regression 3 Scenario 3.3			Regression 4 Scenario 3.3				
	Beta	T	Sig.											
Age	0,17	0,83	0,41	0,04	-	0,86	0,44	2,06	0,05	0,29	1,29	0,21		
Gender	0,00	0,02	0,98	0,09	0,47	0,64	0,07	0,37	0,71	0,02	0,09	0,93		
Student Level	0,31	1,52	0,14	0,22	1,03	0,31	0,11	0,53	0,60	0,14	0,63	0,54		
Rate Knowledge	0,02	0,12	0,90	0,27	1,26	0,22	0,02	0,11	0,91	0,06	0,29	0,78		
			R <sup>2</sup> = 0.178			R <sup>2</sup> = 0.097			R <sup>2</sup> = 0.147			R <sup>2</sup> = 0.073		
			F = 1.51			F = 0.727			F = 1.12			F = .5083		
			F-sig. = 0.225			F-sig. = 0.581			F-sig. = 0.367			F-sig. = 0.730		

Essentially, four regressions were run. Each time age, gender, student level and Knowledge rating were 'regressed' onto each of the four Scenarios. Age, gender and student level act as control variables. Knowledge rating is the main variable of interest. Of most interest is the 't-stat' value. The rule of thumb indicates that if the t-stat in the regression table is > 2, then the variable is a significant predictor on the outcome variable. Similarly, if the sig. Value is < 0.05, then the variable is significant. Taking these two rules of thumb, none of the variables listed are significant predictors of fairness perception for any of the scenarios. Hence, the proposed hypothesis 1, stating, that knowledge has an impact on perceived fairness of revenue management, is not supported.

The correlation between the four variables in the model and Scenario 3.1 is 0.422. Furthermore, 17.8% (0.178) of the variation in fairness perception in Scenario 3.1 is accounted for by the four independent variables. This means that 82.2% of the variation in fairness is not influenced by these same variables. Other factors not included in the study are influential. The results of this study conducted through a scenario-based survey of students at a hotel management school in Switzerland, do not indicate an association between knowledge and perceived fairness of revenue management. In the next part the authors will discuss the results in comparison with previous research on perceived fairness.

## Discussion

The performed statistically tests show mixed results. The first concern is regarding the reliability. The Cronbach Alpha is very low at ,315 and the Corrected Item-Total Correlation show negative values, same as "Alpha if Item deleted column". However, removal of items is not applicable due to the limited number of items, given in this study. The various calculations such as correlation and regression do not show strong significance. Therefore, these results do not provide confirmation of previous research findings. Several researchers have conducted surveys on perceived fairness and its moderating effects, i.e. Choi and Mattila, (2009), who found that perceived fairness is affected by multi-channel pricing strategy. Other research have focussed on role of disclosure in variable hotel pricing (Choi and Mattila, 2006) with the findings that perceived fairness was influenced significantly by the level of information offered. The different outcome is interesting as the authors used the same scenario-based questionnaire as in previous research. Several reasons might explain the deviation in this study in contrast with previous research on perceived fairness. Firstly, in terms of reliability and validity, the sample used is too small to determine the reliability and generalisability of analysis. Secondly, there are not enough scaled items to measure knowledge rating and fairness perceptions. Thirdly, an in-depth qualitative study (two or three focus groups) or a sufficient number of semi-structured interviews would need to be conducted and properly

analysed to generated themes and assist with creating relevant survey items with an appropriate Likert scale. Fourthly, the validity can only be determined when other survey instruments can be included in a quantitative analysis so as to determine content validity and discriminant validity.

### **Further Research Directions**

Future research might want to focus on other variables within the association between knowledge and perceived fairness, including the more special factors, such as rate fencing or overbooking practice etc. Since this study is exploratory in nature and the first to address knowledge as variable linked to perceived fairness, more research in this area is needed to understand all different aspects of the association between knowledge and perceived fairness of revenue management.

### **Limitations**

The actual study should be read with the following limitations in mind. First of all, other researchers might want to research other populations, i.e. not a student population. The questionnaire was administered in one institution and this could explain the deviation within the outcome. It might be also an interesting approach to conduct a survey with two different age groups within a population, young vs. elderly, assuming that the latter ones may have less experience with demand-based pricing. Elderly customers might be less aware of the different options booking hotels, i.e. use of different distributions channels or booking well in advance to gain a lower price. The sample size was also too small to generalize findings. Descriptive studies are asking normally for a bigger number of subjects. Secondly, the sample was a convenience sample; other research might want to go for a probability sample, increasing validity. Also, the survey was conducted in Switzerland, hence other researchers might want research other countries since Choi and Mattila (2006) argue that the country of residence show a significant effect on fairness perceptions. Thirdly, regarding the measurement of knowledge of revenue management practices there are other measurement constructs, i.e. the SACAT test which might be applied in future research. In conclusion, the findings of this preliminary study do not suggest that knowledge itself might have an impact on perceived fairness but other moderating variables which opens further avenues for more research.

## Appendix 1

### Questionnaire: Knowledge and its impact on perceived fairness on revenue management

*Revenue Management, variable pricing or demand-based pricing is the policy of charging different prices for the same product according to demand. Or in other words revenue management is the science to charge the right price to the right customer at the right time at the right place.*

*This survey wants to investigate the knowledge of revenue management and its impact on the perceived fairness of revenue management practices.*

*Thank you for participating in this survey and we guarantee your anonymity with the utmost confidentiality.*

#### Section I: Personal Information

##### 1.1. Age

- a) 19 and under
- b) 20 and above

##### 1.2. Gender

- Male
- Female

##### 1.3. Students level

- Undergraduate
- Graduate

#### Section II: Knowledge of revenue management / variable pricing

2.1. Have you heard or learnt about revenue management or variable pricing.

- No  Yes  Don't know

2.2. Do you understand the basic principles of revenue management/variable pricing, i.e. charging different prices for the same product?

- No  Yes  Don't know

2.3. How would you rate your knowledge of revenue management?

*On a scale of 1 to 7 where 1 represents "poor" and 7 represents "excellent," how would you rate your level of knowledge of revenue management?"*

- |                          |                          |                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        | NA                       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

### Section III: Perceived fairness of revenue management practices

Please read the following scenario and indicate your opinion.

#### Scenario 1

Imagine that you need to travel to Geneva to get a very early flight home and thus, you want to book a standard room in hotel for one night. Assume that you do not qualify for any discount. You research the following two hotels (A and B) of well-known brands. The two hotels seem to be comparable with each other. To enquire the rates, you call the hotels directly, you check via the hotel own webpage and you check via hotel intermediaries, i.e. Expedia, on the same data.

The hotel A staff quoted SFR 119,-, the hotel webpage SFR 109,- and on the hotel intermediary site SFR 99,- .

Hotel B quoted SFR 99,- via the hotel call centre, SFR 99,- via the hotel webpage and SFR 99,- via the hotel intermediary.

3.1. On a scale of 1 to 7 where 1 represents "Strongly Disagree" and 7 represents "Strongly Agree," how would you rate your level of perceived fairness of the given scenario for hotel **A**?"

1	2	3	4	5	6	7	NA
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.2. On a scale of 1 to 7 where 1 represents "Strongly Disagree" and 7 represents "Strongly Agree," how would you rate your level of perceived fairness of the given scenario for hotel **B**?"

1	2	3	4	5	6	7	NA
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### Scenario 2

Imagine that you need to travel to Geneva to get a very early flight home and thus, you want to book a standard room in hotel for one night. .

You research the following two hotels (A and B) of well-known brands. The two hotels seem to be comparable with each other.

To enquire the rates, you call the hotels directly, and the hotel **A** reservation agent inform you that the room rates vary according to the day of the week, length of stay, number of days in advance you make your booking and room category.

The hotel **B** reservation agent does not provide any information about the hotel pricing policy.

3.3. On a scale of 1 to 7 where 1 represents "Strongly Disagree" and 7 represents "Strongly Agree," how would you rate your level of perceived fairness of the given scenario for hotel **A**?"

1	2	3	4	5	6	7	NA
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.4. On a scale of 1 to 7 where 1 represents "Strongly Disagree" and 7 represents "Strongly Agree," how would you rate your level of perceived fairness of the given scenario for hotel **B**?"

1	2	3	4	5	6	7	NA
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for your help

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## How To Leverage Globalization For Achieving Sustainable Business Competitiveness?

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### Abstract

This paper addresses the question as to How to transform basic challenges faced in global operations into sustainable competitiveness, and advanced business performance? The main contribution is that by exploiting the main differences and similarities among the different regions and nations such sustainable competence is achieved.

The appropriate strategies to use for such exploitation are discussed along with empirical evidence from business practice. The specific strategy that is most suitable for each type of differences that exist among nations is delineated. How to exploit similarities among nations and regions to optimize business performance is discussed as well.

We conclude with a general principles and implementation guidelines that assures effective use of globalized marketing and operations.

### Keywords

Globalization effectiveness, global strategies, global operations management

## **Do Brand Names Make Product Evaluation Easy?: A Comparison Between Brand-Driven Versus Attribute-Driven Information Acquisition**

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### **Abstract**

Previous researchers have found that limiting the amount of information acquired at product evaluations would make the whole process easier for the consumers (Payne 1976; Beach and Mitchell 1978; Payne 1982; Bettman et al. 1991). However, this premise would not always hold true; in fact, in some special cases where consumers limit their information acquisition by utilizing their brand knowledge, they would feel the evaluation process more complex, even though they are obtaining relatively small amount of outside information.

The purpose of this study is to identify two types of information acquisition strategies (IAS), brand-based and attribute-based, and to investigate their characteristics in product evaluation process. A computer-based laboratory experiment was conducted to gather empirical evidence using information display board method (IDB). The results indicate that consumers show different characteristics in time spent on processing each piece of information, the amount of perceived effort, and the degree of perceived task complexity, depending on which IAS they take when evaluating alternatives.

Consumers try to search for as much information as possible to make better purchase decisions; however, they are faced to a huge amount of information from various kinds of information sources. Because of the limited capacity for information processing, they use heuristics, or rules of thumb, and this leads them to more simplified information acquisition behaviors (Beach and Mitchell 1978).

Numerous studies have identified the causing factors of such information acquisition strategies (hereafter referred as IAS), and according to the framework of Bettman et al. (1998), those factors can be classified into three categories: task characteristics, individual differences, and social context. Examples of task characteristics are task complexity (Payne 1976; Onken et al. 1985), information display format (Bettman and Kakkar 1977; Painton and Gentry 1985), and time pressure (Newman and Staelin 1971). Individual differences refer to involvement (Jacoby et al. 1978; Beatty and Smith 1987; Smith and Bristor 1994; Moorthy et al. 1997), brand loyalty (Jacoby et al. 1978), and product class knowledge (Newman and Staelin 1971, 1972; Kiel and Layton 1981; Punj and Staelin 1983; Johnson and Russo 1984). Examples of social context are marital status (Newman and Staelin 1972), social classes (Schaninger and Sciglimpaglia 1980), age (Schaninger and Sciglimpaglia 1980), and housing condition (Schaninger and Sciglimpaglia 1980). Other factors causing limited information search behaviors are risk perception (Urbany et al. 1989) and search cost (Punj and Staelin 1983; Moorthy et al. 1997). These studies have been focused on the causing factors of the limited

IAS, however, little research has been done on the types of the LIA and their characteristics on product evaluation process.

This study identifies two types of IAS, brand-based and attribute-based, in order to refine the construct of such limited information acquisition behaviors. When consumers use the attribute-based IAS, they search for only certain types of information such as price. Imagine a consumer is looking for a computer in a regular retail store. He is considered to be engaged in attribute-based IAS when he is searching only for price and weight information of the alternatives, ignoring all the other information. On the other hand, he is considered to be engaged in brand-based IAS if he is looking for computers only of his favorite brands. Note that he may engage in both the attribute-based IAS and the brand-based IAS, or none of these.

According to Keller (1998), brand knowledge consists of three types of brand associations including product-related attributes. This means that brand names carry relatively bigger amount of information compared to physical characteristics of the product. This is consistent with the notion of previous literatures that brand-related information serves as "information chunks (Jacoby et al. 1977; Johnson and Russo 1984; Biehal and Chakravarti 1982; Mazursky and Jacoby 1985; Stokes 1985)." As a result, consumers tend to search brand-related information rather than price-related information when evaluating product quality (Brucks et al. 2000). Therefore, when consumers search for information in terms of brand names (brand-based IAS), they must engage in a more intensive processing. In contrast, they can ease the degree of such intensiveness when searching for information in terms of product attributes (attribute-based IAS).

A computer-based laboratory experiment was conducted to gather empirical evidence using information display board method (IDB). The participants were assigned to evaluate 12 portable music players after freely acquiring product information including brand names, and their information acquisition process was automatically recorded. Using the data, they were classified into 4 groups: the Brand Loyal group using both attribute-based and brand-based IAS, the Brand Mania group using only brand-based IAS, the Variety Seeking group using only attribute-based IAS, and the Beginner group without such limited IAS.

The results indicate that consumers show different characteristics in time spent on processing each piece of information, the amount of perceived effort, and the degree of perceived task complexity, depending on which IAS they take when evaluating alternatives. The participants of the Brand Loyal group spent more time on evaluating each piece of information, made less effort, and thought the task was complex. On the other hand, those of the Brand Mania group spent relatively less time, made more effort, and also thought the task was complex. Those of the Variety Seeking group also spent relatively less time, but made less effort, and interestingly, they thought the task was easy. Finally, those of the Beginner group spent the least time, but made more effort, and thought the task was complex.

This study sheds light to the importance of identifying consumers in terms of the types of IAS they take, for combination of attribute-based IAS and brand-based IAS leads them to different types of information processing. The results of this study indicate that the utilization of brand-based IAS leads consumers to a unique processing manner compared to that of attribute-based IAS. The utilization of attribute-based IAS simplifies consumers' information processing, consistent with the previous literatures. However, that of brand-based IAS does not necessarily make it easy; in fact, it may make it difficult.

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### Keywords

Brand, product evaluation, brand-driven, attribute-driven

## Ethical Judgments Of Sexual Appeals In Advertisements As An Erotic Clutter

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### Abstract

Use of overt sexual appeals in print advertising has increased considerably in contemporary advertising practice. It is also popular for advertisers to use decorative or sexy models in Turkish advertising, too. Sexual illustrations are becoming more overt and female models are more likely to be only partly clothed or even nude. Consumers have different degrees of perceptions and attitudes with respect to advertising ethics due to cultural factors. Past studies are based on western practices and any study is found on Turkish context. This paper examines Turkish attitudes towards the use of sexual appeal in advertising and its influence on attitudes and perceptions. This paper can be a key factor for advertisers' advertising approach.

The dilemma of whether or not to use a sexual appeal has no simple solution. Advertisers must know the public's opinions about the sexual appeals in their advertising practice. Advertising operates within the parameters established by society. Advertisers considering the use of sexual appeals need to examine all potential social issues at stake. Advertising executives should consider not only the unintended consequences of using such appeals, but also the public's ethical judgments of this appeal.

With increasing use of sexual advertisements in today's advertising, this study explores consumer's ethical judgments about the use of sexual appeals in advertising in a Turkish context. It specifically focuses upon responses on the Reidenbach-Robin multidimensional ethical scale, attitude toward the ad which uses sexual appeal as a tactic to gain attention in erotic clutter.

Two print advertisements which have strong overt and mild sexual appeals are shown to the 350 consumers and responses for attitude towards the ad were obtained. The data of the study was analyzed using t-test and one way ANOVA methods.

The results show that use of sexual appeal is an attractive instrument in Turkey, too. But degree of the sexual appeal is a key factor. It can be judged ethical or unethical. Findings show that, regardless of respondent's gender, the use of a strong overt sexual appeal was not judged as ethical by consumers. Attitudes towards the ad which uses erotic visuals as sexual appeal are changing due to age, education and income level.

### Keywords

Ethics, advertising, sexual appeals, Turkey

## When Is An Asset A Good Hedge Against Inflation?

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### Abstract

We compare several widely used methods to assess the inflation hedging potential of an asset. The theoretical part of this paper compares the various approaches and establishes some important differences. The second part of the paper illustrates the differences between the various measures with an empirical study, focusing on the hedging potential of the S&P GSCI Total Return Index during the period 1973 – 2009. We analyze the hedging potential of the commodity index for investment horizons equal to one, three and twelve months. The hedging potential and the relation between the hedging potential and the investment horizon depend strongly on the method employed.

### Keywords

Inflation hedging, investment horizon, Fisher effect

## **A Study Of Market Integration Of Emerging Markets Before And During The Period Of Global Financial Crisis Of 2007**

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### **Abstract**

This study aims to reveal the effects of interdependence in 21 emerging markets. It uses a cointegration, impulse response and variance decomposition analysis to examine the linkages among the stock markets of four developed countries, ten Asian, seven Latin American and four European emerging countries, before and during the period of the global financial crisis of 2007. To investigate the possible differences of cointegrational relationship among the 25 stock market indices before and during the global financial crisis, the data are divided into two sub-groups. Furthermore, using an orthogonalized impulse response analysis, the speed of adjustment of emerging stock markets to long-run equilibrium will be detected where the transmission of a shock in one of the developed markets to emerging markets can be examined, which is another indicator of the degree of capital market integration. Moreover, via variance decomposition, the “degree of exogeneity” for all emerging markets is searched, which will be helpful to understand whether or not a national stock market is “exogenous” to the global financial crisis of 2007.

### **Keywords**

Emerging markets, global financial crisis, cointegration, impulse response, variance decomposition

## Introduction

Today, rational international investors, in diversifying their portfolios toward emerging markets, should consider that the integration process might lower the expected returns and increase correlations between emerging market and world market returns. Therefore, market integration is a central question. In finance, markets are considered integrated when assets of identical risk command the same expected return irrespective of their domicile.

Finance theory predicts that there are potential gains from international portfolio diversification if returns from investment in different national stock markets are not perfectly correlated and the correlation structure is stable. This has led economists and finance specialists to investigate the correlation structure and interdependencies among international share price indexes in some considerable detail. Unfortunately, previous empirical studies of the interrelationship of the major world stock price indexes have not provided consistent results. Most research has concentrated on mature stock markets and there are comparatively few studies of interdependencies among emerging markets. Given the divergent conclusions of the researches in this field, further insights should be obtainable through an investigation of an alternative set of financial markets, in particular, a set of emerging markets.

The paper is organized as follows: Section 2 briefly describes the data. Section 3 outlines the empirical methodology with relevant literature review, and presents the empirical results. Section 4 concludes.

## Data

The data consist of weekly stock index closing prices of six Latin American, ten Asian, and four European emerging markets and three developed markets, i.e., Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand, Czech Republic, Hungary, Poland, Turkey, France, Germany, Great Britain and United States of America. All the indexes are collected for the period from July 13, 2001 to January 1, 2010 due to availability. All weekly index prices are taken a natural logarithm ( $\ln$ ) in front. All stock indices are expressed in national currency terms and the source of the data is Datastream. Furthermore, to investigate the possible differences of cointegrational relationship among the 25 stock market indices before and during the global financial crisis, the data are divided into two groups:

1. July 7, 2001–July 28, 2007: the period before the global financial crisis.
2. August 4, 2007–January 1, 2010: the period during the global financial crisis.

A range of descriptive statistics for 25 stock market indices is presented in Table 1 for the period before and during the crisis.

Table 1: Descriptive statistics of 25 stock market indices

Country	Sample period	# obs.	mean	stand. dev.	skewness	kurtosis	min.	max.
Argentina	before	317	1129619	6083927	0.114432	1769996	2024500	2287820
	during	127	1783171	4398023	-0.650999	1993246,00	8289900	2336700
Brazil	before	317	24460.24	12388.20	0.684002	2498167	8715000	57644.00
	during	127	55044.41	10443.77	-0.541899	2247858,00	31250.00	72766.00
Chile	before	317	8152848	2729070	0.634489	2696971	4621860	15118.35
	during	127	13846.89	1447196	-0.248659	2140122,00	10411.65	16630.91
Colombia	before	317	4792073	3677992	0.604439	1773339	7788700	11433.26
	during	127	9525112	1275917	-0.331813	2091955,00	6671420	11614.81
Czech Republic	before	317	9480842	4781280	0.340062	1662467	3229000	1897600
	during	127	1.271.494	3792109	0.064442	1637202	6.409.000	1.910.100
France	before	317	4214820	8771492	0.297817	2185627	2574910	6168150
	during	127	4146330	9579475	0.273226	1769189,00	2534450	5843950
Germany	before	317	5794107	2273043	0.762594	2514250	2748800	11356.44
	during	127	7547714	1890027	-0.035320	1655805,00	4210920	10755.09
Great Britain	before	317	5032399	8017805	0.234036	2078059	3491590	6732400
	during	127	5209414	8689657	-0.054848	1743059,00	3530730	6730710
Hong Kong	before	317	13562.28	3428640	0.756204	2844565	8409010	23291.90
	during	127	20711.02	4763374	-0.120166	2162715,00	11921.52	30468.34
Hungary	before	317	14406.14	6902774	0.424760	1644612	5670980	29790.75
	during	127	19458.58	5316631	-0.168485	1914293,00	9852830	28483.29
India	before	317	3498811	1940937	0.697843	2198625	1216370	8056020
	during	127	7686693	1846400	-0.302117	2241459,00	4242160	11461.71
Indonesia	before	317	0.100817	0.054895	0.896118	3009002	0.036000	0.261000
	during	127	0.219583	0.061668	-0.680254	2112435,00	0.094000	0.300000
Japan	before	317	1061774	2506199	0.282932	1903553	6394000	1548300
	during	127	1141325	1985542	-0.122709	1896390,00	7336000	1475900
Malaysia	before	317	8.423.475	1.733.898	1.002.688	4.186.900	5.673.600	1.376.790
	during	127	1.156.359	1.828.271	-0.233213	1.931.708	8.324.400	1.505.710
Mexico	before	317	13031.49	7450681	1015297	2970359	5087940	32411.84
	during	127	26784.15	4286102	-0.673021	2186098,00	16978.84	32548.53
Peru	before	317	1524100	1670100	2023254	6508653	3164200	7483610
	during	127	4752523	1540391	-0.335832	2088458,00	2042740	7513670
Philippines	before	317	1793769	6875823	1047930	3411434	9933500	3786020
	during	127	2721193	5596659	0.049426	2134721,00	1765900	3824200
Poland	before	317	27803.67	14416.58	0.972419	2991060	11654.30	67568.50
	during	127	40328.19	11628.05	0.352656	2135393,00	21690.75	63813.86
Singapore	before	317	2001362	5682004	0.936791	3331222	1184960	3584080
	during	127	2654485	6214918	-0.232652	2018640,00	1513120	3814380
South Korea	before	317	9704577	3296638	0.712860	2611549	4723100	1983540
	during	127	1555568	2747373	-0.352373	2198139,00	9387500	2028060
Taiwan	before	317	5975547	1116548	0.383072	3328051	3585460	9585900
	during	127	7110569	1559737	-0.413159	2086476,00	4171100	9631510
Thailand	before	317	5753265	1645471	-0.519812	1674515	2681100	8635800
	during	127	6713072	1549135	-0.399400	1793794,00	3928700	8945700
Turkey	before	317	23634.92	12848.87	0.502278	1838137	7306380	52935.75
	during	127	40357.13	9988671	-0.197357	1946005,00	21965.96	58053.40
USA	before	317	1463677	2571472	-0.446216	2698402	8154000	2035880
	during	127	1677586	3081989	-0.346237	1952391,00	1064700	2213860
Venezuela	before	317	22220.91	12715.48	0.399222	2352384	6070090	59413.31
	during	127	40900.97	5849830	0.990041	2848847,00	34211.89	55075.68

## Empirical Methodology

In this section; cointegration, impulse response and variance decomposition analysis are used to examine the linkages among the stock markets of four developed countries, ten Asian, seven Latin American and four European emerging countries, before and during the period of the global financial crisis of 2007.

### *Cointegration analysis*

Cointegration is a method built to assess the relation between the non-stationary time series. Although rare, there is a risk of the miscalculation of the non-existent relation between the variables. However, this situation does not mean that there is no relation between the variables. On the contrary, long term common movement can be found between the non-stationary time series. Thus, we can talk about a general equilibrium of the variables.

A huge amount of empirical analysis has been carried for the last two decades in the field of cointegration. Jeon and Chiang (1991) investigated the behavior of stock prices in New York, London, Tokyo and Frankfurt based on univariate and multivariate cointegration approaches. Kasa (1992), Richards (1995) and Francis and Leachman (1998) examined the existence of cointegration relations between the developed European and U.S. markets, whereas Arshanapalli and Doukas (1996), Phylaktis (1999) and Manning (2002) did similarly for the Asian markets, while Choudhry (1997), Arbeláez et al. (2001) and Chen et al. (2002) examined the Latin American markets. Using cointegration analysis, Corhay et al. (1993) also investigated the price indices of five European stock markets and found that they displayed a common long-run trending behavior over the period 1975–1991. Choudhry (1997) investigated the long-run relationship between the stock indices of six Latin American countries and the United States, and found evidence of cointegration and significant causality among the six Latin American indices with and without the United States index.

On the contrary, the developing markets of Central and Eastern (CE) Europe have been investigated to a smaller extent. Linne (1998) reported evidence of cointegration between the CE markets, although no cointegration relations with mature markets are found. Jochum et al. (1999) scrutinized the effect of the 1997–1998 Russian crises on the long-run relations between the Vyshegrad countries (the Czech Republic, Hungary, and Poland), Russia, and the United States. MacDonald (2001) analyzed the stock market indices of CE countries, as a group, against each of three developed markets (Britain, Germany, and the United States). He documented significant long-run relations for each of the groupings. In contrast to this, however, Gilmore and McManus (2002) found no long-run links between the three CE markets and the United States. These authors focused exclusively on the interactions with the U.S. market, leaving out any connections with the important European stock markets.

Arshanapalli et al. (1995) found an increase in stock market interdependence after the 1987 crisis for the developing markets of Malaysia, the Philippines, Thailand and the developed markets of Hong Kong, Singapore, the US and Japan for the period 1986 to 1992. They defined the pre-crash period as January 1986 to September 1987 and the post-crash period as November 1987 to December 1992. They found cointegration in the post-crash period, but not in the pre-crash period and concluded from this that that stock market cointegration had increased after the October 1987 crash. Liu et al. (1998) examined the stability of the relationships among the emerging and developed Asian markets of Thailand, Taiwan, Japan, Singapore, Hong Kong and the US by dividing their sample into two sub-samples: 2 January 1985 to 16 October 1987, and 19 October 1987 to 31 December 1990. They found an increase in the general stock market interdependence as well as an increase in the interdependence within the Asian-Pacific regional markets after the 1987 crisis. Instead of the 1987 stock market crash, Sheng and Tu (2000) examined the stock market relationships of the

following emerging and developed Asian-Pacific countries before and during the period of the 1998 Asian financial crisis: Taiwan, Malaysia, Thailand, South Korea, the Philippines, Indonesia, China, the US, Australia, Singapore, Japan and Hong Kong. They used daily data for the period 1 July 1996 to 30 June 1998, and split it on 30 June 1997 to create pre- and post-crisis samples. They found that stock market interdependence has increased since the crisis. The conclusion of Sheng and Tu (2000) on the effect of the 1998 crisis is consistent with those reached by Arshanapalli et al. (1995) and Liu et al. (1998) for the 1987 crash.

Palac-McMiken (1997) found cointegration in the monthly ASEAN markets (Indonesia, Malaysia, the Philippines, Singapore and Thailand) during the period 1987 to 1995. Ghosh et al. (1999) examined the recent debacle of the Asian-Pacific stock markets by utilizing the theory of cointegration to investigate which developing markets are moved by the markets of Japan and the United States. Their empirical evidence suggested that some countries are dominated by the US, some are dominated by Japan, and the remaining countries are dominated by neither during the time period investigated. They compared two forecast models, an error correction and a naïve model, and suggested that the error correction model dominated the naïve model by means of out-of-sample forecast.

Yang et al. (2003) examined long-run relationships and short-run dynamic causal linkages among the US, Japanese, and ten Asian emerging stock markets, with the particular attention to the 1997–1998 Asian financial crisis. They found that both long-run cointegration relationships and short-run causal linkages among these markets were strengthened during the crisis and that these markets have generally been more integrated after the crisis than before the crisis. Furthermore, they proposed that the degree of integration among countries tends to change over time, especially around periods marked by financial crises.

Syriopoulos (2007) investigated the short- and long-run behavior of major emerging Central European (Poland, Czech Republic, Hungary, Slovakia), and developed (Germany, US) stock markets and highlighted the impact of the EMU on stock market linkages. He found one cointegration vector in both a pre- and a post-EMU sub-period which indicates market comovements towards a stationary long-run equilibrium path. Furthermore, he added that Central European markets tend to display stronger linkages with their mature counterparts, whereas the US market holds a world leading influential role. Al-Fayoumi et al. (2009) studied the dynamic interactions among the daily returns of the Amman Stock Exchange (ASE) indices over the period from September 3, 2000 through August 30, 2007 and they found that these indices are related via one cointegrating vector in the long-run.

As it has been asserted before if two or more non-stationary time series have a linear stationary equation, they can be called cointegrated. Therefore, in order to apply a cointegration analysis it has to be checked whether the time series have a unit root or not. In other words, all the time series have to be non-stationary so that they can be added to the cointegration analysis. The empirical results of unit root tests are summarized in Table 2.

Table 2: Summary results of unit root tests <sup>a</sup>

	Argentina	Brazil	Chile	Colombia	Czech Rep.	France	Germany
before the crisis	I(1)	I(1)	I(1)	I(1)	I(1)	I(1)	I(1)
during the crisis	I(1)	I(1)	I(1)	I(1)	I(1)	I(1)	I(1)
	Great Britain	Hong Kong	Hungary	India	Indonesia	Japan	Malaysia
before the crisis	I(1)	I(1)	I(1)	I(1)	I(1)	I(1)	I(1)
during the crisis	I(1)	I(1)	I(1)	I(1)	I(1)	I(1)	I(1)
	Mexico	Peru	Philippines	Poland	Singapore	South Korea	Taiwan
before the crisis	I(1)	I(2)	I(1)	I(1)	I(1)	I(1)	I(1)
during the crisis	I(1)	I(1)	I(1)	I(1)	I(1)	I(1)	I(1)
	Thailand	Turkey	USA	Venezuela			
before the crisis	I(1)	I(1)	I(1)	I(1)			
during the crisis	I(1)	I(1)	I(1)	I(1)			

<sup>a</sup> I(n) denotes integration of order n. The test statistics can be provided by the author on request.

Before the crisis, the calculated values of test statistics, with the exception of Peru, are all smaller than their corresponding critical values at 5% significance level. We do not reject the null hypothesis that the 25 indices contain a unit root. However, Peru is integrated with second order so it has to be differenced twice in order to become stationary. During the period of the crisis, the calculated values of test statistics of all 25 indices are smaller than their corresponding critical values at 5% significance level. We do not reject the null hypothesis that the 25 indices all contain a unit root. According to the results of unit root tests a cointegration analysis could be implemented for two different sub-periods.

As opposed to Engle and Granger (1987) cointegration test, Johansen (1988), Stock and Watson (1988) used the maximum likelihood forecast method to test the existence of all the cointegrated vectors. In this way, Engle and Granger (1987) method has been rectified of its errors and risks. The starting point of Johansen cointegration test is that  $Y_t$  is a non-stationary stochastic variable and  $\mu$  is a  $n \times 1$  constant vector and the equation would be shown as VAR(k) equation;

$$Y_t = \mu + \Pi_1 Y_{t-1} + \Pi_2 Y_{t-2} + \dots + \Pi_k Y_{t-k} + e_t \quad (1)$$

If the first differences of the variables are thrown in the equation, error correction model can be shown as in the second equation:

$$\Delta Y_t = \mu + \Gamma_1 \Delta Y_{t-1} + \dots + \Gamma_{k-1} \Delta Y_{t-k+1} - \Pi Y_{t-k} + e_t \quad (2)$$

Here,

$$\Gamma = -I + \Pi_1 + \dots + \Pi_k$$

$i = 1, \dots, k-1$

$$\Pi = I - \Pi_1 - \dots - \Pi_k \text{ and } I = \text{unit vector.}$$

$\Pi$  matrix gives information on the long term relations between the variables. The degree of the  $\Pi$  matrix is the number for the linear and stationary combinations of the variables. The result can be in three ways:

1. If the degree of  $\Pi$  matrix is  $r = n$  (number of variables) all  $Y_t$ 's are stationary,
2. If the degree of  $\Pi$  matrix is zero ( $r=0$ ) there is no long-term relationship between the variables in the model,
3. If the degree of  $\Pi$  matrix is  $0 < r < n$  there is  $r$  amount of cointegrated vectors.

When the third possibility happens,  $\Pi$  matrix can be divided into two  $n \times r$  matrix.  $\Pi$  matrix can be divided into its factors as in  $\alpha\beta'$ .  $\beta$  shows the cointegration vectors in long term and  $\alpha$  shows

the adaptation coefficients that calculates the power of the cointegration in the Error Correction Model. In other words, it shows the error correction parameters.

In Johansen cointegration test, calculation of the number of cointegrated vectors in  $\Pi$  matrix can be obtained by testing the unit roots ( $\lambda_i$ ). These tests are in two statistics ways: Trace statistic and Eigenvalue:

Trace statistic can be calculated;

$$\lambda_{trace} = -T \sum_{i=r+1}^n \ln(1 - \lambda_i) \quad (3)$$

$H_0$ : Rank ( $\Pi_y$ ) = r null hypothesis

$H_1$ : Rank ( $\Pi_y$ ) = n alternate hypothesis

Eigenvalue statistic can be calculated by the equation below:

$$\lambda_{eig}(r, r+1) = -T \ln(1 - \lambda_{r+1}) \quad (4)$$

$H_0$ : Rank ( $\Pi_y$ ) = r null hypothesis is tested against

$H_1$ : Rank ( $\Pi_y$ ) = r+1 alternate hypothesis

The results of cointegrational relationship among 25 countries are presented in Table 3. During the period of the crisis, it has been found that the cointegrational relationship had improved globally. At 95% confidence interval,  $\lambda_{trace}$  test shows that there is 20 cointegrating vector during the period of the crisis and 18 before the period of the global crisis.

Table 3: Test for the number of cointegrating vectors

Null hypothesis	Alternative hypothesis	Test statistics		Critical value 95%
$\lambda_{trace}$ test		Before the crisis	During the crisis	
$r=0$	$r>$	2147,559	2187,934	-
$r\leq 0$	$r>1$	1885,621	1902,894	-
$r\leq 2$	$r>2$	1661,600	1671,247	-
$r\leq 3$	$r>3$	1478,900	1490,408	-
$r\leq 4$	$r>4$	1317,831	1319,592	-
$r\leq 5$	$r>5$	1163,745	1162,022	-
$r\leq 6$	$r>6$	1022,667	1018,607	-
$r\leq 7$	$r>7$	896,895	899,426	-
$r\leq 8$	$r>8$	785,117	789,454	-
$r\leq 9$	$r>9$	680,552	691,990	-
$r\leq 10$	$r>10$	590,700	602,233	-
$r\leq 11$	$r>11$	502,838	525,282	-
$r\leq 12$	$r>12$	430,958	450,717	-
$r\leq 13$	$r>13$	367,995	385,489	334,984
$r\leq 14$	$r>14$	309,964	325,442	285,143
$r\leq 15$	$r>15$	255,589	268,049	239,235
$r\leq 16$	$r>16$	209,584	219,337	197,371
$r\leq 17$	$r>17$	166,608	171,969	159,530
$r\leq 18$	$r>18$	125,196	135,573	125,615
$r\leq 19$	$r>19$	94,470	104,748	95,754
$r\leq 20$	$r>20$	66,984	68,651	69,819
$r\leq 21$	$r>21$	45,707	46,812	47,856
$r\leq 22$	$r>22$	27,598	29,062	29,797
$r\leq 23$	$r>23$	11,317	13,311	15,495
$r\leq 24$	$r>24$	1,396	1,603	3,841

$\lambda_{max}$  statistics suggest no more than 18 cointegrating vectors, since  $H_0$  of  $r \leq 18$  can not be rejected, as  $\lambda_{max(18)}$  is less than the critical value at the 5% significance level before the crisis. Similarly, during the period of crisis, there exist 20 cointegrating vectors since  $H_0$  of  $r \leq 20$  can not be rejected, as  $\lambda_{max(20)}$  is less than the critical value at the 5% significance level during the crisis. The presence of cointegrating vectors indicates that the stock indices of the 25 market under study share long-run equilibriums. Moreover, the increase in number of cointegrating vectors indicates that markets under study tend to move more closely during the period of global crisis than before they did.

#### Impulse Response Analysis

An impulse response analysis is carried in order to how rapidly a shock in one market is transmitted to the other markets. Thus, it is an indicator of the degree of capital market integration. As suggested by Lütkepohl and Reimers (1992), Equation 5 given below can be used to examine the interactions between  $n$  non-stationary stochastic variables:

$$Y_t = \mu + \sum_{i=0}^{\infty} \phi_i \varepsilon_{t-i} \quad (5)$$

where the coefficients of  $\phi_i$  can be used to generate the effects of error term shocks on the entire time paths of the non-stationary stochastic variable  $Y_t$ . The accumulated effects of the impulses in error terms can be obtained by the appropriate summation of the coefficients of the impulse response function.

Following Sims (1980) seminal paper, dynamic analysis of vector autoregressive (VAR) models is routinely carried out using the 'orthogonalized' impulse responses, where the underlying shocks to the VAR model are orthogonalized using the Cholesky decomposition before impulse responses, or forecast error variance decompositions are computed. This approach is not, however, invariant to the ordering of the variables in the VAR. On the contrary, Koop et al. (1996) and Pesaran and Shin (1998) proposed the 'generalized' impulse response analysis for unrestricted vector autoregressive (VAR) and cointegrated VAR models. Unlike the traditional impulse response analysis, their approach does not require orthogonalization of shocks and is invariant to the ordering of the variables in the VAR. The approach is also used in the construction of order-invariant forecast error variance decompositions.

Chowdhury (1994) used variance decomposition and impulse response functions to examine the relationships among the Asian Newly Industrialized Economies (NIE's.), Japan and the US, using daily data for the period January 1986 to December 1990. He found that the US led the NIE's and that there were significant linkages between the markets.

An impulse response analysis for a German money demand system was reported by Lütkepohl and Reimers (1992). These authors used the broader money variable M2, domestic demand as income variable and a long-term bond rate in addition to a 3-months interest rate. The sampling period in that study is 1960.I-1987.IV.

The results of impulse response analysis among 25 countries are presented in Table 4. The estimated impulse responses offer an additional way of examining how each of the 21 emerging markets responds to innovations from 4 developed markets. Because of limited space, only the transmitted shocks in U.S. stock market are given in Table 4. However, it is observed that there are similar transmission patterns for French, German and UK markets and the data is also available upon request.

Table 4: Impulse response to unit shock in the U.S. market before and during the global crisis

i <sup>th</sup> week after shock	Arg.	Bra.	Chi.	Col.	Cz_Rep.	H. Kong	Hun.	Ind.	Indo.	Jap.	Maly.
Pre-crisis											
1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2	-0,02	-0,01	0,01	-0,02	-0,02	-0,02	-0,03	-0,06	0,00	0,00	-0,02
3	-0,02	0,02	0,06	-0,06	-0,02	-0,02	-0,03	-0,09	0,00	0,00	-0,02
4	-0,01	0,03	0,10	-0,06	-0,02	-0,01	-0,03	-0,09	0,00	0,00	-0,02
5	-0,00	0,03	0,01	-0,01	-0,03	-0,01	-0,03	-0,09	0,00	0,00	-0,02
6	0,00	0,03	0,01	-0,02	-0,03	-0,01	-0,03	-0,10	0,00	0,00	-0,02
7	0,00	0,03	0,10	-0,02	-0,03	-0,01	-0,03	-0,10	0,00	0,00	-0,02
8	0,02	0,03	0,08	-0,03	-0,03	-0,01	-0,03	-0,10	0,00	0,00	-0,02
9	0,02	0,04	0,06	-0,03	-0,03	-0,01	-0,03	-0,01	0,00	0,00	-0,02
10	0,02	0,04	0,04	-0,03	-0,03	-0,01	-0,03	-0,01	0,00	0,00	-0,02
i <sup>th</sup> week after shock	Mex.	Peru	Phil.	Pol.	Sing.	S. Kor.	Tai.	Thai.	Tur.	Ven.	
Pre-crisis											
1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	-0,03	
2	-0,04	0,00	-0,04	0,01	-0,03	-0,02	0,01	0,01	-0,07	-0,02	
3	-0,03	-0,01	-0,02	-0,04	-0,04	-0,03	0,01	0,01	-0,08	-0,02	
4	-0,04	-0,01	-0,02	-0,02	-0,02	-0,03	0,02	0,02	0,09	-0,02	
5	-0,05	-0,02	-0,02	-0,06	-0,02	-0,03	0,02	0,02	0,02	-0,02	
6	-0,05	-0,04	-0,03	-0,08	-0,01	-0,03	0,02	0,02	0,03	-0,01	
7	-0,06	-0,05	-0,03	-0,09	-0,01	-0,03	0,02	0,03	0,04	-0,01	
8	-0,06	-0,07	-0,04	-0,09	-0,01	-0,02	0,02	0,03	0,04	-0,01	
9	-0,07	-0,09	-0,04	-0,10	-0,01	-0,02	0,02	0,03	0,04	-0,01	
10	-0,07	-0,01	-0,04	-0,10	-0,01	-0,01	0,02	0,04	0,04	-0,10	
i <sup>th</sup> week after shock	Arg.	Bra.	Chi.	Col.	Cz_Rep.	H. Kong	Hun.	Ind.	Indo.	Jap.	Maly.
During the crisis											
1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2	0,14	0,04	0,10	0,05	0,02	0,02	0,02	0,05	0,00	0,01	0,02
3	0,07	0,03	0,09	0,05	0,01	0,01	0,01	0,03	0,00	0,00	0,10
4	0,01	-0,03	0,06	0,03	0,06	0,05	0,05	0,04	0,00	0,00	0,03
5	-0,00	-0,05	0,04	0,04	0,03	0,04	0,09	0,04	0,00	0,00	0,02
6	-0,03	-0,12	0,02	0,03	0,01	0,03	0,01	0,03	0,00	0,00	-0,01
7	-0,07	-0,02	-0,04	0,02	-0,01	-0,07	0,06	0,02	0,00	0,00	-0,04
8	-0,09	-0,03	-0,02	0,09	-0,02	-0,03	-0,08	0,02	0,00	0,00	-0,07
9	-0,11	-0,04	-0,02	0,02	-0,03	-0,04	-0,01	0,02	0,00	0,00	-0,08
10	-0,12	-0,04	-0,03	0,09	-0,04	-0,06	-0,03	0,02	0,00	0,00	-0,10
i <sup>th</sup> week after shock	Mex.	Peru	Phil.	Pol.	Sing.	S. Kor.	Tai.	Thai.	Tur.	Ven.	
During the crisis											
1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,02	
2	0,05	0,04	0,02	0,03	0,03	0,09	0,02	0,05	0,03	0,07	
3	0,04	0,02	0,02	0,02	0,02	0,08	0,01	0,01	0,04	0,02	
4	-0,06	-0,02	0,01	0,01	0,08	0,06	0,04	0,01	0,02	0,01	
5	-0,07	-0,02	0,07	0,02	0,06	0,02	-0,02	-0,01	0,02	0,01	
6	-0,01	-0,02	0,06	-0,05	0,01	-0,01	-0,02	-0,01	0,01	0,02	
7	-0,02	-0,03	0,04	-0,09	-0,03	-0,03	-0,03	-0,03	0,01	0,01	
8	-0,02	-0,04	0,03	-0,08	-0,06	-0,04	-0,04	-0,03	0,09	0,10	
9	-0,01	-0,04	0,04	-0,07	-0,07	-0,05	-0,04	-0,04	0,07	0,07	
10	-0,02	-0,05	0,03	-0,09	-0,10	-0,06	-0,05	-0,04	0,05	0,06	

Impulse responses trace out the responsiveness of the dependent variable in the VAR model to shocks to each of the explanatory variables. If the effect of a shock is permanent, it shifts the system to a new equilibrium in the long-run. If the effect is transitory, the system returns to its previous equilibrium, and the impact dies out soon. In case of strong market linkages, deviations from the equilibrium are short lived. The pattern of the impulse response of each emerging stock market to a shock in the U.S. stock market is examined in the pre-crisis period and during the crisis. Table 4 shows that neither the Indonesian nor the Japanese stock market responds to shocks in U.S. market before the crisis and during the crisis. A one-standard deviation shock to U.S. stock market is rapidly transmitted to all other stock indices before and during the crisis except Japanese and Indonesian stock markets. Generally, the responses of emerging stock markets to a U.S. shock before the crisis tapers off rapidly, except for Poland and Venezuela. In that time period, the impulse responses of Poland and Venezuela to a U.S. shock remain as high as -0,10 at the end of 10 weeks. For that reason, it appears that a shock in the U.S. has a persistent impact on the Polish and Venezuelan markets. Furthermore, a shock in U.S. has a significant impact on the Chilean and Indonesian market before the crisis, given that the impulse response coefficient remains at 0,10 even at the end of a 7-week and a 8-week horizon, respectively. Besides, the responses of emerging stock markets to a U.S. shock during the crisis tapers off rapidly, except for Argentina, Malaysia and Singapore whose impulse response coefficients remain as high as -0,12; -0,10 and -0,10, respectively. It could be asserted that a shock in the U.S. has a persistent impact on the Argentinean, Malaysian and Singaporean markets. In addition to this, a shock in U.S. has a significant impact on the Brazilian and Venezuelan market during the crisis, given that the impulse response coefficient remains at -0,12 and 0,10 even at the end of a 6-week and a 8-week horizon, respectively.

#### Variance Decomposition Analysis

Variance decomposition or forecast error variance decomposition indicates the amount of information each variable contributes to the other variables in a VAR model. It is also related to impulse responses and may be used for interpreting dynamic models. The h-step forecast error for the  $y_t$  variables in terms of structural innovations  $\varepsilon_t = (\varepsilon_{1t}, \dots, \varepsilon_{kt})$  can be shown to be

$$\Psi_0 \varepsilon_{T+h} + \Psi_1 \varepsilon_{T+h-1} + \dots + \Psi_{h-1} \varepsilon_{T+1}, \quad (6)$$

so that the kth element of the forecast error vector is

$$\sum_{n=0}^{h-1} (\Psi_{k1,n} \varepsilon_{1,T+h-n} + \dots + \Psi_{kK,n} \varepsilon_{K,T+h-n}) \quad (7)$$

Where  $\Psi_{ij,n}$  denotes the  $ij^{\text{th}}$  element of  $\Psi_n$  (Lütkepohl, 1991). Due to the  $\varepsilon_{kt}$  are contemporaneously and serially uncorrelated and have unit variances, the corresponding forecast error variance is

$$\sigma_k^2(h) = \sum_{n=0}^{h-1} (\Psi_{k1,n}^2 + \dots + \Psi_{kK,n}^2) = \sum_{j=1}^K (\Psi_{kj,0}^2 + \dots + \Psi_{kj,h-1}^2) \quad (8)$$

Furthermore, the quantity  $(\Psi_{ki,0}^2 + \dots + \Psi_{ki,h-1}^2)$  is interpreted as the contribution of variable j to the h-step forecast error variance of variable k. This interpretation is justified if the  $\varepsilon_{it}$  can be viewed as shocks in variable i. The percentage contribution of variable j to the h-step forecast error variance of variable k is obtained by dividing the above terms by  $\sigma_k^2(h)$ ,

$$\omega_{kj}(h) = (\omega_{kj,0}^2 + \dots + \omega_{kj,h-1}^2) / \sigma_k^2(h). \quad (9)$$

Table 5 presents the proportion of market movements that can be explained by its own shocks, or the 'degree of exogeneity', before and during the period of the crisis. It indicates that the 'degree of exogeneity' for all countries has been significantly reduced, implying no

countries are exogenous to the financial crisis. It can be asserted that prior to the crisis, some of the markets (Argentina, Chile and Colombia) are pretty exogenous in the sense that a very high percentage of the error variance is accounted for by their own innovations. Furthermore, the degree of exogeneity in three markets, Malaysia, Singapore and Taiwan, was reduced less (7,76; 3,07 and 5,83 %, respectively). This also suggests that these markets passively responded to other country's innovations during the period of the global financial crisis.

*Table 5: The comparison of 'degree of exogeneity' before and during the period of the crisis*

	Before the crisis (1)	During the crisis (2)	Difference (1)-(2)
Argentina	85,51	54,54	30,97
Brazil	61,31	36,77	24,54
Chile	78,02	33,97	44,05
Colombia	73,15	35,24	37,91
Czech_Rep.	62,58	33,11	29,47
Hong Kong	44,35	29,77	14,58
Hungary	38,41	12,96	25,45
India	48,8	22,55	26,25
Indonesia	50,26	11,84	38,42
Japan	56,61	16,68	39,93
Malaysia	22,83	15,07	7,76
Mexico	30,63	15,16	15,47
Peru	69,33	18,49	50,84
Philippines	44,26	14,54	29,72
Poland	33,97	12,08	21,89
Singapore	5,63	2,56	3,07
South Korea	39,54	15,36	24,18
Taiwan	36,73	30,9	5,83
Thailand	57,44	18,99	38,45
Turkey	42,63	14,35	28,28
Venezuela	74,53	57,47	17,06

The table results of variance decompositions are not included in the paper due to limited space. However, they are available upon request. Based on these results, a quantitative measure of the short-run dynamic interdependences of 21 emerging markets, German, French, U.K. and U.S. stock markets are provided. According to this, stronger interactions are documented during the period of crisis. Specifically, the percentage of the forecast error explained by the other markets rises from an average of below 3,07 percent to about 50,84 percent. Across the markets, Singapore is the least exogenous market. Furthermore, Argentina appears to be the least interactive market during the period of crisis and most of the Latin American countries are somewhat affected more by it. As an example, for Brazil, Chile and Colombia about 25, 7 and 8 percent of the forecast error variance of their stock markets is accounted for by Argentinean innovations, respectively. Moreover, according to the results, developed markets like France, Germany, U.S. and U.K. have a minor role in effecting the emerging markets during the period of crisis. Exceptionally, French market has an influential role in explaining the error variances of Hong Kong, Malaysia, Singapore, South Korea and Taiwan, given that the explained error variances are at 12,89; 12,64; 21,63 10,88 and 14,75 percent before the crisis, respectively.

## Conclusion

According to finance theory, there are potential gains from international portfolio diversification if returns from investment in different national stock markets are not perfectly correlated and the correlation structure is stable. This has led economists and finance specialists to investigate the correlation structure and interdependencies among international share price indexes in some considerable detail. Unfortunately, previous empirical studies of the interrelationship of the major world stock price indexes have not provided consistent results. Most research has concentrated on mature stock markets and there are comparatively few studies of interdependencies among emerging markets. Therefore, this paper aims to reveal the effects of interdependence in 21 emerging markets. It uses a cointegration, impulse response and variance decomposition analysis to examine the linkages among the stock markets of four developed countries, ten Asian, seven Latin American and four European emerging countries, before and during the period of the global financial crisis of 2007. According to the results, it has been found that the cointegrational relationship had improved globally during the period of global crisis. The presence of cointegrating vectors indicates that the stock indices of the 25 market under study share long-run equilibriums. Moreover, the increase in number of cointegrating vectors indicates that markets under study tend to move more closely during the period of global crisis than before they did. Impulse response analysis shows similar patterns of shock transmission from developed markets to emerging markets. However, there is no strong relationship for all emerging markets. Furthermore, the 'degree of exogeneity' for all countries has been significantly reduced during the period of global crisis, implying no countries are exogenous to the financial crisis. Interestingly, Argentina appears to be the least interactive market during the period of crisis and most of the Latin American countries are somewhat affected more by it. Moreover, developed markets like France, Germany, U.S. and U.K. have a minor role in effecting the emerging markets during the period of crisis. Exceptionally, French market has an influential role in explaining the error variances of Hong Kong, Malaysia, Singapore, South Korea and Taiwan.

Given the divergent conclusions of this paper, further insights should be obtainable through an investigation of an alternative set of financial markets, in particular, a set of emerging markets. Ultimately, the fact that emerging markets present a separate data source because of their low correlations with developed markets a growing body of research should be carried on this field.

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## **Influence Of Transparency And Market Valuation: A Theoretical And Empirical Analysis For Publicly Traded Real Estate Companies**

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### **Abstract**

The research-paper at hand is based on the increasing importance of transparency as part of a "good" Corporate Governance and examines the reporting and disclosure respectively transparency of publicly traded real estate companies (REITs and REOCs) located in the UK, the Netherlands, France and Germany based on the EPRA Best Practices Policy Recommendations as selected Corporate Governance mechanisms. In this context, the influence of transparency and real estate-specific reporting in regard to the capital market valuation during the subprime crises is especially analyzed. The analysis is based on an OLS-estimation under consideration of panel data within a period of three years (2006-2009).

### **Keywords**

Corporate governance, transparency, publicly traded real estate companies, reits, OLS – estimation/panel-data

## The Relationship Between Corporate Governance And Intellectual Capital: Empirical Study Of Taiwanese Electronics Manufactures

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### Abstract

Since finance scandals emerge in an endless stream, corporate governance simultaneously has become a core issue to prevent miscellaneous falsities and improve the effectiveness of management in recent years. Intellectual capital is the dominating resource to corporate success in the contemporary knowledge-based economy. However, little is known about what occurs in the 'black box' between corporate governance and intellectual capital. This study employs agency theory, resource dependence theory and other theories, and investigates the relationship between corporate governance and intellectual capital. After reviewing the relevant literature, this study identifies human capital, organizational capital, innovation capital and relationship capital as four constructs of intellectual capital.

Corporate governance involves large part such as behavior of board of directors, so it is measured using seven characteristics of board in this study. Time-series cross-section panel data from 255 Taiwanese electronic manufacturers during 2001-2005 are employed for the fixed effect analysis in the model. The empirical finding demonstrates there is a significant relationship between corporate governance and intellectual capital.

This study found out and proofed the related theory could supported the relationship between corporate governance and intellectual capital based on the empirical results. The results demonstrate that outside directors, shareholding owned by the board, reward level are significant related to human capital is based on agency theory that argued outside director could raise the power of supervision, entrenchment hypothesis that encourage directors with power or shares to protect themselves, and motivation theory argued more reward would induce directors to do the right thing. Based on social learning theory that argued directors learn from other to increasing their ability, and based on resource dependence theory that declared the variety and balance of the board could enhance the efficiency of it, and total number of board and female directors are significant positive to relationship capital.

The corporate governance system which refers to total number of board, shareholding the director owned, female directors, and reward is significant related to organizational capital. Directors with higher education have more professional knowledge and information to enhance

the accumulation of intellectual capital. This study demonstrates that there are a significant relationship between the corporate governance system which refers to outside directors, shareholding owned by the board and education level of directors and innovation capital.

**Keywords**

Corporate governance, intellectual capital, board of directors

## **Corporate Turnaround: Current State And Application In The Contemporary Business Context**

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### **Abstract**

Existing world economic crisis has generated a turbulent business context resulting in an increase of the number of distressed businesses that are in crisis and going out of business. Thus, there is a strong need for corporate turnaround as a way of overcoming these issues.

The first step that a new top management, pursuing corporate turnaround, needs to do is to assess the current state and devise recovery possibilities. Results of these analyses are a foundation for development of the delicate balance of interests across various key stakeholders. Attitude and support of stakeholders are of utmost importance for the stumbling company's destiny.

Turnaround program has both long-term and short-term implications. In the short term, it is aimed at urgent business stabilization to insure firm's short-term sustainability. In the long term, turnaround program has strategic implications aimed at durable sustainability of the business. Since such a program has strong implications for the implementing firm and its business, it is an imperative for top management to develop a supporting corporate culture.

### **Keywords**

Business, corporate turnaround, current business context, world economic crisis, company decay and crisis.

## Introduction

The current global economic crisis has shaken the world dramatically in recent years. It emerged and developed in the most powerful economy in the world (USA), and then spilled over to other countries in different forms and intensity. Global financial and economic crisis has attained systemic nature and has caused a systemic crisis of national economies (of which the most astounding ones are: the bankruptcy of Iceland in 2008 and an enormous debt crisis of Greece in 2010, which shook the Euro - economic and political zone). It is the deepest and most complex global economic disorder of modern times, whose resolution has become the most important economic and political issue of the contemporary world. It is still not possible to analyze all economic, political, and social aspects of its impact, as well as to see its definitive end. It seems that particular risk is the possibility of its developing (mutation) into the global crisis of a predominantly political nature.

The nature of the business environment, under the conditions of global economic crisis, is especially affected by:

- The fall in economic activity that is recorded in almost all national economies (in varying extent and in different periods)
- Social (rising unemployment, the decline in living standards, social tensions and conflicts) and political (political instability) implications of the crisis
- Growing state intervention in economic (and overall social) flows, which is noticeable even in the most developed market economies (democracies).

Business opportunities during the world economic crisis are generally reduced. As a rule, when the cake is smaller, the fight for its distribution becomes more violent, with understandable social and political implications. Business environment has become extremely complex and uncertain, and significant fluctuations in the processes of globalization and intervention are evident. Global systemic disturbances of such intensity usually cause a dramatic increase in the number of companies that are in a situation of crisis and decline. Hence there is a growing need for use of a business turnaround as a concept for overcoming the crisis and preventing the collapse of the company.

## The Crisis And The Collapse Of Enterprises

The nature of the crisis and the collapse of companies in the conditions of global economic crisis are to a great extent specific. This particularly applies to the following:

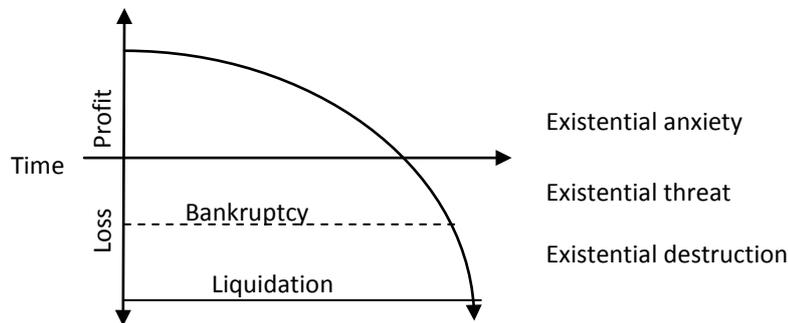
- A key cause of the crisis and deterioration of the company is of external (systemic) nature and leads to an existential threat to companies (businesses).
- Particular companies (and entire industries) exhibit different degrees of vulnerability to crisis
- Number of enterprises in crisis and decline dramatically grows, and the possibility of their recovery depends largely on external assistance and recovery of the economy as a whole.

Crisis and decline of enterprises in normal conditions is usually predominantly the consequence of actions of internal factors (causes of internal character). In the case of a systemic disorder, the cause of the crisis and the collapse of the company results from its environment, while the internal state of the company determines its vulnerability to external disturbances. The influence of the global economic crisis is very complex and powerful external factor that represents an existential threat to a significant number of companies. Different level of existential threat that some companies are suffering manifest as:

- Existential anxiety – represents a potential crisis or a latent threat to the enterprise
- Existential threat - the company is acutely affected while there is a real possibility of its recovery

- Existential destruction - the possibility of recovering of the company does not exist and it will surely fail.

Figure 1: Impact of crisis on the existence of the enterprise



The crisis, in addition to increased danger, usually brings some potential for exit options, which is inversely proportional to the strength of crisis. On the basis of crisis potential certain number of companies succeed to survive (maintain operations) or even achieve recovery. A number of companies find themselves in the right time in the right place and in crisis conditions achieve extraordinary results.

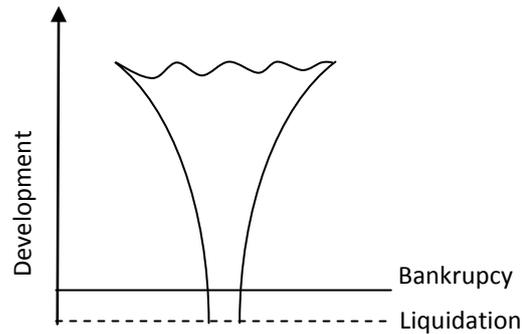
The degree of vulnerability of individual companies to the effect the global economic crisis is a complex function of many internal and external factors, which may be grouped as:

- Characteristics of the national economy
- Characteristics of the industry in which the company operates
- Characteristics of the enterprise.

The strength and vitality of the national economy determines the degree and nature of impacts that global disturbances have on national economy and the companies within it. The degree of exhibited influence of the current global economic crisis to particular national economies greatly differs. Its effects on different industries are also uneven (significant example is the automotive industry). In addition to national economic context and industrial specificities, in terms of vulnerability of the company to global economic crisis particularly important is the totality of its internal state. Susceptibility of enterprises to the effects of global disorder is decreasing in the case of strong national economy, resistant industry and successful company with a high degree of control over its existence.

The high degree of vulnerability of the enterprise to the influence of the global economic crisis in many cases has reflected in the form of the phenomenon of a whirlpool (vortex) of crisis and collapse of the company. Series of problems accompanying the operations of the company, with new effects of the strong systemic disorder, have gained mission-critical character. The problems that were in the state of incubation, in a very short period led to the escalation and the culmination of the crisis and deterioration of the company. Once activated the vortex of crisis and collapse almost overnight consumers the total potential and vitality of the business, so that it becomes exhausted. The phenomenon of a similar nature manifests itself at the level of closely linked enterprises, in the form of a chain of crisis and decline.

Figure 2: Vortex of crisis and decline of enterprises



Many firms which experienced fast deterioration, found themselves in an extremely difficult business situation in which the possibility of applying the business turnaround depends on many factors beyond their control. Hence, many of them resorted to declaring bankruptcy, or completely collapsed in the short run.

### Problems Prior To Business Turnaround

Awareness of the crisis and deterioration of the company stimulates the formation of a critical level of initiative needed for emergency response. A favorable circumstance is if early signals of crisis and collapse of the company have been noticed. This allows company's leadership to retain the initiative and timely initiate a business turnaround. If the leadership failed, the initiative would be taken over by the key stakeholders, typically creditors and shareholders. The key issue for them is to familiarize with the actual situation in order to devise options for overcoming problems. A company in a crisis situation should critically determine:

- Can the company be saved and whether it is worth rescuing.
- The available options and implications of their use.
- Optimal option in the concrete situation and objectively available resources for recovery.

Conditions of some companies are such that it is not rational to attempt their rescue. These are companies whose problems are too complex and that have no realistic potential for recovery. Usually they are not viable even in the short term and are facing collapse in the near future.

When it is determined that a company can and should be rescued, the available options of action should be evaluated. Necessary resources, time required, the risks of implementation, and associated implications for each option is determined, and then they are weighted against the expected results of their application. Selection of the optimal option for the application basically depends on: a) the quality of options available, b) the implications of particular options for key stakeholders, and related to that c) the position and attitude of key stakeholders in relation to particular options. The impact of the current global economic crisis has shifted the delicate scale of optimization of solutions to a certain extent in favor of business turnaround of the enterprise, which is primarily the result of actions of non-economic factors.

To overcome the problems that preceded the business turnaround, it is necessary quickly and successfully to implement the following actions:

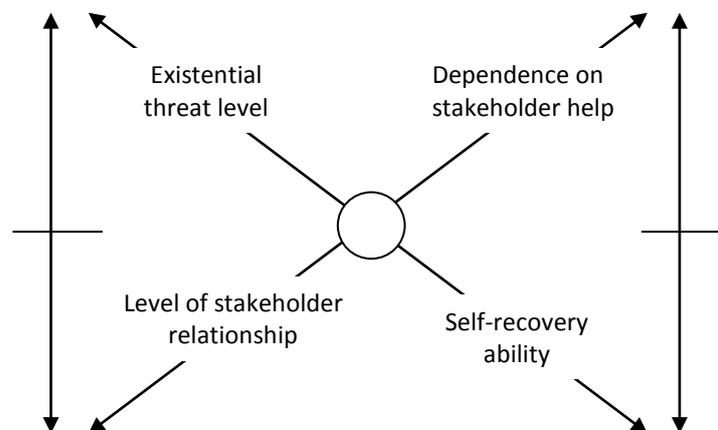
- Appoint new leadership or persons temporarily responsible for the most urgent tasks in the enterprise
- Perform an independent (objective) expertise or diagnostic review of the company
- Establish reliable and prompt communication with key stakeholders.

The first or one of the first actions that are normally carried out in a situation of crisis and collapse of the company is the appointment of new leadership, which has significant functional and psychological effects. Their mandate at this stage involves rapid establishment of control over the situation, application of urgent measures, and conducting or facilitating implementation of activities that will lead to selection of optimal solutions to the situation. In such circumstances certain individual enterprises, instead of appointing new leadership resort to strengthening existing leadership (with enhanced influence and monitoring), which is a consequence of: a) the objective impossibility of leadership to exercise impact on the systemic causes of the crisis and the collapse of the company, b) the importance of preserving and strengthening existing critical knowledge, c) the psychological impression that the situation is under control.

Diagnostic review of the business activities is already initiated at the very beginning of the observation of crisis and decay processes of the company. Such review should provide rapid and objective assessment of the situation, referring to the substance and nature of problems as well as to the possibilities of overcoming them. Results of the review should represent a reliable analytical basis for taking position and bringing the most feasible solutions to key stakeholders. Therefore, a diagnostic review of the company is usually entrusted to independent experts. Given the specifics of the current business environment determined by global economic crisis, a diagnostic review additionally strongly focuses on character and dynamics of the influence of external factors on business operations.

The situation of crisis and decline is typically characterized by distrust, tensions and disputes with the stakeholders of the company. Hence it is an extremely important task of the new leadership to establish prompt and reliable communication, particularly with key stakeholders. Their position and the level of support and assistance are of critical importance for the fate of distressed companies. The extreme complexity of the situation resulting from the activation of the vortex of crisis and decline of enterprise leads to a dramatic decline of its capability to recover, precisely in a situation where it is needed the most. That leads companies into a situation of crucial dependence on key stakeholders' assistance.

*Figure 3: The complexity of the problems, the role of stakeholders, and the ability to self-recovery of the company*



In conditions of the current global economic crisis somewhat atypical behavior of individual stakeholders in a situation of crisis and decline of enterprises can be observed in some cases, such as:

- More tolerant behavior of creditors towards debtors - instead of pressure, trying to ease the situation of the debtor (creditor initiatives, more convenient repayment schemes, other assistance).
- Assistance of the state (more or less direct) - especially in cases of companies with relevant impact on the functioning of the national economy and preservation of social and political stability in the country.
- More tolerant public attitudes - instead of typical animosity, forming an attitude of understanding with the motto: We are all in the same problem.

The essential support of key stakeholders is especially important if the enterprise in a situation of crisis and decline of business opts for a complete business turnaround, focused on its continued sustainability. Turnaround program usually reflects specific aspects of the delicate realignment of their interests.

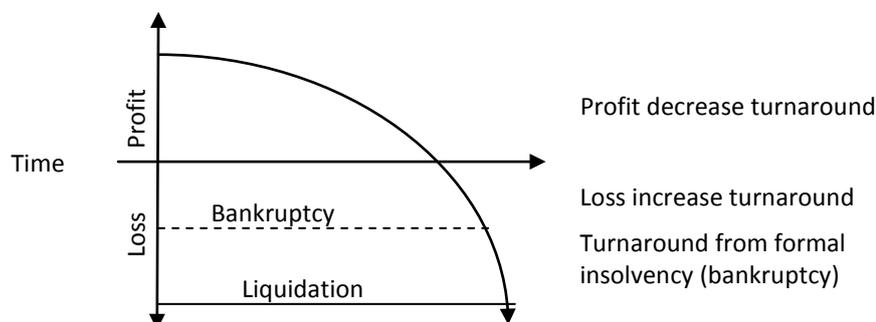
### Business Turnaround Program And Implementation

By taking the decision that in a situation of crisis and collapse of a business, turnaround is the most appropriate option for the company, company transits into the turnaround situation focusing on the application of a business turnaround program. The leader of the change, with the mandate to implement the business turnaround directly and in detail faces the problems of the company. He/she seeks to establish the functional shift, as well as to overcome the negative selection of labor and management and the outflow of critical knowledge at all levels. Enterprise stakeholders who have supported and agreed turnaround program also get involved in its implementation.

Business shift or turnaround program is primarily determined by the nature of the situation. This is an extremely complex business situation, and the complexity of its character is usually most clearly summarized and reflected in the light of the financial aspect of the problem. In this regard, business turnaround can be applied in a situation that is predominantly characterized by:

- Profitability - the company typically records a continuous decline in profits with the tendency of its complete disappearance.
- Growth loss - the company usually runs permanent losses that dangerously accumulate.
- Formal insolvency - the company has become insolvent and has resorted to declaration of bankruptcy, as the last temporary safe harbor that provides a certain hope for recovery.

Figure 4: Types of business turnaround



Favorable financial and overall business situation typically provides:

- Greater autonomy for enterprises in implementing the business turnaround.
- Ability to use a selection of milder measures under the turnaround.
- Greater chances for success of a business turnaround.

Possibilities and procedures of the business turnaround out of the formal insolvency (bankruptcy) are prescribed by national bankruptcy legislation and can vary greatly depending on the economic and legal systems, as well as on socio-political systems and dominant national culture.

The turnaround program has its long-term and short-term implications. In a short run, it focuses on the urgent stabilization of the business in order to provide short-term viability of the company. Emergency operational measures basically are an effort to stabilize cash flow. It is a favorable circumstance, if the implementation of the urgent operational measures is not forced by the immediate threats to the short-term survival of the enterprise, but it is a part of the strategic context of its recovery. Usually strong control measures and authoritarian management style are applied.

Strong existential threats caused by the current systemic disorder, add to the specificity, relevance and weight of the short-term aspects of business turnover. Priority of urgent stabilization of the enterprise becomes more complex and uncertain endeavor, and crucial short-term viability of the enterprise depends on the help of external stakeholders. In such a situation difficult and unpopular measures that result in mass layoffs are less exercised, which could be interpreted as the need to avoid delicate social implications of business turnaround and extraordinary interest and intervention of the state.

In the long run the turnover program has strategic implications and it is directed towards the permanent sustainability of a business. The general strategy of the turnaround program basically can be focused on strengthening of the existing or entering into a new business. The company transformed by the business turnaround program restores its vitality, applies new business strategy and improves operational efficiency. The program frequently and successfully combines measures of contractual and developmental character, while the leading is becoming more and participatory and team endeavor.

The situation of current global economic crisis in many aspects stresses and makes urgent the need for deep and rigorous review of all aspects of doing business in a situation of business turnaround. This leads to the strengthening of existing business through its re-thinking. State of hopelessness or fast drain of businesses tests the capacity of companies to abandon the existing business and enter a new business. In conditions of extreme existential threats, the search for exit through the shift to a new area of business, by turning to new possibilities, is an especially delicate and uncertain undertaking. Its implementation should not be deferred, no matter how tough intended measures are or the threat of their non-economic implications.

Temporary and partial solutions in the light of modern implementation of business turnaround can only have the purpose of an intermediary or transitional step. Incompleteness of the turnaround program is reflected in withholding on elimination of manifestations of crisis and failing processes (instead of addressing the key causes), and inevitably leads to a culmination of problems and their transformation (mutation) in an existentially more dangerous form, with significant further lowering of chances for a complete business turnaround.

Successful business turnaround in conditions of extreme turbulence and discontinuity of the modern business environment implies the permanent viability of the business. A comprehensive turnaround program that includes a set of strategic, operational, and financial measures should be implemented, and thus the crisis and decline of enterprise could be overcome completely. By such complete business turnaround an enterprise is returning to the successful operation and achieves high profitability, high competitiveness, as well as good business results and the enhanced social reputation. Hence, a complete and successful business turnaround requires the development of supportive corporate culture, which will reflect a new philosophy and new business profile of the company.

The completeness of the business turnaround is particularly relevant under the conditions of the global economic crisis, when existential threats and threatening non-economic implications of crisis impose short-term priorities and possible partial solutions. Besides the incompleteness, success of a business turnaround in the current, extremely complex conditions and delicate business opportunities largely depends on the success in treating the situation with elements of paradox. In a dramatic situation of turnaround, some short-term or operational actions required are not in line with long-term or strategic aspects of business turnaround; some management instruments applied in order to regain control of situation and efficient operations, can have a major long-term consequences, and often in such complex situations separation of the "wheat from the chaff " must "wait for the harvest".

## **Conclusion**

What certainly can be said regarding the effects of the current global economic crisis may be summarized in a sentence that the world will no longer be the same. Economic life is more and more uncertain, and contradictory trends are increasingly existent. The processes of crisis and collapse of the companies are ever more present. They attain specific character due to the resulting systemic disorders and transmit it to the problems that preceded the business turnaround. The business turnaround as an effort to overcome the crisis and the collapse of the company, unique in each case, generally reflects the overall specificity of the concrete turnaround situation: its particular focus in the current situation is at extremely delicate aspects of the problems resulting from the world economic crisis.

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## **Understanding Future Employees In CEEC: An Examination Of Job Related Preferences Of Czech, Polish And Russian Students**

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### **Abstract**

Although the financial crisis has changed the human resource situation in Europe significantly, Austrian employers in CEE countries are still operating in a “sellers market” for educated employees, lacking a deep understanding of their “customers” (the future employees’) preferences and needs. Thus, this paper highlights the main findings of a study concerning Czech, Polish and Russian students’ attitudes towards first job related issues.

Preferred information channels when selecting potential employers, preferred job entrance modes, motivating factors and incentives pertaining to the decision about a future employer, the students’ flexibility and the impact of international circumstances influencing the job decision are discussed. Moreover, the paper examines the extent to which the preferences differed country-wise and elaborates on implications for employers.

### **Keywords**

HR marketing, job preferences, employability of students, employer branding, CEEC

## Introduction

Today, employers in Central and Eastern European countries operate in a “sellers” market for an educated workforce, having to promote their company as a brand. A Hewitt Associates’ study (2006/07) confirmed that “employees hold the key to survival - and success – in Central and Eastern Europe, a region of growing international importance as the outsourcing destination of choice for more and more businesses.” Over the last decades potential job candidates were in a stronger position than the employers and could therefore almost freely chose between different job opportunities. One of the main reasons for this situation was the ongoing positive economic development in most European countries, the prosperous growth of most industrial and business sectors as well as the increasing competition on global HR markets. The recent financial crisis has changed the situation significantly. However, in Austria, employers still report that employees with a solid academic education for international assignments are hard to find, especially when it comes to engineers. Thus, Austrian companies are in the process of extending their recruiting radius to their Central and Eastern European neighbor countries. A barometer study (Wiesinger & Zehetner, 2007), conducted with 200 Austrian B2B companies showed that major staff turnover and a slight perceived lack of motivation of Central and Eastern European employees are serious issues which have not yet generated proper HR strategies. Furthermore, experts in HR management reported an almost hopeless situation when searching for qualified workers and assumed a lack of understanding of the specific needs of the local staff to be one of the reasons for failure (Interviews with voestalpine Stahl AG, 2008).

Hence, when operating in a foreign human resource market, being a “seller” intending to attract “customers”, respectively employees, it is of utmost importance to understand the motivation, expectations and needs of the new target group (cf. Salk and Shenkar, 2001; Chiang and Birtch, 2005; Brewster, Sparrow and Harris, 2005). Among the few researchers dealing with the topic of employee expectations and preferences, Smith and Krüger (2005) elaborated on “Perceptions of graduates regarding workplace expectations” and measured the role of rewards and benefits, personal factors, education and career, job-related and employer-related factors. Additionally ethics and social responsibility as well as diversity and culture factors affecting workplace expectations were considered. In this study, the focus is laid on career, rewards, job-related and employer-related factors.

## Objectives

In order to obtain a feeling for the specific local situation in Russia, Poland and the Czech Republic, a quantitative study was conducted. The primary research objective of this study focused on pointing out intercultural differences between Russian, Polish and Czech university graduates concerning the decisive criteria and expectations for their first job.

The researchers put a focus on the following questions:

- Which information channels are preferred for selecting potential employers?
- How relevant are company-university contacts for a job decision?
- What are preferred job entrance modes for graduates?
- What are motivating factors and incentives which pertain to the decision about a future employer?
- How flexible and mobile are graduates in the international working environment?
- To what extent do aspects of internationality influence the job decision?

Finally, possible implications for HR marketing measures were elaborated, with respect to identified differences in the three countries analyzed.

## Methodology

Derived from the research questions, the researchers decided to draw up a quantitative survey among mostly 3<sup>rd</sup> and 4<sup>th</sup> year students from both business and engineering study programs in Poland, Russia and the Czech Republic. A quantitative study seemed appropriate, as suggested actions should be authenticated and comparison between different units is aimed for (McNeil, 2005). The researchers had some assumptions about the main questions derived from their practical experience, contact with companies and literature studies which needed to be proved. Differences between the three countries examined should be investigated, which also called for quantification of the results.

Sampling: For reasons of practicability, students of the research institution's partner universities were selected to be interviewed. Our sampling points were Plekhanov University, Moscow, St. Petersburg State Polytechnic University, St. Petersburg, the University of Economics, Prague and Gdansk University, Poland.

The relevant subgroups within these sampling points were students from both business and engineering study programs. The researchers applied a quota sampling, determining that they aimed to receive at least 60 completed questionnaires per country in order to deliver reasonably reliable data in each country subgroup. As for the business and engineering graduates, the authors wanted to obtain an approximately equal distribution, so the ratio was set to 50:50.

The research group designed a structured questionnaire containing four major sets of questions plus personal data that allowed the definition of subgroups. The questionnaire was initially composed in English and translated into Czech, Polish and Russian language with the help of partner universities.

The first set of questions referred to the Job Entrance Preference. The aim was to find out which entrance opportunities (Internship, Voluntary Service, Traineeship, direct entrance in specialized position) would be most desirable for the interviewees. Interviewees' responses to the 4-item question were obtained on a 5-point Likert scale using the anchors "very desirable" and "not desirable at all". The list of items was developed through the researchers' experience.

In another group of questions the researchers wanted to know about major information channels preferred by the graduates when searching for information about their first employers. The responses of the students to this 9-item question were obtained on a 5-point Likert scale using the anchors "very desirable" and "not desirable at all". The list of items (Information Channels) was compiled on the basis of literature studies, e.g. Cober et. Al (2004), who generally examined web-based information channels, Blackman (2006), who analyzed job-recruitment advertisements, Maurer (2007), who discussed E-recruiting websites. Career fairs were also listed as an item as they can be seen as a unique possibility to identify emerging talents (Alter, 2008). Other items were added according to researchers' assumptions and experience.

Another set of questions was related to graduates' mobility in their first employment. The questions firstly targeted the maximum acceptable travelling hours between the place the employees are working and living which gave the authors an insight into the geographic distance for day-to-day commuting. The measurement was set up as a 5-point scale ranging from "1 hour max." to "5 hours max." in 1 hour intervals. Another dimension of mobility concerned the preparedness to work abroad which was examined by asking about the possible length of a period of employment abroad. This was measured on a 5-point scale ranging from "not at all" until "up to 4 years and more" in intervals of 1 year. The last question in this set referred to the expected mobility between employers. This was investigated by asking after how many years of employment with one firm the interviewees would think about

looking for a new experience/job opportunity. This was measured by a 5-point scale ranging from “after one year” to “after 5 years and more” in intervals of 1 year.

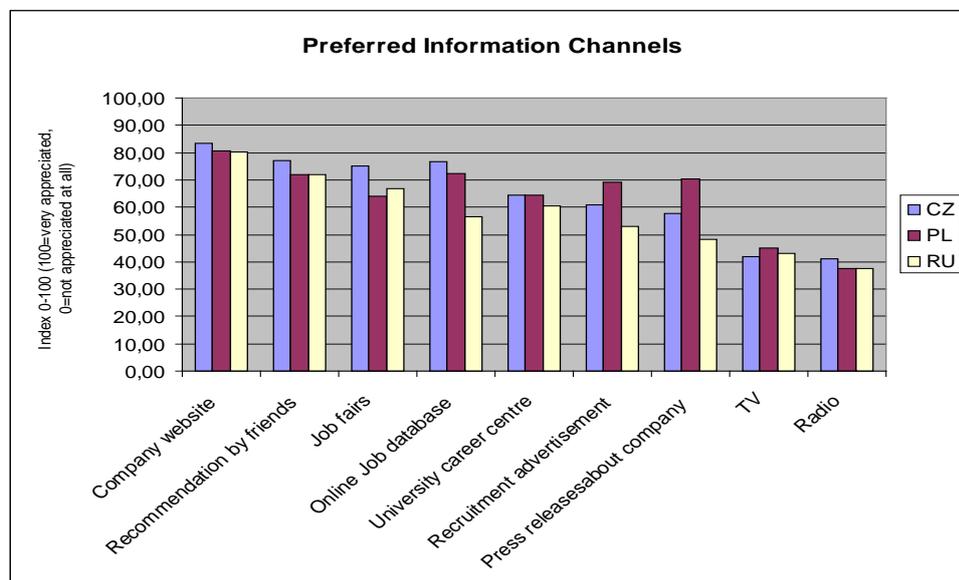
The last set of questions comprised the relevance of different motivating factors supporting the job decision. Responses of the students to the 24-item question were obtained on a 5-point Likert scale using the anchors “very important” and “not important at all”.

The interviews were conducted as personal face-to-face interviews. The authors decided on this method as personal interviewing provides the most accurate contact with respondents and the number of items called for personal motivation by interviewers to complete the survey. The survey was conducted by students of the respective organization. The researchers also knew about the weaknesses of personal interviews and followed Alreck et al. (2005) who underlines the need for strong supervision in the field. This was accomplished by assigning the field work to the supervision of professors in the respective institution. The interview period was from November 2007 until February 2008 and the authors received 235 utilizable questionnaires to process. The results were analyzed with SPSS 13.0, most results were analyzed on the basis of frequencies. In the following section, the findings of the study are presented:

### Preferred Information Channels

Many firms spend substantial resources in their efforts to recruit the best graduates, and there are different information channels available that might be used to inform graduates about job opportunities. In this research, major information channels have been analyzed to find out about the preferred channels for job offers among the graduates.

The question was: “Which information channels would you prefer for your job research?” and the results showed significant varieties between the polled items as well as between the graduates in the examined countries of the Czech Republic, Poland and Russia.



In recent years, the practice of using corporate websites to recruit job applicants has become increasingly common (Maurer and Liu, 2007; Allen, David, Mahto, Raj, Otondo and Robert, 2007).

The research showed that in all three countries company websites are the most preferred information channel for graduates when searching for possible employers. Czech interviewees rated company websites the highest (83.5 points on a 0-100 points scale where 0= not desirable at all and 100= very desirable which was transformed from the 5-point Likert scale),

but also Polish (80.7 pt) and Russian graduates (80.4 pt) ranked this information channel as the most preferred one.

This is an important result, as surveys show that approximately 75% of job seekers find the sites too complicated to use successfully (Brown, 2004). More than 20% have rejected job opportunities based on poorly designed websites. The high relevance of company websites for graduates' information gathering behavior calls for accurate and thorough setup and maintenance of employers' career websites.

Recommendation by friends was the second most preferred information channel, especially in CZ (77 points out of 100). But also in Russia (72.1) and in Poland (71.9) this "word of mouth" information is greatly appreciated by graduating students. Recommendations are, without a doubt, valuable sources of information. Further research, however, might find differences between the role of recommendations in CEE countries and the rest of Europe. In this context, Salmi (2006) underlines the importance and special role of social networks in Russia in her book called "Social Networks and Everyday Practices in Russia".

Job fairs are a unique possibility to identify emerging talents as well as to give a boost to companies' visibility (Alter, 2008). Czech students and graduates ranked this instrument significantly higher than Polish and Russian students.

The authors also asked about "Online Job Databases" as an information channel for students and graduates seeking employment opportunities. The results for "Online Job Databases" showed the largest deviation between the analyzed countries. While Czech students appreciate this channel very much (76.5), the values for Poland (72.31) and especially Russia (56.52) are much lower. The researchers suspect that in Russia and Poland online job databases are not as widely-used as in other countries including the Czech Republic, but so far no research has been found there concerning this topic.

Studies prove that students using the services of University career centres are more likely to secure full-time jobs than those who apply via an employer's website (Nace's Graduating students' survey, 2007). However, the results of the present survey show that career centres rank only in the middle of the preference scale with minor deviations between the countries investigated (PL: 64.54, CZ: 64.62, RU: 60.29).

Recruitment advertisements, a major recruiting instrument of companies, are seen as very preferable in Poland, while in Czech Republic and in Russia they are seen less preferable. Likewise, TV and Radio as information channels for job opportunities were seen as having minor relevance in all three countries.

### **The Relevance of Company–University Contacts**

Another field of interest for the researchers was to explore how relevant previous or current contacts between companies and for the university / the students are for the job decision of graduates. The researchers asked: "How important are the following statements for your job decision?"

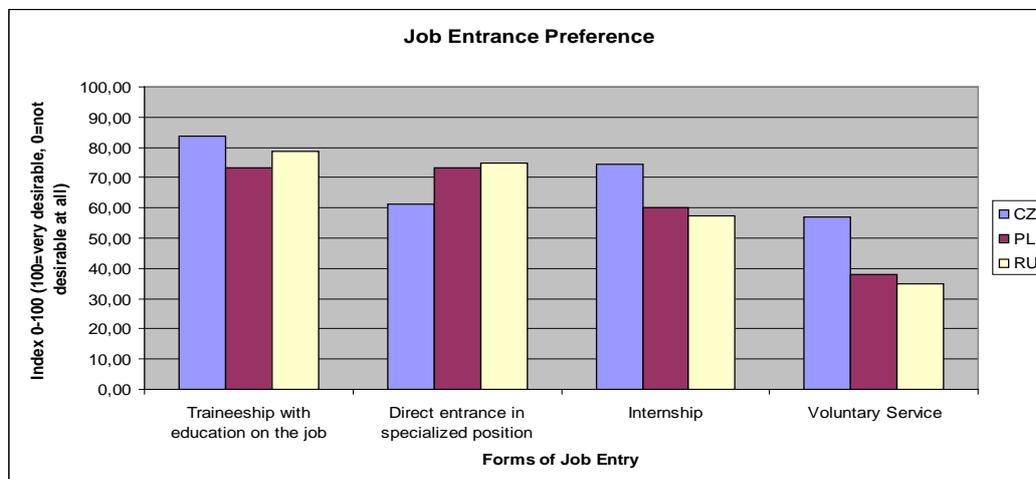
The researchers found that the most important contact area influencing the job decision is the item "I know the company because colleagues work there" (66.7 points on a 0-100 points scale where 0= not important at all and 100= very important which was transformed from the questionnaires 5-point Likert scale). Not surprisingly, personal experience and insight into the company circulated by a trustworthy person seem to be very important for risky decisions like the first employment contract.

The second most important contact area is “I know the company through an internship” (64.57 points). Many HR managers have discovered this recruiting opportunity and most students are eager for such arrangements (Human Resources Department Management Report, 2005). The third most important item in this question was “I know the company through student projects” (51.06 points). This is closely related to successful internships (see above) as both contacts can give them “the inside track to a permanent position” (Human Resources Department Management Report, 2005). A report of Burquel (1998), examining university-enterprise cooperation in Central and Eastern Europe, however, found, that university-enterprise cooperation today is still confronted by constraints, mainly linked to people (the university’s vision and a lack of initiatives and skills to develop a university-enterprise cooperation in that vision) (p. 10.).

Interestingly, the items “the company exhibits at career fairs” (48.09 points) “the company sponsors students’ activities” (47.97 points) and “the company is one of the university’s partner institutions ” (40.24 points) were regarded as less important. All three of these items are less personal than the contacts mentioned above. As a conclusion, personal relationships and experience and knowledge about the internal structures of potential employers appear to be of vital importance.

### Preferred Mode Of Job Entrance

Also concerning job entrance modes, the researchers suspected differences in preference. The question was “How would you evaluate the following forms of employment for entering your first job?” and a “traineeship” showed to be the most attractive option, besides entering the job in a “specialized position”, through an “internship” or a “voluntary” assignment. A traineeship and a specialized position are direct entry modes, whereas internships and voluntary assignments refer to student assignments preceding the actual job entry.



For Czech and Russian interviewees, a traineeship was the most preferred job entrance mode (CZ = 83.7 and RU = 78.7 on a 0-100 points scale where 0= not desirable at all and 100= very desirable, transformed from the questionnaires 5-point Likert scale), whereas Poles preferred a specialized position (73 points). Czech students, for their part, seem to be familiar with entering a job opportunity through an internship (74.5 points). Cultural differences in preferences concerning job entry modes are influenced by the respective values and norms: Polish people are known to be entrepreneurial and have a strong desire for consumption (Wiesinger, 2008). Thus, a job entry in a specialized position might also be associated with a higher wage.

The preferred job entrance mode is also strongly connected with Tomlinson’s (2007) model of student orientations. It deals with the way in which higher education students begin to position

themselves in relation to their future work and employability and what perceptions, attitudes and orientations to the labour market they obtain (p. 287). Tomlinson distinguished between different types of labour market orientation: careerists, ritualists, retreatists and rebels. According to his findings, the majority of students tended to be careerists (with a strong orientation around future work and careers, being very active in realising their labour market goals and managing their employability, having a focus on flexible career progression and proactivity) and ritualists (with a more passive approach and lower stakes for future employment, having a focus on job security) (p. 292). Even though Tomlinson did not consider intercultural differences, it can be stated that Polish university students are rather careerists and Czech and Russian students rather ritualists, when it comes to their job mode preference. When choosing motivators and incentives, this has to be considered.

### **Motivating Factors And Incentives**

In the intercultural context, many studies deal with reward preferences and cultural differences (Hofstede 1980, Vance et al. 1992, Thomas and Wise, 1999). Even within a country market, individuals are attracted by different factors and perceive the organizational attractiveness differently. This also stands for international business operations: Chiang and Birtch (2005), for their part, underlined that "organizations engaged in multi-national activity must be cognizant of the potentially significant influence that culture wields on reward preference" (p. 358). Herbig (1997) stressed the impact of international motivational differences for managers: "[...], today's managers have to know the cultural factors and social values shaping organizational roles and the degree of motivation and implication of the workforce in the work setting." (p. 567).

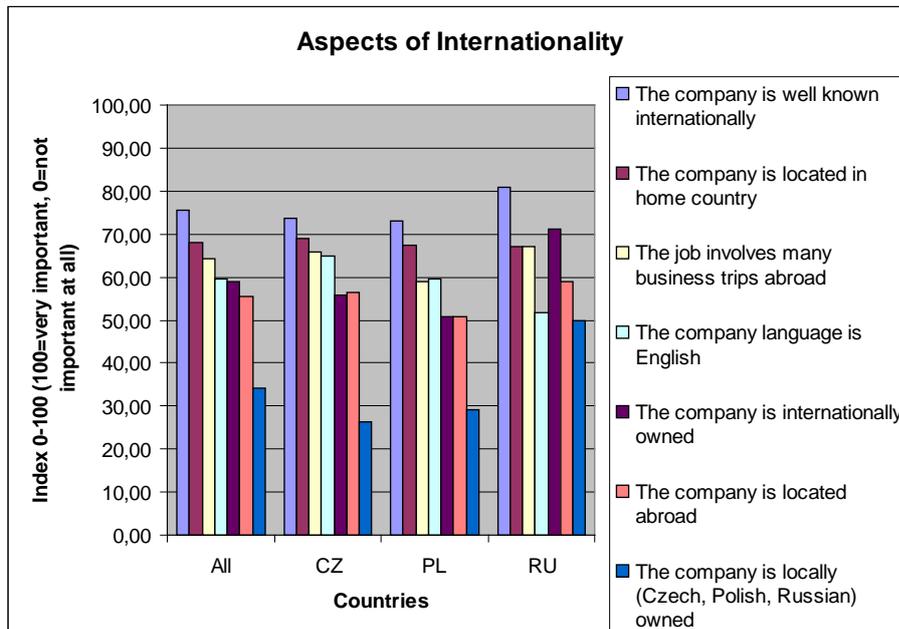
In the present study, the researchers were interested in the following question "How important are the following statements for your job decision?", focussing on the evaluation of monetary and non-monetary incentives. Findings show, that non-monetary incentives in CEE countries are not to be underestimated. "The company offers an attractive career perspective" (CZ: 90.5; PL: 85.8; RU: 82.5), "The company offers further training" (CZ: 86.7; PL: 80.38; RU: 79.3) and "The company has a good reputation" (RU: 86.4; CZ: 83; PL: 80.4) ranked highest in the overall analysis (on average 86.8, 82.8 and 82.8 on a 0-100 scale, where 0= not important at all, 100=very important). "The job demands taking over high responsibility", "The work is done in teams" and "The company organizes social activities" ranked lowest (on average 66.2; 58.6 and 54.8 on a 0-100 scale, where 0= not important at all, 100=very important). In prior qualitative company interviews, the researchers experienced that most companies in Austria tend to overestimate the impact of monetary incentives and paying more than average. Especially the fact that a company's good reputation was found to be of such importance (Russia 86.4 points!), stresses the growing issue of employer branding (Martin et al. 2005). In addition, also the Hewitt-study (2006/07) points out that companies should not underestimate the role of soft factors like non-monetary recognition. In their study, the best employers in CEE countries scored high on "I feel well-informed when major changes are made in our organization" (72%), "Our organization does a good job in addressing people issues" (71%) and "I receive appropriate recognition (beyond my pay) for my contributions and accomplishments" (70%).

### **Aspects Of Internationality**

When asking for the students' evaluation about the importance of statements concerning international aspects of their future job, the following insights could be gained:

The overall evaluation shows that an internationally well-known company attracts students the most (75.6 points). Secondly, the company being located in the home country (68 points) was preferred to a company location abroad (55.6 points). Furthermore, it can be pointed out that

an internationally owned company (59 points) is preferred to a locally (Czech, Polish, Russian owned) owned company (34.1 points).



In sum, a highly international environment in combination with an assignment at home seem to be of utmost importance for Czech, Russian and Polish students' job decisions. That career satisfaction and international assignments do not always correlate was underlined by Boies and Rothenstein (2002). They conducted a survey ("Managers' interest in international assignments: the role of work and career satisfaction") with 150 Canadian managers and found that job satisfaction was negatively related to interest in international assignments.

### Flexibility And Mobility

Although the above findings show a clear preference for assignments in the home country, Meisterklasse Osteuropa (2004, p.10) found that junior managers from CEE countries are much more prepared for an international career than Austrian junior managers.

In the present study, the researchers asked four questions concerning the flexibility and mobility of Czech, Polish and Russian students. Findings to the question "How many hours of travel would you accept for reaching your workplace (both ways)?" were that the accepted hours of travel were between 1.5 and 1.8 hours. Russian students' are prepared to travel the least (1.5), Czech students the most (1.8).

The researchers also tried to illuminate the preferred frequency of job changing ("After how many years on a certain workplace would you think about looking for a new experience/job opportunity?") and found that students from the Czech Republic, Russia and Poland intend to change their jobs every 2.5 to every 2.8 years. The shortest job intervals are preferred by the Polish (2.5) and the longest by the Czech (2.8).

Concerning the duration of a work assignment abroad ("For how long could you imagine to work abroad?"), Russian students, on average, can imagine the longest period abroad, followed by the Polish and the Czech. 28% of the Czech students could imagine to accomplish a work assignment abroad "up to 4 years", whereas only 23% of the Russian and 22% of the Polish students could imagine such a long period of time abroad.

Finally, the researchers asked “What job offer would you tend to prefer as a first opportunity after your studies? At job at home or a job abroad?” and found that students from all three countries tend to rather prefer a job at home than abroad. Russian students rank highest in pr

In sum, Czech students seem to be the most flexible concerning travelling to work and work assignments abroad. Interestingly, Russian students are least prepared to travel a long period of time to work, but would be prepared to accomplish the longest work assignment abroad.

### **Conclusions And Implications**

The paper pointed out differences in preferred information channels used by employers to attract future employees from the Czech Republic, Poland and Russia. It underlines the rising importance of company home pages and recommendations. When it comes to recommendations, a well-functioning company-university relationship plays an important role in that context.

The paper furthermore investigated preferred job entrance modes for graduates and stressed differences in the countries examined. Expectations of how the first job should look like have an impact on job advertisement strategies and general communication strategies in HR marketing. The researchers also found differences in motivating factors and incentives. This data may constitute a valuable support for HR managers, when taking measures for motivating an international staff. Additionally, the authors found that students from Russia, the Czech Republic and Poland are not equally mobile and flexible. Aspects of internationality have a very diverse impact on the employees' motivation, depending on the country and have to be further investigated.

In sum, the findings are supposed to represent a basis of decision-making for multi-national employers and their international human resource strategies. The CEE market is not homogenous; however, there are many differences in expectations and preferences throughout the investigated countries. Thus, when deciding for a marketing or recruiting measure, intercultural differences have to be considered.

### **Limitations And Suggestions For Further Research**

Due to the limited sample size, all identified country differences may also be influenced by idiosyncrasies related with the particular educational institutions which were chosen for this study. Further research with an increased number of respondents from a larger number of educational institutions would certainly contribute to clarify this aspect. Moreover, the authors have to admit that translation issues may cause a certain bias when collecting data from respondents with different mother tongues.

Another limitation is the fact that the survey was only conducted in three countries. Further research could focus on conducting the study in more countries of the CEE region, especially in combination with a study in the respective home country (in the authors' case: Austria). Moreover, it could be interesting to go into detail concerning the topic of a company's reputation and its influence on employee preference. This issue is closely linked to the field of employer branding and has not yet been explored on an intercultural basis.

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## **Organizational Culture As A Driving Force Of Organizational Changes**

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### **Abstract**

Organizational culture represents a social phenomenon which appears and is changed by the interaction of employees both with each other as well as with the environment. Natural place of organizational culture is in the field of management which studies social and psychological aspects of an organization. Organizational culture is a broad term which is used to define the character of the organization itself and it includes the elements such as: basic values and beliefs, corporate ethic and standards of behavior. Basically, it represents the characteristics of an organization, or simply, the way things are arranged in an organization where it has a great influence on behavior, thoughts and feelings of employees. Organizational culture is very important not only for an organization itself but for all employees as well where it increases both commitment to the organization and behavior consistency of the employees. From the position of an employee, culture is important because it reduces ambiguity so it tells the employees how things should be done and what is important. Organizational culture also refers to the employees what behavior which will be valued is expected from them, and what behavior is unacceptable in the organization. Corporate culture in an organization as well as its initial source largely depends on the vision or mission of the organization's management. For the successful operation of an organization it is important that there is harmony between the principles of management of that organization and its organizational culture. If such harmony exists organizational culture can be powerful social support for achieving business goals. Due to the fact that organizational culture affects thinking, behavior and attitudes of the employees, it is obvious that its influence is felt in all aspects of the business, especially in the process of initiation and implementation of organizational changes that are necessary factor in overcoming the consequences of crisis situations. Business operations of modern organizations as well as the process of globalization are characterized by constant organizational changes. Modern companies are faced with stronger environment turbulence and increased global competition. Changes have become a style and a way of life of almost every organization and that organizational changes, not stability, are thought to be the natural state of an organization. Organizational changes mean the process of changing the existing organization and its components. These changes are many and various, but usually include: technology, organizational structure as well as the structure and the position of employees. Regardless of the type and depth of changes they are always reflected on the employees and their mutual relationships. Organizational changes lead to the acceleration of economic development and increase efficiency but thus impose greater personal responsibility, adaptation to new technologies and forms of work. Any changes in technology, procedures or in organizational structure automatically cause a change in staff regarding their functions, knowledge, skills, mutual relationships and positions. The employees that are not prepared for deep and big changes can show resistance and feel high intensity stress caused by implementation of these changes. The crucial role in the adaptation of employees to organizational changes is played by organizational culture which represents one of the key

factors that influence the process of initiating and implementing organizational changes and as such is a subject of research of this paper. It can be said that under modern conditions of doing business one of the biggest challenges that organizations face is the ability to transform the existing organizational culture in the direction of adaptive organizational culture based on values that promote a tendency to change. A strong system of values and beliefs constituted by organizational culture can greatly facilitate, but completely block as well, the process of organizational changes depending on the orientation of cultural values as well as on the leader's ability to manage these values. Under the circumstances which abound in uncertainty and which are the side effect of the process of organizational changes, a strong organizational culture enables employees, sharing common values, to develop a strong sense of security and belonging to a group or an organization what will greatly reduce anxiety and stress of the employees. Identification of the employees with the organization provides a sense of commitment and induces motivation, what is of great importance in the process of organizational changes that require a high level of commitment and engagement. If an organizational culture is strong and supports the initiation and implementation of organizational changes, it will have a strong positive influence on the behavior of employees, their motivation and productivity. The most important functions performed by organizational culture in an organization and which are also important in the process of organizational changes, are certainly a function of internal integration of employees and their adaptation to external environment. Organizational culture determines the way the company sees its environment and defines its position in it as well as the way it analyses and evaluates its own resources and capabilities. It affects the way of perception as well as the interpretation of phenomena and events, and it determines the nature of organization's reaction to certain events. If the organization has adopted values that emphasize openness, flexibility and tendency to change it will quickly identify impulses from the environment which indicate the need for a change and the decision to initiate the desired change will be made easier? On the other hand, an organization with exaggerated values of stability and avoidance of risk won't recognize warning signals and its leaders won't see the need for changes on time, or will completely ignore such a need. Only those organizations and their leaders who accept the need for changes and who create such an organizational culture where openness to new ideas is rewarded, constantly striving to introduce innovations, increase the level of motivation of employees and where trust and mutual respect rule, only such organizations will have a chance for prosperity and development.

### **Keywords**

Organizational culture, organizational changes

## **The Distinctive Brand Image As The Basis Of Competitive Advantage In The Open Market Economy**

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### **Abstract**

In the new economic phase Serbia is to create and sustain competitive advantage through innovation in organisations, by raising the level of knowledge and progressive innovative technological development, which will increase its economic and innovative–technological possibilities. The main contribution to Serbian economic development is strengthening the economic factors of competition: costs, price, exchange rate, subventions, export credits, tax breaks; and the innovative technological factors of competition: quality, design, delivery deadline and services. As a small and undeveloped European country, Serbia ought to make sure its economy is open, it has to ensure market economy and automatic market mechanisms. As far as competition is concerned, greater competitive abilities of companies, industries and sectors are of crucial importance in conquering new markets and increasing the market share (more competitive production for possible market niche). So, greater export at the global level and increasing and advancing production for the purpose of export is a must.

### **Keywords**

Enterprises, economic possibilities, innovative-technological possibilities, market economy.

## INTRODUCTION

Increasing competitiveness in the export-oriented sector means to significantly advance the general parameters of competitiveness and these are the following: taking part in global and integrational processes, the quality of the legal state, the quality of the economic policy and of legal regulations which all make a suitable economic environment for enterprises. Therefore, the macroeconomic stability and economic growth, the development of the institutions in the financial sector, the development of the economic infrastructure, the quality of science and technological development, the quality of the innovative technical - technological knowledge.<sup>20</sup> Relying on an adequate developmental strategy Serbia is to achieve macroeconomic, sectoral and microeconomic competitiveness. The factors that can help achieving the macroeconomic competitiveness are the following: the exchange rate policy, the fiscal policy, the aggregate demand management, encouraging the capital market mobility, labour market mobility as well as the market mobility of products and services, encouraging competitiveness in the sphere of infrastructure, education and research.

As a European country seeking to achieve an average or high level of income, Serbia ought to employ a competitive strategy based on innovations. According to Professor Porter, an economy led by innovations creates its competitive position in the global, open market by constant product and service innovations as a key factor of competitive advantage. In the innovative and modern business environment such economy uses a possibility of modern technology in order to keep competitive ability in the long run. The competitiveness of relevant economic sectors is to be ensured through the advancement of sectoral structures which are the number, size, concentration, market power, technological ability and company's business strategies, as well as through the advancement of the factors characteristic of particular sectors.

## ENTERPRISES AS THE MAIN SUBJECTS OF DEVELOPMENT IN THE OPEN MARKET

Enterprises as the main subjects of development in the business environment where scientific inventions, technological innovations and competitive pressure in the open market are growing, ought to reduce their costs and increase the quality, the function and the performances of their products and services through technological development and in that way increase competitiveness regarding their prices and technology both in the domestic and in the foreign market. Under such circumstances enterprises are motivated and science-oriented toward the development of their own technologies and acquiring and advancing the technologies of foreign origin. There is an example of Tiger-Tyres: on February 27th, the Annual General Meeting of the Tiger Corporation made the decision on the transaction with Michelin according to which the French company would have a 100 percent ownership of the Tiger Tyres by 2010. More than 93 percent of the present shareholders including the Share Fund, gave their consent to selling part of Tiger Ltd in the joint enterprise as well as the land with the existing infrastructure in Tiger II location. The agreed value of the transaction is RSD2.6bn. According to Dragan Nikolic, President of the corporation, it will have a great significance in the long run because the business environment gets two respected business systems with enormous potential to develop while the tyre group programme is completely integrated into the Michelin system. This means that excellent conditions for the further development of the production programme are ensured as well as the conditions for getting the feedback regarding the economic development of local communities and Serbia as a whole.

The Tiger Corporation ensures considerable resources for investments and development. In other words, the business aim is accomplishing relevant financial funds that will ensure the permanent development of chosen and relevant programmes – as manager Nikolic points out commenting on the support given by Tiger's owner. He also emphasizes that the Tiger's

<sup>20</sup> See World Economic Forum: "Global Competitiveness Report 1998.", Geneva 1998.

management now has an even greater responsibility as the company has to invest 30 million euros in the best possible way. Therefore, it is necessary in the future to efficiently and rationally realize all of the planned projects regarding 'the footwear development programme' and to build a recycling plant for waste materials as well as for final products (application of clean innovative technologies). The example of Pirot and Tiger is very useful here; it is extremely important that the Serbian brand Tiger has become part of the large Michelin brand family. The best thing that could have happened to Tiger is the fact that the French company Michelin is advertising the Serbian tyre producer within its advertising campaign programme. This is an enormous success on the part of the factory's top management, that is, the success of their vision of the Tiger development which entered the process of privatisation in the 1990s, as Milan Parivodic, Minister of Foreign Economic Relations, says. He has promised to assist Tiger in building the recycling plant for recycling old automobile tyres. According to Minister Parivodic, the new regulations regarding the tax policy are to enable tyre producers to get certain financial funds to purchase old tyres that will be recycled and turned into new products. (Z. Panic<sup>21</sup>)

Mr Nikolic says that the priority is to complete the modernization process of the product-and-service network both in Serbia and in the Balkans and to advance the operations of the Tiger factory regarding chemical products, which will lead to the income of 100 million euros in 2010. The suggestion put forward by the Board of Directors is based on the estimate that Tiger has not been in the situation to cope up with Michelin in the production of pneumatic tyres or to invest in business development, which in the process of globalisation is divided among multinational producers. According to Vladimir Nikolic, Director of Tiger Tyres, this decision is very important since it opens new perspectives for development. Michelin is too big a company to only participate in business operations and from the very beginning it has been attempting to be the only owner. Mr Nikolic expects that Michelin will be more positive regarding the investments in Tiger Tyres in the future. At the meeting of the Board of Directors held last year, the intentions of Michelin were clearly stated – Tiger Tyres was to become the best factory not only within the Michelin group, but also in Europe regarding the production of the third-line pneumatic tyres, Mr Nikolic added. (Economy, February 28th)<sup>22</sup>

Besides the process of globalisation, the all present innovations in the sphere of technology have significantly changed business rules in the world market and introduced new rules in business orientation and strategies companies choose. The competitiveness of a company is dominantly defined by its technological and organisational adjustments and by strengthening business, financial, marketing and technological abilities in order to change the existing sectoral and market structure and to adapt to such structural changes. This means that the struggle for conquering the market is more aggressive, more flexible and dynamic, or in other words, only those enterprises that are highly transparent and open in doing business while preserving a certain amount of dynamics, flexibility and innovativeness can survive in the market. Basically, being competitive in the global market means facing as much as possible the relevant consumer regarding the issues of the quality of products and services, and doing that faster than the rivals (competitors) in the market. There is no unique or universal pattern of behaviour for all participants in the market considering the new and significantly changed and more complex conditions of doing business today, that is, global conditions. It is up to the top management of each company to define a strategy; the strategy is defined after analysing all crucial factors of doing business and in the given circumstances is the winning one, meaning competitive in the long run in the open market.

## **ECONOMIC MEASURES AS AN INCENTIVE FOR ECONOMIC COMPETITIVENESS**

The factor which influences competitiveness of Serbian economy in the long run is the real depreciation of its currency along with other measures of economic policy and structural reforms in the real, financial and public sector. Here the keyfactor is the decrease of public

<sup>21</sup> [http://www.pregled.com/nauka.php?id\\_nastavak=724&tmpl=nauka\\_tmpl&tekuca\\_strana=7](http://www.pregled.com/nauka.php?id_nastavak=724&tmpl=nauka_tmpl&tekuca_strana=7)

<sup>22</sup> <http://www.economy.rs/vesti/index.php?action=vesti&subact=full&id=5306>

consumption and real depreciation. If there is no decrease of public consumption, the exchange rate will ensure internal stability, while foreign imbalance will be increased. The absence of depreciation and the reduction of public consumption would have financial crisis or recession as a result.

Besides strengthening the banking sector in the country, macroeconomic stability requires a strong monetary and fiscal policy which would contribute to decreasing the inflationary expectations and the inflation itself, and with that decreasing reference interest rates and reducing the price of dinar loans. The restrictive monetary policy and fiscal adjustments regarding revenues and expenditures are the necessary measures when the inflow from privatisation is reduced and the overall conditions for getting loans both in the domestic and world financial market are getting worse. At the very end of 2009 the National Bank of Serbia (NBS) decided to decrease its (reference) interest rate by half a percentage point. It would be excellent if the interest rate reduction trend is to be continued in 2010.

Whout would this really mean for the economy and economic residents of Serbia?

The first effect will be a similar interest decrease which the state pays on its bonds (treasury bills). The expenditures of the National Bank of Serbia will be reduced as it will pay less and less interest on the issued securities, which means that the costs of dinar withdrawal which practically our fiscal government pumps up into the system will be lower and lower. What will also happen is the reduction of interest on dinar loans and credit cards as they follow the trends of the interest rate given by the NBS.<sup>23</sup>

As there is a connection between the strength of dinar and the level of interest rate given by the NBS which has been reduced in the last couple of months, it is quite realistic to expect that the Serbian currency will lose its value in 2010. The faster the interest rate decreases, the weaker dinar becomes; in other words, the exchange rate will depend on the foreign currency inflow into the country. The lower limit of the interest rate as defined by the NBS is the level at which banks can still invest in securities issued by the NBS or the Treasury. If the projected inflation in 2010 is 6%, and if the lower limit is around 7%, banks (and other legal personalities) would be motivated to invest. The banks are not so much interested in the real dinar yield in securities; they are more interested in income in euros (their income in 2009 was 210 million euros which was paid by tax payers). If they can buy and sell foreign currencies for dinars (and vice versa) at a similar exchange rate, the income is 9.5%, while even 7% would be profitable. In other words, if euro is stronger, income is lower and losses are expected. The impression is that the banks could decide to sell securities of the NBS and the Treasury and appear in the exchange rate market with an enormous amount of dinars (at the moment this amount is about 260 billion dinars or 2.7 billion euros) and in that way depreciate the value of the domestic currency and spend a considerable amount of foreign currency reserves of the country. In other words, the Vienna Initiative is the obligation to preserve the level of net investments in Serbia by the end of 2010 and the strict regulations of the NBS regarding the foreign currency risks prevent the subjects from doing that. The depreciation of dinar would considerably decrease import (of very luxurious goods) due to lower salaries and pensions.

On the other hand, this would not increase export much; however, domestic production (domestic demand) would grow, and it would be more competitive under such circumstances because of more expensive imported goods, which would lead to a greater number of workplaces in the country (unemployment would decrease). The present crisis, that is low demand, prevents enterprises and importers from increasing prices and if euro gets stronger, the effect on inflation would be relatively modest (for example, if euro increases by 4 dinars, the additional price growth would roughly be around 1%). So the deficit would be bearable, the domestic export would recover and the economic growth could be based on a more healthy basis, or to put differently, this export would affect the world demand as well as the level of

<sup>23</sup> <http://blog.b92.net/text/13925/Depresijacija%20dinar-dobra%20solucija/>

specialised products intended for export. It goes without saying that the adjustments to the exchange rate would motivate the export sector which would rely on the innovation-oriented enterprises ready to put in motion the growth of other sectors of economy.

Thorough reforms would ensure a greater inflow of direct foreign investments which would significantly increase the export and competitiveness, and bring modern technologies, necessary resources for certain economic branches, necessary management and market. For example: thanks to the Free Textile Trade Agreement with the European Union signed in 2005, the textile industry of Serbia has a record of constant growth of production, volume and value of export, as Vesna Vasiljevic, Secretary of the Association of the Textile Industry at the Chamber of Commerce of Serbia says. She points out that the market of the European Union in which our textile workers operate is the market in which they have greatly invested – around 2 billion dollars. She also welcomes the Interim Trade Agreement with the European Union and the Free Trade Agreement with Turkey which is signed although not ratified yet in the Turkish Parliament. Ms Vasiljevic mentions the possibility of applying the diagonal cummulation of goods origin, which gives the textile workers yet another incentive for work.

'In Turkey we will be able to purchase raw materials important for production and together with our partners make a final product, which will be launched in the market of the regional countries and of the EU free of customs duties,' Ms Vasiljevic says. She also adds that for years textile workers have been insisting on lower state taxes since every country offers special conditions to the sectors of crucial importance and thus helps their further development. If the government is willing to lower taxes from 63% to 40%, that will help this sector enormously. The textile workers could introduce innovations into technology and increase the income, which is minimal in this industry, and they will also be able to offer jobs to a large number of unemployed people without greater investments. Ms Vasiljevic says: "We plead with the government not to increase the value added tax and to make possible for those who purchase equipment to pay the value added tax within a reasonable deadline." This means that it is necessary to institutionalise the appearance of our economy in the foreign market.<sup>24</sup>

The present economic situation of non-competitive economy and low level of export causes a high deficit of current transactions; in other words, in order to reduce this deficit at about 11% of GDP in 2005, the monetary and fiscal policy as well as income policy have been sharpened to reduce domestic demand and speed up the structural reforms by help of which the macroeconomic balance is to be accomplished. The aim is to bring the external current account deficit to about 7% of GDP in the following years and in that way create a balance between the domestic and the foreign market. The external current account deficit of Serbian balance of payments sheet in euros was reduced by even 71% during the eleven months in 2009 as compared to the same period in 2008, as is stated in the latest issue of 'Konjuktorni Trendovi', a journal published by the Serbian Chamber of Commerce. The necessary conditions for solving the fiscal imbalance, the external current account deficit, inflation and unemployment are a strong banking system, rigid monetary and fiscal policy and fast structural changes. At the same time, these are the challenges imposed by the economic and structural policy.

The macroeconomic imbalances in 2008 are seen in high inflation (9.5%), high unemployment rate (18.6%), high fiscal deficit (2.0 % of GDP), high external current account deficit (18.3% of GDP), that is, these are all warnings pointing to the existence of a serious economic crisis in the country and an unfavourable condition of its balance of payments. Reducing this imbalance requires a shift in the economic policy, that is, the effective and irrevocable removal of these imbalances can be only obtained by the completion of all economic reforms. The high foreign trade deficit is primarily generated by the insufficient volume and participation of export

<sup>24</sup> <http://www.pks.rs/tabid/1785/Default.aspx?iditem=9722&idjezik=1&idchannel=76&idlevel=213&newsperpage=1a10>

of goods in the GDP, which at the beginning of the process of transition in 2001 was 15.7%, then it increased and in 2007 mounted to 22.1%

The share of exports in GDP is somewhat higher (21% and 29.9%, respectively). The countries of the similar size exchange between 50% and 80% of GDP with the world (import + export), which exactly shows the greater openness of their economies. A positive trend is seen in faster export growth of products and services of over 20% a year, realized in all three years of the given period. The export structure is such that the leading export products are iron, steel, tires, aluminum plates, sugar and corn.

Agricultural products have significantly increased their share in the overall export thanks to the preferential status Serbia has in the EU market and the liberalization of goods exchange among the West Balkan countries. The growth of textile industry products, although based on the preferential treatment of these products by the EU, has significantly improved the export structure. The world prices increase of basic metals and the growth of the world economy have also helped Serbia's faster development. As far as import is concerned, the main products are oil, gas, automobiles and medicines. From the point of view of external balance sustainability along with its first unpostponable consolidation, and then external liquidity ensuring in the next mid-term period, it is necessary to reduce the current account deficit. This should be accomplished through the faster economic growth, export growth, a greater number of investments and by the reduction of public consumption.

In transitional economies the current account deficit cannot be avoided in the process of economic development, but it can cause a financial and monetary crisis due to implicated structural imbalances followed by the inadequate monitoring of the banking system, the fiscal reforms that have been postponed and insufficient radical measures in accordance with the adjustments of the tax system and public consumption. Such deteriorations in the macro-financial position can be additionally deepened by problems in servicing interest rates. The process of slowing down the growth of foreign currency reserves appears as a signal that certain difficulties are likely to occur in covering a high current account deficit.<sup>25</sup>

The NBS data show the gross inflow of foreign direct investments in the amount of 1.15 billion euros on the part of capital and financial balance, and the estimate for all twelve months in 2009 is about 1.3 billion euros. Net inflows of current transfers amounted to 3.2 billion euros, which is 36 percent better than in the same period last year. The balance of exchange with foreign countries, according to the NBS, expressed in dollars, during the eleven months of the last year was almost balanced as stated in the journal 'Konjuktorni Trendovi'. However, there was a deficit balance of services in this period of 2.4 million dollars, and it was 267.1 million dollars in the same period in 2008.

Reducing the deficit does not happen as a result of export growth; it is the outcome of a more dynamic decrease of imports rather than exports. Exports of services attained the value of 3.122 billion dollars and 3.124 billion dollars of imports. The coverage of imports by exports during the eleven months of 2009 was 99.9 percent. In contrast with the same period in 2008, revenues from export services in Serbia have dropped by 15.5 percent and expenses by 21.1 percent of imports.<sup>26</sup>

## **SERBIA IN THE PROCESS OF CREATING AN OPEN COMPETITIVE ECONOMY**

In its developmental (innovative) phase, Serbia ought to build an open competitive economy which relies on knowledge and which means stronger institutions as a key factor of competitiveness and development. This further means increased resources and higher level of technological development and along with that greater volume and higher quality of products and services. Incomplete and non-functional legal and infrastructural social order Serbia has is

<sup>25</sup> The end of October 2008, Source MFIN, NBS

<sup>26</sup> <http://www.poslovnimagazin.biz/vesti/deficit-tekuceg-racuna-u-2009-smanjen-71-1-5158>

a serious developmental limitation. The state economic policy regulates the allocation of resources according to the most efficient uses, it limits the registration and protection of property rights, the registration and monitoring of obligations and accounts receivable, and even delays the country's competitiveness and development. In such an environment enterprises cannot develop entrepreneurial abilities and rise the level of business performances and their own competitiveness.

Today it is obvious that economic reforms and the process of transition are to encompass microeconomy of the Serbian economy more seriously and enterprises should take a dominant and active stance in relation to strengthening their own competitiveness, since the active approach does not mean enterprises only follow modern trends actively and take interest only in getting a bigger market share. It is necessary for them to recognize and develop their own internal abilities and develop a proactive and flexible attitude. Innovative, open and flexible enterprises should develop critical factors of success as a precondition for strengthening their own strategic position and competent business strategy through the process of advancing business competitiveness. This process of increasing competitiveness of Serbian enterprises has to rely on the following: 1) strong market orientation, 2) innovations and flexibility, 3) development of entrepreneurial culture, 4) development of competences, and 5) developed leadership and management.

Serbia faces new challenges regarding the improvement of competitiveness which is the result of its entering the innovation phase, while the future requires the fulfilment of even more qualitative demands. Therefore, the key factor when innovations are in question is the human capital, in some cases called 'intangible asset' which makes even 90% of the company's value and confirms the opinion that knowledge seen in a number of competences as a series of skills, is of crucial importance in defining the company's competitive position. A strong expressed need for specialised knowledge and skills is one of the more dominant characteristics of the contemporary business world.

With regard to all that has been said, companies need human resources capable of conducting expertises, critical and analytical thinking, and finally of synthesizing. The management of human resources is very important as it directly improves quality and productivity, and along with that competitiveness, but at the same time this resource needs to be permanently developed and improved. This means that every company needs professional training, consulting support and education; it also needs to develop special professional managerial skills with employees occupying a dominant place in the company's business policy.

## **CONCLUSION**

Accepting the new concept of creating and sustaining competitive advantages on the basis of scientific knowledge and technological development through the inflow of foreign direct investment as a relevant factor of development, creates conditions for research and technological production of goods and services in the production structure of Serbian economy. The implementation of such development strategy would enable Serbia to overcome the up-to-now used concept of competitiveness based on the use of comparative advantages in cheap, less qualified work, natural resources and favourable geographical position. Increasing competitiveness of the real and financial sector along with competence of the public sector is the basis of national prosperity. Although the growth of GDP is an economic indicator of economic success which primarily relies on demand, it is more and more based on the factors related to supply: investments, competitiveness and productivity. The contribution of productivity to the economic growth was significant as shown by the annual average productivity growth rates in the period from 2001 – 2008: it was 6.2%. The growth of economic activities and export is scattered across different economic industries in the country, that is, the sectoral contributions to the growth come from the service sector, especially telecommunications, wholesale and retail trade and financial intermediation.

Increasing competitiveness of Serbian economy, especially its export-oriented sectors, means a significant advancement of general competitive factors such as macroeconomic stability and participation in global and integration processes, the quality of the legal state, the quality of the economic policy and of legislature, which all create an economic ambience for enterprises and an economic growth through the process of macroeconomic stability, institutional development of the financial sector, economic development of the infrastructure, the quality of science and technological development, the quality of education and human potential, the quality of management.

In contrast with highly developed countries focused on the development of sophisticated high-tech products along with huge investments in research and development, Serbia and its economic policy ought to motivate those products and services which could be competitive, and it should encourage export and foreign currency inflow based on pricing and technological competitiveness. Here the key role belongs to innovation-oriented development strategies and the reformed educational system based on research and science.

Company's competitiveness is determined by technological and organisational adjustments a company is capable of, and by strengthening business, financial, marketing and technological abilities of the company to change the existing sectoral and market structure and to adapt to such structural changes. Companies as the main carriers of development, in conditions of increasing scientific inventions and technological innovations and a strong competitive pressure on the open market, are to reduce costs and through the technological development increase the quality, function and other performances of products and services and in that way increase their pricing and technological competitiveness in the domestic and foreign market. Under such circumstances companies are motivated and they are oriented toward the scientific development of their own technologies and the procurement and improvement of the technologies of foreign origin. The Republic of Serbia is by a number of parameters on the development crossroads meaning that it is necessary to change the development concept and the system in which it is realized if the country is to make progress.

If an enterprise is not competitive enough and if the financial or public sectors are insufficient, that is a sign that the concept used so far has not been efficient or successful enough, and that the development strategy and the political, economic and legal systems have also failed.

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