

# INTERNATIONAL BUSINESS AND MANAGEMENT CONFERENCE

Organised in cooperation with MacEwan University, The Institute of Eastern Europe and Central Asia, University of Hradec Králové, The Canadian Chamber of Commerce in the Czech Republic, and the Cross-Cultural Management Centre of the University of Economics, Prague.

**11-12 November 2016**

**Vysoká škola ekonomická v Praze**

## CONFERENCE PROCEEDINGS

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# International Business and Management Conference

## Conference Proceedings

### Organising Institutions

University of Economics, Prague (Czech Republic)  
MacEwan University (Canada)  
Institute of Eastern Europe and Central Asia (USA)  
Cross-Cultural Management Centre (Czech Republic)  
Centre for Digital Transformation (Czech Republic)

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Dr. Felipe Martínez (University of Economics, Prague)  
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### Conference Venue

11 – 12 November 2016  
Hotel Don Giovanni  
Vinohradská 2733/157a, 130 20 Praha 3-Žižkov

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## Conference Schedule



### Friday, 11 November

| Time          | Event                      | Notes   |
|---------------|----------------------------|---|
| 08.00 – 09.00 | Registration and Cloakroom |   |
| 09.00 – 09.30 | Welcome Speeches           | VŠE, MacEwan University, IEECA, University of Hradec Králové              |
| 09.30 – 10.30 | Prof. Henry Mintzberg      | Rebalancing Society   |
| 10.30 – 10.45 | Break                      |   |
| 10.45 – 11.45 | Prof. Yadong Luo           | Global Connectivity and International Management                          |
| 11.45 – 12.00 | Free time                  |   |
| 12.00 – 13.30 | Lunch                      |   |
| 13.30 – 14.30 | Mr. Thomas Hanson          | Pushback: Reflections on Global Economic Trends and Political Flashpoints |
| 14.30 – 14.45 | Break                      |   |
| 14.45 – 16.30 | i4 Round Table             | Process Improvement and Technology  |

### Saturday, 12 November

| Time          | Event            | Notes   |
|---------------|------------------|---|
| 09.00 – 12.00 | Track sessions   | Organisational Development<br>Workforce Diversity and Multiculturalism<br>International Trade |
| 12.00 – 12.30 | Conference Close | Farewell Address  |

# Conference Programme

## ORGANISATIONAL DEVELOPMENT TRACK

**Chair: Dr. Jennifer Bowerman**

| PRESENTATION TITLE  | AUTHOR   | AFFILIATION  |
|---|--|--|
| Action Learning Questions: Making Sense of Organisational Chaos   | Dr. Richard Hale<br>Dr. Jennifer Bowerman          | Action Learning International (UK)<br>MacEwan University (Canada)              |
| The Impact of Opportunity Management on the Relationship Business Model   | Dr. Bartosz Deszczyński                            | Poznań University of Economics and Business (Poland)                           |
| Coexisting Parallel Configurations: A New Model of Institutional Stability and Change   | Dr. Bernard Williams                               | University of Lethbridge (Canada)  |
| The missing dimensions of knowledge transfer from subsidiaries to headquarters: The Case of Oil and Gas Companies in the CEE Region | Professor Dr. Stefan Güldenber<br>Dr. Emil Velinov | University of Lichtenstein<br>University of Economics, Prague (Czech Republic) |
| Organizational Development of Russian SMEs: Current Trends  | Dr. Emil Velinov                                   | University of Economics, Prague (Czech Republic)                               |
| Promoting Organisational Development in the Knowledge Economy: The T-shaped Capacities  | Dr. Cristina Simone<br>Dr. Marcelo Conti           | Università degli Studi di Roma La Sapienza (Italy)                             |
| Compositional Advantage and Strategy: Understanding How Resource-Poor Firms Survive and Thrive                                      | Dr. Xin Li   | Copenhagen Business School (Denmark)   |

## WORKFORCE DIVERSITY AND MULTICULTURALISM TRACK

**Chair: Dr. Vidya Sagar Athota**

| PRESENTATION TITLE  | AUTHOR               | AFFILIATION  |
|---|----------------------|--|
| Understanding Employee Voice Cross Culturally: Does Being Collectivist Matter?                          | Dr. Ela Ünler        | Bahcesehir University (Turkey)                           |
|   | Dr. Sibel Çalışkan   | Istanbul Bilgi University (Turkey)                       |
| X-Culture: An International Project in the Light of Experience Gained over the Years (2010-2016)        | Dr. József Poór      | J.Selye University and Szent István University (Hungary) |
| Group Membership Salience and Persuasion:   |                      |  |
| The Effect of Cultural Salience on Processing Strategies  | Dr. Rickard Enström  | MacEwan University (Canada)                              |
| Top Management Team Diversity and Company Performance: The moderating effect of Organisation Life Cycle | Professor Milan Malý |  |
|   | Dr. Emil Velinov     | University of Economics, Prague (Czech Republic)         |
| International Returnees and the Scaffolding of Knowledge across Boundaries                              | Dr. Michael Roberts  | MacEwan University (Canada)                              |
| Predicators Influencing the Quantity of Lawsuits Against Foreign Companies                              | Dr. John Mezias      | University of Miami (United States)                      |

## INTERNATIONAL TRADE TRACK

**Chair: Mr. Radek Liška**

| PRESENTATION TITLE  | AUTHOR              | AFFILIATION                            |
|---|---------------------|--|
| Sanctions and Trade Relationship: Effect on Russian-China Cooperation | Dr. Nikolay Megits  | Hamline University (United States)     |
| Founding Environment, Inward Internationalization, and Performance:   | Dr. Hongxin Zhao    | Saint Louis University (United States) |
| Insights from Imprinting Theory                                       | Dr. Jieqiong Ma     | Hofstra University (United States)     |
| Network Structure as a Determinant of                                 |                     |  |
| Foreign Direct Investment Based Competitive Advantage                 | Dr. Pınar Büyükbacı | Yıldız Teknik Üniversitesi (Turkey)    |

Impact of Russia-China Trade  
Relationship on the Global Economy

Dr. Nikolay Megits

Webster University  
(United States)

## PROCESS IMPROVEMENT AND TECHNOLOGY TRADE TRACK

**Chair: Dr. Felipe Martínez**

| PRESENTATION TITLE  | AUTHOR                   | AFFILIATION                                     |
|---|--------------------------|---|
| A Comparative Study of the Impact<br>of ISO9000 Certification on<br>Organizations                         | Dr. C. P. Kartha         | University of Michigan-Flint<br>(United States) |
| Lean Innovation Capability:<br>Applying the Construct in the East<br>European<br>and Central Asian Region | Dr. William H.A. Johnson | Penn State University- Erie<br>(United States)  |

## Conference Tracks

# Organisational Development



## **Action Learning Questions: Making Sense of Organizational Chaos**

By Dr Richard Hale, Bristol, England, UK and Dr Jennifer Bowerman, Edmonton, AB Canada

Organizational Development Paper for presentation at International Business and Management Conference, University of Economics, Prague, November 11, 12, 2016

### **Abstract**

This article uses a dialogic and questioning approach between the two authors, to explore how action learning questioning as a process has been used to create transformation and capability in some organizations impacted by massive change. Action Learning, based on the original work of Reg Revans, is a question driven approach enabling complex business issues to be explored through action and reflection with fellow set members. The authors narrate how such an approach has been used as the foundation for programs of professional development qualifications, with the assistance of some universities willing to forego their usual practice of teaching and testing concepts and theories, acknowledging that these new business development programs can succeed in bringing about results, resilience and competence in workforces battered by change fatigue and chaos. Too often organizational development concepts have become dry theoretical concepts in text books. This exchange demonstrates how they can come to life through questioning, reflective action and organizational support using evidence from major programs now underway in government and commercial sectors in the UK. The authors demonstrate how Action Learning Questioning based initiatives have the capacity to build social capital, and generate effective learning in complex and rapidly changing business and organizational environments. It concludes with suggestions for the future.

Key words: Action Learning, Organization Development, The Learning Organization, Chaordic Organizations

### **Introduction:**

Organizations today, whether private or public, are messy. Battered by the speed of change, needing to be constantly innovative, and responsive, traditional bureaucracies with their “distinct ethos, slow, inefficient and impersonal” (Osborne and Graebler p. 14), have been swept away. New rules, austerity, privatization, technology, globalization, different skills, changing hierarchies, the nature of knowledge itself, different relationships, changing demographics, all these factors and many more, have impacted work, how we do it, and what we can expect from our efforts, whether we work for a business or a service organization within a bureaucracy. Management theories may be useful to know, but without support in terms of their implementation, they often fail in terms of necessarily delivering the business and organizational results we wish to see.

In many respects, we may call today’s organizations chaordic – where the familiarity of order has been displaced by disorder, compelling us to recognize that ‘business as usual’ no longer works as an organizational practice or intention. Managing change from the top often does

not recognize the experience and learning that employees carry in their heads. When the former machine model of Frederick Taylor meets the complexity of disequilibrium (Prirogine and Stengers, 1984), it leads to organizational and business problems that are difficult to resolve without the involvement of those who are actually caught up in the change process itself at the line level. Having to constantly adapt to a changing environment without the clear certainty of even what the change is, is difficult to say the least, and can result in serious fatigue and dysfunction.

This paper is about the authors' management experiences drawing on an approach to organisation and professional development called action learning. This is based on the life-long work of Reg Revans, and in particular the focus on insightful questioning, where groups of 5-8 persons, known as an action learning set, address complex business and organizational issues, and then take informed action from which they continue to learn. Both authors are highly skilled action learning practitioners, achieving doctorates using the practice, albeit one has spent many years teaching previously published material and theory in traditional teaching forums such as universities, whilst the other has pursued the practice of action learning in commercial, public and third sector organisations.

The methodology of this paper is in itself action based in that its core is an interview between the two authors as reflective practitioners demonstrating both the theory of action in terms of their respective experience and the learning that has accrued. Furthermore, the dialogue and shared reflection of our own experience has created a new level, or cycle of understanding which it is hoped will be enhanced further through wider sharing with professional and academic communities, including via this paper and its presentation at the International Business and Management Conference, University of Economics, Prague, November 11, 12, 2016.

Thus, the paper demonstrates the following:

- 1) It documents via an interview format between the two practitioner authors, what can be achieved through action learning as a practice in an organization and thus serves to demonstrate some of the successes and some pitfalls. Action learning is in itself a questioning process. This paper uses questioning where one author asks questions of the other, as a means of explaining through narrative and reflection how action learning has been transformative for some organizations.
- 2) It summarizes a formal Action Learning Question process which can work in an organization to both effect change and build the competence and learning of organizational managers, leaders, professionals, and employees simultaneously. Included is information from a recent action learning initiative which has some significant results in terms of building capacity for change.
- 3) It demonstrates how traditional programmed knowledge from the field of organizational behaviour and organizational development can be transformed into action based behaviour and learning.

4) Finally, the authors offer some concluding thoughts on the value of such initiatives and consider 'Where to next?' including some proposals regarding the role of academic teaching and research in the field of organisation development, change and behaviour.

Critical Questions and Responses From one practitioner to another

Jennifer Bowerman (JB) asks her colleague Richard Hale (RH) to tell us about his experience with Action Learning

**RH**

When Jennifer and I first met, in the UK, we were both completing our action learning based doctorates with a professional organization supported by a university. The organization was dedicated to building the professional development of business leaders through access to qualifications using action learning. My doctorate, under the supervision of Dr. Alan Mumford who co-authored the Honey and Mumford learning style preferences questionnaire, was about how coaching and mentoring supported learning for individuals and businesses. Shortly after my graduation I was invited to address two challenges, one from a large banking group in the UK, and the other from the action learning professional institute. The bank wished to run a senior leadership development program which focused around real organizational challenges but which would not take its executives away from the business for too long and which delivered impact for the business. The professional institute wanted me to look at their qualifications, and the extent to which they were genuinely using the principles of action learning in their design.

As a result of these two experiences, I ended up helping to develop the Action Learning Question process which enabled us to offer a route to the first fully organisation based Action Learning based Master's degree in leadership for a finance business in the UK. Managers on the program would negotiate real organizational and business challenges and articulate these in the form of a question. The question would be agreed with key stakeholders in the business and approved by their academic supervisor and would inform a process of investigation, work with the action learning set (5-8 people), and the necessity to take informed action. Also, they would summarize their learning in the form of a written paper or report which would be assessed and accrue credit at a Masters level.

JB: What sorts of questions did the participants actually address?

**RH:** Action Learning Questions have to be based around real organizational issues. Action Learning is business driven. So, in the bank at the time they faced significant challenges around impairments or bad debts, staff engagement, and some key strategic decisions around whether to maintain a branch structure. These sorts of issues became the basis for the action learning work of participants. By addressing these intractable and complex multi-faceted problems, participants would support each other in working out how to proceed. These were the kinds of questions which the most senior people in the business knew would present a challenge for the future, but they realized they could not be tackled by simply turning them into a project plan. There were too many unknowns and options to the extent that even those leaders at the very top did not know what to do next.

**JB:** This is clearly a very business relevant approach. How do you gain commitment from the very top of the business? Don't those at the top fear a loss of control? Certainly, this has been my experience whereby those top managers seemed to fear these kinds of initiatives, and while they understood formal university programs (which Revans would have called P, as in Programmed Knowledge), and actually partook of them, the possibility of using action learning as a business development program within the organization seemed to pass them by. How have you managed to get around this kind of reaction which speaks to a need for control, power, and politics and a fear of letting go?

**RH:**

Sure, you need commitment from the very top to embark on such a program which is about developing the organization rather than simply running a training program. I was fortunate in that the first two clients I worked with did show a commitment from the very top. We actually formed a steering group with the Managing Director as the Chair and the HR Director, various learning and development professionals and other directors and eventually participants as members. It may take time to form such a group, because this type of program does require a good ally inside the business. We also trained line managers of participants to become effective mentors and supporters of the program to ensure they did not feel marginalized. But it always was a learning process.

**JB:**

How does a university fit into such a program? What has been your experience?

**RH:**

Universities that accredit this kind of program also have to realize that they are breaking new ground. First, they have to recognize that they are not accrediting knowledge based content which is the P or programmed knowledge in the famous Revans equation – Learning (L) = Programmed Knowledge (P) + Questions (Q). Universities and business schools are very familiar with managing, working with, teaching, publishing and claiming programmed knowledge. However, they are less familiar with accrediting the process of rigorous learning at a Masters level where the nature of the knowledge being gained is different for all participants and determined by a question about the business and determined by the business rather than by the faculty of business school. Fortunately, there are a few business schools and universities that have developed an effective process and systems for helping people who are working to capture and put forward their work based learning for accreditation.

This does however require a very client centred approach. Within such a programme, the role of the university or business school is to ensure that rigorous standards are maintained in terms of the level of work which is presented and assessed. What is being assessed is not so much the acquisition of content based technical knowledge, but the capability of managers to work at a particular level intellectually in terms of their ability to define problems, to manage their own learning and to apply analytical skills as they proceed with action in a change environment. Given the accelerating rate of change, I believe that this approach to

accreditation will become increasingly important in the future. I have been fortunate to find various accreditation partners within the traditional world of the university, over the past fifteen years who have had the vision to recognize that the academic and intellectual rigour lies in the ALQ process rather than in the requirement to produce huge knowledge-based program designs.

**JB**

Tell us more Richard, about where else you have been able to apply the ALQ process to leadership and development?

**RH**

It has been used to support continuing professional development (CPD) in the field of business accountancy. Rather than accountants accruing their CPD credits by simply counting the hours spent at external workshops, they tackle Action Learning Questions around important business challenges in their field over a period of four months. We have also applied this to some emerging professional fields in the context of global outsourcing. It has also been used in not for profit organizations to help them address challenges around governance and strategic changes necessary because of changing external environments as in Australia. Importantly, over the last two years it has been applied to the UK Civil Service as part of an organization development capability program. Working hand in glove with a company of Organization Development specialists – Mayvin, we have been able to develop an accreditation program where Human Resource and Organization Development specialists have been able to confront the changes they are experiencing by learning, or in some cases, re-learning the OD theories and concepts, but bringing them alive as they selectively use them to expand their practice through action and reflection. Again, like the master's programme in the bank, here they tackle thorny business-related challenges using a Questions driven approach. They work at postgraduate level, but not in order to learn theory for the sake of it – they are concerned with improving their own professional capabilities and practice and at the same time improving their business.

**JB**

This is of course where I have come into the picture, because I have been introduced to the program as a result of my role as a second assessor for some of the written papers that have been completed. I worked in the public service myself in Canada and many of the issues raised by the participants were incredibly familiar to my own work experience and indeed reflected issues raised by my own doctoral work. I want you to tell us more about the program and why you believe it is so important? How in your opinion does it build social capital and hence a learning organization which is of interest to both of us?

**RH**

Right now, it is an ongoing program, with more than 200 civil servants mainly from Human Resource business partner type roles so far, who have completed an Action Learning Question (we call it an Organisation Development Question in this case) focused on a real organizational challenge. As a result of leading the Action Learning component of the program, I recently

worked on an action impact review drawn from around a million words written by participants about the nature of the questions and challenges that they had addressed through their work on the programme. This is large scale. The program has spanned across a number of ministries, departments and agencies of the Civil Service. There are many examples of learning documented that have clearly had a significant impact on the participants, including the manner in which they approach their internal clients, the methods they use to develop client relationships, and the techniques that they apply in working with teams within the business. There is much more to be written about this program, but it is apparent even at this point that there are significant benefits to running a program on this scale over time. There is indeed clear evidence of the development of social capital across the service. We are seeing impact on the internal civil service in terms of the participants, but also some cases impact on the service being delivered to their external clients, often the public citizens.

Social capital is developed as a considerable number of people have acquired some common knowledge of the tools, methods, and ways of thinking around organizational development. But perhaps this is only a part of the story. Significant social capital has been created by the formation of both formal and informal networks which span across different departments and different levels. Participants have been required through completion of their ALQ OD projects to engage with key stakeholders within the business. We are now investigating the extent to which there has been a knock-on effect in terms of learning being transferred to such stakeholders.

After 15 years of this kind of work, I can now state that we are close to supporting the development of a learning organization. This is not easy because in some early experience with other organizations, I found that just as we were gaining organizational momentum, a significant reorganization would take place, and often the program which was having such an impact was associated with the old regime, and quite often the baby was thrown out with the bathwater! This relates to another challenge really – how to sustain learning across organizations over time.

**JB:**

My own real observation within the papers I have read and assessed was the extent to which so many of the participants were able to bring organizational theory to life. Teaching the theory without a need to address organizational or business issues always, at least for me, seems to have limited value. This program allowed people to learn about a significant organizational and self-development theory and then actually choose to use the most appropriate components to achieve their business goals and solve problems on the ground. The presence of Action Learning Sets and the written ALQ components served to build ongoing reflection and assessment in terms of their overall value. So for me, actually reading these papers was a very powerful learning experience. As a final conclusion, would you care to comment on how theory and practice come together as we make our way through what can often seem like chaotic organizations?

**RH:**

It is important to note that we are working with practitioner leaders and managers who are faced first and foremost with significant organizational challenges. These might relate to real financial, project, team, or people issues. We should not start by teaching managers the topics of HR, finance, or team management as discrete subjects. We start by helping them to articulate their real problems as questions. Once they have done this, they can use a process we call Knowledge Mapping to work out what theory might be relevant for them to research, or what models or tools are appropriate for them to apply. We also bring to the fore something not often talked about at business school. This relates to the power, political, values, and cultural issues which are often left suppressed underground. The process of knowledge mapping assists in helping people define what they know, what they believe might be true 'underground', and what they believe could be true as they search the 'sky'. Recognizing the sensitivities of how people really feel in organizations helps to bring them to the surface in a constructive way, and allows the types of theory you have mentioned, to be applied to live issues.

Whereto from here – Thoughts going forward? Some joint observations

Clearly the problems facing organizations are not going to become any easier. Consideration of global trade agreements which have to be implemented, the implications of referenda such as the recent Brexit vote in the UK, the global displacement of people, global health issues such as Ebola, climate change, political turmoil - all of these and many more, mean that the services and organizations we have always taken for granted, are hugely challenged. Our current reality is that change is happening at an unprecedented rate. It has been suggested that change will soon be occurring at 10 times the speed and 300 times the scope of the Industrial Revolution. Yet the first principles of Action Learning were derived by Reg Revans from the context of change back in the 1930s, almost 90 years ago and are as relevant now as they were then. Revans developed his concepts and practice out of his original work as a research scientist at the Cavendish Laboratories in Cambridge, under the famous Ernest Rutherford, recognizing that his fellow scientists, many of whom were Nobel prize winners, were facing challenges in atomic physics that had never been faced before. There was no book or authority to provide answers. Having the wisdom to recognize that they needed to 'trade in their ignorance', these scientists became incisive questioners and learners. As they asked insightful questions of each other, they found a route forward through collaboration, working as 'comrades in adversity'. This is our reality today.

Both authors of in this paper recognize that unless people are engaged in the thinking and decision making about the work they do, they will have low commitment to new ways of working imposed from above or from the centre. They will become cynical as they recognize that their own insights are ignored. Overall 'change competency' is low, and even with external training and development programs, often underfunded, the results all too often leave much to be desired. Action learning as a process in organizations, addressing real organizational and business issues, can only build competence. It can shift patterns, and build behavioural change, as the results of these programs described above demonstrate.

We recognize that the call for action learning programs to be implemented and documented can only help to build a necessary momentum. The programs referenced in this paper are building professional qualifications through the Action Learning Questions process described above and they have a major contribution to make for all workforces internationally which are racked by tumultuous changes never envisaged before.

This paper merely represents a taste of what is possible when organizations can make the space for people to acknowledge what they do not know, hold back from prescribing solutions, and allow those involved in change on the battle lines, to lead the way.

### **Postscript – The Role of Academia and Business Schools**

Finally, some thoughts on the role of international universities and business schools in making a positive contribution to this agenda. The first draft of this paper was prepared as an Organizational Development Paper for presentation at International Business and Management Conference, University of Economics, Prague, November 11, 12, 2016 in the stream called Organisation Development. This was at a time globally when we were experiencing a sense of not knowing, of fear of uncertainty based on major world events such as the USA election of Donald Trump, the Brexit referendum result in the UK, and ongoing threats to international security accompanied by a continuing refugee crisis. These compelling macro issues featured highly in the presentations given by other speakers, notably Thomas Hanson a former USA diplomat and the renowned Professor Henry Mintzberg, writer around strategy, leadership, and organisations. Perhaps it was a mark of these figures that they were willing to stand as such ‘experts’ in front of conference and admit they did not have the answers. It brought to mind the point made by Reg Revans that when in a state of ignorance, we need to acknowledge this and work with our ignorance by developing appropriate questions that support collaborative thinking, learning and action.

It was also noticeable to the authors that at this conference several international university and business school scholars presented their work in the field of organisation development. Presentations included for instance studies of the challenges of establishing Small and Medium Size Enterprises (SMEs) in Russia, the motivation of demotivated business school students in an undergraduate programme, a study of the sales process in the Polish housing industry and the development of a proposed model for conceptualising the capacities and capabilities of organisations in the knowledge economy.

Perhaps not surprisingly as this was an academically oriented conference, the dominant methodological paradigm of the research reported was from a scientific, positivist ontological orientation. Within such a paradigm, researchers tend to lean towards methodological approaches that include literature reviews, survey analysis and quantitative data processing. In these cases, researchers and/or their institutions had separated quite clearly theory from practice. They were more concerned with theory than practice. When the presenters sought ideas on what might be the next stage of their



research the suggestion that the authors of this paper made was that they might move into action. We suggested they could engage with the organisations they were researching, involving them as active and interested co-researchers seeking to understand and address the problems they face on the ground. Such an approach would mean embracing action research methods and recognising the value of collaborative action learning. Professor Henry Mintzberg in his book 'Managers Not MBAs' provides an excellent critique of the way in which the dominant method of teaching management and leadership to future organisation leaders, the Harvard Case Method, has failed to impact business and society positively. This was written somewhat prophetically just before the 2008 global financial crisis. To paraphrase and update the observation of Reg Revans – action learning is so simple a concept it has taken universities some 90 years to fully misunderstand it. And back to Mintzberg who now implores us to rebalance society, perhaps the question we should consider is how can we break down the barriers between those sectors representing public, private and plural, or commercial, government and education sectors and work collaboratively to effect action and change across all three?

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**THE IMPACT OF OPPORTUNITY MANAGEMENT ON THE RELATIONSHIP BUSINESS MODEL  
(A STUDY IN THE POLISH HOUSING INDUSTRY)**

**ABSTRACT**

This paper illustrates the level of proficiency of multistage and multi-channel dialogue between the customers and the companies on the example of opportunity management conducted primarily in the Polish housing industry. Opportunity management (also called lead management) is an initial customer relationship management (CRM) process that connects the sales persons and the customers ready to make a purchase. Unlike the other processes its close link to transaction makes it ideal to achieve quick-wins making CRM business case cogent. However, the research shows that the companies have severe problems in sustaining coherent dialogue with their prospective buyers what possibly reflects their relationship management immaturity. The aim of this article is to explain the nature of this phenomenon and its impact on the relationship business model.

**Keywords:** customer relationship management, housing industry, lead management, multi-channel dialogue, opportunity management, Poland

**INTRODUCTION**

Opportunity management is an acquisition process also known as lead management aimed in systematic registration and processing of information about customer interest in company offer (Baran & Galka, 2013; Deszczyński, 2013). It is usually classified as initial customer relationship management (CRM) process or sub-process, which facilitates sharing customer insights from non-transactional to transactional points of contact (Kotarba, 2016; Deszczyński, 2005). Unlike more long-term oriented CRM processes as loyalty management or anti-churn management, opportunity management offers a close link between customer care and the calculable financial results. Hence one can propose a thesis that proficiency in dealing with the leads can act as an indicator of the overall corporate relationship management maturity.

The article presents the findings of multistage and multi-channel mystery client research conducted in the Polish housing industry. The results are also confronted with earlier research conducted in automotive and tourist industry. In contract to the other commercial studies, in this research not only initial response time and overall success rate was investigated, but performance of the whole process starting from the first online enquiry to personal and follow-up contacts.

## **THE THEORETICAL FRAMEWORK**

The essence of opportunity management is to provide prospective buyers (loyal and new customers) with useful information and solutions in the right place and at the right time. It can take form of a prompt reaction to the submitted requests or a proactive proposal based on processed customer knowledge. Even if traditionally so called hot leads (customers determined to buy immediately) were perceived as most valuable (Sauberlich, Smith & Yuhn, 2005), opportunity management has to be perceived in broader perspective, as an initial CRM process (Bueren, Schierholz, Kolbe & Brenner, 2005; Rigby & Ledingham, 2004). In this context opportunity management can be also defined as consolidation, qualification and prioritization of contacts with the prospective buyers (Salomann, Dous, Kolbe & Brenner, 2006).

The effectiveness of opportunity management relies heavily on cooperation between different groups of employees: the customer contact center teams, sales force and the marketing teams. Servicing customer enquiries, generating, scoring and qualifying leads and finally managing the sales process requires sustaining professional online dialogue without any discontinuities between various communication channels. This is of crucial importance, because according to contemporary media multiplexity theory, the multimodality – the use of multiple media, is positively linked with the relationship's strength or so called level of interdependence (Ledbetter & Mazer, 2014; Haythornthwaite et al., 2007). Hence a well-organized lead management process will transfer the customer from the initial point of contact to the stage where his needs can be addressed (McGinnis & McCarty, 1998).

Supporting dialogue requires integrated, gradual customer data build-on and seamless information sharing in a group of customers facing personnel (Payne & Frow, 2013). Data integration is usually supported by an appropriate ICT tool (especially in the bigger organizations), but the human factor seems to be the most decisive one, especially at the cut-points of the online and offline communication channels. Therefore, even connecting every point of contact to an integrated ICT system does not guarantee that knowledge which was obtained in the initial stages of the dialogue will be properly utilized later on.

The ability to deliver services in a convenient way requires empowering employees at every point it is reasonable to do so. It can be e.g. the authority to negotiate with the customer instead of handing ready-made brochures and offers only or simply time-accurate access to information (Deszczyński, 2016). This seems to go in line with the trends in the customer expectations to co-create the value as described in Prahalad's and Ramaswamy's DART model (Mazur & Zaborek, 2014; Prahalad & Ramaswamy, 2004). Only contacts with the company which offer personal high utility will add value reinforcing the relationship. "Each time you do something for me, do it better than the last time" (Gordon, 2013, pp. 37-38). If it is not the case, customer will not take the time to share more information on his specific needs. In turn the organization loses control over the way customer goes from information collecting phase to buying decision.

## **THE METHODOLOGY OF THE RESEARCH**

The theoretical discussion on effective multi-channel opportunity management process is confronted in this article with the results of a research carried out in the Polish housing industry. The housing industry was chosen deliberately as an example of a contractual business with high level of customer engagement and openness to dialogue with the companies. It is no wonder since buying a house or a flat involves considerable financial

resources and occurs only a few times in a lifetime, as in Europe in average people change the place of residence once in 15 years) (The Independent, 2016; Miesięcznik Administrator, 2014).

All research activities were conducted in March and April 2016 in several steps. The research sample consisted of 22 housing developers from Poznań (Poland) representing more than 50% of housing investment in the area (Domiporta, 2016). Forty mystery clients were asked to initiate dialogue with up to three companies. To ensure the objectivity of research each developer was contacted by at least five mystery clients what brought a sample of 126 sales processes. The contacts were continued through the different channels: online, hotline and personal (showroom / investment location visit). Such sequence of contacts reflects behaviour of the contemporary customers, as 33% to 53% of them use web pages of the developers as source of information and internet in general (e.g. web pages of real estate agents or online comparison services) is the main search tool (Wielgo, 2015; Polińska & Skoczeń, 2014). In addition, follow-up contacts after personal contact were also examined (provided that the company representative contacted the client in maximum three working days after the direct contact took place).

The mystery clients were asked to give their contact data freely. In addition they were to express the same needs during the two initial stages of the process (online and hotline) so that the servicing person could make a potential use of them in a personal contact, provided his company managed to register and process this information. The research participants were asking both simple and advanced questions. The first ones concentrated on the price and other terms and conditions of the offer with the special emphasis on how their needs definition was transferred into the offer. The latter ones dealt with the state program supporting the purchase of the first flat by the young couples and were designed to examine how the front office personnel cooperates with the back office in order to deliver the information customer required.

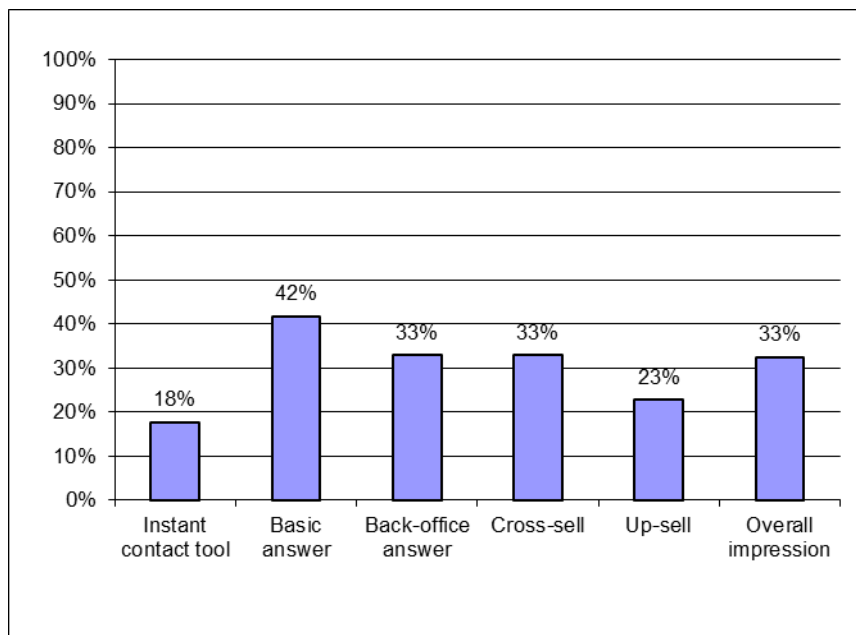
The research participants were given the exact guidelines on what is considered a quality answer or desired behaviour of the personnel of the developers. Since every process involving humans is always subjective and the absolute quality does not exist (Deszczyński, 2011), the mystery clients could also assess the overall feeling of the particular encounter. Both methods were equally considered in the final aggregated assessment.

The additional research stage was focused on so called long-term lead management, which can be described as the ability of the company to process the information provided by the prospective buyer and exploit its potential in the possible best moment. In this research it was a single customer contact looking for a fast purchase, however conditioned by particular circumstances which were postponing the decision for a month. In the ideal situation the goal was to ask customer for contact data and register it with a task for renewed contact in the specified time.

## **THE RESEARCH RESULTS**

As already indicated, the main research scenario involved three stages of contacts: online, hotline and personal, supplemented by the follow-up contacts. The online contacts were usually preceding all the other unless the company managed to contact the customer by phone using the “fast contact box”. The results presented in fig. 1 show, that the general performance in online communication is poor. Only 18% of the companies offered and managed to effectively use the instant contact tool and responded to initial enquiry in less

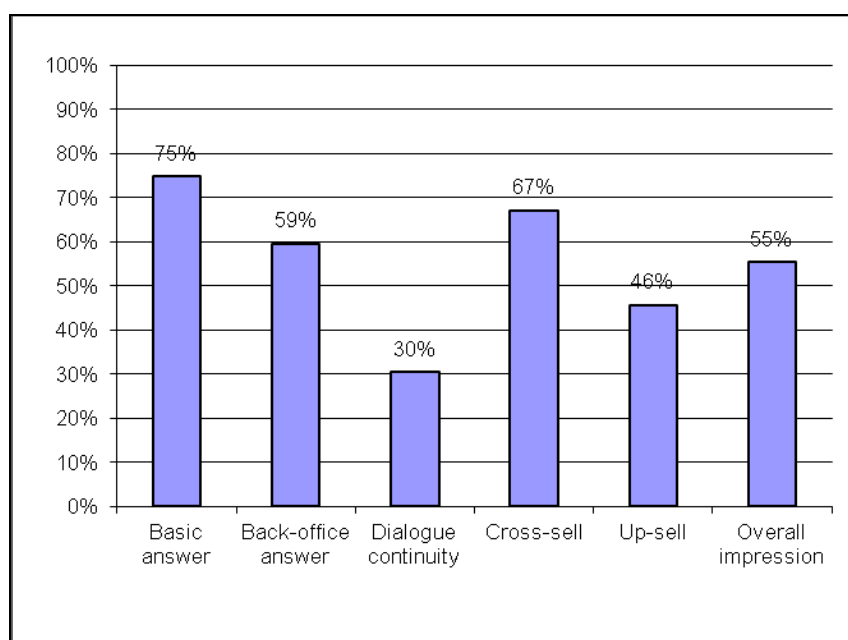
than an hour. The content of the answers was disappointing and reactive what can be best observed in the case of cross-sell and up-sell options. The overall impression reflects the average level of performance.



**Figure 1.** Opportunity management in online channel.

Source: Own work

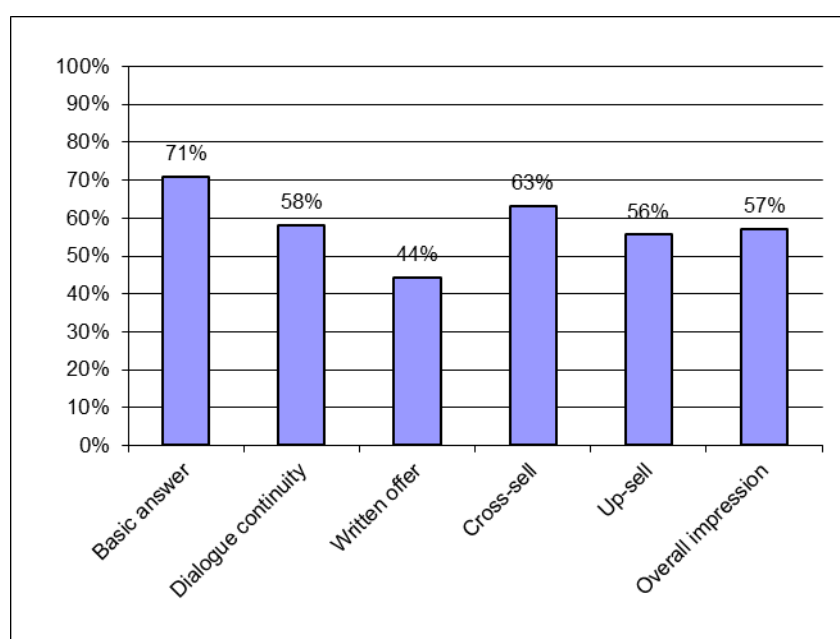
During the hotline contacts companies had for the first time a chance to identify the customer upon the information posted in an online enquiry. In order to make it easier for their interlocutors, the mystery clients were asked to intimate they had contacted the company before on the same purpose. Unfortunately, as the fig. 2 reveals, only one third of the companies took a chance to provide exceptional quality of an uninterrupted dialogue. None the less the overall impression was better by approximately 20% than after the online contact.



**Figure 2.** Opportunity management in hotline channel.

Source: Own work

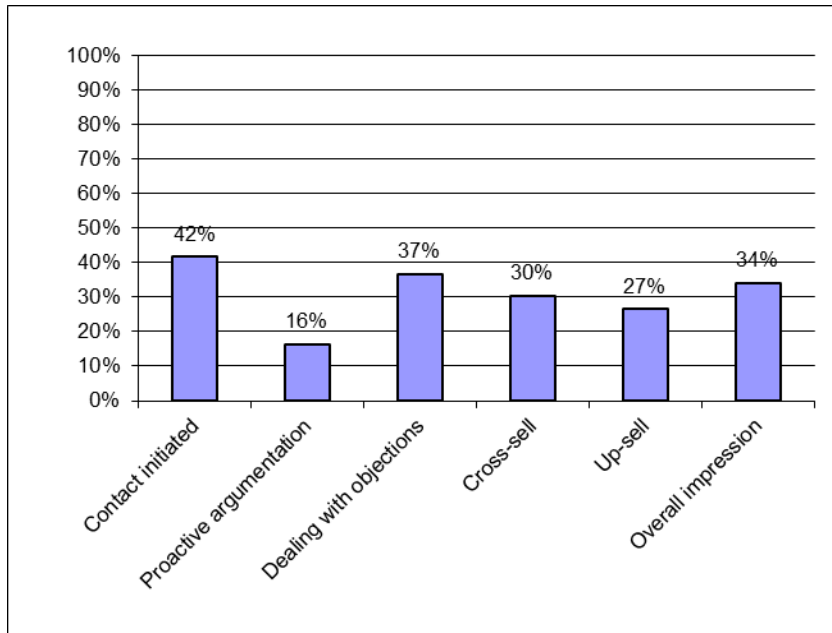
The personal encounter traditionally offers the best chance for interacting with the customer and thus enhancing high quality dialogue (Deszczyński & Mielcarek, 2015). And so in this research it has also proved to be the best method for winning the customers. The companies scored particularly well in terms of dialogue continuity (see fig. 3). However the overall difference between hotline and direct channel is rather insignificant, especially given the disparate financial effort needed to provide hotline services and direct contact possibility. The untapped potential for individual customer care was particularly visible in the unwillingness to prepare written offers.



**Figure 3.** Opportunity management in personal contact channel.

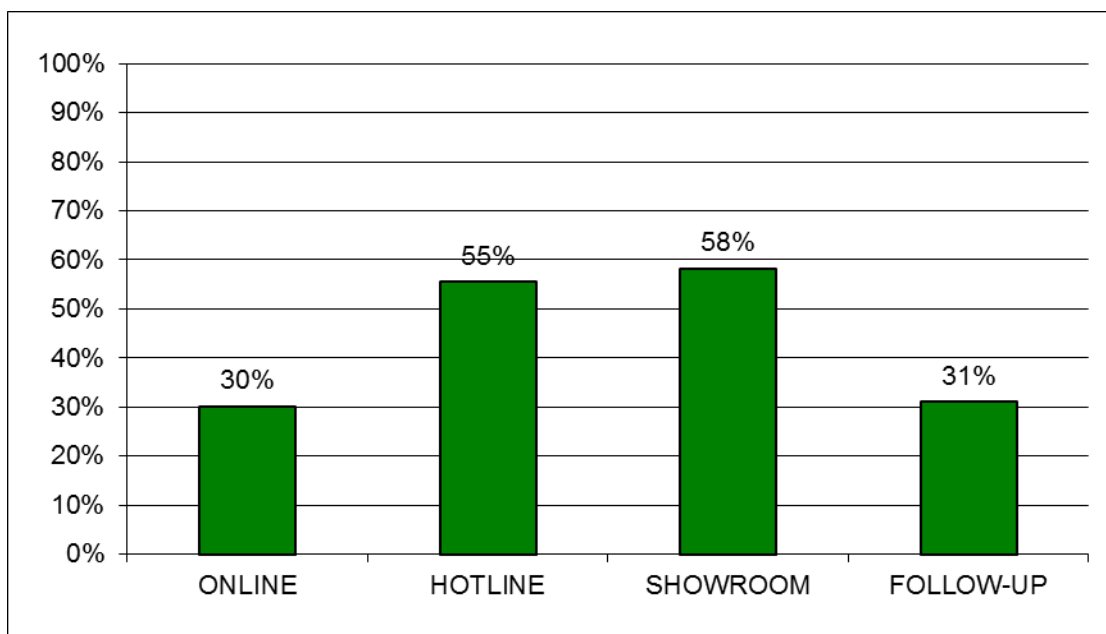
Source: Own work

The final stage in the main research scenario were the follow-up contacts. Regardless if made by phone or with use of internet tools, they give a chance to assist customer during the offer comparison and the decision-making process, to clear up possible misunderstandings and stress the key points of the offer or alternatively to prepare a new one. But as the fig. 4 indicates, in a struggle for easy deals, the sales persons seem to leave the customers still considering their options with their own thoughts, letting at risk all the investment of time they have made during the preceding stages of the contacts. Only 42% try to sustain dialogue and even less act proactively, e.g. exploring alternatives the customer compares.



**Figure 4.** Opportunity management in follow-up contacts.  
Source: Own work

The aggregated research results (fig. 5) bring an image of severe problems in maintaining seamless, high quality dialogue with the customers through the different communication channels. Although the performance during the phone and personal contacts seems not to be dramatically poor, the leakages in the marketing funnel at preceding and succeeding stages of the contacts, significantly reduce the overall effectiveness of the opportunity management process at one hand and customer experience at the other, bringing losses in value creation chain of both parties.

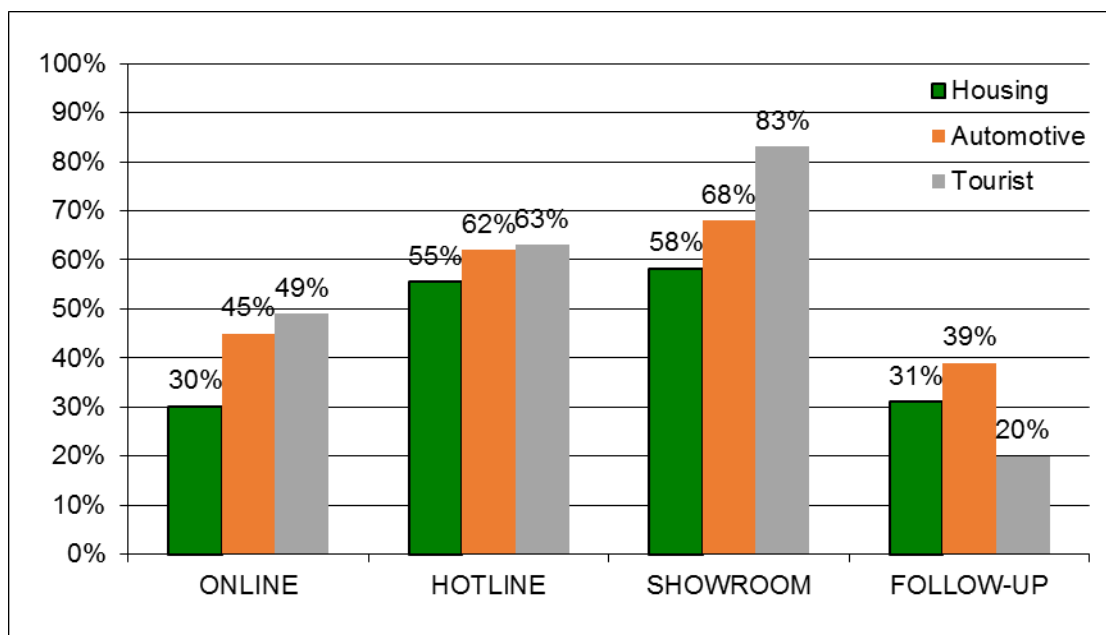


**Figure 5.** Opportunity management (aggregated results).  
Source: Own work



In particular, if one assumes that in contemporary market the customer will only opt for an offer if he is given an exceptional uninterrupted level of services, the theoretical waste in sales potential in the opportunity management process accounts for 97% (compound percentage of losses). While some research show only 25% of the leads in the sales pipeline are the legitimate prospective buyers (Gleanster, 2014), this cannot be an explanation for the general disinterest in taking a chance to continue the dialogue. “Brooming” is called this phenomenon, when a sales person asks a few questions looking for a fast sale and if the customer is not immediately ready to take a decision “de-qualifies” him trying his luck with the other clients (Kroguie, 2014). Unfortunately such attitude is likely to affect the low priority leads as well as the “right” ones.

The housing industry seems not to be an isolated example of problems in early customer management process. There are other contractual industries, which should theoretically take an advantage of the modern strategies and IT tools supporting opportunity management, but yet – as my earlier research shows, suffer similar problems especially with mastering online channel dialogue and follow-up contacts. The results evoked in fig. 6 are based on the similar research methodology and were obtained in Poland in 2013 (automotive industry) and 2015 (tourist industry). Although they may differ within the same category (most evident example are the contacts in the showroom), the general trend is clear and homogenous. Industry leaders of several important contractual businesses in the biggest country of the CEE region have severe problems in unlocking the potential of the online dialogue and motivating their sales persons to assist the customers at the advanced stage of the decision-making process. Before I will make an attempt to explain the reasons for such a situation (see section Conclusions, recommendations and research limitations), the results of the additional stage in current research must be revealed.



**Figure 6.** Opportunity management (aggregated results across three industries)

Source: housing industry: own work, automotive industry: (Deszczyński & Mielcarek 2014, p. 46), tourist industry: (Deszczyński, 2016a, p. 4).

The goal of the long-term lead management scenario was to investigate the ability of the companies to collect, register and process customer data not for the purpose of the immediate sale but for the future reference. It is obvious that making a memo on a sticky note card or in a calendar reminding of a contact in a couple of days is much easier than putting the same data and assigning a distant task in a CRM system. And so the hurdle at this stage of the research seems to be placed even higher than for mastering multi-channel dialogue. After revealing the intention to take buying decision in a month, 80% of the mystery clients were asked to leave their contact data for the future reference. However only 18% of the sales persons contacted the prospective buyers as the appointed time has come. In the light of above, almost any investment in training, marketing and the ICT is a waste of resources. It seems that the immature organizations are so heavily bound to the myopic transactional way of doing business, that they are in a position to merely utilize the sales skills of a chapman. On the contrary only companies which can simultaneously manage employees, processes and the ICT are capable in exploiting the potential of “who – what – when” information and contact the potential customers with the right offer at the moment of their readiness to buy (Deszczyński, 2016b).

### **CONCLUSIONS, RECOMMENDATIONS AND RESEARCH LIMITATIONS**

The research outcomes in the housing industry presented in this article as well as the evoked results of similar research conducted in the automotive and tourist industry in Poland, clearly indicate a major problem of business underperformance. Heavy losses in managing the leads indicate the corporate inability to sustain a dialogue with the customers and as such cannot be treated only as some shameful but limited inefficiencies affecting marketing or sales. The opportunity management is not only the gateway for a successful relationship, but it also directly affects the ability to hit the sales targets. It deals with the customers who currently possess propensity to buy, not in a distant time. Hence performance in managing the online leads may reflect the corporate proficiency in the other fields of the customer service. If it is managed poorly at the point so close to sales, it will be probably done even worse once the goals are more intangible, e.g. in complaint management or in other after-sales activities.

In this context ineffectiveness in opportunity management can be considered as one of the indicators of the overall corporate relationship management immaturity (Deszczyński, 2016b), as the companies are even not capable to train and motivate their own front office employees to take the chance on sales activities, which should be (at least in the theory) beneficial for themselves. Hence it seems once again that the relationship management programs are much more people-intense ventures than any other business activity (Baran & Galka, 2013; Payne & Frow 2013). In the end it is not the company that engages the customers in a dialogue, but the employees. Mastering such process of many actors with cross-border organizational responsibility and a lot of intangible phenomena like trust and commitment (Doney & Cannon 1997; Morgan & Hunt 1994) implies not only to acknowledge empowered customers but also empowered employees (Deszczyński 2016c; Smith 2006; Johnson & Redmond 1998). In addition, the organizational infrastructure needs to be adjusted to support this dialogue and to make it more profitable (Mruk & Stępień, 2007). Hence, although many tactical answers can partly explain underperformance in opportunity management, e.g. inadequate number of front-office personnel or mismanagement in coordination of various front office teams, the

roots of this problem seem to lay at the CXOs' level. It is the top management's responsibility to make a company fit for the effective pursue of customer relationship management, which requires coordination of the three dimensions: the relationship marketing strategy, the ICT tools and change management focused on own people and processes (Deszczyński, 2014a, p. 542).

With regard to the research limitations the above discussion and conclusions are primary relevant to one country and three industries only. However given the fact that Poland is an open economy, there exist a certain degree of probability, that the results would be similar in the other industries and territories. If so, the overall corporate relationship management immaturity, would be at least a partial answer to high CRM implementation failure rates, which have been oscillating around 70% since they were reported for the first time by Gartner Institute in 2001 (Deszczyński, 2014b, p.29). Even without footing of additional research, it seems that opportunity management should be treated very seriously by any business. Progress in this area can bring substantial improvements in customer and employee satisfaction and quick-wins enhancing customer relationship management implementation projects.

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## **Coexisting Parallel Configurations:**

### **A New Model of Institutional Stability and Change**

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#### **Abstract**

The purpose of this paper is to establish a new conceptual model of organizational change, which has been termed “coexisting parallel configurations”. This model is explained and elaborated through an emergent exploratory process that represents interplay between empirical evidence and examples from emergency services fields, and existing conceptual models of organizational change.

**Key Words:** Organizational Development; Organizational Change; Institutional Theory; Professional Role Identity

#### **A NEW CONCEPTUALIZATION OF CHANGE**

The purpose of this paper is to establish a new conceptual model of organizational and institutional stability and change. The title of this proposed model is “coexisting parallel configurations”. This model will be explained and elaborated through an emergent exploratory process that represents interplay between empirical evidence and examples from emergency services fields, and existing conceptual models of organizational change. This paper is rooted in institutional theory and provides multi-field level analysis to illustrate the potency and robustness of the proposed model, in response to the calls from Stern and Barley (1996), and others, to broaden the scope of institutional theory to the multi-field and societal level of analysis. The starting point for this analysis is to provide a conceptualization of organizations and fields of organizations using the concept of configurations. Next, a number of theories of change are outlined in order to elaborate on our current understanding of organizational and institutional stability and change. And finally, using evidence and examples from emergency services fields, the newly proposed model of coexisting parallel configurations, is explained and elaborated. The paper concludes with a discussion of implications and an agenda for further research.

#### **ORGANIZATIONAL CONFIGURATIONS**

Since the emergence of organization theory as a field of study, there has been a heavy emphasis on the structure of organizations. From Weber’s (1947) depiction of bureaucracy, and Fayol’s (1917) view of administrative principles, to modern day renditions of the open systems approach and contingency theory (Donaldson, 2001), the primary lens for analysis has been on the way that organizations are structured. During the 1980’s, however, researchers began to look at the role of organizational culture, spawning the birth of a new emphasis on systems of meaning and shared values and beliefs within organizations. To provide a more complete picture and a holistic conception of both the structural elements and the underlying values and beliefs, Miller and Friesen (1984) proposed the idea of “organizational configurations”.

Building on the work of Miller and Friesen and others, Greenwood and Hinings (1988; 1993) proposed the idea of archetypes as holistic conceptions of the shared values and beliefs, or prevailing interpretive schemes, as well as the structures and systems that embody the underlying value systems. This conception of organizational configurations creates the potential to look at organizations not only

from a structural perspective, but from a more inclusive view that considers the values and beliefs that underpin and give shape and meaning to those structures.

Research that has adopted this view of organizational configuration has opened many new doors and examined a number of different phenomena that may enhance our understanding of organizational change. Of particular note in this regard are issues such as professionalism (Cooper et al, 1996; Reay and Hinings, 2009), and professional role identity (Chreim et al, 2007). In this paper this line of research is extended in two ways. First, by adopting the general model of organizational configuration, this research adds to the growing volume of research using this perspective and adds to its potency and legitimacy. Secondly, by providing further exploration of the influence of professional role identity this paper expands on the existing body of knowledge pertaining to the concept.

## **ORGANIZATIONAL CHANGE**

Over the past twenty or more years, as society has moved into the post-industrial epoch (Drucker, 1999), change, and particularly the management of change, has become a predominant concern in both the theory and practice of business management (Jick and Peiperl, 2003). Conceptual models of change have been influenced and shaped to a large degree by the work of Kurt Lewin and his famous model of “unfreeze-change-refreeze” (Lewin, 1951). This model conceptualizes change as a deliberate and linear process of moving from a current state to some future changed state. Building on this idea, conceptualizations of change have been expanded and different types of change have been categorized as developmental, transitional, or transformational (Ackerman, 1984). In each of these models of change there is an assumption that an organization, an industry, and even society move from an old state or set of assumptions and structural arrangements to a new state or set of assumptions and structural arrangements. There is an emphasis on a linear progression from old to new, from traditional to modern, from low-tech to high-tech.

The impetus for change in business organizations, as portrayed in much of the extant literature, is viewed to be social, economic and technological forces such as globalization, increasing consumer demands, greater need for accountability, computerization, automation and so forth. In the public sector, many of the same forces have resulted in greater public accountability and a proactive rather than reactive approach to social issues and delivery of services. A pattern may be seen in this regard in all the public safety professions. In primary health care, for example, there has been a movement from disease treatment to health and wellness promotion through education and disease prevention. In law enforcement there has been a shift from reacting to crimes, to community policing and crime prevention. In the fire protection industry there has been a shift from reactive emergency response to fire prevention and community education. And even in the military there has been a shift from a combat focus to peacekeeping and community development.

Greenwood and Hinings (1988) suggest that organizations and organizational change can be understood in terms of a system of shared values and beliefs that give shape and meaning to structures and systems, and that over time there may be decoupling and re-coupling between different interpretive schemes and structural attributes. Organizational coherence is said to exist when there is a consistency between the prevailing pattern of values and beliefs and the structural attributes. However, this model also opens up the potential for mis-alignment and a schizoid state where there are incongruences between values and structures.

In each of these public safety domains noted above, there has been a shift in the manner by which the mission and dominant interpretive scheme of the profession is conceptualized, and these changes are reflected in the development of structures and systems that embody changes to the values and underlying assumptions. A difficult challenge, however, is that while the shifts in values and

assumptions and related structural arrangements have resulted in reduced rates of disease, crime, fire, and war, they have not eliminated them completely. The objective task demands of the various professions have shifted, but they have not changed completely. Thus, changes in these industries may be seen not as linear transitions or transformations, from one model to another, but rather as the development of parallel value systems and interpretive scheme, as well as their associated systems and structures. The coexistence of two parallel configurations may be seen as a source of inconsistency and confusion for individuals and groups within the professions, as well as for their clients, customers and stakeholders whom the professions serve.

## **ORGANIZATIONAL EFFECTIVENESS**

In the public safety professions noted, there is a prevailing belief that the common good is best served by education and prevention with a view to reducing disease, crime, fire and war. Paradoxically, however, the professions are stereotyped around the emergency response elements of the task requirements, and these aspects of each profession are in fact worshipped and glorified through the media and popular culture. Many of the most popular movies and television series focus on human trauma, crime, fire and war, and thus the general public conceptualize and visualize the roles of the various professionals in their emergency response role rather than their education/prevention role. This results in confusion and disconnects both internally within public safety organizations, and externally in their relationship with elected officials, public administrators, and the public at large. Table 1 below summarizes the coexisting roles that exist across fields of organizations in a number of different public safety professions.

Table 1: Traditional and Preventative Professional Roles in Public Safety Professions

| Profession                                   | Traditional Reactive Role                                      | Proactive Prevention Role   |
|--|--|---|
| Primary Health<br>(Physicians<br>and Nurses) | -Deal with trauma<br><br>-Perform emergency<br>procedures      | -Provide testing and screening<br><br>-Identify at-risk groups                |
| Police Officers                              | -Chase criminals<br><br>-Write citations<br><br>-Enforce laws  | -Have visibility and presence<br>in the community<br><br>-Build relationships |
| Firefighters/EMT's                           | -Fight fires<br><br>-Save lives<br><br>-Respond to emergencies | -Prevent fire<br><br>-Enforce codes<br><br>-Public education                  |
| Military Personnel                           | -Fight wars<br><br>-Engage in battles                          | -Keep the peace<br><br>-Build communities                                     |

### **Professional Role Identity**

From the perspective of the individuals within each profession, it is in their interest to focus on and accentuate the emergency response aspect of their profession. This aspect of the profession is action oriented, exciting, and commendable, while the prevention side is less glamorous, and could even be characterized as routine, dull and boring. From a media perspective, it also in the interests of media



outlets or agencies to highlight drama and human tragedy. Disease, crime, fire and war, sell newspapers and magazines, draw crowds to movie theatres, spawn rentals of DVD's and create traffic on websites. From the perspective of the collective good, however, it would be far more beneficial to promote education and prevention than to glamorize tragedy and emergency response.

In this sense, the entire field of public safety is experiencing a social dilemma at the level of ideation and systems of meanings. While individual actors have ego involvement and personal commitment to both systems of meaning, it is in their own interest and well-being to perpetuate the traditional role identity. This is not done with the intention of bringing harm to the collective interests, but the overall scheme of things that is the ultimate result as the traditional model is supported and perpetuated while the prevention model is relegated to an afterthought or secondary function.

### **SYSTEM PERFORMANCE EVALUATION CRITERIA**

Reactive systems of emergency response measure system performance by tragedy and loss – the number of deaths; the number of injuries; the value of damage to property, and so forth. Monthly and annual measures provide the basis for fear-based decision making. As population bases rise, so too must the resources committed to response services or rates of social harm will increase. From the prevention and education perspective, however, results are much harder to measure and report. How can you measure illnesses, crimes, fires and wars that were prevented and were essentially non-occurrences? This creates a difficulty in the quest to raise the profile and credibility of the proactive approach since most systems of performance evaluation focus on the events that required the traditional reactive response rather than on speculations about the non-events prevented through proactive programs and services.

### **Professional Role Identity and Socialization**

Abbott (1998) has documented the strong institutional forces associated with professions and professional role identity. Ashforth and Kreiner (1999) theorized that professions that are routinely engaged in what they termed “dirty work,” use a number of cognitive processes to construct positive role identities to help them cope with the conditions of their work. This line of research highlights the tendency for professional role identity to emphasize some elements of a given set of tasks and downplay or ignore others. This suggests that efforts to refocus emergency services professional role identities will likely be met with opposition and resistance to change. However, recent research on organizational change identified shifts in professional role identity as an essential factor in a successful paradigmatic shift within the primary health care delivery (Chreim et al. 2007). This insight into a successful transformation provides the basis to develop a conceptual model supported by numerous empirical observations that postulates that professional role transitions that serve the collective good, are ultimately thwarted by well-intentioned professionals who both intentionally and inadvertently perpetuate the traditional reactive roles and provide roadblocks to meaningful organizational change. Based on the model developed, a number of potential solutions are proposed to help overcome the prevailing tragedy and increase the ability of the public safety professions to serve the common good more effectively.

### **A NEW MODEL OF STABILITY AND CHANGE**

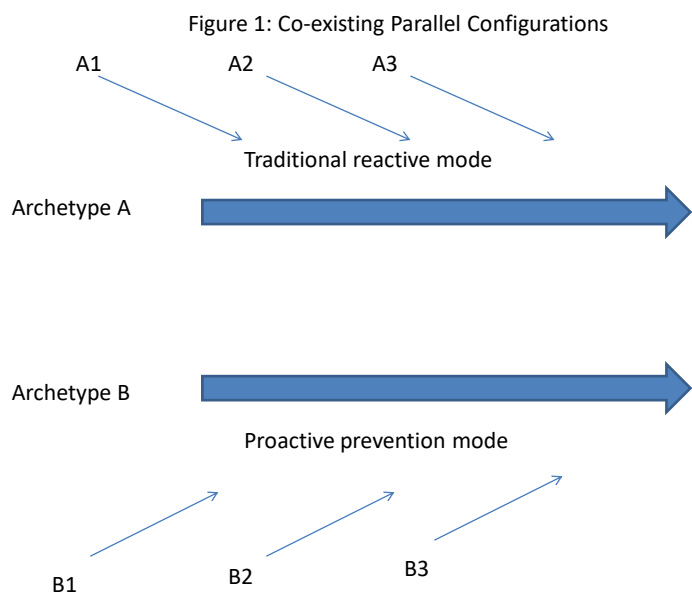
In their original outline of the role of archetypes in understanding organizational change, Greenwood and Hinings (1988) outlined a number of different “tracks” of change, which represent different patterns of decoupling and re-coupling interpretive schemes with their associated structures and systems. While the majority of models that preceded their work focused on linear model of change, Greenwood and Hinings (1988) proposed alternative paths such as oscillations, aborted excursions and

unresolved excursions. Building on these ideas, subsequent research by Cooper et al (1996) proposed the idea of “sedimentation” as an additional track in which rather than one archetype being substituted for another, a new set of values and beliefs are layered on top of existing ones. Cooper et al (1996), propose that “the geological metaphor of sedimentation allows us to consider a dialectical rather than a linear view of change.” (Cooper et al, 1996:624).

Recent research on institutional logics, and in particular the notion of competing institutional logics, has extended this view of change as a competitive and dialectical process rather than a linear one. For example, Reay and Hinings (2009) showed how competing logics can co-exist and identified four specific strategies that were used to manage the rivalry between the existing logics. Based on the observations provided in the current study, however it seems that neither the sedimentation metaphor nor the idea of “managing” contradiction applies.

Sedimentation implies that new ideas, duties, responsibilities are layered on top of existing ones. On the surface this may appear to be the case within the emergency services fields. However, leaders and managers do not see it that way, and they suggest that the new approach is a whole new way of doing business that is underpinned by a whole different way of thinking.

The coexistence of two archetypes can be understood in terms of the values and beliefs and structures and systems associated with each archetype (A and B). Figure 1 below depicts the relationship between the coexisting parallel configurations, while tables 2 through 5 outline the values and beliefs and associated structures and systems that characterize the archetypes within various emergency services professions.



In each case, it may be seen that parallel systems of meanings and structures exist and are in operation on an ongoing basis. Additionally, it may be seen that different groups of actors have an interest in perpetuating one or both configurations.

Table 2: Coexisting Archetypes in Primary Healthcare

| Values and Beliefs       | Structures and Systems   | Interest Groups     |
|--------------------------|--------------------------|---------------------|
| <b>A1</b>                |                          |                     |
| Save lives of people     | Triage                   | Media               |
| Who are seriously        | Treatment rooms          |                     |
| Sick or injured          | Operating rooms          |                     |
| <b>A2</b>                |                          |                     |
| Services must be         | Hierarchy of             | Employee groups     |
| accessible               | specialized treatment    |                     |
|                          | facilities               |                     |
| <b>A3</b>                |                          |                     |
| System is necessary      | Incident record keeping  | Politicians         |
| As many lives are        | and statistical data     |                     |
| Saved each year          |                          |                     |
| <b>B1</b>                |                          |                     |
| Emergencies are          | Education and prevention | Administrators      |
| System failures that     | programs and campaigns   |                     |
| Can be prevented         |                          |                     |
| <b>B2</b>                |                          |                     |
| More resources           | Teams of educators       | Professional groups |
| Should be put into       |                          |                     |
| Education and prevention |                          |                     |
| <b>B3</b>                |                          |                     |
| Trends and patterns      | Population-based         | Special interest    |
| Can be predicted and     | record keeping           | groups              |
| Prevented                | Evidence-based           |                     |
|                          | practice                 |                     |

Table 3: Coexisting Archetypes in Fire and Rescue Services

| Values and Beliefs       | Structures and Systems   | Interest Groups     |
|--------------------------|--------------------------|---------------------|
| A1                       |                          |                     |
| Save lives of people     | Stations                 | Media               |
| Who are seriously        | Emergency vehicles       |                     |
| Sick or injured          | Specialized equipment    |                     |
| A2                       |                          |                     |
| Services must be         | Geographic distribution  | Employee groups     |
| accessible               | of facilities equipment  |                     |
|                          | and personnel            |                     |
| A3                       |                          |                     |
| System is necessary      | Incident record keeping  | Politicians         |
| As many lives are        | and statistical data     |                     |
| Saved each year          |                          |                     |
| B1                       |                          |                     |
| Emergencies are          | Education and prevention | Administrators      |
| System failures that     | programs and campaigns   |                     |
| Can be prevented         |                          |                     |
| B2                       |                          |                     |
| More resources           | Teams of educators       | Professional groups |
| Should be put into       | School programs          |                     |
| Education and prevention | Public education         |                     |
| B3                       |                          |                     |
| Trends and patterns      | Population-based         | Special interest    |
| Can be predicted and     | record keeping           | groups              |
| Prevented                | Evidence-based           |                     |
|                          | practice                 |                     |

Table 4: Coexisting Archetypes in Policing Services

| Values and Beliefs   | Structures and Systems   | Interest Groups            |
|--|--|----------------------------|
| A1   |  |                            |
| Save lives of people                                       | Patrol cars  | Media                      |
| In danger  | 911 system   |                            |
| Fight crime  | Holding cells  |                            |
| A2   |  |                            |
| Services must be accessible                                | Personnel<br>specialized training<br>and equipment                       | Employee groups            |
| A3   |  |                            |
| System is necessary  | Incident record keeping<br>and statistical data                          | Politicians                |
| As many lives are saved each year                          |  |                            |
| B1   |  |                            |
| Emergencies are system failures that can be prevented      | Education and prevention<br>programs and campaigns<br>Community policing | Administrators             |
| B2   |  |                            |
| More resources should be put into Education and prevention | Teams of educators   | Professional groups        |
| B3   |  |                            |
| Trends and patterns Can be predicted and Prevented         | Population-based<br>record keeping<br>Evidence-based<br>practice         | Special interest<br>groups |

Table 5: Coexisting Archetypes in Military Services

| Values and Beliefs  | Structures and Systems                   | Interest Groups         |
|---|--|-------------------------|
| A1  |  |                         |
| Save lives of people who are threatened                     | Trained personnel                        | Media                   |
| Battle adversaries  | Specialized equipment                    |                         |
|   | Weapons and ammunition                   |                         |
| A2  |  |                         |
| Must be prepared to defend from threats from adversaries    | Alliances with other like-minded nations | Politicians             |
| A3  |  |                         |
| System is necessary   | Incident record keeping                  | Employees and           |
| As many lives are saved each year                           | and statistical data                     | veterans                |
| B1  |  |                         |
| Wars and violence are system failures that can be prevented | Peacekeeping programs and campaigns      | Administrators          |
| B2  |  |                         |
| More resources should be put into Education and prevention  | Teams of educators and diplomats         | Professional groups     |
| B3  |  |                         |
| Trends and patterns can be predicted and prevented          | Population-based record keeping          | Special interest groups |
|   | Evidence-based practice                  |                         |

## DISCUSSION

Models of organizational change have been dominated by the idea of a linear progression from old to new. While Greenwood and Hinings (1988) concept of tracks proposes alternative patterns and trajectories of change, much of the research adopting this model has been concerned with successful reorientations as this is a desirable and preferred managerial objective. As such, far less attention has been given in the research to alternative patterns of change and to the effects of institutional trends across industries and fields.

The concept of coexisting parallel configurations supports the age old paradox that “the more things change, the more things stay the same”. That is, that while a new archetype emerges, it does not replace and eliminate the existing prevailing archetype but coexists alongside it. This alternative model maybe seen to be different than any of the tracks proposed by Greenwood and Hinings (1988) and different than the notion of sedimentation proposed by Cooper et al (1993).

## IMPLICATIONS AND FURTHER RESEARCH

Examining archetypes and organizational configurations requires inter-level analysis that explores both the structures and systems of organizations and industries as well as the patterns of values beliefs that underpin those structures and systems. In the industries examined, the coexistence of the two archetypes is supported by the existence of documented systems and structures and the underlying values and beliefs of the different archetypes are readily explained by leaders and managers. What is much more difficult to examine however is the sense making (Gioia and Chittipeddi, 1991) that occurs at the level of individual actors representing key stakeholder groups such as employees, managers, elected officials, the media and the public at large.

The main purpose of this paper has been to sketch out this alternative model of organizational stability and change and at high level, looking at the institutional forces at play at the field level of analysis. Additional research is necessary to explore these ideas further and to investigate the micro level processes that contribute to the ongoing perpetuation of coexisting parallel configurations.

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# **The missing dimension of knowledge transfer from subsidiaries to headquarters: The case of Oil and Gas companies in CEE region**

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## **Abstract**

The paper identifies knowledge management determinants of knowledge transfer from subsidiaries to headquarters in the top Oil & Gas companies in Central and Eastern Europe as their level of innovations, internationalization and economic importance are emerging. The paper sheds a light not only on the process of knowledge transfer parent-subsidiary but via versa as it is critical in the 21st century for better adapting to specific business needs in certain geographical regions. Thus, this reversed knowledge from subsidiaries to headquarters is critical for the given business sector where the level of innovation and amount of R&D investments are enormous. The study argues that the reversed process of knowledge transfers from subsidiary to parent company is positively related to company performance and business diversification. Nowadays the knowledge formed in the subsidiaries of Multinational Corporations (MNCs) is transferred to headquarters by investing in R&D centres, building new exploration and testing sites abroad. In the reversed knowledge transfer process we can identify main challenges, which are very critical to analyse and determine the exact process.

**Key words:** Reversed knowledge transfer, subsidiary-parent, oil and gas companies, Central and Eastern Europe

## **INTRODUCTION**

In recent years Oil & Gas sector came to attention of governments, financial analysts and economists because of the its strategic role and global importance for the World economy. Moreover, Oil & Gas business is characterized with high rate of innovations. The paper investigates what is the correlation between knowledge transfer and company performance along with the correlation between knowledge transfer and level of internationalization as main trends in Oil & Gas sector in the CEE region. The number of multinational companies (MNCs) and the amount of their employees is surging globally. Along with it, the pace and size of foreign direct investments (FDIs) to countries outside the developed world are expanding. The same matter also applies to Central and Eastern Europe, where multinational corporations play a very important role in the economy of the region. The contribution of these companies to the Central and Eastern European region is considerable, and they employ more than 25% of the people working in the private sector. Their human resource decisions have an impact on the practices of other 'drivers' of the economy. It should also be pinpointed that in 2012, the value of FDI in CEE exceeded 30% of the average GDP for the region. Multinational companies are an important playground for learning (Bonache and Brewster, 2001) and for cross-border knowledge transfer. They also play key roles in knowledge sharing, since mergers and acquisitions provide excellent opportunities for both parent and subsidiary to renew their knowledge base and to add new knowledge to it (Szulanski, 1996). Subsidiaries can possess a strategic role both in the creation and diffusion of strategically important knowledge.

### *Reversed knowledge transfer*

The majority of studies cover mainly the knowledge transfer from headquarter to subsidiary but not that many studies paid attention to the process of so called reversed knowledge transfer (subsidiary-headquarter). This phenomenon occurs more and more nowadays as the companies try to adapt themselves to the local market conditions and they try to increase competence and expertise through this reversed knowledge transfer. Foss and Pedersen (2004) analyze articles related with transfer of

knowledge in MNC's, pointing out that this process can be carried out between subsidiaries through international alliances or from parent company to its subsidiaries. Since the relation subsidiary- parent is under-researched and it is more and more common for the MNC's globally we would to dedicate a special attention to this one. Mechanism that organizations have been used in this process are broad and include: strategic decisions, periodical review of subsidiary object, use of expatriates, coordination, empowerment, training, international trips, best practices and cultural changes and systems. Following Foss and Pedersen (2004), we will focus further on most popular mechanisms in academic publications: expatriates, training, international trips and best practices. The present article also focuses on specific aspects of knowledge transfer which were addressed above. The aim is to analyze the specific features of knowledge transfer in international companies situated in the CEE region, precisely in the field of human resources (Gupta and Govindarajan, 2000). This objective is justified by numerous research results (Birkinshaw, 2001) which emphasize the importance of the aspects of knowledge management and learning in the case of multinational organizations. Research on knowledge transfer in MNCs has shown enormous development over the last one and a half decades.

It has been suggested in the knowledge transfer literature that the absorptive capacity of the receiving unit is the most significant determinant of internal knowledge transfer in MNCs (Gupta and Govindarajan, 2000). Subsidiaries differ in their absorptive capacity, and this affects the level of internal knowledge transfer from other MNC units. The literature, however, offers multiple methods to conceptualize and operationalize absorptive capacity, often not capturing the various facets of absorptive capacity. Moreover, little attention has been paid to the question of whether organizations can enhance the knowledge transfer from subsidiary to parent company and development of absorptive capacity.

Clearly, with a few exemptions, the characteristics of knowledge transfer and absorptive capacity have not been treated as endogenous to organizational processes and arrangements (Foss and Pedersen, 2002). Gupta and Govindarajan (2000) observed that the knowledge inflows into a subsidiary are positively associated with the richness of transmission channels, motivation to acquire knowledge, and capacity to absorb incoming knowledge. Szulanski (1996) studied the impediments to the transfer using a slightly different approach. He applied all sets of factors together in an eclectic model to measure their relative impact on knowledge transfer (internal stickiness). His findings suggest that along with causal ambiguity and relationships between source and recipient units, the recipients' lack of absorptive capacity is the most important impediment to knowledge transfer within the firm. The role of absorptive capacity of the receiving unit also stands out as the most significant determinant of knowledge transfer in a number of other studies (e.g., Lane and Lubatkin, 1998; Gupta and Govindarajan, 2000).

### *Absorptive capacity*

In their seminal work, Cohen and Levinthal (1990) defined absorptive capacity as the 'ability to recognize the value of new external information, assimilate it, and apply it to commercial ends'. Cohen and Levinthal (1990) assumed that a firm's absorptive capacity tends to develop cumulatively, is path dependent and builds on existing knowledge: 'absorptive capacity is more likely to be developed and maintained as a byproduct of routine activity when the knowledge domain that the firm wishes to exploit is closely related to its current knowledge base'. Headquarters can benefit from their subsidiary knowledge in many ways: Local knowledge can enable headquarters to adjust and coordinate a global strategy, improve processes in their own

or other entities in the network, or simply provide the missing link in the quest to develop a new product. It could originate from different knowledge domains, e.g. marketing, sales, procurement or technology. In this paper, we take an aggregate view on the reversed knowledge transfer from

subsidiaries to headquarters. We define benefit as the overall value of a knowledge transfer as perceived by headquarters and subsidiaries. With this definition, we intend to capture benefit in its most holistic way: through the eyes of the beneficiary of this knowledge- parent company and subsidiary.

## **METHODOLOGY OF THE RESEARCH**

### *Dataset*

In the paper are employed data on the biggest twenty-five Oil & Gas companies in the Central and Eastern Europe according to their turnover, number of employees, performance and geographical scope of work. The secondary data have been collected from Thomson Reuters.

One database, LexisNexis, companies' websites and others secondary sources of information.

Also, regression and correlation analyses have been applied in SPSS in order to find the relationship in terms of reversed knowledge transfer from subsidiary to parent company regardless the company ownership and its corporate governance. We will first elaborate on the subsidiaries' geographic location as a potential source of value (Foss & Pedersen, 2002; Frost, 2001; Solvell & Zander, 1995) before turning to the subsidiaries' own role and strategic position in the MNC network (Ambos, 2002; Gupta & Govindarajan, 2000; Hansen, 1999; Tsai, 2001). Acknowledging that not every target unit will be able to benefit equally in this process, we introduce the headquarters' absorptive capacity as a final contingency (Cohen & Levinthal, 1990).

### *Hypotheses*

In the paper, there are formed three hypotheses based on theory Foss and Pederson (2004) and Ambos (2002) on the the HR tools used for knowledge transfer between parent and subsidiary. The hypotheses are the following:

*H1: The reversed knowledge transfer from subsidiary to parent company is positively related to company performance.*

*H2: Higher the level of reversed knowledge from subsidiary to parent company is, higher level of internationalization of the company itself is.*

*H3: The higher level of subsidiary engagement with parent company is, the higher level of reversed knowledge is.*

## **EXPECTED RESEARCH**

We would like to investigate to what degree subsidiaries actually engaged in reverse knowledge transfers. We are expecting that our results will indicate that almost all subsidiaries engaged at least in some kind of knowledge transfer, although the intensity varied considerably. To obtain a more detailed picture of the reversed knowledge transfer, we computed descriptive statistics of the subsidiaries in order to identify the most important variables and its influence on the knowledge transfer process. It will appear that the occurrence of knowledge flows does by no means equal the benefit generated for the recipient. Especially striking is the fact that headquarters seem to benefit most from the type of knowledge they get least. Marketing know-how is the most frequently transferred knowledge, followed by distribution know-how and technological know-how. Market data on customers and market data on competitors, in turn, we are expecting to be transferred less frequently, but to generate more benefit for the recipient.

This research paper tries to analyze theoretical consideration that it is important to investigate the 'benefit from reverse knowledge transfers' instead of focusing on the existence of knowledge flows. Addressing the core issue of this paper, we then turned to estimating the benefits of reverse knowledge transfers for the headquarters and its' subsidiaries.

## DISCUSSIONS AND FINDINGS

Arguably, a striking aspect of our empirical investigation will be that the quantity of knowledge inflows into the headquarters is by no means equal to the benefit. Headquarters in our sample seem to benefit most from what they get least. In general, our descriptive statistics show that the quantity of knowledge flows differs from their respective variables. This supports our reservations about merely measuring intensity to assess knowledge transfer and indicates that research has to consider the value of knowledge transferred.

Probably, the least surprising result is that knowledge within a MNC is primarily transferred from higher developed local knowledge bases to less developed countries. This permits the exploitation of competitive advantages in transition economies. Of our results, the strong impact of the subsidiaries' strategic role is probably most striking. Our data demonstrates that from a headquarters' view, knowledge received from its subsidiaries is very important. In this respect, our results will add to the recent literature on centers of excellence, corporate leaders, and regional innovation centres (Asakawa & Lehrer, 2003; Holm & Pedersen, 2000; Moore & Birkinshaw, 1998). As most authors analyze knowledge inflows, not benefits, our results extend the support for these findings on a higher level. Our findings are well in line with such a view, as they show that those units which are deeply integrated in the MNC network, i.e. exhibit high inflows and high outflows, contribute significantly more to headquarters' benefits.

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**Attachment 1:** Table 1: List of Oil & Gas companies with subsidiaries in Central and Eastern Europe

| Company Name          | Subsidiaries' Locations                   | HQ's Location  |
|-----------------------|---|----------------|
| Lukoil                | Bulgaria, Romania                         | Russia         |
| MOL                   | Czech Republic, Slovakia, Poland          | Hungary        |
| Gazprom               | Austria, Bulgaria, Czech Republic, Poland | Russia         |
| PKN Orlen             | Czech Republic, Slovakia                  | Poland         |
| Ceska rafinerska      | Slovakia                                  | Czech Republic |
| Unipetrol             | Hungary                                   | Czech Republic |
| Slovnaft              | Hungary                                   | Slovakia       |
| Bulgargaz             | Turkey                                    | Bulgaria       |
| Petrol Group          | Serbia, Croatia, Bosna & Herzegovina      | Slovenia       |
| Eesti Energie         | Latvia, Lithuania, Sweden                 | Estonia        |
| Rosneft               | Poland                                    | Russia         |
| ExxonMobil            | Austria                                   | US             |
| SOCAR                 | Romania                                   | Azerbaijan     |
| Latvijas Gaze         | Lithuania                                 | Latvia         |
| OKTA                  | Macedonia                                 | Greece         |
| Adria                 | Serbia, Bosna & Herzegovina               | Croatia        |
| OMV                   | Bulgaria, Czech Republic, Hungary         | Austria        |
| GDF Suez Gas vertrieb | Austria                                   | France         |
| RWE Supply & Trading  | Czech Republic                            | Germany        |
| Eni                   | Slovakia                                  | Italy          |
| TOTAL                 | Russia                                    | France         |
| Statoil               | Sweden, Finland                           | Norway         |
| PGE Capital Group     | Slovakia                                  | Poland         |
| Royal Dutch Shell     | Poland, Russia                            | Netherlands    |
| British Petroleum     | Austria                                   | UK             |

N=25

**Attachment 2:** Table 2: Descriptive statistics

| Variable                         | Means | Std.Dev. | Min | Max |
|----------------------------------|-------|----------|-----|-----|
| Subsidiary age                   | 9     | 5,40     | 4   | 22  |
| Subsidiary size                  | 6     | 5,51     | 0,5 | 30  |
| Subsidiary Performance           | 6     | 5,53     | 1   | 40  |
| Subsidiary Investment in R&D     | 10    | 5,56     | 0,5 | 30  |
| N of employees in the subsidiary | 12    | 14,10    | 1   | 45  |
| Subsidiary Internationalization  | 1     | 5,92     | 0,1 | 22  |
| Subsidiary engagement            | 1     | 0,41     | 1   | 4   |

# Linking information variety to T-shaped capabilities: Organisational development in the knowledge economy\*

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## Abstract

With the aim of deepening the study of the individual and organisational capabilities set necessary to survive and develop in a knowledge economy, in this study we theoretically explore and discuss the concept of 'T-shaped' capabilities. The paper is rooted in the recent notion of 'T-shaped' endowment and moves from the distinction between capabilities and competences. A T-Shaped profile includes both vertical competences (I-Shaped competences) and 'horizontal capabilities'. After analyzing the T-shaped endowment at an individual level, we propose an innovative organisational design characterized by a nesting ("recursive") architecture of T-shaped capabilities; then we discuss the crucial set of organisational variables necessary to effectively develop an organisation by fostering and managing T-shaped capabilities.. Managerial implication and future research paths are finally discussed

**Keywords:** T-shaped capabilities; knowledge economy; information variety; organisational development

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## 1. The rise of knowledge economy and the increasing need of information variety

Through all times, knowledge has always had a leading role in the economic and social development. Scientific, technical and organisational knowledge has been exchanged, travelling through the world, according to a movement of constant diffusion (Braudel, 1981), whose scope and speed depend both on social processes such as learning by doing, learning by using, learning by observing, learning by cooperating and learning by interacting, either by communication technologies from time to time available. Every age has seen the birth of organisations and institutions in which new forms of archiving, teaching, learning and knowledge development are

experienced and established (Burke, 2000). The emergence of ways of trading and exchange of knowledge and the development of legal instruments, such as intellectual property rights in order to allow its economic exploitation, are key chapters in the history of capitalism. However, since the second half of the twentieth century, what distinguishes the advanced economies is the relationship they have with knowledge. An intense relationship, in which knowledge and those that generate it are the key resources and the main sources of competitive advantage of the economic system itself and its socio-economic actors. A so deep relationship that expressions such as knowledge-based society and knowledge economy are now in common use (Foray, 2000).

What are the features that make the knowledge economy a new socio-economic paradigm? The shift from a tangible-asset based economy towards a knowledge based economy shows among its prerogatives the more and more increasing needs for: a) technological convergence and b) search for economies of flexibility, creativity and of knowledge integration (Simone, 2011) (figure 1).

a) *Technological convergence*. A first prerogative of the knowledge economy is the loss of sharpness of industries boundaries. Knowledge capitalism is characterized by a process of increasing hybridization between industries due to the spread of adaptive, multitask and transverse technologies, such as optics, electronics, information technology, telecommunications, new advanced materials, biotechnology. Knowledge relevant to a sector comes from ‘far’, from other sectors; antecedents and distinct technological trajectories become highly integrated and interdependent and the technological convergence process becomes more marked (Valdani, 2001: 15).

b) *Economies of flexibility, economies of creativity and economies of knowledge integration*. The knowledge economy does not deny the importance of economies of scale, which are certainly one cornerstone of competitiveness in many areas. However, alongside these, it sees the growing importance of economies of flexibility and creativity and economies of knowledge integration, as key conditions for innovation under conditions of high environmental complexity. Hence, the importance of flexibility based on intangible assets, namely flexibility gained leveraging on slack linked to creativity, ability to problem setting and problem solving and human resource experience: all elements of intangible slack (Barile et al., 2012; Renzi and Simone, 2012). Creativity, discontinuity, serendipity and analogical thinking then become the keystones to innovate processes, products, strategy and organisational models.

Because of these prerogatives, the knowledge economy requires all economic actors to enrich their information variety endowment in order to survive and develop. Starting from this issue, in the following we try to answer to the question: What kind of architecture of capabilities is asked in the knowledge economy to face the increase of the requisite information variety?

A way to ensure the requisite variety (Ashby, 1971) to individual and organisations is that of a T-shaped endowment. A T-Shaped configuration is an endowment which includes both vertical competences (I-Shaped competences) (i.e. deep competences: information units and specialized knowledge in at least one discipline), but also ‘horizontal capabilities’ (Barile et al. 2015). With “horizontal capabilities”, we refer to boundary crossing capacities *latu sensu*, as to say we mean capabilities that allow or strongly support connection/link, whatever kind of connection/link: link between heterogeneous specialized knowledge (vertical knowledge); link between problems searching for solutions and link between solutions searching for problems; link between people that have different cognitive frame because they live or work separated by geographical, organisational, hierarchical or cultural boundaries. In other words, it treats of ‘bridge capabilities’, capabilities that play a crucial *synapses role* to grant continuous learning and continuous



innovation that are the key process to survive in the 'rubbery' landscapes of our time. In rubbery landscape, organisations compete with other systemic entities by building the competitive advantage not so much through the control of resources, but through the development of ever new combinations of competences firm-specific and, consequently, inimitable. In fast changing contexts, the mechanisms of formation of competitive advantage are re-interpreted on the basis of the development of new *competences* through a structured process of combining and recombining of basic capabilities, embedded in the operative structure of the firm, guided by the decision maker endowed with appropriate *dynamic capabilities* (Teece, Pisano, and Shuen, 1997).

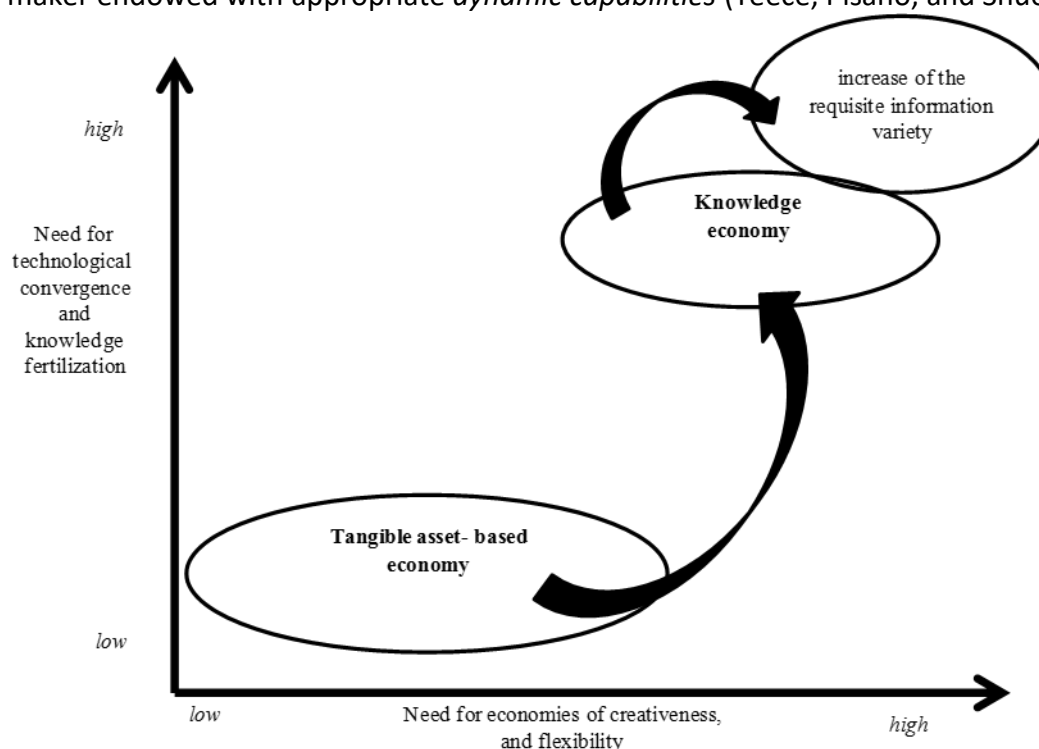


Fig. 1 – The emerging needs in the knowledge economy. Source: our elaboration

## 2.The individual endowment of capabilities: a T-shaped model

The need for T-shaped Human Resource has been widely recognized in the last decade (Hansen, and von Oetinger, 2001; Spohrer et al., 2007). In essence, the increasing need for T-shaped Human Resource arises from the necessity to conjugate deep vertical and broad horizontal competences enabling to effectively move across different disciplines and systems. In the common representation of T-shaped professionals 'analytic thinking' and 'problem solving' represent typical vertical competences, while 'critical thinking, communications, perspective, global thinking, project management, network', etc. qualify horizontal competences (Spohrer et al., 2007; Morin, 2007; IfM and IBM, 2008; Spohrer and Maglio, 2010).

Rooting on psychological and cognitive mechanisms literature and on organisational behavior literature, in the following of this section a psycho-cognitive interpretation of the T-shaped concept is discussed leading to deepen our interpretation of T-shaped knowledge. Focusing on the horizontal bar of the T, we wonder about the psycho-cognitive mechanisms that allow, facilitate or support the 'connection processes' (connection among ideas, knowledge, people, cultures,

organisations, countries) that enables the developing of the horizontal bar. Our effort is to identify those “synapsis” capabilities playing a crucial role in linking heterogeneous ideas, in matching solutions searching for problems and vice versa, in know-how trading and in knowledge brokering and sharing or in creating good socio-emotional conditions to promote those processes. It treats of bridge capabilities that sustain an endless knowledge flow inside and among teams and organisations, a flow that is more and more viable for the innovation process effectiveness (Barile et al., 2015).

Differences in bridging capabilities of Human Resources could play a difference on organisational effectiveness: firms best in class in innovation got best bridging capabilities both at individual than at organisational level. For this reason is important to identify what are bridge capabilities and how they work. According to Barile et al. (2015), the key ‘horizontal capabilities we highlight as characterizing a T-shaped individual endowment are the following: wishful thinking, lateral thinking, open-minded gifts, knowledge-seeking capacities, and social intelligence. Although it is not possible to establish this in an univocal way, we could argue that the first four capabilities are related to cognitive mechanisms that bridge and recombine ideas and knowledge in new ways. These are mechanisms that are closely related to creative and innovative acts. The latter (social intelligence) is a gift that connects people in a way that promotes consonance and resonance in social contexts (in family, at school, at work) (figure 2).

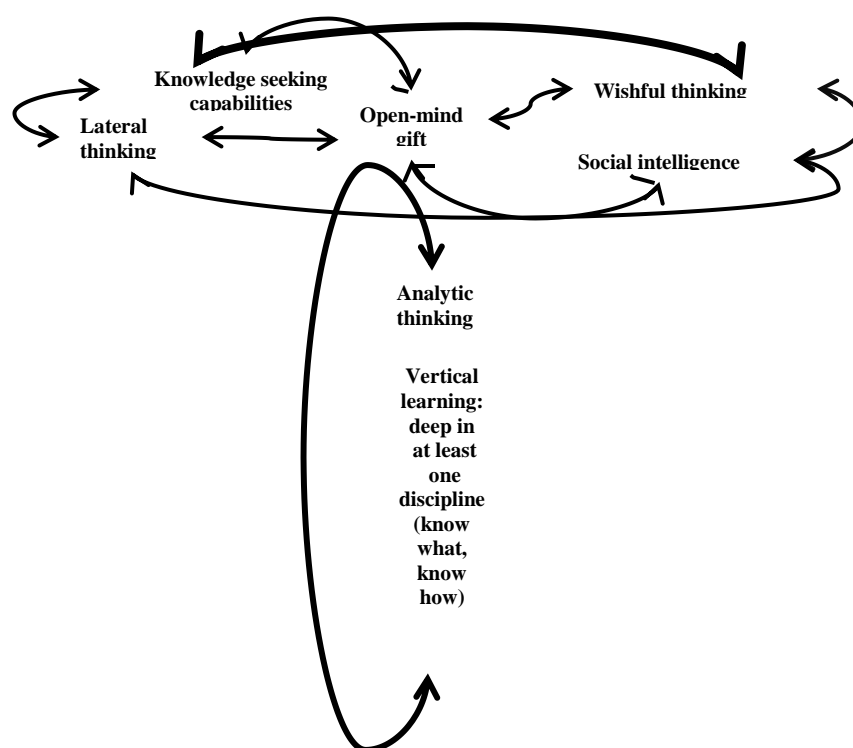


Fig. 2 – The individual T-shaped capabilities set. Source: Barile et al., (2015).

*Wishful thinking.* It concerns the relation between wish and opportunity on the basis that wishes and opportunities reciprocally affect each other. In the Aesopo’s tale, the fox that doesn’t succeed to pick the grapes, it convinces itself that the grapes is unripe. In this tale, wishes adapt themselves to the opportunities. But there are also other kinds of cognitive mechanisms regarding the relation

wishes-opportunities. One is relevant to shedding light on the horizontal dimension of the T-shaped set: the *wishful thinking*. A thought able to wish; a thought that emerging from a wish creates a new opportunity; a thought that is the true seed for any act of creation and innovative idea (Andreoli and Provasi, 2011: 49) and is capable of triggering new future scenarios driven by a syntropic force.

*Lateral thinking*. Lateral thinking is the realm where problem creation and problem solving are faced according to an analogical approach: new ideas originate from new re-combinations of extant ideas, by original, unusual, unlikely matching of knowledge belonging to multidisciplinary fields. For all these reasons, lateral thought is re-combining and re-setting. It is recombining in the sense that when it works, it tries to re-shape a consolidated model, putting together the same elements, the same ingredients in new ways, obtaining new models or original recipes. Insofar as it is re-combining, it is re-setting because the usual thought trajectory is diverted and the individual cognitive and behavioural frames change (de Bono, 1969; 1970; Watzlawick et al., 1974).

*Open-mind gift*. The gift for new experiences and the curiosity for what is new joint to the capacity to look at the same phenomenon with different glasses, with different points of view, with relative flexible cognitive frames, in an anti-conformist way. An open-mind person likes exploring unknown phenomenon, doesn't avoid unfamiliar situations and has heterogeneous interests (Barrick and Mount, 1991; Goldberg, 1992).

*Knowledge seeking capabilities*. It refers to the capacity to get access to further data, information and knowledge and it is of primary importance to bridge geographically or organisationally scattered knowledge. It involves knowledge about access to further knowledge (know who, know where). If I know the sources of knowledge, I can exploit knowledge. If I don't know where they are, I never know about the lost opportunities. It grows up from experience, learning by doing and leaning by observing. However this capability is difficult to codified and to teach, it is becoming more and more critical to face knowledge economy environment where managerial and technological knowledge is becoming more and more globally scattered (Simone, 2011: 15).

*Social intelligence*. Human history is a path of relations. The problem of human existence itself is a relational problem. Social intelligence is a fundamental fitness mechanism. Its functions are to allow us to participate, to become part of the world, to establish relations with other human beings. It enables Human history goes on by interactions and cohabitation (Andreoli, 2001: 57). Social intelligence involves collaborative mind and paying attention to other people feelings (Sennett, 2012: 17). It is made up of two groups of ingredients: social consciousness and social capability. The first one refers to a wide range of capacities: basic empathy (the capacity to perceive human beings emotional and not verbal signals); empathetic attention (listening to other people; understanding other's people thought and intentions); social knowledge (knowing the social dynamics). The second one –the social capability- refers to the effectiveness of interactions and includes influence (the power to shape the dynamic of a social relation) and concern (taking care for other people need) (Thorndike, 1920; Goleman, 1995; 2006).

Horizontal capabilities and vertical competences are complementary and not antagonistic.

Vertical competences broaden the effectiveness of horizontal capabilities in correctly exploiting the alternative generated by these latter. As repeatedly mentioned, technical knowledge, typical vertical element rooted on know what and know how, needs repetition, routine and its improving depends on how repetition is framed. As long as we develop a technique, the content of what we

repeat changes: there are moments in which something happens that unlocks a situation and a qualitative leap is accomplished.

That's the moment of virtuous interaction between vertical competences and horizontal capabilities. Technical knowledge develops thanks to wishful thinking, open-mind gift and lateral thinking and thanks to the capacity of learning by interacting and by observing. Horizontal knowledge ties are effective to generate and find alternatives; vertical knowledge is effective to develop and to refine the single alternative. Horizontal knowledge improves the effectiveness of vertical deepening in offering to them a wider range of alternatives. Vertical knowledge broadens the effectiveness of horizontal knowledge in analytically exploiting the alternative generated by horizontal capabilities. Horizontal capabilities open problems, match heterogeneous fields, search solutions far from the problems source, promote network of cooperation. Vertical competences are focused on local investigation, go into a discipline by vertical learning rooted on routines and repetitions (Barile and Saviano, 2013).

### **3. A nesting way to conceive organisational architecture: from the individual to the organisational level**

As a result of the increased complexity of the space, organisational evolution of companies, of the constant growth of the level of competition and globalization of markets, the importance of resources has established, now representing a widespread belief, skills and competencies to achieve the competitive advantage. Through this survey perspective companies represent a repository of knowledge, which are organisations that know how to do things, and indeed a single company, at a particular time, is the depositary of a very specific range of productive knowledge, range that often implies its own features for which it differs from the seemingly similar companies in the same productive sector. This knowledge is stored in the form of capability and competency; in particular, with the term 'capability' we mean the set of abstract potentialities owned by a system regardless of how that potentialities are actually used. With the term 'competence' we refer to the potentialities demonstrated by a system in action, may be directly deduced from its behavior in a specific situation. The difference is crucial to discriminate what a system is able to do in theory, from what it actually does in a specific situation. The transition from the capability to competence requires the comprehension the context of the specific competence of capacity, emerging clearly, through the assimilation of the rules that govern it. Abstract thinking is fundamental to transfer capabilities from one situation to another, which allows to solve the problems we have not met before through new implementations of contextualization and potentialities (competences). The role of organisations is, therefore, to provide the appropriate framework to facilitate resource planning and usage through the emersion of appropriate competences. The most critical aspect is to conceptualize, at organisational level, related capacity to the owned resources and to develop, giving them an operational mark in a management system capable of implementing them.

On the basis of the dominant orientation toward a vertical or horizontal pathway of knowledge development, or a balanced combining of the two, different organisational operative solutions can be identified, as illustrated in figure 3.

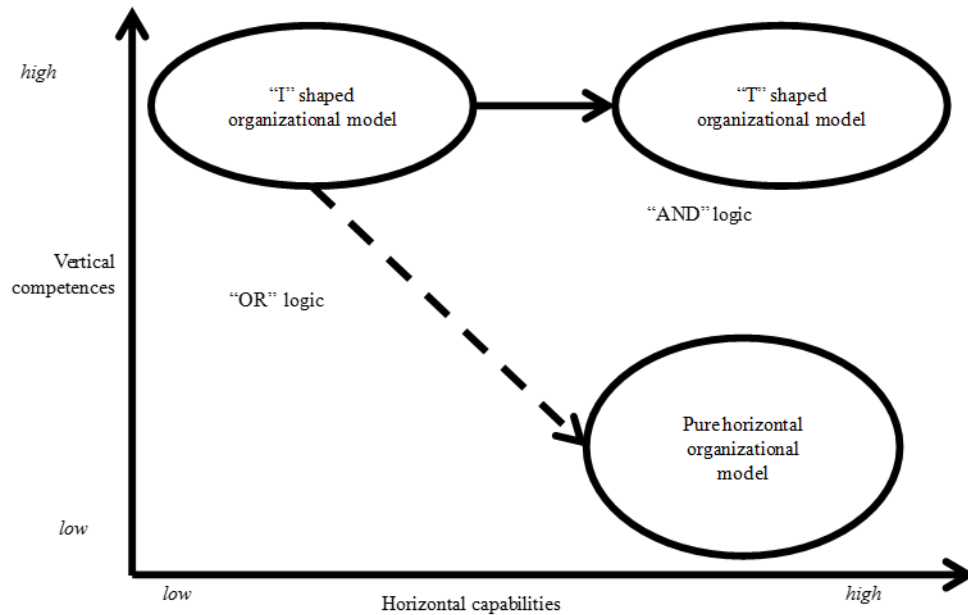


Fig. 3- Combining horizontal capabilities and vertical competences.  
Source: our elaboration

It should be noted, however, that a T-shaped knowledge based organisation does not imply an 'or' logic between vertical individual competences and horizontal individual capabilities, rather an 'and' logic between the two clusters of individual capacities, as to say an integrating logic rather than a mutually exclusionary logic. The more the organisational model will strive to promote a positive feedback between the two bars of the T, the more the organisation will be able to deal effectively with the challenges of knowledge seeking, exploring, sharing and re-combining at global scale. As well as organisations of the past have been marked by a focus on the vertical bar competences and even a shattering of the vertical segment, the future will be based on the integration between the two bars, rather than on their mutual exclusion. This orientation will involve both an effort to recognize the importance for innovation of the horizontal bar of the set of skills at the individual level, and an effort to imagine and design organisations which are themselves T-shaped, and to promote its development.

From this point of view, the individual (the single "T") has, in the organisation, a similar position to that of the innermost doll of a matryoshka (figure 4).

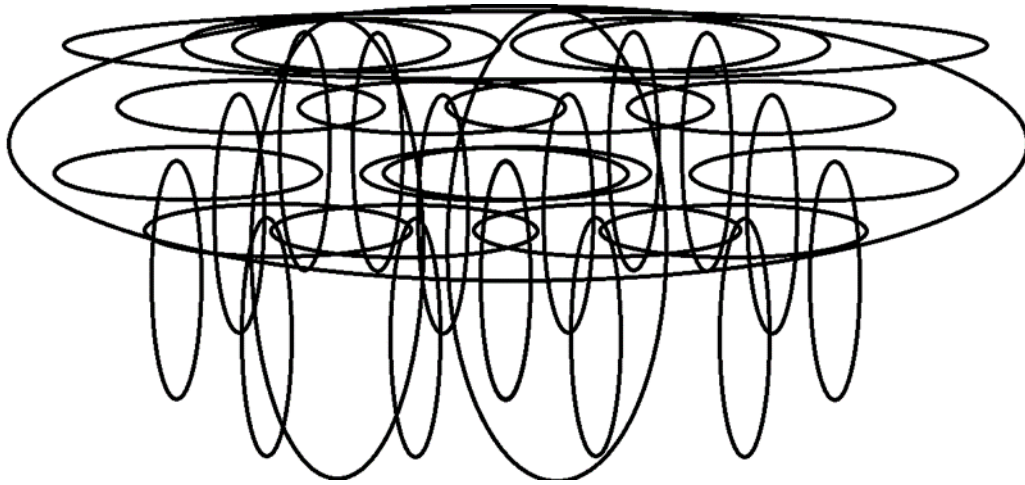


Fig. 4 - T Matryoshka organisational model. Source: our elaboration

The ratio of recursivity is used to compare, in managerial terms, the goodness of different solutions. The scheme has the explanatory power of a synthesis that is able to ensure any shift in perspective among the parts and the whole of the observed system, maintaining, and not losing sight of the unity of representation. An organisation structured, thanks to the plasticity and the vicarious operation is more likely to survive.

#### **4. Organisational development of a nesting architecture of T- shaped capacities: the crucial set of organisational variables**

The emerging need for a nesting T-shaped endowment set leads to considerations about the critical issues related to its effective implementation and management in order to sustain organisational development. To troubleshoot high cognitive and computational complexity such as asked by knowledge economy, organisations must be designed according to a crucial set of organisational variable: self-organizing principle; relational-technologies and cultural values.

*Self-organizing principle.* People can no longer be seen as elements of unpredictability to be normalized; instead, they should be viewed (taking as a metaphor the dissipative structures of Ilya Prigogine's Nobel Prize for Physics) as true negentropic or, better, syntrophic resources that are able to generate connections between ideas, organisations, countries, cultures, and scientific fields and to widen the range of strategic alternatives. This vision of people as syntrophic resources encourages the adoption of a distributed logic in the design of operative structures. Distributed logic means that the burden and responsibility of the organisation do not focus on the head of a position or an organisational unit but are distributed in the sense that the framework of relations is neither strictly top-down nor dropped default ex ante. Rather, it is fluid and emerges bottom-up based on the dynamic processes of participation, and it co-evolves according to the contributions and needs of the individual in relation to the situation to be addressed (strategic innovation, product, process, promotion of a collaborative partnership). A distributed logic requires that command and control are replaced by the coordination mechanism of self-organizing. In opposition to the rigid workflows are highly plastic architectures whose adaptive modeling depends on the interaction of people; the structure takes on a configuration during organising. There is no longer a sharp linear sequence between the design phase of the interaction, and the

interaction itself; it is much similar to a coordination by mutual adjustment rather than via direct supervision. It is an operative structure that moves away from the classical hierarchical model and closer to the organisational structure of an open source community. The organisational design is outlined while interacting; it is not completely a priori devised plan except in rudimentary, embryonic sketches. It is an architecture that reveals itself while individual fit each other. This view implies a relevant change in perspective from a static, structural view of organisations to a dynamic, systemic view in which the focus shifts to interaction. We must replace the metaphor of pyramid building with that of a multi-polar fluid network. A mainly emergent structure, that is self-organized and designed on a distributed logic, allows us, on one hand, to tap into cognitive slack (i.e., directories or repositories of knowledge, experience, and creativity that are otherwise difficult to access on the basis of a top-down design) and, on the other hand, to amplify on a much larger scale the potential of individual capabilities.

*Relational technologies.* Self-organizing mechanism and distributed logic need a coherent info-communicational technological support to be implemented. The key technologies to coherently support an emergent organisational structure are distributed technologies. Distributed technologies, from free phone calls via the Internet to social computing through open source software, constitute an archipelago of applications, both computational and multimedia, that are independent, highly interoperable, and distributed in a network among a large number of users who are not in a hierarchical relationship. Overcoming the stand-alone applications of Web 1.0, the distributed technologies and their interaction encourage the emergence of a collaborative and organisationally more complex virtual environment: the Web 2.0. These 'weapons of mass collaboration', with no central allocation of resources and different properties, form a real cooperative space that enables, thousands of geographically dispersed people to co-create, a wide range of intangible and non-rivalrous output. These technologies allow for the use of cognitive slack (i.e., directories as otherwise inaccessible repositories of knowledge, experience, and creativity that are organisationally and geographically dispersed or sectorally or culturally unfamiliar) and the replication on a much larger scale of the positive features of a team-based organisation (i.e., constructive confrontation, the high potential for problem solving, the development of meta-knowledge). The use of these technologies therefore supports distributed models at the organisational level (that limit, on a global scale, problem solving and the production of content for a broad spectrum of issues): from product, process, and organisational innovation to customer care and from brand management to market analysis. One of the features of services and applications of Web 2.0 is that they allow using the network as a personal desktop. With the tools of Web 2.0 content is created, revised and distributed directly to the Web, without requiring the intermediation of traditional software stored on the hard drives of personal computers. Indeed, a typical feature of the contents developed through Web 2.0 applications is that they are governed by the neo-mechanisms of excludability (e.g., creative commons licenses) that promote their circulation and reuse. All these features make Internet the more efficient and flexible platforms. In the Web 2.0 the "user" and "author" categories become increasingly evanescent and lose their meaning. Web 2.0 involves a relationship between administrator and user less hierarchical and more equal. Users generate their own content and dress at the same time the role of producer and consumer, thus playing the dual role indicated by the acronym prosumer: a model based on the intensive sharing of information and on an almost simultaneous generation, editing and indexing of content placed online by 'multi-role' individuals. Features easily traceable in applications such as social networking sites, wiki and folksonomies. In these and other applications,

the distributed technologies have enriched the variety and increased the power of co-ordination mechanisms that can be used in the virtual world open up to support organisational architectures, to ensure coordination of ubiquitous networks and to make viable even behind a computer monitor coordination through mutual adaptation. The technologies in question make it manageable 'choral' projects for which the burden and responsibility of the organisation are not concentrated in the hands of a position or an organisational unit, but are also distributed in the sense that the structure of relations is neither strictly top-down nor dropped default ex ante, rather it is fluid, bottom-up emergent, based on the dynamic processes of participation and self-organisation and co-evolves according to the contributions and needs of individual nodes. The foregoing has important implications for what concerns the economic side of the management of T-shaped innovator with the support of distributed technologies. These technologies enable enterprises, on the one hand, to draw on repertoires of knowledge, experience and creativity otherwise inaccessible, either because they are geographically dispersed, or culturally unfamiliar. On the other hand, distributed technologies allow to replicate at a much larger scale the positive connotations of team based organisation, namely the constructive confrontation, the high potential for problem solving, the development of meta-knowledge.

*The cultural values set.* To effectively implement a nesting T-shaped organisation, a deeper, intangible variable is needed: a coherent set of cultural values that consistently recognizes and promotes both the vertical dimension and the horizontal dimension of individual skills. In addition to the vision of people as negentropic resources, a second value applies to the concept of the 'border'. In an I-shape-based organisation, the boundary of the organisational unit results in a maximum specialization in solving problems inside the unit, but it also means the maximum distance from the rest of the organisation. This is the so-called 'silos effect': the isolation of individuals and departments in separate, poorly communicating units in which information is gathered that would be valuable to other areas of the system's organisation. A T-shape-based organisation requires a cross-border culture or even a boundaryless mindset. The boundaries between business units must be deliberately ambiguous because solving a complex problem requires more than specialist technical knowledge; it requires wishful and lateral thinking, an open-minded gift, a fluid and indeterminate communication process, and a good dose of social intelligence spread among all members. However, the promotion of values horizontally does not mean denying more 'traditional' vertical values. 'T-organizing' means thinking in a more complex way than 'I-thinking'. We must think about multiple dimensions simultaneously and in an inclusive manner without trade-offs. A typical T-shaped value is one that can be summed up as the 'ethics of the craftsman'. The ethics that guide the work of the craftsman (as well as an artist or an athlete) are those of a well-done job for the sake of doing good, where routine and repetition make qualitative leaps thanks to the virtuous feedback between vertical and horizontal cognitive mechanisms. The craftsman improves because he repeats and because he experiments. Here, then, is another fundamental value in a T-shape-based organisation: conceiving the work as a human activity based on the freedom to experiment. To ensure this, it is necessary to establish a strong tie between a problem's perception and solution, and it is necessary to promote a vision of error as a positive value, not a deviation from perfection. Error is not the negative deviation from an absolute truth but rather is a positive tool in the pragmatic and contingent human learning process. Error is an opportunity to make qualitative leaps thanks to the virtuous feedback mechanisms between the horizontal and vertical dimensions of human capacities. It is an



organisational model that tips the search for economies of flexibility, creativity, and the integration of knowledge rather than the conquest of economies of scale.

At an operational level, these values find expression in a model of Human Resource Management that could be called 'Management by T' (MbT). Logic based on output (management by objectives, MBO) is integrated with a MbT logic that is guided by input and focused on the formation, development, retention, reward, and recognition of individual horizontal capabilities: to train and promote specialization and to enhance lateral and wishful thinking and social intelligence

A synthesis of our organisational, technological, and cultural view is represented in the framework of figure 5.

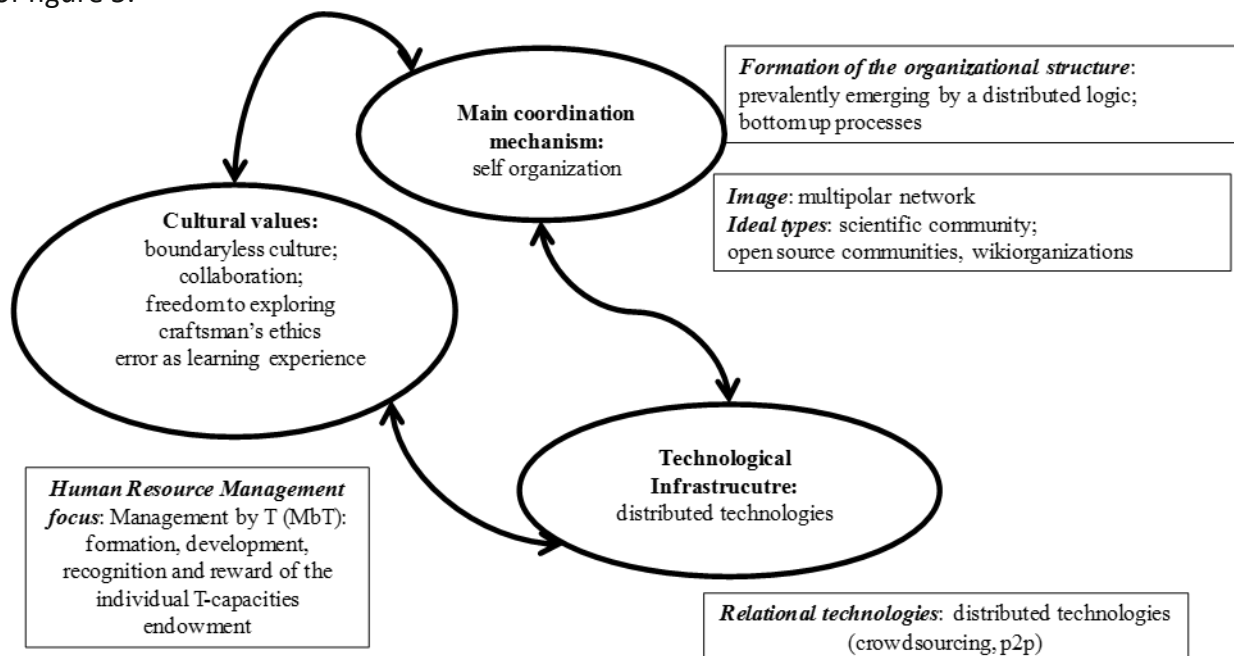


Fig. 5 - Developing a nesting architecture of T-shaped capacities: the crucial variable set. Source: our elaboration

## 5. Conclusion: managerial implication and future research path

In the paper, we propose an innovative way to think of organisational frame characterized by a nesting ("recursive") architecture of T-shaped capacities. The "recursive" way to think of a T-shaped capacities set is new and it could lead to new way to shape and link together different dimensions of an organisation. We argue that we could describe a T-shaped capacities set in terms of a nesting architecture, quite similar to a recursive fractal frame at any level of analysis – individual, structure and system. Our interpretation has interesting managerial as well as research implications, opening to further research questions. The managerial implications embrace human resource management at different levels essentially implying a shift from traditional approaches strongly affected by the dominant specialization paradigm to a more flexible and open view of the organisation itself. Furthermore, the way to conceptualize a T-shaped capacities set at different logical levels sheds light on the knowledge economy's specific need for an increasing cognitive variety at any organisational level. The presence of T-shaped decision makers may equip the organisation with the cognitive richness and abundance (variety) necessary to effectively survive in environmental conditions of complexity.

The “recursive” way to conceive a T-shaped capacities set could support organisation in defining the cognitive richness and abundance (variety) necessary to effectively survive in environmental conditions of complexity. The principle of Ashby’s law of requisite variety is not an abstract concept (Ashby, 1971). Rather it is a very concrete managerial principle: if an organisation is not capable to change by adapting itself in response to external changes, it will not be able to survive.

Here is a call for researchers in the field of management: to direct the development of business models in a strategic way, relying both in the vertical dimension of knowledge endowment and in the horizontal one. A shift to a more flexible, open and responsible view of organisations, less focused on the ‘right specialization’ of the structure, and open to the unpredictable outcomes of the human capacities which are essentially emergent in nature.

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# Organizational Development of Russian SMEs: Current trends

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## Abstract

The research paper sheds a light on Russian SMEs transition and specifically on their current development and evolution. The paper attempts to explain what are the main drivers and antecedents on SMEs during the period 2010-2015. Along with it, it is applied detailed analysis of Russian SMEs in terms of key performance indicators, turnover and volume of sales. Further, are given potential developments and trends within SMEs in Russia. The paper draws attention to socio-economic and political factors influencing SMEs development.

**Key words:** Transition, SMEs, Russia, current trends, developments

## *Purpose*

The paper attempts to explore current developemnts of SMEs in the Russian Federations, their antecedents on the economy and future scenarios for their evolution. Furthermore, the paper revises literature on SMEs transition.

## *Design/methodology/approach*

Literature Review on SMEs transition and Quantitative research on Russian SMEs and specifically of their transition in the Russian economy.

## *Findings*

There are some very light signals of the change of the economic policy in Russia towards increasing independence of the economy from the oil and gas prices on the international market, and more attention from the state to the SME sector development.

## *Originality/value*

This paper demonstrates that the Russian SMEs are picking up speed in terms of economy growth and they are becoming major engines for exiting of the Russian economy from economic crisis

## Literature Review

Russia is a geographic giant with rapidly growing economy and great capacities in terms of natural energy sources and investment possibilities. Promoting small and medium enterprises (SMEs) as the main generator of growth, employment and revenue diversification has become a focus of national governmental policy. The most prominent unitary indicator of growth has been growth in

sales (Ardishvili et al. 1998; Hoy et al. 1992; Weinzimmer et al. 1998; Wiklund 1999). On the other hand, the majority of firms start as small organizations, exist as small firms and disappear as small firms. They never enter into growth trajectory (Aldrich 1999; Reynolds and White 1997; Storey 1994). In 2010 the government allocated 600 million euros (\$777 million) in start-up business incubators, micro loans, support for youth entrepreneurship, business training and 140,000 jobs were created. Still, small and medium-sized firms account for 20% of employment in Russia as of year 2015. The government aims to remove structural barriers in order to promote growth of SMEs. Russian SMEs currently represent less than 30% of the total workforce, but the government's intention is to increase it to 50% by 2020. The national strategy for further economic development focuses on increasing competition, creating a favorable economic environment that encourages long-term investments.

Russian government tends to make the Russian Federation one of the most enticing places to do business in Eurasia and a national initiative has been created to boost investment climate for all businesses-domestic and foreign. The investor climate agenda includes rigorous policy reforms varying from tax reliefs for investors to simplifying regulation, privatization, improving procedures for public tenders and supporting innovation.

Nowadays, in the international business literature and theories, SMEs represent prevailing source of economic growth, dynamics and flexibility in the developed and developing countries. It stems from the fact that SMEs are the dominant form of business organization, representing approximately 95-99% of all enterprises. According to the Organization for Economic Cooperation and Development (OECD), SMEs represent more than 95% of enterprises and contribute to creating 60-70% of the jobs across the Globe. The latter SMEs are presented in all sectors of the economy, and it is especially noticeable in the area of services, catering, wholesale, retail trade, consumer goods and food industries. Thus, SMEs are key players in promoting competitiveness and bringing new products or services to the market.

There is no global agreement on the definition of SMEs, but one thing virtually every country does agree on is that they are essential for economic prosperity, as SMEs make up the vast majority of businesses in most countries and employ a significant percentage of the global workforce.

Popular definitions of SME usually vary when considering employee counts, turnover or balance sheet figures. This study uses the definition for SME as presented by the European Commission (2005) which states that a small enterprise employs 10 to 49 people, has a turnover of two to 10 million euros, or has a total balance sheet ranging from two to 10 million euros. For medium sized enterprises the corresponding figures are 50 to 249 employees, turnover of over 10 million euros but less than 50 million, and a balance sheet totaling more than 10 million euros but less than 43 million. This number, however, varies across countries. In the words of the Organization for Economic Co-operation and Development (OECD) Glossary of Statistical Terms "the most frequent upper limit designating SMEs is 250 employees, as in the European Union". Some countries set the limit at 200 employees, while the United States considers SMEs to include firms with fewer than 500 employees. In most OECD countries small enterprises are those with fewer than 50 employees, while micro-enterprises have at most 10 or, in some cases, 5 employees. In addition to this, financial assets are also used to define SMEs.

It is also noteworthy, that there are several challenges that have to be met when analyzing data about the size of the SMEs across countries regarding comparability and consistency, as different nations adopt different criteria. In most of the cases, these criteria to define small and medium enterprises include employment, total net asset, sales, and investment level. It is quite difficult to analyze and compare the landscape of SMEs, as there is often the lack of existing data on SMEs and widely diverging definitions used for SME categorization. Mainly, employment is the basis for definition. As it was mentioned above, the majority of sources define SMEs to have a total of 250 employees. Basically, there are two different accrual methods, namely the qualitative and the quantitative method in order to categorize SMEs (Kayser, 2006).

The qualitative (ordinal) differentiation uses a catalogue of variables full of descriptive criteria that might be applicable to SMEs. The more specific criteria are fulfilled, the more obvious is the differentiation between SMEs and large concerns. According to Glancey (1998) one of those criteria is the nature of the decision-making process of a company. He argues against quantitative differentiations stressing that a firm's key factors can diverge widely between the individual industries and regions. In SMEs, control and ownership are in most of the cases in the hands of one person. In contrast, in large firms there are on the one hand usually more decision makers and on the other hand they are more likely to act in favour of the company's shareholders than for the benefit of the firm (Glancey, 1998).

SME definition in Russia was stipulated by the Federal Law of July 24, 2007 № 209-FZ "On the development of small and medium entrepreneurship in the Russian Federation" and by the Government Decree of February 9, 2013 №101 "On the thresholds of sales revenues for each SME category"(See Table 1).

### **Methodology and Data Collection**

The paper employs secondary (aggregated) data collected for the period 2010-2015 on Small and Medium-Sized Companies in Russian Federation. The statistical data is collected from the Russian Statistical Department. Furthermore, the research paper employs key performance indicators (KPIs) of the Russians SMEs in order to reveal the current developments and changes which have taken place since the financial crisis in 2008. Moreover, the research paper comprises of detailed characteristics on several important factors influencing SMEs development as national policy for SMEs tax ease off, policies for regional development, cross-border business activities between the Russian SMEs and foreign entities, etc. In the paper are employed descriptive statistics demonstrating the emerging trends for economic growth among the Russian SMEs as a part of their organizational development. Then in the last part of the paper it is discussed recent development of the Russian SMEs in terms of external factors as legislation amendments, governmental interventions and business competitors' development which are influencing the key performance indicators in the selected SMEs.

### **Discussions and Findings**

As it was noted, the European Commission has introduced the definition for SMEs in 2005, which includes staff headcount, annual turnover and balance sheet. Those criteria are not uncommonly used internationally, but with varying thresholds.

The following table summarizes the differences in definitions of medium-sized, small and micro enterprises in Russia and the European Union.

Overall, in order to count as a SME in Russia, firms do have to fulfill the following quantitative criteria regarding the number of employees and the annual turnover. In contrast to the EU there is no option to choose between turnover and the balance sheet.

Russian Law provides definitions of two categories of companies based on the dimension of the enterprise activity, the small enterprises and the large and medium enterprises. These definitions are important because they are used in officially published statistics, which are calculated in accordance with the law in ancillary normative acts such as the regulations issued by the CBR. The range of enterprises constituting small business is defined by Federal Law Nr. 88 of 14 June 1995 “On State Support to Small Business in the Russian Federation”, which includes individual entrepreneurs without legal status, farmers and small enterprises legal entities. In addition, the law defines the small enterprises as enterprises being legal entities, registered with the State and having no more than 100 employees in total. In practice, of these three categories, only small enterprises have retained the attention of officials and have been subject to statistical record keeping. As a result, there has been little systematic analysis of the role played by individual entrepreneurs in the Russian economy. It is estimated that at least 40% of Russian SMEs are in the “shadow economy”, i.e. are not registered, keep no official books and pay no taxes. This is particularly true in the following industries: textile, trade of technical equipment and computer programmes, alcohol and green markets. Moreover, statistics concerning small enterprises in Russia are particularly unreliable due to the following reasons:

- many enterprises encourage employees to take on the status of individual entrepreneurs in order to benefit from the simplified tax system available to small enterprises;
- much individual entrepreneurial activity goes unregistered, potentially under-estimating the contribution of small business;
- large number of employees are part-time employed in two or more businesses but are registered only in one.

Also, a major setback of the definition of small enterprises is that it does not take into account financial criteria. As a result, a large number of enterprises active in wholesale in particular qualify as small enterprises in Russia while they would be considered otherwise in Western countries.

Also, entrepreneurs in Russia face different local practices depending on where they establish their businesses. The demand for business services is usually lower in smaller cities than in large business centers. That can lead to bottlenecks and higher costs for services in large cities, but these also benefit from economies of scale and might have more resources to invest in administrative modernization.

The initial goals of state policy in the area of development of SMEs in Russia are as follows:

- developing small and medium businesses with the purpose of creating a competitive environment in the economy of Russia;

- fostering conditions favorable for the development of SMEs; rendering assistance to SMEs in the promotion of goods and services;
- growing the number of SMEs;
- multiplying the share of taxes paid by SMEs in the tax revenues of the federal budget, the budgets of the subjects of the Russian Federation and local budgets.
- The main principles of state policy in the area of development of SMEs in the Russian Federation are as follows:
- the designation of the powers of supporting SMEs among governmental bodies;
- the responsibility of governmental bodies for ensuring favorable conditions for the development of SMEs;
- the participation of representatives of small businesses, and not-for-profit organizations expressing the interests of small and medium businesses in the formation and implementation of state policy in the area of development of small and medium scale entrepreneurship, expert examination of draft normative acts of the Russian Federation, draft legal acts of subjects of the Russian Federation, draft legal acts of local self-governing bodies regulating the development of small and medium scale entrepreneurship;
- the provision of equal access for small and medium businesses to support in accordance with the terms and conditions for the provision of the established governmental programmes and for the development of SMEs.

### **Key SME sector indicators in Russia for 2015**

The total number of registered operating SMEs in Russia as of January 2015 is 4.5 million, including micro-, small, medium-sized enterprises and individual entrepreneurs. They provide jobs for over 18 mln. people, which is 25% of total employment in Russia's economy.

According to Rosstat, the core of the SME sector in Russia (94.3%) is composed of segment of individual entrepreneurs - 2.4 mln. or 53.3% of all SMEs - and micro enterprises - 1.9 mln. or 41% of all SMEs. Small enterprises account for 5.2% of all SMEs, while medium-sized enterprises make up 0.3% of all SMEs. Micro enterprises and individual entrepreneurs account for 55% of all jobs in the SME sector.

### **SME performance trends in 2010-2014**

In 2010-2014 the number of microenterprises steadily grew, although the growth rates in recent two years have decreased, as it is shown in Table 2. In fact, the number of micro- and small businesses has noticeably increased by 28% within 4 years, from 1644.3 thousand in 2010 to 2103.8 thousand in 2014. In 2014, the total number of micro enterprises increased almost by 1/3, as compared to 2010, and attained 1868.2 thousand. However, the number of new microenterprises in 2014 was only 40 thousand, as compared to 2013, or 2.2%.

The growth in number of micro- and small enterprises in recent 5 years has been accompanied by a lowering in number of medium-sized businesses. The number of medium



businesses in 2014 was the same as in 2013 or 13.7 thousand. The ½ downsizing of the medium business segment in 2013, 13.7 thousand, against 25.2 thousand in 2010, is due to application of new criteria for SMEs, including sales revenues and share of private capital. The latter one is the most complicated criterion in terms of application scope. Sometimes it was applied not only to company founders - individuals, but also to the organizations which were company founders.

The five years, 2010-2014, demonstrated a noticeable 34% increase in employment at microenterprises, from 3.3 mln. people in 2010 to 4.4 mln. people in 2014. The total employment at micro- and small enterprises grew within four years by 10.2% - from 9.7 mln. people in 2010 to 10.8 mln. people in 2014. In the segment of medium businesses the total employment reduced from 2.4 bln. people in 2010 down to 1.6 bln. people in 2014, or by 35%. The total sales revenues of micro- and small enterprises steadily grew within 5 years and attained 26392.2 bln. RUR. in 2014, which is 40% higher than that in 2010 or 18933.8 bln. RUR. The total sales revenues of medium-sized enterprises decreased within 5 years from 7416.2 bln. RUR. in 2010 till 5027.8 bln. RUR. in 2014, or by 32%. In 2014, one medium-sized enterprise employed, on the average, 121 people, small enterprise - 6 people, micro-enterprise employed 3 people (Table 3). In recent 4 years, 2011-2014, an average number of employees at micro- and small enterprises did not change, while an average medium business tended to employ fewer people. SME distribution across Russia is uneven. Most of the small and microenterprises are located in the Central Federal District and Volga Federal District, accordingly, 27.3% and 17.5% of all micro and small enterprises. North Western Federal District ranks 3rd, with the share of micro- and small enterprises equal to 15.8%. Siberian Federal District ranks 4th, with 14.4% of all micro- and small enterprises. In the other federal districts the share of small and microenterprises does not exceed 10%.

As for employment, the share of employment at micro- and small enterprises in Central Federal District exceeds by far the other districts. Specifically, the share of total employment in small and microenterprises in the Central Federal District is 30.6%. The Volga Federal District ranks 2nd, with 21.4% of all employees engaged in small and microenterprises, while the Siberian Federal District ranks 3rd with 12.6% of all employees. The share of employees in the North Western Federal District is slightly less, 11.8% of all employees.

Sales revenues of micro- and small enterprises in these districts are: 36.6% in the Central Federal District, 18.3% in the Volga Federal District and 10.7% in the Siberian Federal District.

Most of the medium businesses operate in the Central Federal District- 26.7%, in the Volga Federal District -21.4% and in the Siberian Federal District- 14.6%.

These districts demonstrate the largest indicators of employment and sales revenues for medium businesses, as well. The share of total employment in medium enterprises in the Central Federal District is 27.9%, in the Volga Federal District-22.6%, in the Siberian Federal District-13.5%. The shares of sales revenues of all medium enterprises are 29.3% for the Central Federal District, 19.9 % for the Volga Federal District and 13.1% for the Siberian Federal District.

### **Structure of SME sector (legal entities).**

The structure of small and medium enterprises by sector in 2014 was mostly the same as before, with the largest share of enterprises engaged in trade and repair -38.7% of all SMEs (legal

entities). One fifth of all SMEs (legal entities) are engaged in real estate and services-20.3%. The share of SMEs engaged in construction was 11.9%, while the share of manufacturing SMEs in 2014 was 9.6%.

As for the segment of medium-sized enterprises, the share of manufacturers is more significant, being 24.6%, that is only slightly less than that of trade companies - 26.6%. The share of medium companies engaged in agriculture, forestry and hunting in 2014 was 16.8%.

Of interest are the data on financial performance of SMEs within 5 years. It is worthwhile looking at the ratio of profitable and loss-making companies. In 2014 the ratio-for micro-, small and medium businesses - was 80:20, that is, each 5th company was loss-making.

## **Conclusions**

As we see, the development of Russian SMEs is considered to be challenging. And, based on the official indicators of SMEs development statistics, the government has made substantial progress in developing a complex program for the change of the mentality towards the market-driven. There is no doubt, it would be costly for Russia, and it would take much time and effort, but bring benefits in the long run.

Analyzing the current situation, we would state that there are some very light signals of the change of the economic policy in Russia towards increasing independence of the economy from the oil and gas prices on the international market, and more attention from the state to the SME sector development.

It should be noted, that Russia is entering the next stage of its economic development by gradually switching from “large corporations” economy to the growth through the SME sector.

The main objectives of the SMEs Development in Russia are:

- supporting SMEs and SME infrastructure forming companies;
- mobilizing funds from Russian, foreign and international institutions to support SMEs;
- providing information, marketing, financial, and legal support to investment projects implemented by SMEs;
- taking measures aimed to increase the share of purchases of SMEs' goods, works, and services by customers, defined by the Government of the Russian Federation, in the annual volume of purchases of goods, works and services, in the annual volume of purchases of innovative products, high-tech products;
- creating information exchange between SMEs and the state authorities, local authorities, and other bodies and organizations with an aim to support SMEs;
- Submitting proposals on improving support measures for SMEs, including proposals on legislative improvements regulating this field.

The Russian government is spending billions of rubles, providing support to SMEs throughout the country. The financial support is provided in two ways:

- General tax system with tax benefits and simplified system of taxation.
- The first one consists of specialized and basic incentives for SME:

- tax benefit to small enterprises for using accelerated depreciation methods;
- SMEs engaged in production of consumer goods, construction industry and several other fields, do not pay income tax in the first two years of operating.

The second way implies transition to the simplified system of taxation. Under this system certain companies are free to choose to pay single tax or federal, regional and local taxes (including VAT, property and sales taxes). Enterprises using this taxation system do not pay the uniform social tax, but they are obligated to pay pension insurance contributions, VAT on imported goods and state duties. Under these conditions taxpayers are entitled to choose whether they pay a uniform tax at a rate of 6 % on the basis of all revenues or at a rate of 15% on the basis of income. In 2011, revenue from these special tax regimes, designed for SME, rose up to 15% and accounted 173.3 billion rubles. Tax reform, carried out in 2011, established new Patent-Based Simplified Taxation System. The Patent-Based STS might be used only by the sole entrepreneurs and allows performing business activity under the conditions of minimal tax burden and simplified reporting; the tax declaration is not required to be submitted, all payments are fixed and do not depend on the financial results of the entrepreneurship subject activity. In spite of the novelty of this tax system, experts note the significant rise of its popularity, revenue is announced to increase by two times.

To conclude, it is important to underline the great economy importance of SMEs for every country, as they perform multiple economic and social functions. In addition to tax deductions for budgets, SMEs develop economic sector by creating new workplaces and promoting market competition.

It is worth mentioning, that in the Russian Federation small and medium business is on the positive stage of growth, and it is engaged in the process of reaching the developed countries success. In spite of all drawbacks, the main aim has already been achieved. Russia's SME sector is increasingly gaining the attention of the Kremlin, and has been targeted by the State Duma and President V.V. Putin as a priority area for further development.

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**Table 1:SMEs classification in Russia**

| SME type | Employment          | Sales revenue  | Share in registered capital   |
|----------|---------------------|----------------|---|
| Micro    | < 15 employees      | < 60 mln. RUR  | Share of public bodies in the registered capital is less than 25%, share of foreign legal entities which are not SMEs is less than 49%. |
| Small    | 16 - 100 employees  | < 400 mln. RUR |   |
| Medium   | 101 - 250 employees | < 1 bln. RUR   |   |

Source:Russian Federal Law, 2007

**Table 2. Key SME performance indicators, as of January 1, 2015.**

| Type of SME                 | Micro   | Small    | Medium  | Individual entrepreneurs | All SMEs |
|-----------------------------|---------|----------|---------|--------------------------|----------|
| Number, thousand            | 1 868.2 | 235.6    | 13.7    | 2413.8                   | 4 531.3  |
| Share in SME sector, %      | 41.2    | 5.2      | 0.3     | 53.3                     | 100%     |
| Employment, thousand people | 4 431.1 | 6 358.4  | 1585.8  | 5 645.7                  | 18 021*  |
| Sales revenues, bln. Rubles | 9 699.3 | 16 692.9 | 5 027.8 | 10 447.5                 | 41 867.5 |

\*SMEs account for 25% of total employment. For reference: total employment in Russia as of end of 2014 is 71539 thousand people. Source: Labour and Employment in Russia. 2015. Statistical book. Rosstat, Moscow, 2015. 274 p.

Source: Small and medium entrepreneurship in Russia. 2015. Rosstat. - Moscow, 2015. - 96 p.

**Table 3. Key performance indicators of SMEs (legal entities), 2010-2014.**

|                                 | Small enterprises           |         |         |         |         |                   |        |        |        |        | Medium-sized enterprises |        |        |        |        |
|---------------------------------|-----------------------------|---------|---------|---------|---------|-------------------|--------|--------|--------|--------|--------------------------|--------|--------|--------|--------|
|                                 | Micro-and small enterprises |         |         |         |         | Micro-enterprises |        |        |        |        |                          |        |        |        |        |
|                                 | 2010                        | 2011    | 2012    | 2013    | 2014    | 2010              | 2011   | 2012   | 2013   | 2014   | 2010                     | 2011   | 2012   | 2013   | 2014   |
| Number of enterprises, thousand | 1644.3                      | 1836.4  | 2003.0  | 2063.1  | 2103.8  | 1415.2            | 1593.8 | 1760.0 | 1828.6 | 1868.2 | 25.2                     | 15.9   | 13.8   | 13.7   | 13.7   |
| Employment, thousand people     | 9790.2                      | 10421.9 | 10755.7 | 10775.2 | 10789.5 | 3320.0            | 3864.4 | 4248.9 | 4322.9 | 4431.1 | 2426.7                   | 1964.4 | 1719.5 | 1630.7 | 1585.8 |
| Sales revenues, bln.RUR.        | 18933.8                     | 22610.2 | 23463.7 | 24781.6 | 26392.2 | 5609.2            | 7028.3 | 8347.4 | 9101.3 | 9699.3 | 7416.2                   | 5150.4 | 4710.6 | 4717.5 | 5027.8 |
| Average monthly wages, RUR.     | 12367                       | 15743   | 16711   | 17948   | 19201   | 10612             | 12855  | 13898  | 15039  | 15774  | 17246                    | 19824  | 21537  | 23961  | 26065  |

Source: Statistical Yearbook "Small and Medium Entrepreneurship in Russia 2015". Rosstat. - Moscow, 2015. - 96 p.

**Table 5. Financial performance: Profit & Lost of SMEs  
(accounting and reporting data), 2010-2014.**

|                            | Number of enterprises | Including             |                        |                       |                      |
|----------------------------|-----------------------|-----------------------|------------------------|-----------------------|----------------------|
|                            |                       | Profitable SMEs       |                        | Loss-making SMEs      |                      |
|                            |                       | Number of enterprises | Total profit, mln. RUR | Number of enterprises | Total loss, mln. RUR |
| Microenterprises           |                       |                       |                        |                       |                      |
| 2010                       | 435 119               | 347 183               | 457694                 | 87 936                | 216676               |
| 2011                       | 406 206               | 331 200               | 369548                 | 75 006                | 170479               |
| 2012                       | 500 314               | 412 360               | 715371                 | 87 954                | 177090               |
| 2013                       | 1 155 668             | 931 644               | 1297496                | 224 024               | 447613               |
| 2014                       | 1 328 352             | 1 061 436             | 1648981                | 266 916               | 749455               |
| Small and microenterprises |                       |                       |                        |                       |                      |
| 2010                       | 525 399               | 416 778               | 868401                 | 108 621               | 332407               |
| 2011                       | 495 484               | 402 641               | 776796                 | 92 843                | 302628               |
| 2012                       | 602 698               | 496 030               | 1256205                | 106 668               | 305994               |
| 2013                       | 1 344 849             | 1 082 082             | 2093226                | 262 767               | 656174               |
| 2014                       | 1 530 294             | 1 219 954             | 2548634                | 310 340               | 1337684              |
| Medium enterprises         |                       |                       |                        |                       |                      |

|      |        |        |        |       |        |
|------|--------|--------|--------|-------|--------|
| 2010 | 15 190 | 11 658 | 209699 | 3 532 | 70312  |
| 2011 | 14 746 | 11 727 | 233521 | 3 019 | 71420  |
| 2012 | 16 499 | 13 571 | 296286 | 2 928 | 80009  |
| 2013 | 17 411 | 14 126 | 308519 | 3 285 | 108360 |
| 2014 | 18 747 | 14 937 | 334392 | 3 810 | 191257 |

Source: Statistical Yearbook "Small and Medium Entrepreneurship in Russia 2015". Rosstat. - Moscow, 2015. - 96 p.

## Workforce Diversity and Multiculturalism



# Understanding Employee Voice Cross Culturally: Does Being Collectivist Matter?

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Analysis of employee voice has focused on the reasons and managerial issues regarding available environment to speak up. The study aims to understand the effect of management attitude on employee voice with the mediating effect of individual's perceived psychological safety. Besides, the role of job satisfaction and being individualist/collectivist as moderators over the effect of psychological safety on employee voice are analyzed. We constructed a framework based on Maynes and Podsakoff (2014)<sup>3</sup>'s view that identifies four different types of voice behavior (supportive, constructive, defensive, and destructive). 207 questionnaires were collected from employees who are working in telecommunication industry. Based on analysis, positive management attitude facilitates supportive/constructive voice and reduces deconstructive voice. Perceived psychological safety mediates the relationship with management attitude and destructive voice. Also, job satisfaction level facilitates supportive/constructive voice and reduces deconstructive voice. Collectivism level of employees' moderates perceived psychological safety and deconstructive employee voice. Supported assumptions were discussed based social exchange theory and signaling theory. This study is one of the first that integrates not only constructive but also deconstructive voice into the model.

**Keywords:** Employee voice, Psychological safety, Management attitude, Job satisfaction, Collectivism

## Introduction

Organizational democracy can be gained with the participation of employees. Participation of employees is said to be "voice" which is conceptualized as "speaking out and challenging the status quo with the intent of improving the situation" (LePine and Van Dyne, 1998, p. 853). The determinants of employee voice have been discussed and studied in many research over the past few decades (Morrison, 2011). Significant attention has been given to the individual and managerial variables like personality traits, psychological safety, level of management openness and management attitude towards voice. To date, employee voice research has highlighted its constructive aspect which takes the voice as prosocial behavior. For example, Van Dyne, Ang and Botero (2003) assert that, employee voice held with the intention of organizational improvement; employees offer suggestions not because they are obliged to because they want to. They recognize

something wrong in regard to work issues and try to solve it by offering constructive ideas and suggestions to their managers or coworkers.

In comparison to the first conceptualization of voice, Maynes and Podsakoff (2014) determined voice in different forms ranging between constructive and deconstructive types. They assert that, employee voice is not beneficial in every context. The underlying reasons employees speak up vary depending on the drive that force people to do it. Regarding Morrison and Milliken's (2000) study, voice is described as Acquiescent (i.e., disengaged behavior based on resignation) or Quiescent (i.e., self-protective behavior based on fear). This kind of classification is not enough to differentiate between prosocial and counterproductive expressions of voice. That is why; the deconstructive way of expression should be well defined as well as its constructive form. Approaching the issue from the correct angle would help observers to differentiate between different types of behaviors. Giving attention to the different forms will help to identify determinants of voice more clearly.

When the term was first offered by Hirschman (1970), it was understood that the sole trigger of voice came from dissatisfaction. Studies analyzing voice elaborate it as a self-focused variable. However, later research oriented more on the other side of the behavior to enrich the point view of the topic (Maynes and Podsakoff, 2014). Therefore, to make a fruitful discussion the current study covers other-oriented voice behavior as a dependent variable with the moderating effect of job satisfaction. Thus far, voice literature is scant in highlighting different forms of the term due to cultural factors. Therefore, present study attempts to analyze four types of employee voice with managerial, individual and cultural factors. The paper unfolds two perspectives. First is the mediation role of psychological safety between manager's attitude and employee voice. Then the moderating effect of cultural assumption as individualism/collectivism and job satisfaction will be discussed to elaborate the relationship of psychological safety and employee voice. The study starts with the definition of different types of voice, after then managerial factors (management openness, trust to supervisor) will be explained as the determinant of perceived psychological safety and employee voice respectively. Additionally, employees' cultural orientation (collectivism/individualism) and job satisfaction are discussed as contingency variables between perceived psychological safety and employee voice.

### ***Employee Voice***

Voice is defined as "any attempt at all to change rather than to escape from an objectionable state of affairs" (Hirschman, 1970; p. 30). When first Hirschman conceptualized the term, he highlighted the reason of voice as dissatisfaction. Employees who are dissatisfied with their current situation prefer to speak up or remain silent depending on their level of loyalty to their company.

After Hirschman, Freeman and Medoff (1984) studied voice in respect to union representation and their articulation of concerns on behalf of collective. Morrison (2011) asserts that voice literature includes three commonalities: (1) an act of verbal expression, where a message is conveyed from a sender to a recipient, (2) voice is defined as discretionary behavior and (3) the notion of voice being constructive in its intent. Based on these three attributes of voice, the term is classified and defined broadly due to varying motives. In Table 1, different definitions and types are indicated.

As it is seen, conceptualization of voice behavior is too vague to make certain assumptions or discussions.

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“Take in Table 1”

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Maynes and Podsakoff (2014) developed a new voice framework covering both positive and negative attributes of the term (promotive vs. prohibitive, active vs. passive) to expand the domain and clarify what types of behaviors should be considered to be voice. They validated a new scale including four types (supportive, constructive, defensive, and destructive) of voice behavior along with two axes (preservation-challenge/promotive-prohibitive).

*Supportive Voice:* Supportive voice includes voluntary expression of supporting ideas to the existing work units, additionally behave as a representative of the company to defend. Acquiescent voice also looks at supporting ideas offered. Both types cover passive acceptance but differ in underlying intention. In supportive voice individuals do not have additional opinions to be offered where as in acquiescent voice, withholding ideas and keeping them for their self is intentionally chosen. This style is also labeled as “*Abilene Paradox*” where people communicate agreement (conformity) and do not take the time or make the effort to communicate their own ideas (Harvey, 1988). It makes individuals feel at ease even when they have contributing ideas. Supportive voice exists within preservation/promotive category.

*Constructive Voice:* Constructive voice includes voluntary expression of ideas or opinions for a functional change which can improve the organization positively. For example, suggesting ideas for improving current work process or proposing ideas for new tasks. It is a type of prosocial voice and can be found within the challenge/promotive category.

*Defensive voice:* It is defined as including expression of objections about probable changes in the organization and verbally opposing changes to work policies, even though changes are required. For example, speaking out against changing work policies, even when the changes have merit. Van Dyne et al. (2003) defined defensive voice as well. It covers behaviors proposing ideas that focus on others to protect the self. It can be found within the preservation/prohibitive category.

*Destructive voice:* It includes the voluntary expression of hurting the company by communicating hurtful or critical ideas related to the policies or procedures (i.e., bad-mouthing the organization’s policies or objectives). It is a type of destructive voice and can be found within the challenge/prohibitive category.

This study uses Maynes and Podsakoff’s (2014) framework as the basis of employee voice. To categorize voice behaviors based on these dimensions might help researchers explain different individual and organizational factors with voice behavior to clarify inconsistencies among studies.

### ***Management Attitude and Employee Voice***

Managers, who are open and trustworthy towards their employees, make their employees feel secure in expressing sincere ideas and opinions. According to Walumbwa and Schaubroeck (2009), leaders, who approach to their subordinates with integrity and open interpersonal trust, will facilitate mutual respect as well. When individuals trust to their managers and feel comfortable in

sharing ideas and suggestions, voice might be enhanced. This assumption is based on the social exchange theory in which people build their relationships based on the transactions done with each other (Blau, 1964). In other words, people choose the way they behave towards others based on the attachment they have with the other person (Bishop, Scott and Burroughs, 2000). Employees who receive positive treatment by their supervisors will speak up more comfortably and those who do not receive such treatment might react negatively based on the exchange relationship they hold. Thus;

**H<sub>1</sub>:** Manager's attitude towards voice effects employee voice positively. Thus; when management attitude is positive constructive and supportive voices will increase, when management attitude is negative deconstructive and defensive voices will increase.

*Psychological safety* is defined as individuals' perception about the consequences of interpersonal risks in their work environment. It consists of taken-for-granted beliefs about how others will respond when one puts oneself on the line, such as by asking a question, seeking feedback, reporting a mistake or proposing a new idea" (Kramer and Cook, 2004; p.241). Also, it refers to the extent to which individuals believe their colleagues (e.g., supervisors, coworkers) will not punish or misunderstand them for taking risks, such as speaking up with suggestions or concerns (Liang, Farh and Farh, 2012).

As Morrison (2011) stated, voicing preferences might be based on perceived safety. Individuals consider speaking up due to its negative consequences. Supervisor's treatment towards their employees is a crucial element of psychological safety, because it is identified as an affect-laden cognition predicting voice (Edmondson, 1999). Detert and Burris (2007) and Detert and Trevino (2010) describe two circumstances in which managerial position has significant impact over voice. First is the supervisors' authority in managing and allocating organizational resources and rewards. Second, managers are the targets whom the voice is needed to be shared with. *Signaling theory* might be useful in explaining the management attitude-psychological safety-voice relationship. Theory is utilized best when two parties (manager-subordinate) have access to different information which is called as information asymmetry (Connolly, Certo, Ireland and Reutzel, 2011). When subordinates have an idea, and want to share it with their managers, they will decide to voice or not based on their past experiences which are labeled as *signals*. Managers who generally behave supportive or consult their subordinates for their ideas send positive signals about their attitude towards new ideas or suggestions. Employees who receive this positive signal will speak up easily because their perceived psychological safety is encouraged. Detert and Burris (2007) found psychological safety as a full mediator between supervisor attitude and voice behavior. Also, implicit voice theories support this signaling issue as situational cues used in summary judgments about supervisors' past behavior (Detert and Edmonson, 2011). If manager's pattern of behavior is perceived (consciously or unconsciously) as safe, voice is likely to be triggered. According to Nembhard and Edmondson (2006), the construct of *leader inclusiveness* which is defined as words and deeds by leaders that indicate an invitation and appreciation for others' contributions facilitates employees speak up by triggering their psychological safety. Leader inclusiveness might be attributed as a signal for creating a positive context in which individuals share their ideas and opinions without fear. Another discussion regarding psychological safety and voice is about risky voice opportunities (RVO) – *situations in which an individual is aware of an opportunity to speak up with a work-relevant observation, concern, idea or question and at the same time believes that*

*speaking up may lead to negative consequences for him or her* (Detert and Edmondson, 2005; p. 2). RVO might be perceived again as a negative signal which may make employees hesitate to speak-up and keeps them silent.

Also, Saunders et al. (1992) found that responsiveness and approachability are the main causes for subordinates for prosocial voice. While different forms of voice are put into this mediation discussion, we might assume positive signals of managers about voice will enhance constructive voice via psychological safety (Podsakoff, MacKenzie, Moorman and Fetter, 1990; Premeaux and Bedeian, 2003; Klaas, Olson-Buchanan and Ward, 2012). People who prefer supportive voice are passive actors who stay comfortable with the decision of their managers. Gao, Janssen and Shi (2011) claims that when subordinates trust their supervisors the effort and risk involved in employee voice make it unlikely. Psychological safety mediation also exists between management attitude and both defensive and destructive voices. Negative attitudes towards employees' suggestions might encourage both defensive and deconstructive voice. Because if the fear or self-protection motives override the instrumentality or utility motive the remedial purpose of voicing behavior might be stimulated (Wilkinson, Donaghey, Dundon and Freeman, 2014). Depending on the above discussion;

**H<sub>2</sub>:** Perceived psychological safety mediates managers' attitude towards voice and employee voice. Mediation of psychological safety for both supportive and constructive voice is positive, for defensive and deconstructive voices is negative.

### ***Job Satisfaction and Collectivism as Contingencies***

Job satisfaction is the most frequently studied job attitude in organizational behavior literature. Within the discussion of employee voice, satisfaction has an important impact in determining the level of individuals' voice. Job satisfaction is "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience" (Luthans, 2011; p.141). The responses of job dissatisfaction are conceptualized with Hirschman's (1970) typology including four different ways; *exit*, *voice*, *loyalty* and *neglect* (Farrell, 1983). *Exit* refers to leaving the company, *neglect* includes behaviors that ignore all the problems and selectively filter them. *Voice* is about developing constructing ideas, trying to offer solutions which the company will benefit. Lastly *loyalty* is about employees' optimism in waiting for appropriate solutions to be found (Farrell and Rusbolt, 1992). Referring to the above typology, satisfied employees respond to an unpleasant situation in two ways; voice or loyalty. Both types exist along the constructive side of figure; loyalty is constructive but passive, and voice is constructive but active type of behavior.

In the above discussion of alternative forms of employee voice, we referred to four types including supportive, constructive, defensive and deconstructive voices. *Supportive* voice is a kind of acceptance which occurs because of the high commitment of the employee to the company. Individuals who prefer supportive voice submit the solutions and ideas hold by management without questioning and looking for alternative options. *Constructive* voice is being prosocial in finding out appropriate or optional ideas and solutions for an issue. The intention of this type of voice covers the attempts to help the company improve or adapt to new conditions or changes. In regards to research on satisfaction above discussion we expect job satisfaction to have a positive effect on employee voice whether supportive or constructive (Luchak, 2003). An additional reason that rests behind this argument is the level of investment satisfied employees have for their

companies. Investment is referred to resources that people exert like the time-period worked for the company or the relationship built between supervisors and colleagues. Higher investment brings a higher constructive or supportive way of behaving as people are not likely to lose their effort (Rusbolt, Farrell, Rogers and Mainous III, 1988). In addition to the constructive-satisfaction discussion, deconstructive-dissatisfaction relationship also exists. Dissatisfied employees respond in accordance with the type of problem they experience. *Defensive* voice which is held by people who have objections towards everything the company offers even if it provides utility for them. The underlying motive of this behavior is protecting the status quo. The *deconstructive* voice is an explicit indication of dissatisfaction. Employees offer ideas in a deconstructive way which intentionally hurt the company. When an individual whose overall satisfaction or job satisfaction prior to the emergence of work problems is low then their deconstructive behaviors are enhanced (Rosse and Hulin, 1985). Thus;

**H<sub>3</sub>:** Job satisfaction effects employee voice (positively for supportive and constructive voice, and negatively for defensive and deconstructive voices).

Employees who are satisfied with their job feel psychologically attached to their job results being comfortable in sharing their concerns and opinions. Thus, the availability of the context triggers speaking up with a high level of psychological safety (Farndale, Ruiten, Kelliher and Hope-Hailey, 2011). The higher an individual's satisfaction, stronger the relationship between psychological safety and constructive voice will be. Therefore;

**H<sub>4</sub>:** Job satisfaction moderates the relationship between perceived psychological safety and both supportive and constructive voice. Thus; the relationship will be stronger when job satisfaction is high.

**H<sub>5</sub>:** Job satisfaction moderates the relationship between perceived psychological safety and both defensive and deconstructive voice. Thus; the negative relationship will be stronger when job satisfaction is high.

On the other hand, "there is an apparent difference between in and out-group perception where people give importance to extended families and clans in return of loyalty" in the collectivist culture (Aycan, 2007, p. 310). Thomas and Pekerti (2003) also state that people who are more collectivist are prone to work in favor of their organization by sacrificing their personal goals. In such cases, collectivist employees may perceive the organization as an in-group which they are loyal and easily accept the hierarchical differences. Thus, higher the power distance in a country, employees will welcome it more naturally and will be reluctant to offer deconstructive thoughts against their executives and organizations (Huang, Vliert and Vegt, 2005). In Turkey, with a culture of high power distance and hierarchy (Hofstede, 1980; House, Hanges, Javidan, Dorfman and Gupta, 2004), a decrease in defensive and deconstructive voices of employees with higher level of collectivism is expected. Thus;

**H<sub>6</sub>:** Collectivism effects employee voice negatively for defensive and deconstructive voices.

In contrast to collectivism, individualists do not put group interests ahead of personal interests or neglect group interests when they conflict with personal ones in an in-group (Wagner, 1995; Oyserman, Coon and Kemmelmeier, 2002). Additionally, in collectivism employees are rewarded based on the group output they belong rather than individual outcome (Huliselan and Ali, 2003). Individuals

hesitate to share their individual opinions regarding the importance of group value. Thus, collectivist employees will abstain from detrimental behaviors while displaying their own ideas and thoughts based on organizational benefits (Thomas and Pekerti, 2003). Therefore, employees who feel psychological secured in their jobs as an in-group will decrease their deconstructive voices. On the other side, when they do not feel they are belong in a group they might behave in a negative way. That's why, the higher the collectivism level, the stronger the negative relationship between psychological safety and both defensive and deconstructive voices will be.

**H7:** Collectivism moderates the relationship between perceived psychological safety and both defensive and deconstructive voice. Thus; the negative relationship will be stronger when collectivism is high.

Based on the specified aim of the study and hypothesis, the research model (Figure 1) has been generated:

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"Take in Figure 1"

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## **Research Methodology**

The sample of the study consists of employees who work in multiple companies within the telecommunication sector in Istanbul, Turkey. The reason to select this sector is because their need for original ideas and critical thinking is relatively higher than employees found in other sectors. The survey is shared with the participants via an online link with the help of in-house support.

### ***Instruments***

"Employee Voice" scale of Maynes and Podsakoff (2014) and "Psychological Safety" scale of Edmondson (1999) to measure perceived psychological safety are used. For manager's attitude toward voice, "LMX" scale of Liden and Maslyn (1998) and "Trust to Manager" scale of Ringer and Boss (2000) are used which is translated in Turkish by Kılıç (2007). Hackman and Oldham's (1975) job satisfaction and Ton's (2008) individualism/collectivism scale are also used. The answers are collected with a 6-Likert scale.

### ***Participants***

The total number of participants is 207. The average age is 34, 44% of them are women, and 50% of them are university graduates. 60% of their seniority is five years and 69% of them are found to be working in the same position for four years. 46% of them have an executive position.

## **Analysis and results**

Data analysis of the survey was done by using descriptive, correlational and inferential statistics in SPSS 17. Principle component analysis, and multiple regression analysis were used.

### ***Factor structure of employee voice scale***

The factor analysis is practiced for "Employee Voice" scale where a principle component and Varimax rotation are performed. Four subscales of the original scale protected their items and fit with their subscales (Table 2). The value of KMO is higher than .50 and its Bartlett test is significant

(KMO=.828; Bartlett test,  $\chi^2=2000.377$ ,  $df = 171$ ,  $p < .000$ ). Factors explain 67% of the variance. Their Cronbach alpha values are in sequence: ,820 (supportive voice), ,870 (constructive voice), ,859 (defensive voice), ,863 (deconstructive voice).

Descriptive statistics of all components are given Table 2.

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“Take in Table 2”

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### ***Mediating effect of perceived psychological safety***

It is assumed that perceived psychological safety will mediate the relationship between manager’s attitude towards voice and employee voice ( $H_2$ ). The mediation effect is tested with three stage multiple regression analysis (Baron and Kenny, 1986). In the first stage, it is found that manager attitude significantly adds on perceived psychological safety ( $R^2=.419$ ,  $F=133.365$ ,  $\beta=.647$ ,  $p<.001$ ). At the second stage, manager’s attitude predicts dependent variable (employee voice) in supportive voice ( $R^2=.104$ ,  $F=21.452$ ,  $\beta=.322$ ,  $p<.001$ ), constructive voice ( $R^2=.033$ ,  $F=6.388$ ,  $\beta=.183$ ,  $p<.05$ ) and deconstructive voice ( $R^2=.068$ ,  $F=13.352$ ,  $\beta=-.260$ ,  $p<.001$ ). This result supports the  $H_1$ . Therefore, when management attitude is positive, employees speak up their supportive/constructive ideas and thoughts but speak up in a destructive way when attitude is negative.

At the third stage, when mediator (perceived psychological safety) entered the model with management attitude, it removed only the significance of management attitude in deconstructive voice ( $R^2=.087$ ,  $F=8.664$ ,  $\beta=-.179$ ,  $p<.05$ ). Thus, perceived psychological safety plays as mediator, and strengthens the negative effect of management attitude over dependent variable (deconstructive voice). This result supports the  $H_2$  partially.

Table 3 shows the Pearson correlation coefficients between the employee voice, its sub-dimensions, management attitude, perceived psychological safety and collectivism level.

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“Take in Table 3”

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### ***Moderating effect of job satisfaction and collectivism***

The role of job satisfaction and individualism/collectivism as a moderator in the relationship of perceived psychological safety and employee voice is analyzed. The purpose is to understand whether the positive effect of psychological safety over employee voice will change when it interacts with the job satisfaction of individualism/collectivism level of employees. Firstly, it is tested whether answers in every scales are normally distributed. Standard points are calculated by subtracting the mean of the scale from raw points if they are normally distributed or subtracting the mean first and then dividing to the SD if they are not normally distributed. Thus, separate moderator scores are calculated for job satisfaction and collectivism to find the interaction with perceived psychological safety.

In the first stage, perceived psychological safety and job satisfaction are included separately in the analysis, and their interaction is observed by adding their product at the second stage. It is found



that perceived psychological safety significantly explains supportive ( $R^2=.067$ ,  $F=14.437$ ,  $\beta=.259$ ,  $p<.001$ ), constructive ( $R^2=.036$ ,  $F=7.485$ ,  $\beta=.191$ ,  $p<.05$ ) and deconstructive voice ( $R^2=.069$ ,  $F=14.734$ ,  $\beta=-.263$ ,  $p<.001$ ). Thus, it is found that when psychological safety gets higher, supportive/constructive voice increases and deconstructive voice decreases. Job satisfaction significantly explains supportive ( $R^2=.104$ ,  $F=7.424$ ,  $\beta=.203$ ,  $p<.05$ ), constructive ( $R^2=.098$ ,  $F=6.831$ ,  $\beta=.324$ ,  $p<.001$ ), and deconstructive voice ( $R^2=.117$ ,  $F=8.339$ ,  $\beta=-.280$ ,  $p<.01$ ). This result supports the  $H_3$  partially. While perceived psychological safety and job satisfaction significantly explains employee voice (except defensive voice), it is not founded that their interaction has any explanation over employee voice. Thus,  $H_4$  and  $H_5$  are not supported.

Besides, it is found that the interaction of individualism level and perceived psychological safety does not have any explanation over employee voice. Collectivism level does not significantly explain defensive/deconstructive voices.  $H_6$  is not supported. However, it is found that perceived psychological safety and collectivism level significantly explain deconstructive voice ( $R^2=.074$ ,  $F=7.501$ ,  $\beta_{psy}=-.1197$ ,  $\beta_{coll}=-.712$ ,  $p<.05$ ); and their interaction has a significant explanation over deconstructive voice ( $R^2=.094$ ,  $F=6.492$ ,  $\beta=1.254$ ,  $p<.05$ ). Their matrix shows that perceived psychological safety depending on collectivism level decreases deconstructive voice. These results support  $H_7$  partially.

## Discussion and conclusion

To adapt into competitive/changing business world, the need for executives and leaders who open to listen and practice the ideas and opinions of employees not the ones who decide on their own is getting increased (Morrison and Milliken, 2000). This also necessitates a human resource which compose of intellectual capital who are able take initiative and responsibility, and constructive and shares new ideas/opinions (Nikolaou etc., 2007). In this sense, any positive/negative ideas or opinions of employees are contributive input for the organization. Studying the incentives behind employee voice will also contribute to the rise in different ideas/opinions inside organizations. Besides, management attitude toward voice is an important variable to be observed while understanding employee voice concept. Level of perceived psychological safety of employees is related with management attitude while expressing/sharing their voice.

In the first hypothesis, the effect of management attitude over employee voice was analyzed. It is found that managers who are open to communicate and trustworthy facilitates supportive and constructive voice and reduces deconstructive voice. Thus, it has been seen that executives, who have positive attitude, pay attention to employees' ideas and make them feel valuable, lead employees to speak up and support the organizational development. Otherwise, when such attitude decreases, employees behave detrimentally to the organization (Klaas etc., 2012).

Besides, positive management attitude also affects perceived psychological safety. It is found that employees who have managers that they can communicate openly, supportive and trustable induce feeling safe in the working environment. It also found that perceived psychological safety affects supportive and constructive voice positively and deconstructive voice negatively. These results support the literature. Employees who feel psychologically safe behave supporting for change and development but employees who do not feel safe behave with revenge feeling (Klass etc., 2012).

The assumption behind this support might be explained by signaling theory which points out that, *'employees behave based on the interpretation of signals their managers send'* (Conelly et al., 2011). The theory highlights the importance of information symmetry that correspond managers' behavior with employees' behavior. When managers' attitude towards employee voice is positive, it is perceived as a signal which triggers subordinates to voice.

In the second hypothesis, mediating role of perceived psychological safety between management attitude and employee voice was analyzed. It is found that it only strengthens the negative relationship for deconstructive voice. Thus, when positive management attitude and perceived psychological safety is increased, deconstructive voice decreases. Until today, the studies look the relationship of management attitude, employee voice and perceived psychological safety from the constructive perspective for ideas and suggestions (Tangirala and Ramanujam, 2012). In this sense, this study contributes to the literature adding four types of employee voice to understand positive or negative employee voice initiators. It also emphasizes the importance of managerial attitude in understanding the relationship between employee voice and perceived psychological safety. For employees who have positive management attitude increases psychological safety which in turn contributes to the employee voice. Such attitude is also seen as an opportunity to decrease hierarchical differences between managers and employees and will make executives more approachable and trustable (Edmondson, 2003; Detert and Burris, 2007). Additionally, this result emphasizes the importance of perceived psychological safety in preventing deconstructive form of behaviors.

On the other hand, the role job satisfaction and individualism/collectivism as moderators were analyzed. According to the third hypothesis, it is found that higher the job satisfaction higher the supportive and constructive voices and lower the deconstructive voice. This support the literature that people who committed to their job respond unpleasant cases within supportive or constructive way (Farrell, 1983; Farrell and Rusbult, 1992; Luchak, 2003) and who are dissatisfied prior to the problems response in a deconstructive way by hurting the organization intentionally (Rosse and Hulin, 1985). Another explanation might be done with theory of reasoned action which asserts that behavior is caused by a behavioral intention (Madden, Ellen and Ajzen, 1992). Behavioral intention is stimulated by an attitude which results with a behavior. Job satisfaction which a major job attitude causes employee voice behavior through created behavioral. When employees' job satisfaction is high, they tend to behave positively, specifically they speak up.

Although we found the direct effect of job satisfaction over employee voice, it did not strengthen the effect of perceived psychological safety over employee voice. Thus, the environmental context did not trigger employee voice via level of job satisfaction. Fourth and fifth hypothesis are not supported.

Although we did not find the direct effect of collectivism level over defensive or destructive voice, we found the moderating effect of collectivism level in perceived psychological safety and employee voice relationship. Higher the perceived psychological safety in collectivist employees, lower the deconstructive voice. Since individualists do not have an in-group identity, the individualism level did not strengthen employee voice. This finding also supports the constructive validity of the findings for collectivism. Since collectivists do not put personal gains ahead of group benefits (Wagner, 1995; Oyserman etc., 2002), collectivist employees who feel psychologically safe

are reluctant to behave or show deconstructive thoughts because of feeling belong to the group. Thus, the person will avoid detrimental behaviors/thoughts/opinions in sake of organizational benefit (Huang, Vliert and Vegt, 2005; Thomas and Pekerti, 2003).

The findings point out the culture only relates with deconstructive voice that further detailed qualitative research about culture and employee voice is suggested. Other than collectivism level assumption over voice, job satisfaction level also studied but there is no significant moderating effect was found. The reasons behind could be insufficient sample size or employee numbers with satisfied-unsatisfied were not homogeneous enough.

In conclusion, increased competition in business world makes productivity of individuals and their contribution to the organizations more important than ever. Understanding the motivators behind employee voice will facilitate positive management attitude toward voice and spread of voice behavior inside the organizations. It is believed that the findings will contribute to the managerial programs for development of transparent and trustable organization culture.

### ***Research and managerial implications***

Highlighting different outcomes of alternative forms of employee voice has some managerial implications. Managers who create a supportive organizational environment which might be perceive as a stimulus for employees to speak up. Working managers with positive attitude towards voice enrich perceived level of psychological safety which in turn constructively as offering suggestive opinions and ideas.

Analyzing both individualism and collectivism in same context reinforces construct validity of employee voice scale in which different types are included.

The present study is applied just for employees working in telecommunication industry which is a contributing factor to discuss differentiating effect of industry on employee voice.

### ***Limitations and further research***

Current study is not without limitations. Hypothesis are generally partially supported which limits the discussion. Further studies are needed to be applied for higher number of participants.

Job satisfaction is found to be an independent instead of as a moderating variable. Literature regarding job satisfaction and voice relationship might be deeply scanned for future research.

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Table 1  
*Summary of Prior Voice Behavior Conceptualizations*

|                        | Voice Behavior  |
|------------------------|---|
| Hirschman (1970)       | <ul style="list-style-type: none"> <li>• Exit</li> <li>• Voice</li> <li>• Loyalty</li> <li>• Neglect</li> </ul>             |
| Gordon (1988)          | <ul style="list-style-type: none"> <li>• Active/passive constructive</li> <li>• Active/passive deconstructive</li> </ul>    |
| Van Dyne et al. (2003) | <ul style="list-style-type: none"> <li>• Prosocial voice</li> <li>• Defensive voice</li> <li>• Acquiescent voice</li> </ul> |
| Liang et al. (2012)    | <ul style="list-style-type: none"> <li>• Promotive voice</li> <li>• Prohibitive voice</li> </ul>                            |

Table 2

*Factor Analysis of Employee Voice Questionnaire (N= 207)*

|   | <i>Factor Loadings</i> | <i>Eigen Values</i> | <i>Total Variance Explained (%)</i> | <i>Cronbach Alpha</i> |
|---|------------------------|---------------------|-------------------------------------|-----------------------|
| <i>Employee Voice Total</i>   |                        |                     | 66.9                                |                       |
| <i>Supportive Voice (4 items)</i>   |                        | 5.51                | 17.75                               | 0.82                  |
| Expresses support for productive work procedures when others express uncalled for criticisms of the procedures            | 0.81                   |                     |                                     |                       |
| Defends useful organizational policies when other employees unfairly criticize the policies                               | 0.78                   |                     |                                     |                       |
| Defends organizational programs that are worthwhile when others unfairly criticize the programs                           | 0.74                   |                     |                                     |                       |
| Speaks up in support of organizational policies that have merit when others raise unjustified concerns about the policies | 0.74                   |                     |                                     |                       |
| <i>Constructive Voice (5 items)</i>   |                        | 4.14                | 17.67                               | 0.87                  |
| Frequently makes suggestions about how to do things in new or more effective ways at work                                 | 0.76                   |                     |                                     |                       |
| Often suggests changes to work projects in order to make them better  | 0.77                   |                     |                                     |                       |
| Often speaks up with recommendations about how to fix work-related problems   | 0.73                   |                     |                                     |                       |
| Frequently makes suggestions about how to improve work methods or practices   | 0.86                   |                     |                                     |                       |
| Regularly proposes ideas for new or more effective work methods   | 0.80                   |                     |                                     |                       |
| <i>Defensive Voice (5 items)</i>  |                        | 1.69                | 17.38                               | 0.86                  |
| Stubbornly argues against changing work methods, even when the proposed changes have merit                                | 0.73                   |                     |                                     |                       |
| Speaks out against changing work policies, even when making changes would be for the best                                 | 0.84                   |                     |                                     |                       |
| Vocally opposes changing how things are done, even when changing is inevitable  | 0.77                   |                     |                                     |                       |
| Rigidly argues against changing work procedures, even when implementing the changes makes sense                           | 0.73                   |                     |                                     |                       |
| Vocally argues against changing work practices, even when making the changes is necessary                                 | 0.71                   |                     |                                     |                       |
| <i>Destructive Voice (5 items)</i>  |                        | 1.37                | 14.1                                | 0.86                  |
| Often bad-mouths the organization's policies or objectives  | 0.76                   |                     |                                     |                       |
| Often makes insulting comments about work-related programs or initiatives   | 0.76                   |                     |                                     |                       |
| Frequently makes overly critical comments regarding how things are done in the organization                               | 0.88                   |                     |                                     |                       |
| Often makes overly critical comments about the organization's work practices or methods                                   | 0.83                   |                     |                                     |                       |
| Harshly criticizes the organization's policies, even though the criticism is unfounded                                    | 0.67                   |                     |                                     |                       |

Table 3

*The Correlation Analysis of Employee Voice, Management Attitude, Psychological Safety, JS, Individualism/Collectivism, and Demographics*

|                        | 1                | 2                 | 3                | 4                | 5                 | 6                | 7                | 8                | 9                | 10               | 11               | 12                | 13                | 14 |
|------------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|----|
| 1 Employee Voice       |                  |                   |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |    |
| 2 Supportive Voice     | .65 <sup>2</sup> |                   |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |    |
| 3 Constructive Voice   | .67 <sup>2</sup> | .52 <sup>2</sup>  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |    |
| 4 Defensive Voice      | .49 <sup>2</sup> | .11               | -.08             |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |    |
| 5 Destructive Voice    | .45 <sup>2</sup> | -.17 <sup>1</sup> | -.10             | .49 <sup>2</sup> |                   |                  |                  |                  |                  |                  |                  |                   |                   |    |
| 6 Psychological Safety | .10              | .26 <sup>2</sup>  | .19 <sup>2</sup> | -.07             | -.26 <sup>2</sup> |                  |                  |                  |                  |                  |                  |                   |                   |    |
| 7 Management Attitude  | .14              | .32 <sup>2</sup>  | .18 <sup>2</sup> | -.04             | -.26 <sup>2</sup> | .65 <sup>2</sup> |                  |                  |                  |                  |                  |                   |                   |    |
| 8 LMX                  | .17 <sup>1</sup> | .33 <sup>2</sup>  | .20 <sup>2</sup> | -.04             | -.23 <sup>2</sup> | .58 <sup>2</sup> | .96 <sup>2</sup> |                  |                  |                  |                  |                   |                   |    |
| 9 Trust                | .09              | .29 <sup>2</sup>  | .14              | -.04             | -.28 <sup>2</sup> | .67 <sup>2</sup> | .97 <sup>2</sup> | .86 <sup>2</sup> |                  |                  |                  |                   |                   |    |
| 10 Job Satisfaction    | .13              | .27 <sup>2</sup>  | .30 <sup>2</sup> | -.07             | -.34 <sup>2</sup> | .62 <sup>2</sup> | .51 <sup>2</sup> | .50 <sup>2</sup> | .51 <sup>2</sup> |                  |                  |                   |                   |    |
| 11 Individualism       | .20 <sup>2</sup> | .13               | .12              | .19 <sup>2</sup> | -.01              | .09              | .30              | .10              | .04              | .06              |                  |                   |                   |    |
| 12 Collectivism        | -.01             | .04               | .04              | -.01             | -.13              | .20 <sup>2</sup> | .23 <sup>2</sup> | .23 <sup>2</sup> | .21 <sup>2</sup> | .07              | .19 <sup>2</sup> |                   |                   |    |
| 13 Age                 | .10              | .17 <sup>1</sup>  | .25 <sup>2</sup> | -.09             | -.17 <sup>1</sup> | .01              | -.05             | -.03             | -.03             | .17 <sup>1</sup> | -.04             | -.22 <sup>2</sup> |                   |    |
| 14 Tenure              | .05              | .15 <sup>1</sup>  | .14 <sup>1</sup> | -.09             | -.14 <sup>1</sup> | .15 <sup>1</sup> | .15 <sup>1</sup> | .09              | .18 <sup>1</sup> | .19 <sup>2</sup> | -.10             | -.08              | -.49 <sup>2</sup> |    |

<sup>1</sup> $p < .05$ . <sup>2</sup> $p < .01$ .



Figure 1  
*Research Model*



# **X-Culture: An International Project in the Light of Experience Gained over the Years (2010-2016)**

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## **Abstract**

The X-Culture project is an innovative modern form of experiential learning predominantly in International Management and International Business. Although experiential learning has some advantages, namely, developing cross-cultural competencies, cultural intelligence, intercultural communication and management skills, differences in personality or conditions also arise as a downside. X-Culture has been evolving throughout the years since 2010 when the original objective was to supplement the theoretical material and in-class teaching. Nowadays more than 4000 master, bachelor and MBA students, mostly of management and economics from more than 37 countries, take part in the project every semester. X-Culture is aimed at students of International Business college courses and training programs with the task of writing a business report or consulting propositions by offering business solutions for a hypothetical client. This paper outlines the theoretical background of the X-culture project. It describes the evolution and practical and theoretical experience of this project since 2010.

**Key words:** X-culture, experiential learning, theoretical and practical experience, international management

## **Introduction**

Our paper discusses X-Culture, a large-scale international business student collaboration project and business plan competition. Every semester over 4,000 students from 100 universities in 40 countries participate in it. Most of them have been enrolled to International Business courses at different universities. The students, usually in global virtual teams of seven, work with each student on the team coming from a different country. The project serves as an excellent opportunity for collaboration across courses and universities.

The initial idea for X-Culture was rooted in an attempt to find a colleague abroad who would like to team up his or her students with student for a different country to develop a joint team project. Collaboration was announced via the Academy of International Business mailing list. Surprisingly, within a short time, a number of academic collaborators from around the world expressed their interest in joining the project. And so X-Culture was born.

The first time (fall of 2010), lecturers from seven countries took part with their students. A total of about 450 students participated. Since then the project has been growing each semester, reaching almost

3,000 students, from 100 universities in over 40 countries as of spring 2014. Table 1 provides more details on the participation numbers for the project.

**Table 1 X-Culture Participations Dynamics**

| Season | Students | Teams | Universities | Countries |
|--------|----------|-------|--------------|-----------|
| 2010-2 | 463      | 125   | 7            | 7         |
| 2011-1 | 682      | 157   | 15           | 15        |
| 2011-2 | 1,150    | 145   | 26           | 22        |
| 2012-1 | 1,889    | 307   | 42           | 38        |
| 2012-2 | 2,105    | 280   | 54           | 39        |
| 2013-1 | 2,447    | 435   | 75           | 41        |
| 2013-2 | 2,567    | 379   | 84           | 42        |
| 2014-1 | 2,642    | 399   | 99           | 43        |
| 2014-2 | 2,910    | 452   | 101          | 43        |
| 2015-1 | 3,050    | 455   | 107          | 43        |
| 2015-2 | 3,718    | 667   | 112          | 42        |
| 2016-1 | 3,738    | 750   | 110          | 40        |
| (Total | 27,361   | 4,623 | 301          | 61        |

Source: Project's administrative records

### *Theoretical Background*

X-Culture is part of experiential learning theory that dates back to the beginning of the 20<sup>th</sup> century, based on Jacob Levy Moreno Kurt Lewin's social psychology experiments used in management education and training (Highhouse, 2002).

As Kolb (1984) states "Learning involves transactions between the person and the environment" (p. 35). More specifically, experiential learning is "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (Kolb, 1984: 41).

More recent theories of experiential learning can be traced back to earlier theories of human development and psychology of learning (John Dewey, Paulo Freire, William James, Kurt Lewin, Jean Piaget, and Carl Rogers, amongst others).

According to the Experiential learning theory (ETL) the learning process consists of four dynamic modes involving action/reflection and experience/abstraction (Kolb & Kolb, 2009): concrete experience (CE), reflective observation (RO), abstract conceptualization (AC), and active experimentation (AE). The ETL model is based on three stages of human development: acquisition, specialization, and integration (Kolb, 1984). ELT suggests that the learning cycle includes experiencing, reflecting, thinking and acting, and that concrete experiences are the foundations for observations and reflections (Kolb & Kolb, 2009).

Several studies have emphasized the positive effect of the practical component in economics (Herz & Merz, 1998), marketing (Gremmler, Hoffman, Keaveney, & Wright, 2000), business communication (Saunders, 1997), entrepreneurship (Cooper, Bottomley, & Gordon, 2004) and other fields (for review studies see Cantor, 1997; Gosen & Washbush, 2004; Kolb, Boyatzis, & Mainemelis, 2001).

Few empirical studies were written on the relationship between learning styles and cultural background (Joy & Kolb, 2009). Kolb (1984) discusses that experience plays a central role in both

human adaptation and the learning process, rather than in acquisition, manipulation and abstraction (as other learning theories).

Experiential learning approaches can most challengingly be used in International Business and Management training and education as simulating multi-cultural global environment in the classroom is often a daunting or even an impossible task. There have also been studies evaluating experiential learning in the field of International Business and Management education (Taras et al., 2013).and using virtual teams as experiential learning vehicles (Gonzalez-Perez et al., 2014).

Experiential learning tools have increased in the recent years (Hawtrey, 2007). Several studies show that experiential learning is has a positive effect on learning in general business education (Alon, 2003; Krbec and Currie, 2010 among others).

## **Material and Methods**

X-Culture is a great example for experiential learning in International Business. X-Culture is a good way to develop cross-cultural competencies. Moreover, cross-cultural interaction also contributes to developing cultural intelligence (Early and Peterson, 2004).

Although X-Culture is unique in some respects, it is similar to other exercises such as Global Marketing Management System Online - GMMSO (Janavaras, 2012) and GEO (Thavikulwat, 2007a, 2007b). GMMSO has a similar task to the one use in X-Culture while GEO primarily focuses on international trade. Other projects such as Global Business Game or Global View have also same-class teams.

The basic difference between X-Culture and other experiential learning projects is that while the former one uses publicly available resources (e.g. Skype, Dropbox, Google Drive, Google Docs, Facebook, Skype, Viber, and WhatsApp among others) so that the students can continue using them in other projects, the latter one relies on specially designed platforms or simulators.

X-Culture is an excellent opportunity for students to experience international collaboration first-hand. The students are divided into Global Virtual Teams, usually about 7 students per team. Sometimes the student teams are smaller (only 4 or 5 students) or larger (up to 11 students). Also, depending on the number of the participants, some teams would have two students from the same country (usually United States. that tends to be overrepresented).

Although X-Culture takes up an entire semester, the time for the teams to work together is limited to a little over two months. As the semester length varies considerably across different countries, the active collaboration period is shorter than a typical semester.

The basic task for X-culture students was to write a business report for a hypothetical client following the structure of an International Business textbook and covering issues related to differences in economic, political, and cultural environment, international market entry modes, international strategy, marketing, and so on. Later on, the X-Culture task has been evolving towards more creative and more universal components.

In most cases, the students would choose large multi-national corporations, such as Walt Disney Company, BMW or Apple. Typically, the companies were not aware of the work the students were doing but in 2013 companies started contacting X-Culture and inquiring if they could present their real-life challenges that the student could try to tackle.

Mostly, medium-sized and smaller companies were particularly interested but a number of large multinational corporations also expressed interest in collaborating with X-Culture. For example, Daimler AG requested ideas for a new truck for developing countries.

In the first year of the program students were asked to devise a concept connected to the 6 million-dollar investment plan for Capstone, a medium-sized American company in international teams of four. Later on, the subject of case studies shifted to working out business solutions for large corporations or other companies of their choice including

- the German trade concern, ALDI
- BP international oil concern,
- Google international IT company,
- HSBC, the world's second largest commercial bank,
- McDonald's, the world's largest fast food chain,
- Toyota, one of the biggest car manufacturers,
- VF from the textile industry and
- Or the well-known Walt Disney Entertainment.

In addition to virtual collaboration, X-Culture added personal meetings of the best students at semi-annual X-Culture symposium. The ultimate goal is to give students and opportunity to experience the challenges and learn the best practices of international collaboration while gaining business knowledge and skills.

X-culture database contains more than 1,200 variables. Over 2,500 cases (400 teams) are added to the database every semester. The student and instructor surveys include over 500 questions asked over the course of the project. Overall, the X-Culture database contains over 2,000 variables at the individual level of measurement, and about 500 variables at the team level. Experiments have also been started with different learning conditions, team composition, assignments, and evaluation systems to see which teaching approach gives the best learning outcome and student satisfaction.

The main research questions include finding more information on workgroup dynamics and improving performance in the global workplace. Moreover, the effects and effectiveness of experiential learning are also analyzed not only in International Business but also in Management, Psychology, Marketing, Economics, Sociology, and other disciplines.

## **Results**

The principle objective of the X-Culture project is to provide students with an opportunity to experience the challenges of cross-cultural collaboration and thereby improve learning in International Business Courses. A recent study published in the Academy of Management Learning and Education (Taras et al, 2013) detailed the findings of a multi-study evaluation of effectiveness of X-Culture.

The results show that in addition to raising student satisfaction with their course, X-culture also improves cultural intelligence, reduces stereotypes, induces interest in further cross-cultural interactions, and actually improves student performance on tests.

Environment and individual differences, such as personality, geographical location, culture, occupation, age, time availability, educational background, personal history, gender, genetic information, social status, and expectations, may influence different learning abilities. In Table 2, some of the expected challenges (before participating in X-Culture) relate to their observed challenges (after participation).

**Table 2 Expected vs Observed Challenges of International Collaboration**

| Challenge                    | Expected | Observed |
|------------------------------|----------|----------|
| Cultural differences         | 28.2     | 2.9      |
| Language differences         | 21.2     | 7.0      |
| Time zone differences        | 20.6     | 15.5     |
| Other communication barriers | 20.5     | 11.1     |
| Coordination                 | 16.2     | 34.8     |

Source: Authors' own research

However, some outcomes were unexpected. Students shared their experience how X-Culture helped them land internships and jobs. It supports the belief many companies really value first-hand international experience. Many students developed close personal connections with their team members and stayed in touch long. Some teams informed us that they considered starting a business around the business proposal they developed for X-Culture.

### *Challenges and Best Practices*

#### *Recruitment*

Participants are recruited by sending calls through the Academy of International Business (AIB) and Academy of Management (AOM) mailing lists. Also, many new participants are recruited by the word-of-mouth. The number of applications has been rapidly growing since the project was first launched. Most of the applications come from North America and Europe where the Academy of International Business and Academy of Management have most of their membership. Africa, Asia, and Latin America still remain underrepresented, although the number of applications from these regions is steadily growing.

#### *Selection*

X-Culture receives hundreds of applications each semester. At the beginning, all applications were automatically accepted. Nowadays, after selection only a few applications are approved as quality is given more attention. As the students work in large teams, even one underprepared or under-committed student can spoil the experience, so selection is a very important issue.

All students are subject to a Readiness Test. Prior to the test, the students are expected to review materials on X-Culture including instructions and a student training module. Then the students take an online test on the project rules and procedures, online collaboration tools, as well as assess their interest and commitment. Additionally, the test also provides some information on the student's ability to communicate in English, if only with written test. The test also ensures that each student has access to the internet and his or her email address works.

### *Academic Calendar Difference*

The biggest challenge is that the academic schedule varies across regions of the world. For example, the long summer break tends to be in June-August in the Northern hemisphere and in December-January in the Southern hemisphere. The semester start and end dates vary considerably across locations, some universities are at semester schedule, some use trimesters, and some use quarters.

To tackle the schedule difference problem, X-Culture is run in two tracks every semester. The early track starts earlier and the late track starts later, by about six weeks. Although the students in the early track generally do not directly communicate with the students from the late track, they often exchange ideas on the X-Culture Facebook page. Both tracks tend to be quite popular with enough countries represented.

### *Pre-project training*

The well-preparedness of each student is essential for the success of the X-Culture experience. That is why a standardized mandatory pre-project training module for students was developed to which new features are added. Strategies have been shown to be effective when dealing with these challenges. Additionally, the students can watch a 20-minute long video interview with former X-Culture participants where they share their experiences and advice for future participants. The X-Culture Facebook page also provides records of discussions of challenges.

Before the project starts, each student receives a Welcome Letter with a link to an X-Culture pre-project training page. The students are instructed to review all X-Culture materials and take a Readiness Test. This way, all students have an opportunity to receive quality training regardless of how experienced their instructors are with X-Culture. Still, individual instructor support is paramount. There is a huge difference in student performance across instructors. Of note, instructors need training too. A similar training module for instructors, named Instructor's Handbook, has also been developed. The document contains a detailed overview of everything an instructor needs to know about X-Culture, including links to external sources, templates, FAQ, and other materials.

### *Grading*

Since the project is part of the required coursework, student performance grading is an important issue. Instructors are asked to evaluate performance of their students and give them a fair grade, which is a powerful motivator for the students to do well in the project. After the initial enthusiasm, when faced with the demands and requirements of the project, many would simply dropout or do not perform up to the expectations of their team members.

Therefore, to ensure that all students are fully committed to the project, it is now required that:

- The X-Culture project must account for no less than 20% of the course grade/mark;
- Peer evaluations account for no less than 20% of the X-Culture project grade/mark;
- Every milestone (there are a total of 10 throughout the project) must be included in the project grade.

The instructors receive weekly updates on their student performance. Most instructors have one final grade for the project, but many have weekly grades. It is very important to underscore that X-Culture project is rather designed to help students gain knowledge and skills than evaluate performance by grades.

Therefore, the instructors are encouraged to design their grading scheme in which some team-level dimensions of performance must also be included in addition to the individual grades.

The following template presented by Table 3 is recommended when designing grading systems. These are only suggestions and instructors are allowed to deviate as they see fit.

**Table 3 Grading system design**

| Performance Indicator   | Recommended Value                                |
|---|--|
| <b>Individual:</b>  |  |
| Completion of the pre-project training (completed before the deadline, % correct answers, check for response non-randomness);   | Must be completed to enroll*                     |
| Weekly progress reports, submitted individually by each student (completed fully and before the deadline)   | 5%   |
| Post-project survey (completed before the deadline, % questions answered, check for response non-randomness);   | Must be completed to receive project grade/mark* |
| Peer evaluations (as evaluated by the other team members in terms of effort, intellectual contribution, help with writing the report, coordinating team efforts, other comments). | 25%  |
| <b>Team</b>   |  |
| Quality of the team report (as rated by the instructors along 7 report quality dimensions)  | 45%  |

Source: authors' own compilation

The pre-project training test and the post-project survey are *mandatory* components of the project to ensure that students come sufficiently prepared and that all necessary data are collected.

### **The Central European experience of the project**

One of the consequences of globalization is that the various forms of contact with our business partners are becoming independent of place. Changes take place extremely fast and to teach how to adapt to them successfully at school tends to be very difficult. Adaptation to the new dimensions of business life can be eased if the students of economics and management can take part in international cooperation. It is when the students of Selye János University (SJU), Faculty of Economics and ***Szent István University (SZIU), Faculty of Economics and Social Sciences majoring in Management and Business Administration, BSc have taken part in this program coordinated by Greensboro University in the USA.*** In addition to the existing Erasmus student exchange program, X-Culture serves as a very modern cooperative form of studying for all the students who would like to improve their English knowledge. Table 4 below illustrates the changes in the number of students participating in the project between 2011 and 2016



**Table 4 Students' participation dynamics in X-Culture (2011-2016)**

| Academic years and semesters | SJU students | SZIU students |
|------------------------------|--------------|---------------|
| 2010-2                       | 0            | 0             |
| 2011-1                       | 0            | 0             |
| 2011-2                       | 11           | 0             |
| 2012-1                       | 22           | 0             |
| 2012-2                       | 3            | 18            |
| 2013-1                       | 9            | 13            |
| 2013-2                       | 4            | 4             |
| 2014-1                       | 4            | 0             |
| 2014-2                       | 3            | 0             |
| 2015-1                       | 3            | 0             |
| 2015-2                       | 3            | 0             |
| 2016-1                       | 4            | 0             |
| Total                        | 66           | 35            |

Source: authors' own compilation

Our students summarized their experience in connection with the program in Table 5 below.

**Table 5 X-Culture experience of Slovakian and Hungarian students**

| Number | Students' opinion   |
|--------|---|
| 1.     | <b>A correspondent student:</b> It was most interesting to work together with my team members who came from different parts of the world. At first I did not even know on the basis of the names, except Brianna, whether it is a boy or a girl :) As far as team work is concerned, I can say that everyone had an equal share of it, except Cheng Yang, who did not take part at all. It was not obvious at all that our team was made of totally different cultures. Everyone kept promises and we helped one another. We also talked about private issues in addition to work and we are still friends on several social media platforms. We promised to advise the others should we travel to their country. Despite of the initial fear, primarily due to language barriers, I can say that I can assess the program only positively and thank you for the opportunity to have gained such precious experience. |
| 2.     | <b>A full time student:</b> During my participation in X-Culture program I gained a lot of experience. There were many challenges and we had to find the solutions. We also had to face cultural differences, language barriers and different time zones, as well. We were trying to find the best solutions to the problems with my team mates. To this end, we were negotiating regularly, almost on a daily basis. Due to this, not only our English improved but also our communication skills and our cooperation with people from different cultures. All in all, I can say that my participation in the program was very advantageous.   |
| 3.     | <b>A full time student:</b> X-Culture program made it possible for me to participate in an international program with students from different parts of the world. So the program significantly contributed to getting to know different cultures, customs and traditions to extend my knowledge. In addition, I also gained experience in international management as we had to work out a successful business plan for a company. Of course, there were hardships but fortunately, they could be managed. It was difficult to make appointments as in certain cases there were 10 hours' difference in time. To cooperate more efficiently, we tried to keep in touch and talk every day. I think X-Culture served as an excellent opportunity for making friends so I can recommend it for all young students who wish to gain experience.  |

Source: authors' own compilation

Just like in the previous years, all the students participating in the program agreed that participation in such an international program is very useful. Although problems arose while working together, they could be solved, fortunately. As a result, not only their language skills and communication improved but also their willingness to cooperate from someone from a different cultural background. X-Culture also served as an excellent opportunity to make friends. To sum up, participation in the program resulted in mainly gains and benefits.

### Conclusions and recommendations

As our students have been participating in the International Student Collaboration Project since 2012, they are asked to share their experience with us, what they think the challenges are and also what knowledge and skills they gained while working with other team members from different parts of the world.

To sum up, the following points were made:

- ❑ Most participants considered the program to be *very useful*.
- ❑ The following points were stressed in connection with acquiring tacit knowledge competencies:
  1. The program assisted in developing *these competencies* most.
  2. They made the greatest progress in *understanding and communicating* with others from different cultures.
  3. They also improved their skills in organizing and managing *non- hierarchical team work*.
  4. The students also appreciated working and collaborating with the others *from different working cultures*. In some cases they had to cover or replace their slower teammates or the dropouts but generally, they could succeed in doing so, as well.
  5. Of the labor market competencies projected by the *Institute for the future* in their study „Future work skills 2020“<sup>1</sup> X-Culture improved some, among others, *virtual work*.
- ❑ As far as *explicit* knowledge competencies are concerned, the participants highlighted the following ones:
  1. Using new *social media platforms*, mostly e-mails, Facebook and Google Doc.
  2. *Deadlines* were met in most cases and *project tasks* could be completed.

Within the framework of a program of such nature, it is natural to experience not only positive things but also some hardships such as different cultural background or the significant differences in time due to the time zones.

X-Culture is still very much work in progress. Every semester changes are made and the format of the project is modified together with the task, policies and procedures.

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<sup>1</sup> [http://www.iftf.org/uploads/media/SR-1382A\\_UPRI\\_future\\_work\\_skills\\_sm.pdf](http://www.iftf.org/uploads/media/SR-1382A_UPRI_future_work_skills_sm.pdf)

Our immediate plans include experimenting with a few new features of the project.

First, we are considering running X-Culture in languages other than English. There are regular request to have a Spanish language track for Latin America and Spain, and possibly a French track for French-speaking countries.

Second, we are considering adding a non-business track. At this time, pretty much all X-Culture participants are business students and, hence, the task is very much business related. However, international collaboration is equally important in arts, engineering, natural sciences, and humanities. We are exploring opportunities to add a group of students from non-business disciplines with a task that is more suitable for their areas of studies.

Third, we would like to expand our collaboration with real-life businesses. Our initial experience with our corporate partners has been extremely positive. Not only do the companies receive valuable input and ideas from our bright students. Involvement of real business and work on real-life business challenges makes the project more practical and educational for the students. Furthermore, working with a real company, students get a chance to impress their “clients” and possibly get a chance of an internship or a job.

Fourth, we would like to devote more attention to exploring funding opportunities. At some level, volunteer time is not sufficient to run a successful project. Even Wikipedia has a small group of paid staff. In addition to exploring grant options, we are also considering soliciting sponsor funding.

Finally, in our spirit of open collaboration, we are experimenting with opening up our immense database to the public and inviting researchers of all background and interests to download our data and use them in their research. While it is common in the publish-or-perish academic community to closely guard one’s own data, we believe open data sharing and collaboration will speed up knowledge creation and ultimately benefit all parties.

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### **Abstract**

It has been shown that members of individualist and collectivist cultures use a dual procession approach—a heuristic versus a systematic—when evaluating information. The former is described as less effortful processing where more accessible information is used, whereas for the latter, individuals wield appreciable cognitive efforts to assess arguments provided in messages. Collectivist members have been found to rely more on consensus information obtained from reference groups rather than attribute information when forming attitudes about alternatives. In this research, we look at individuals' information processing strategy under conditions of low and high cultural salience. In particular, we examine whether priming individuals on their cultural identity will cause them to switch processing strategy toward consensus information and hence become more similar to collectivist members.

### **Introduction**

Social identity theory suggests that a person's identity consists of the feeling of self along with the social identity stemming from social group memberships (Mullen, Migdal, and Rozell 2003; Reed 2004; Tajfel and Turner 1979; Tajfel and Turner 1986). Cultural identity may be regarded as such a group membership and recent findings propose that this membership has the power to explain attitudinal and behavioural outcomes as well as individuals' information processing strategies (Aaker 2000; Aaker and Sengupta 2000; Briley and Aaker 2001; Briley and Aaker 2006; Lau and Aaker 1998; Nelson et al. 2006).

Petty and Cacioppo (1979) and Chaiken (1980) both suggested that individuals use a dual approach when processing information as part of a persuasion attempt. Specifically, individuals can use a heuristic approach, a systematic approach or both when forming attitudes toward products and services. It was recently shown that consumers in both individualistic and collectivistic cultures employ this dual process approach. When the heuristic cue and the attribute information are at odds, however, members of an individualistic culture tend to rely more on attribute information than consensus information (Aaker and Maheswaran 1997). Additionally, it appears as if this difference, at least partly, can be attributed to a difference in the perceived diagnostics of the heuristic cue. Moreover, when members of an

individualistic culture are made aware of their cultural identity, they recall their cultural group membership. As a result, a group-mind set is induced, leading individuals to make decisions exhibiting concerns for equality and compromises. In this sense the revealed preferences are closer to the ones often found in collectivistic cultures (Briley and Wyer 2002). However, an unresolved issue is if imposing cultural salience such as in Briley and Wyer (2002) and Hong et al. (2000) could remove some of the processing strategy differences between individualistic and collectivistic cultures that Aaker and Maheswaran (1997) identified. Hence, the research objective is to examine whether making individuals' cultural identity salient will shift their information processing strategies, thereby mitigating the difference between individualistic and collectivistic cultures in this respect. This research builds on and integrates the literature on the classification of cultures, dual process models of information processing, and cross-cultural differences in decision-making and information-processing.

## **Literature review**

### *The classification of cultural orientation*

In principle, three efforts to develop cultural classification schemas are noteworthy: Hall (1976; 1969; 1959), Hofstede (1980; 1991; 1998), and Trompenaars and Hampden-Turner (1997).

In Hall's approach, the discriminating traits are the way information is communicated among individuals and whether individuals tend toward either multitasking or concentrating on one task at a time (Hall 1976; Hall 1969; Hall 1959). The first dimension is used to classify cultures as being either low-, middle-, or high-context. In high-context cultures, individuals rely more on the situational aspects and pre-established traditions with limited factual information. Most Western countries would be classified as low-context, and Asian countries are typically referred to as high-context cultures. The second cultural dimension specifies cultures as being either monochronic or polychronic. In polychronic cultures, individuals are believed to engage in several activities at the same time. It follows that sticking to the schedule is secondary to maintaining interpersonal relations. The reverse situation is prevailing in monochronic cultures.

Hofstede (1980; 1991; 1998) proposed a classification schema consisting of five dimensions: uncertainty avoidance, power distance, masculinity/femininity, individualism/collectivism, and long-term orientation. Uncertainty avoidance measures to what extent people feel ill at ease in uncertain and ambiguous situations and deliberately try to avoid them. Cultures scoring high on the uncertainty avoidance scale have a disposition to a heavier reliance on formality, rules, and heuristics to create order and structure in life. Further, a high level of the power distance indicates a hierarchical society where subordinate cultural members assume the unequal distribution of power. The degree of femininity in a society mainly reflects the extent to which 'soft' values such as quality of life and environmental concerns are prevalent and how vague the gender roles are. Long-term orientation primarily captures whether the cultural norms advocate a forward-looking perspective, as opposed to a short-term view. East Asian countries are often regarded long-term oriented as these cultures promote perseverance and thrift rather than short-term gratification. Accordingly, most Western countries are considered as short-term oriented.

Of Hofstede's five cultural dimensions, the most commonly used in behavioural research is undoubtedly the individualism/collectivism dimension. In collectivist cultures the

interpersonal ties are firm and considered more important than personal success, leading to a strong group mind-set. Members of individualist cultures instead have weak ties with others, apart from the immediate family and close friends.

Trompenaars and Hampden-Turner (1997) recommended seven dimensions; some of these are more or less equivalent to some of Hofstede's dimensions, whereas some have no direct correspondence. In particular, the diffuse-specific value orientation scale has no equivalent in Hofstede's dimensions. Individuals in diffuse cultures have a tendency to look upon situations using a 'top-down approach'. This implies that they start with the whole and see how each item is related to the other items. In specific cultures, on the other hand, individuals start by looking at specific items, analyzing each separately, with the whole being the sum of the items.

### *Dual process models of persuasion*

The Heuristic Systematic Model (HSM) (Chaiken 1987; Chaiken 1980; Chaiken, Liberman, and Eagly 1989) and the Elaboration Likelihood Model (ELM) (Petty and Cacioppo 1981; Petty and Cacioppo 1986b; Petty and Cacioppo 1986a; Petty and Cacioppo 1979) suggest that persuasion can be attained via two routes of information processing.

In the HSM, the systematic route to persuasion is described as an all-embracing and analytical reflection of judgment-relevant information. The heuristic route to persuasion, in contrast, is identified as the triggering and application of pre-learned associations stored in memory. An additional requirement is that the stored associations have some relevance for the impendent judgmental problem; often referenced examples state that 'consensus opinions are correct', 'experts can be trusted', 'likable people can be trusted', and so forth. Within the HSM framework, any transmitted information having the potential to activate pre-learned associations are referred to as 'cues', and the default assumption is that the said information is more 'simplistic' or 'clear-cut' than the information entering via the systematic route. More elaborate information, such as comprehensive product specifications, are often labelled 'arguments'. For simplicity, these two definitions will be maintained when comparing the two dual process models of persuasion.

In many ways, the ELM has an analogous setup to the HSM; for instance, the central route to persuasion is reported as an extensive and onerous processing of information devoted to the unveiling of the central merits of a message. The peripheral route, in turn, is presented as an umbrella term subsuming various attitude change processes conceived to differ quantitatively and, at times, qualitatively from the central route process. Thus, the type of cognitive activity in the peripheral route could be the same as in the central route, albeit less intensive. This holds, for instance, when individuals regard all arguments in a message but only contemplate a subset of the possible entailments (Petty and Wegener 1999).

Comparing the definitions of the HSM's systematic route and the ELM's central route they essentially seem equivalent. Even so, the ELM differs from the HSM in one important aspect; considering the heuristic route, the HSM rules out anything except associations that are activated and retrieved from memory. Consequently, the cognitive activity associated with the heuristic information processing could be read as differing in both intensity and type from the systematic route. As has been illustrated, this does not hold for the ELM's peripheral route; therefore, the ELM should not be interpreted as offering two discrete classes of information processing, but rather a continuum of scrutiny differing in intensity—'the elaboration continuum' (Petty and Cacioppo 1986a).

Petty and Cacioppo (1984) manipulated the number of arguments in a persuasive message under low versus high motivation. Under low motivation, a threefold increase of the number of arguments heightened persuasion no matter if the provided arguments were relevant or spurious. In contrast, under high motivation increasing the number of arguments resulted in increased persuasion when the arguments were strong but decreased persuasion when the arguments were weak. Similarly, Alba and Marmorstein (1987) varied the number of arguments under conditions of low versus high ability to process product information and hence elaboration likelihood. When ability was high, as in familiarity with the product class, increasing the number of weak arguments resulted in a less positive attitude toward the brand, whereas participants with low ability instead tended to be persuaded. Hence, the ELM clearly distinguishes between the type of information, on the one hand, and the information processing route, on the other hand. This is contrary to the HSM where the assumption of the originators and followers appears to be that predefined cues will always be processed in the heuristic route (Aaker and Maheswaran 1997; Chaiken 1987; Chaiken, Wood, and Eagly 1996; Chen and Chaiken 1999).

As the HSM puts an identity between the cue/argument distinction and heuristic/systematic dichotomy, conclusions regarding which information processing route that was active are inferred from the generation of cue-related and argument-related thoughts. Hence, in the HSM it is believed that heuristic processing may co-occur with systematic processing, both exerting independent effects on attitudes. Hypothetically one could think of five situations identified by which information processing route was used and the corresponding attitude outcome: (I) heuristic processing alone, (II) systematic processing alone, (III) both simultaneously, (IV) both simultaneously but systematic processing overriding heuristic processing, and (V) both simultaneously but heuristic processing overriding systematic processing. Case (III) is known in the literature as ‘additivity’ (Aaker and Maheswaran 1997; Chaiken, Liberman, and Eagly 1989; Chaiken and Maheswaran 1994), and is believed to occur in situations where the cue and argument are congruous. Cases (IV) and (V) could both be labelled ‘attenuation’, but the this term has traditionally been used for the former case and is thought to arise in circumstances in which the cue and argument are at odds (Aaker and Maheswaran 1997).

For the ELM, the situation is quite different in the sense that the predefined type of information has little to do with information processing route; any bit of information (i.e. cue or argument according to the HSM’s definition) could be processed in the peripheral or the central route in the ELM framework. Thus, the HSM’s hypotheses concerning attenuation and additivity have little bearing in the ELM, at least with regards to information processing strategies. Instead they are strictly interpreted as hypotheses with regards to what information source (e.g. experts’ statements versus product attribute information) had an impact on the attitude outcome under various conditions. However, with decreasing motivation and ability—and consequently lessened elaboration likelihood—all variables are more likely to impact attitudes via the peripheral process. Conversely, when elaboration likelihood increases, all variables are more likely to impact attitudes through the central process. Hence, in comparison with the HSM, the ELM is a somewhat ‘silent’ in regards to the possibility of the concurrent operation of both routes to persuasion. On the other hand, if individuals are provided with simplistic cues together with more detailed arguments, then the HSM would predict that the cue would enter via the heuristic route and the argument via the systematic



route.

Notwithstanding the differences between the HSM and the ELM, the core propositions of the two models are similar and in practice they are often treated as interchangeable; in particular, (1) both the HSM and the ELM assume that people are motivated to hold accurate attitudes, (2) both the HSM and the ELM conceptualize two routes of information processing where one is more elaborate than the other, and finally (3) both the HSM and the ELM suggest that the likelihood the central/systematic routes will be in use depends on motivation and the available cognitive capacity.

### *Individualist-collectivist differences in information-processing*

Culture has traditionally been regarded a static disposition inherently wired into individuals, and this view spurred the development of the cultural orientation scales. With regards to culture's impact on judgment and decision-making, an often cited reference is McCracken's description of culture as comprised of a lens through which people perceive society (1986). However, research in the field of consumer behaviour during the past decade or so has gradually altered this view; consequently, culture is no longer regarded as exerting a static and omnipresent impact on decision-making but rather exhibiting a dynamic effect. For instance, this research has sought to establish under what circumstances culture's lens is in use and when it is being overridden by idiosyncratic personal knowledge. The lion's share of this research has adopted the individualist-collectivist framework as a starting point. Subsequently, efforts have been made to show that members of individualist cultures, at least seemingly, can be 'transformed' into collectivist individuals, exhibiting similar behaviour to those found in collectivist cultures.

Retreating back to the static view of culture, there is still a respectable amount of evidence suggesting that the individualist-collectivist cultural dichotomy has something to say about individual-level consumption goals and decision-making processes. In particular, when comparing members of individualist cultures against members of collectivist cultures, the latter group have been found to exhibit a pronounced group mind-set (Briley and Wyer 2002; Singelis 1994; Triandis 1989). In the salient group mind-set, opinions and anticipated outcomes of others tend to be factored in the decision process, resulting in an increased tendency for equality and willingness to compromise. Also, the group mind-set, in which peer-approval is important, will impact individuals' propensities to make choices subject to minimizing the risk of losing face and experiencing negative outcomes. This prevention focus is in stark contrast to the promotion focus often observed among members of individualist cultures, where the possibility for gains, promotions and aspirations is explored (Briley and Aaker 2006; Lee and Aaker 2004; Lee, Aaker, and Gardner 2000).

The work of Briley and Wyer (2002) illustrates well the role a group membership plays in decision-making and that cultural identity could be regarded as a group membership in itself, although at the macro level. An interesting implication is that when individuals are primed on their cultural identity, they adopt a group mind-set displaying concerns for equality and a tendency to compromise similar in nature to membership in any ad hoc groups. This finding holds true for both individualist and collectivist cultures. Comparable findings in terms of peer approval are found in Tse et al. (1988), where Chinese executives were found to be more concerned with saving face than Canadian executives. Additionally, Chinese executives were

more inclined to joint-ventures, and maintaining long-term relationships.

The observed differences in self-regulatory goals between collectivist and individualist cultures are frequently attributed to the salient interdependent self in collectivist cultures, whereas individualist cultures are commonly considered to foster the independent self (Aaker 2006; Aaker and Lee 2001; Lee and Aaker 2004; Lee, Aaker, and Gardner 2000; Singelis 1994). It is believed that these two self-views have differing goals; the interdependent self is inclined toward the affiliation with others and the carrying through of the corresponding duties to peers. The independent self instead seeks to achieve self-sufficiency, the climbing of the social ladder, and the attaining personal relative success (Aaker and Lee 2001; Heine et al. 1999). In the persuasion domain, framing the product offering in the promotion versus prevention domains have been shown to increase individuals' motivation to process information, and hence their elaboration likelihood, when these domains correspond to the goals of individuals' salient self-views (Lee, Aaker, and Gardner 2000). The effect of this regulatory fit also extends to attitude formation; when the framing of product offerings correspond to the current self-view, individuals hold more favourable attitudes toward brands and advertisements (Aaker and Lee 2001; Lee and Aaker 2004).

In the dual process models of persuasion, and more specifically within the HSM, heuristic processing is contrasted to systematic processing where the views of others, as featured in online consumer reviews or advertisements, could be regarded one type of heuristic cue. Past research on information processing has showed that consumers in individualistic cultures tend to let consensus information influence evaluations only under low motivation. On the other hand, under high motivation, attribute information is more likely to influence the evaluation. Interestingly, when the two modes of processing yield contradictory information, consumers in individualistic cultures rely more on the processing of attribute information and less so on the processing of consensus information (Axsom, Yates, and Chaiken 1987; Mackie 1987; Maheswaran and Chaiken 1991; Slovic 1966).

Aaker and Maheswaran (1997) tested whether the findings from individualistic cultures regarding information processing generalizes to collectivist cultures. In doing so, they showed that some similarities exist; both types of cultures tend to use both the consensus cue and the attribute information when motivation is high and when the two sources of information agrees on the merits of the offering. However, when motivation is high but the provided information is incongruous, the two cultures differ; only consensus information is utilized for assessments in collectivist cultures, whereas the attribute information has greater weight in individualist cultures. In other words, individualist and collectivist cultures seem to display a reversed use of the HSM. The question at hand is then whether or not this information strategy reversal is due to cross-cultural differences in perceived cue-diagnostics; Aaker and Maheswaran (1997) investigated the said issue by providing a heuristic cue hypothesized to remain constant across cultures. The results indicate that the differences can be attributed to cross-cultural differences in perceived cue-diagnostics.

In two related studies Briley, Morris, and Simonson (2000) and Briley and Aaker (2006) sought to determine under which situations culturally rooted norms and judgments override personal knowledge and vice versa. The first study found that when individuals in both collectivist and individualist cultures were asked to provide reasons prior to making product choices, culturally stable differences in preferences for compromise products were found. That is, American individuals were found to have a significantly lower inclination for compromise

alternatives when they were asked to give reasons, whereas Chinese and Japanese increased their tendency to choose compromise alternatives. Briley and Aaker (2006) looked at differences in persuasion effects across the individualist-collectivist cultural dichotomy. Culturally rooted judgments were found to be prevalent in situations where individuals were likely to process information in a reflexive way; for instance, in situations when they have to make quick judgments. In those situations Chinese individuals had more favourable attitudes toward advertisements framed as preventing a negative outcome, whereas American individuals were more persuaded by advertisements emphasizing the gain that could be achieved from using the product. However, when Chinese and American participants were encouraged to participate in deliberation of the message, or were not pressured by time constraints, there was no difference in attitudes.

All in all, these findings support the view that cultural norms do not wield a steady effect on individuals across situations.

### **Hypotheses**

When consumers in individualist cultures are primed on their cultural identity, they adopt a group mind-set (Briley and Wyer 2002). This group mind-set causes them to adopt a prevention focus; consequently, consumers become more concerned with the negative aspects of decisions rather than the positive consequences (Aaker and Lee 2001; Briley and Wyer 2002). In addition, preferences for equality and tendencies to compromise become stronger, which are concerns typically found in collectivist cultures.

Since priming individualist members on their cultural identity induces a group mind-set resulting in an equalization of their preferences to those observed in collectivist cultures, it does not seem farfetched to expect that it would have an analogous impact on individuals' information processing strategies. Particularly, within the HSM, if the heuristic cue consists of consensus information of others and if consumers regard these 'others' as their reference group, then it seems likely that the salient cultural group mind-set would cause consumers to pay more attention to the consensus cue in attitude formation.

Aaker and Maheswaran (1997) identified that under incongruity and high motivation, members of collectivist cultures use only consensus information for evaluations, whereas members of individualist cultures are more inclined to rely on attribute information. More specifically, the findings suggest that attenuation of the attribute information occurs under conditions of high and low motivation and incongruity. Secondly, additivity occurs under high motivation and congruity. Briley and Wyer (2002), in turn, concluded that priming individuals on their cultural identity induces a group mind-set which extrapolates to both individual and group-decision situations. The group mind-set results in preferences toward equality and compromises, as well as minimizing the risk for negative outcomes. This orientation holds for both ad hoc groups and the cultural group membership. Table 1 summarizes the most important findings regarding individuals' information processing strategies in collectivist cultures, as presented in Aaker and Maheswaran (1997), and the effect of cultural salience on outcome preferences as evidenced in Briley and Wyer (2002).

Table  
1

Central findings of Aaker & Maheswaran (1997) and Briley & Wyer (2002)

| Aaker & Maheswaran (1997) |   | Briley & Wyer (2002)                   |   |
|---------------------------|---|--|---|
| Collectivist cultures:    |   | Individualist & Collectivist cultures: |   |
| 1.                        | Consensus influences evaluations regardless of motivation and congruity   | 1.                                     | Cultural salience induces a feeling of group membership similar to that from actual participation in groups.      |
| 2.                        | Attribute information influences evaluations only under high-motivation and congruity.  | 2.                                     | Group mind-set results in preferences for compromise, equality, and choosing products to avoid negative outcomes. |
| 3.                        | The number of consensus thoughts is equal across all conditions.  | 3.                                     | The feeling of group membership can influence decisions that are irrelevant to this group.                        |
| 4.                        | The number of attribute thoughts is greater under congruity vs. incongruity. Under low motivation, the number of attribute thoughts is equal regardless of congruity. |  |   |
| 5.                        | Consensus-thought valence influences evaluations under all conditions   |  |   |
| 6.                        | Attribute-thought valence influences evaluations only under high motivation, and congruity.   |  |   |

Hence, to summarize, in individualist cultures the (1) consensus information (heuristic cue) typically influences evaluation only under low motivation, (2) under high motivation the influence of consensus information essentially mitigates, (3) under incongruity and high motivation, heuristic processing will typically be attenuated by systematic processing (Axsom, Yates, and Chaiken 1987; Mackie 1987). When imposing a group mind-set by priming individuals on their cultural identity, their interdependent self will become salient; the result is that others' opinions are regarded as more important, resulting in less attention to internal feelings (Aaker and Maheswaran 1997; Markus and Kitayama 1991).

Individuals' cognitive responses can be classified as being either consensus-related or attribute-related. Therefore, whenever attribute information forms the basis for evaluations, one would expect more attribute-related thoughts. When calling subjects on their cultural

identity their interdependent self becomes salient, and as noted above, one would expect that subjects would be more likely to elaborate on the consensus information across all levels of motivation and congruity. On the other hand, when subjects are primed on their cultural identity they will be less likely to elaborate on the attribute information; it will primarily be under high motivation and congruity and less so under low motivation.

Whenever individuals use heuristic processing, not only would one expect that they elaborate on the consensus information, but also that consensus-thought valence would influence the evaluations. Similarly, if individuals employ systematic processing, subjects will elaborate on the attribute information and attribute-thought valence would influence the evaluations. When priming individuals on their cultural identity their interdependent self will become salient, resulting in that they will become more similar to members of collectivist cultures. Individuals from collectivistic cultures have been found to let consensus-thought valence influence evaluations under all levels of motivation and congruence. However, elaboration of attribute information will only take place under high motivation and congruity. Hence, when priming individuals on their cultural identity one may form the following hypotheses:

H1: Priming members of individualist cultures on their cultural identity will result in the generation of more consensus-related thoughts and fewer attribute-related thoughts across levels of motivation and congruity.

H2: Priming members of individualist cultures on their cultural identity will decrease the impact of attribute-thought valence and increase the impact of consensus-thought valence across levels of motivation and congruity.

## **Experimental procedures**

All sessions of the study ran at a university in Western Canada. All participants came to one room initially where they were seated in separate booths facing a computer screen, facing away from each other. Each session started with some general instructions provided by the experimenter and all participants began the study at the same time. All the necessary task instructions were provided on the computer screens and when performing the first task, participants had no information regarding the exact nature of the subsequent tasks. In each session all respondents participated in two tasks.

In the first section, participants were told that the purpose of the task was to assess people's general knowledge with regards to their ability to identify important objects or events and the time period with which they are primarily associated. The second task was labelled as 'Attitudes and preferences toward products' and involved responses on attitudes toward a new digital camcorder, in addition to choosing four products described with two attributes varying in magnitude in four choice set scenarios. Finally, participants completed a set of manipulation checks, a free recall task, an open-ended suspicion probe, a scale measuring the horizontal and vertical dimensions of individualism and collectivism (Sivadas, Bruvold, and Nelson 2008), and a descriptive personal survey. Participants were then debriefed.

The experimental design was 2(Canadian culture is salient: high vs. low) × 2(Motivation:

high vs. low)  $\times$  2 (Congruence: high vs. low) and participants were randomly allocated to the treatment cells.

### *Manipulation of cultural salience*

To make participants' cultural identity salient, the same procedure used by Briley and Wyer (2002) and Hong et al. (2000) was employed. Specifically, all participants were told that the reason for this task was to assess participants' general knowledge regarding their ability to identify important objects or events and the time period with which they were primarily associated. On this pretense, all participants were shown six pictures. In the Canadian cultural salience high-condition, participants were shown a series of six pictures portraying Canadian cultural icon motives. The pictures portrayed: (1) the Canadian flag, (2) Wayne Gretzky playing for the Canadian National Hockey Team, (3) Celine Dion, (4) Terry Fox running the Marathon of Hope, (5) a Royal Canadian Mounted Police, and (6) a Canadian Quarter promoting the 2010 Vancouver Olympic Games. The Canadian culture low condition, instead presented six pictures showing six Chinese cultural icon motives: (1) a Chinese Dragon, (2) The Great Wall of China, (3) a girl playing a traditional Chinese instrument, (4) the Terracotta Army, (5) a Chinese opera singer, and (6) a character from the famous Chinese novel 'A Journey to the West'. All participants were asked to write a paragraph with regards to their beliefs as to the motive of the pictures, and the approximate time period in which the motive existed or was created.

### *Manipulation of high versus low motivation*

In the same fashion as in Aaker and Maheswaran (1997), motivation was manipulated by letting the participants know the study was part of an important market survey conducted on behalf of a large-scale electronics manufacturer, planning to introduce a new camcorder and therefore in need of participants' opinions as consumers. In addition, for the high motivation condition, participants were told that they were part of a small and selected group of individuals in Western Canada whose opinions were being sought by the manufacturer. Finally, the participants were instructed that their opinions were highly relevant and would weigh heavily in the decisions to introduce the new camcorder and that the product was planned to be marketed in Western Canada. For the low level of motivation, the amount of words was fairly equal and the introductory phrase regarding the need for a large-scale electronics manufacturer to obtain consumer opinions about the new product was about the same. However, in this condition participants were instead instructed that they were part of a large opinion survey conducted across many universities and cities in Canada. In addition, they were told that their individual opinions were not important as they would be averaged across all respondents participating in the survey. Lastly, participants in the low motivation condition were told that the new product was planned to be marketed in Eastern Canada. Finally, participants in both the high and low motivation condition were informed that they would be provided with two sets of information regarding the new camcorder and that their study would continue on the subsequent screen.

### *Manipulation of high versus low congruency*

All participants were given two sets of information regarding the digital camcorder. One piece

of information was comprised by ostensibly positive or negative test-market results (consensus cue) suggesting a favourable or unfavourable assessment of the product by 300 consumers in Western Canada. The other piece of information consisted of positive or negative attribute information, ostensibly provided by an independent product testing agency that had assessed the camcorder and compared it to two leading competitive brands on six attributes. To maintain consistency and comparison across studies, the wording was similar to Aaker and Maheswaran (1997) and Maheswaran and Chaiken (1991). In the positive consensus cue condition, participants were informed that of the 300 consumers in Western Canada who had used it, 81% were extremely satisfied with it and less than 3% were extremely dissatisfied. For the negative consensus cue condition, the wording was instead that just under 20% were extremely satisfied and just under 50% were extremely dissatisfied with the digital camcorder. Next, participants were provided with the product information (systematic information) from the independent testing agency. The six attributes of the digital camcorder were the same as in (Aaker and Maheswaran 1997); (1) picture quality, (2) sound quality, (3) automatic features, (4) colour accuracy, (5) remote control, and finally (6) ease of operation. The positive attribute information described the it as being superior to the two leading competitors on five of the six attributes (i.e. picture quality, sound quality, automatic features, colour accuracy, remote control) but equally good with regards to ease of operation. In the negative attribute information treatment, the camcorder was instead described as being inferior to the two leading competitors on five of the six attributes (i.e. picture quality, sound quality, automatic features, colour accuracy, remote control), whereas it was deemed on par with the two competitors regarding ease of operation.

The consensus cue and the attribute information were orthogonally manipulated in order to achieve two level of congruity. Accordingly, for the positive congruent condition, participants were first shown the positive consensus cue and the positive attribute information. For the negative congruent condition, the negative consensus cue preceded the negative attribute information. In the low congruity condition, participants were either presented with positive consensus cue and then the negative attribute information, or the negative consensus cue, followed by the positive attribute information.

#### *Elicitation of participants' responses*

After the participants had been shown the consensus cue and the attribute information for the camcorder, they were asked a series of questions regarding their thoughts and evaluations regarding the new product. Specifically, on a nine-point scale from -4 to 4 they were asked to indicate as to the extent they agreed or disagreed on statements inquiring about their intentions to purchase it, their extent of favourability toward the product, and if they regarded it useful and a good product. To maintain comparability across studies, the wording was similar to the one used in Aaker and Maheswaran (1997). When participants had finished this section they were taken to the next screen where they were given three minutes to list any thoughts that occurred to them about it while reading the product description.

Five sets of manipulation checks were distributed to the participants as part of the study. First off, participants rated the extent to which they felt motivated to read the product information regarding the camcorder on two seven-point scales: not interested versus highly interested and not involved versus highly involved. Secondly, participants rated the extent to which they felt the attribute information depicted the as having many positive versus negative

attributes. In addition, the participants were asked about the extent they felt the product description portrayed it as being superior to the competing brands. Thirdly, they indicated to what extent they regarded the consensus cue as providing a favourable versus unfavourable opinion as to the merits of the camcorder in addition to recalling the percentage of consumers who were extremely satisfied with the camcorder. Fourthly, participants were asked to what extent they deemed the consensus cue and attribute information incompatible versus compatible and dissimilar versus similar.

In the last manipulation check, participants were presented with four product choices, where each choice set contained three products differing on two attribute dimensions. Within each choice set, two choice options had a high value along one attribute dimension and a low value along the other attribute dimension and one choice option had mid-range values on both attribute dimensions, which constituted the compromise option. Briley, Morris, and Simonson (2000) found that Asian individuals were more inclined to choose the compromise alternative, whereas North-American individuals had a preferences for the extreme option. Also, Briley and Wyer (2002) found that participants exposed to icons of their own culture tended more toward compromise options, but were less inclined to give self-referent explanations as a justification of their choice.

Participants were explicitly told that all products were similar on all other dimensions except the two on which the products were described. They were also instructed to write a paragraph giving a reason for selecting one option over the others prior to indicating their choice. Four product classes were featured: (1) digital SLR cameras differing on reliability rating and maximum autofocus range, (2) laptop computers differing on hard disk capacity and maximum battery life, (3) television sets differing on screen size and resolution, and finally (4) laser printers differing on print speed and tray capacity.

All participants completed a 14-item scale measuring the horizontal and vertical dimensions of individualist-collectivist dichotomy suggested by Sivadas, Bruvold, and Nelson (2008). These additional concepts concern preferences for equality versus hierarchy within cultures.

## **Experimental results**

In total 93 individuals participated in this study. Of the 93 individuals starting the study, four individuals did not complete the full study; hence, the total number of individuals that completed the study was  $N =$

89. As there are two ways of achieving high (both attribute and consensus information being positive or negative) versus low congruence (either consensus information being positive and attribute information being negative or consensus information being negative and attribute information being positive) the total number of experimental groups was 16.

Participants indicated their motivation to read the persuasive message regarding the Camcorder on two items: not versus highly interested and not versus highly involved and these responses were subsequently averaged to form a motivation index. Given the results obtained in Aaker and Maheswaran (1997), it could be expected that under high motivation, the motivation index would yield a significantly higher mean than under low motivation. Secondly, participants indicated to what extent they felt that the attribute information presented the camcorder as having many versus few positive features, few versus many negative features, and



finally whether they thought it was superior versus inferior to the competing brands. These responses were averaged to form an attribute index. As in Aaker and Maheswaran (1997) the expectation was that the positive attribute information would result in a significantly higher mean of the attribute index than the negative attribute information. Thirdly, the participants rated to the extent they perceived the test market results for the camcorder were favourable or unfavourable and they also indicated their recall of the percentage of customers in the test market group who were extremely satisfied with it. Fourthly, participants indicated the extent that they felt the test-market results and the product description were incompatible versus compatible and dissimilar versus similar and these two items formed a congruence index. Finally, as in Briley and Wyer (2002), participants were exposed to four shopping scenarios involving a choice between three products. For each product choice participants first provided a written explanation as to why the chosen option was preferred over the other two options. Following the results in Briley and Wyer (2002) it could be expected that participants for which Canadian cultural salience was high would be less likely to provide self-referent explanations than participants in the Canadian cultural salience low treatment.

Similarly to Aaker and Maheswaran (1997), participants were asked to list any thoughts that occurred to them about the camcorder while reading the product description. This information was subsequently coded as consensus related (C) or attribute related (A). In addition, participants' thoughts were coded according to if they expressed a positive (+), negative (-) or neutral (0) views toward the camcorder. Any occurrence of thoughts expressing a discrepancy between the consensus information and the attribute information was coded as (D) and thoughts that had no reference to the camcorder were classified as irrelevant (I).

According to the hypotheses, it could be expected that participants who were exposed to the cultural salience high condition would generate a greater number of consensus-related thoughts. This would hold regardless of motivation and congruity. Analogously, regardless of the level of motivation and congruity one could expect that the number of attribute-related thoughts would decrease in the cultural salience high condition. To test this, a Poisson regression was estimated with dummy variables representing the cultural salience high condition and whether participants were born and/or raised in Canada. These two dummy variables were also interacted. An examination of the raw data revealed that the majority of participants did not list any consensus related thoughts and several of the participants did not list any attribute-related thoughts. To account for the zero-inflated distribution a mixed Poisson representation was used. Hence, participants' distribution of consensus- and attribute-related thoughts was specified as:  $Y \sim \text{Poisson}(\lambda(1-U))$  and  $U \sim \text{Bernoulli}(\pi_0)$ . The canonical link function  $\log(\lambda)$  was used to specify the relationship between the predictor variables and the mean of the Poisson distribution.

Table 2 presents the estimation results for the two regressions. As seen, neither the regression for attribute-related thoughts nor the regression for consensus-related thoughts has a significant main effect for participants who were born and/or raised in Canada; in both cases the median of the credible interval is close to zero. Moreover, the cultural salience high condition has a small and insignificant impact on the tendency for having consensus- and attribute-related thoughts; in both cases the median of the credible interval is in the neighbourhood of zero. Looking at the interaction between the cultural salience high condition and participants that were born and/or raised in Canada, however, there is clear indication of an impact on the number of thoughts in both regression analyses. In the consensus thought

regression, the credible interval is basically positive suggesting that Canadians that were exposed to the cultural salience high condition were more likely to have consensus-related thoughts. In addition, the attribute thought regression indicates a decreased tendency for Canadians in the cultural salience high condition to have attribute-related thoughts and this holds regardless of the level of motivation and congruity.

To conclude, altogether these findings do suggest that there is a tendency to switch from systematic processing toward heuristic processing, according to the HSM denomination, when members of individualist cultures are primed on their cultural identity. This finding holds regardless of the level of motivation and congruity.

Table  
2

Zero-inflated Poisson regression of consensus and  
attribute thoughts

| Variable          | Posterior mean | Credible interval  |
|-------------------|----------------|--------------------|
| Intercept         | -              | -2.41, -1.42, -.49 |
| Born/Raised       |                |                    |
| Canada            | -.37           | -2.35, -.31, 1.26  |
| Not               | 0              |                    |
| Cultural salience |                |                    |
| High              | -.78           | -2.38, -.75, .63   |
| Low               | 0              |                    |
| Interaction       | 1.5            | -.72, 1.45, 3.99   |
| Intercept         | .51            | 0.22, 0.52, 0.79   |
| Born/Raised       |                |                    |
| Canada            | -.02           | -.57, -.01, .50    |
| Not               | 0              |                    |
| Cultural salience |                |                    |
| High              | .20            | -.19, .19, .59     |
| Low               | 0              |                    |
| Interaction       | -.59           | -1.35, -.59, .16   |

The cognitive root of attitudes toward the camcorder was investigated by regressing the evaluation index on attribute-thought valence and consensus-thought valence while controlling for idiosyncratic differences in horizontal and vertical individualism/collectivism. As seen in Table 3, both consensus- thought valence and attribute-thought valence influenced attitudes toward the camcorder across all conditions; both credible intervals are entirely positive. In addition, both the horizontal collectivism and vertical individualism scale had significant explanatory power for participants' evaluation of the digital camcorder. When priming individuals on their cultural identity, the impact of attribute-thought valence on

product attitudes should decrease but the impact of the consensus-thought valence on attitudes should increase. This was tested by re-estimating the regression with an added dummy variable indicating the cultural salience high condition. As presented in Table 3, the results confirm the main effect of attribute- and consensus-thought valence. Looking at the interaction between cultural salience and attribute- thought valence, there is some indication of a lessened impact of the attribute-thought valence. This finding suggests that across all experimental conditions, the impact of attribute-thought valence on attitudes decreased in the cultural salience high condition. The corresponding interaction between consensus-thought valence and cultural salience, however, is almost perfectly balanced around zero suggesting that the effect of consensus-thought valence is constant regardless of the level of cultural salience.

Table  
3

Regression of evaluation index against consensus- and attribute-  
thought valence

| Variable  | Posterior | Credible interval  |
|---|-----------|--------------------|
| Evaluation index                                |           |                    |
| Intercept                                       | -1.16     | -4.04, -1.16, 1.71 |
| Attribute-thought valence                       | .71       | .47, .71, .96      |
| Consensus-thought valence                       | 1.29      | .27, 1.29, 2.30    |
| Horizontal collectivism (HC)                    | -.49      | -.89, -.49, -.09   |
| Vertical collectivism (VC)                      | .28       | -.12, .28, .68     |
| Horizontal individualism (HI)                   | .03       | -.30, .03, .36     |
| Vertical individualism (VI)                     | 0.34      | .08, .34, .59      |
| Evaluation index                                |           |                    |
| Intercept                                       | -.30      | -.73, -.30, .13    |
| Attribute-thought valence                       | .84       | .47, .84, 1.21     |
| Consensus-thought valence                       | 1.41      | -.002, 1.41, 2.83  |
| Interaction                                     | -.12      | -.63, -.12, .39    |
| Attribute-thought valence and cultural salience |           |                    |
| Interaction                                     | .16       | -1.91, .16, 2.22   |
| Consensus-thought valence and cultural salience |           |                    |

## Summary and discussion

Past research has demonstrated a difference in the use of information processing strategies between members of individualist and collectivist cultures. In particular, when the two pieces of information are attribute and consensus information, individualist members tend to employ the attribute information when forming attitudes whereas collectivist members utilize the consensus information. When individualist members are primed on their cultural identity, however, they have been found to exhibit similar concerns regarding compromise choice options as collectivist members.

This research integrated and built upon these findings by investigation how individuals' information processing strategies changed when they were primed on their cultural identity. Testing of the experimental manipulations largely confirmed the findings of past research; individuals in the high motivation condition were more motivated to read the persuasive message regarding the camcorder and also accurately detected when the attribute information and consensus cue were incongruent. Moreover, two regression analyses established that more favourable attribute-related thoughts were elicited when attribute information was positive and more favourable consensus-related thoughts were elicited when consensus information was positive. Estimation of a hierarchical Sg-Binomial model on the number of compromise choices made in four shopping scenarios indicated that participants in the cultural salience high condition made a greater number of compromise product choices. Also, in a second Sg-Binomial model, participants in the cultural salience high condition were found to provide fewer self-referent explanations with regards to their product choices in the four shopping scenarios.

The number of attribute-related thoughts was hypothesized to decrease for Canadians in the cultural salience high condition. Likewise the number of consensus-related thoughts was hypothesized to increase. As many participants did not list any consensus-related thoughts these two hypotheses was tested by estimating a zero-inflated Poisson regression where the distribution of participants' responses was specified as a mixture of a Poisson distribution and a Bernoulli distribution. Canadians in the cultural salience high condition listed fewer attribute-related thoughts and more consensus-related thoughts across the experimental cells. Given the definition of heuristic versus systematic information processing in the HSM the results provide a clear indication of a switch in information processing strategy from attribute-related information in favour of consensus-related information.

Participants' evaluations of the camcorder were clearly influenced by both attribute-thought valence and consensus-thought valence across all experimental conditions. However, the impact of cultural salience on the number of consensus- versus attribute-related thoughts did not fully translate into an impact on attitudes toward the camcorder. In particular, the interaction with consensus-thought valence was insignificant across conditions. There was an indication, however, of a lessened effect of attribute-thought valence on attitudes under the cultural salience high condition.

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# Top Management Team Diversity and Company Performance: The moderating effect of Organisation Life Cycle

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## Abstract

The research paper examines the moderating impact of Organizational Life Cycle on the relationship between Top Management Team Diversity and Company Performance. The study first elaborates and establishes the theoretical link between organization lifecycle and composition of management elites. Second, a quantitative empirical study is conducted to test the OLC stages moderating impact on the upper echelons diversity and firm performance of the top companies in the Czech Republic.

A detailed procedure is developed to accurately classify organizations at different lifecycle stages, drawing extensively on existing literature and scales.

Paper findings state that more mature the company becomes, more diversified the senior management is regardless the firm performance. Also, the industry dynamism impact has its own role in the relationship between the organization life cycle and senior management diversity which is expressed by the paper findings as well.

**Keywords:** top management team, diversity, company performance, organization life cycle

## INTRODUCTION

Recently, there is a surge of interest in exploring Top management teams (TMT) and Diversity these topics are referring to successful global companies have multinational top management (Berman, 1997).

Research on multicultural teams, however, suggests that national diversity has positive effects for team effectiveness and performance. Diversity in national origin is associated with diversity in values, cognitions and experiences that generate broader knowledge bases and different perspectives within the team (Cox, Lobel & McLeod, 1991; McLeod & Lobel, 1992; Watson, Kumar & Michaelsen, 1993).

One of the most important factors which can substantially increase the efficiency of decision-making of top management teams (TMT) is the characteristics where we measure efficient composition and diversity of TMT.

Business World tries to find this efficiency by incremental (ongoing) improvement of TMT. The literature examines two important factors substantially influencing the composition, diversity, life cycle phases and company performance.

In the unstable business environment, there is an ongoing debate as to prevent a repeat of the governance failures that triggered these developments. A recent focus of this debate has been the issue of increasing Top Management Team (TMT) and Board Diversity to improve company performance and reduce groupthink and inertia at the top of large and influential companies in particularly critical situations. Proposals to improve TMT and board diversity have ranged from the launch of voluntary measures to direct intervention through the introduction of quotas to ensure

a minimum representation of TMT and board members.

The paper links two independent variables (Top Management Team Diversity) and Company Performance and it investigates how these variables interact by applying moderating variable of Organization Life Cycle, which is vital for each organization especially in a world of fast changes and turbulent environment. Therefore, the research paper sheds a light on the interconnection between TMT and company performance. The results of this study have twofold results- conceptual and practical as it help us to better understand what stays behind diversity in TMTs and how important is the stage of company development in relation to company performance.

## **LITERATURE REVIEW**

### ***Top Management Team and Company Performance***

The roots of the Top Management Teams (TMT) perspective lie in the behavioral theory of the firm (Cyert & March, 1963), which suggests that managerial choices are not always following rational motives but are to a large extent influenced by the natural limitations of managers as human beings. Behavioral factors such as bounded rationality, multiple and conflicting goals, various aspiration levels etc., are believed to influence strategic choices made by top executives, which in turn determine board composition. In a particular decision-making situation, managerial decisions are influenced by their own values and cognitive bases as they impact the managers' perception of the situation and the subsequent interpretation of possible choices. In a perceptual model of strategic choice under conditions of bounded rationality, Hambrick and Mason (1984) visualize how manager's characteristics affect strategic choice in a three-stage process: a limited field of vision, selective perception and interpreting noticed stimuli based on the manager's "givens."

In their seminal work, Hambrick and Mason (1984) suggest that managers' observable socio-economic characteristics can be used as proxies for the more complex psychological dimensions of their personalities. The reasoning is based on the organizational socio-economy approach, which criticizes the use of constructs such as attitudes, needs, values, preferences and cognitions, since such constructs are "difficult to reliably measure and conceptually validate [and] are neither concrete nor unambiguous in their meanings and interpretation" (Pfeffer, 1983). Instead, socio-economy is regarded as an important causal variable and whereas the existence of process and other intervening variables between socio-economic composition and organizational outcomes is acknowledged, it is not considered necessary to explore these process constructs, as they are mostly mental processes, which are also considered difficult to access and measure reliably (Pfeffer, 1983). The combination of strategic choice and organizational socio-economy perspective leads to the first TMTs model as suggested by Hambrick and Mason (1984).

Diversity of functional backgrounds also contributes to cohesion by endowing team members with similar frames of reference for problem solving (Dearborn & Simon, 1958; Gupta & Govindarajan, 1984). Like average team tenure, a common functional background contributes to the development of common schema among team members and thereby increases cohesion by providing a common premise for decision making.

Due to difficulties of gaining access to and assessing intricate psychological dimensions of top managers and their actual behavior, organizational socio-economy has become the predominant approach in TMTs research (Daily, Dalton & Cannella, 2003; Hambrick & Mason, 1984; Pettigrew, 1992). Numerous empirical studies scrutinize the effects of top management socio-economics on organizational outcomes, such as strategy and performance. Especially the topic of team diversity has been of particular interest for researchers from a theoretical point of

view (Finkelstein & Hambrick, 1996). Measures of distributional properties (dispersion of a group over specified categories) rather than central tendencies, such as mean, median or proportion, are considered crucial for understanding the effects of socio-economy on organizational outcome. The most recent decade of TMT research is characterized by several important, and at the same time distinguishing, themes. When contrasted with earlier upper echelon investigation, recent research did not carry the burden of validating the original Hambrick and Mason model. Rather, it was able to capitalize on a foundation of empirical results linking not only TMT characteristics and firm strategic profiles (e.g., Bantel & Jackson, 1989; Finkelstein & Hambrick, 1990; Smith, Grimm, Gannon & Chen, 1991). Moreover, earlier work had already established that the TMT model was applicable in diverse contexts, including U.S. and international organizations (e.g., Hoffman & Hegarty, 1993; Wiersema & Bird, 1993), as well as different life cycle stages, and business and corporate strategy arenas (Cannella & Hambrick, 1993; Eisenhardt & Schoonhoven, 1990; Hambrick, Cho and Chen, 1996).

### ***Organization Life Cycle and Top Management Team***

In one of the most influential organization lifecycle models, Miller and Friesen (1984) contend that organizations tend to move in a linear sequence of five stages: birth, growth, maturity, revival, and decline. Miller and Friesen (1984) suggest that an organization has unique features at each lifecycle stage with regard to the general state of affairs of the organization. This includes features such as size, age, ownership dispersion, influence of stakeholders on decisions, and the diversity and/or hostility of the organization's environment. Whereas at early lifecycle stages top managers focus primarily on managing external dependencies, organizations become increasingly focused on internal issues as they grow and mature (Dodge & Robbins, 1992). Different lifecycle stages also imply different approaches to strategic decision-making, which means that TMTs will face different personnel requirements based on the organization's lifecycle stage. The characteristics of a successful TMT may for example be different based on the extent to which they pursue innovative, growth-directed strategies or maintenance-oriented strategies. The decision-making style is also likely to become more participative and decentralized as an organization develops (McNamara & Baden-Fuller, 1999), potentially influencing the type and mix of top manager profiles sought by an organization over the course of its lifecycle. As the organization lifecycle may influence TMT characteristics through a variety of organizational mechanisms, the dissertation will adopt a broad approach to the application of pertinent theories. Key theories that may be drawn upon to explain the varying needs for TMT characteristics at different lifecycle stages include, i.e., socio capital theory (Burt, 1992; Coleman, 1988), resource diversity theory (Barney, 1991), and resource dependence theory (Pfeffer & Salancik, 1978).

A one-size-fits-all approach to TMT characteristics may not be ideal for organizations at all stages of organizational evolution. Indeed, it may be counterproductive for organizations to comply with a set of regulations that are incompatible with their evolutionary stage. For example, if a mandatory measure to increase TMT diversity is designed to improve an average outcome in a large sample of predominantly mature firms, such regulations may at the same time hamper the progress of firms that are at other evolutionary stages such as growth or revival.

## METHODOLOGY OF THE RESEARCH

### Hypotheses

In this part, hypotheses are elaborated regarding the relationship between TMT diversity and performance, and the relevant independent variables, moderate variable are identified and described.

#### *TMT size*

Existing studies have presented mixed results on the impact of TMT size on company performance. Some research on the role of the TMT as an organizational resource has demonstrated a positive relationship between TMT size and firm performance such as innovation or financial performance. For instance, Sanders and Carpenter (1998) concluded that TMT size reflected a team's collective capacity gather and process complex information. They found a positive relationship between TMT size and expansive global strategies.

*Hypothesis 1: Bigger TMT Size is negatively related to company performance*

#### *TMT Members Gender*

A person's gender identity and expression encompasses multiple factors including genetic influences, brain chemistry, learned behaviors, and personal choices. These factors – shaped by culture, custom, socio constraints and beliefs – affect us all. Gender diversity is measured by the proportion of males and females in the top management teams of the companies expressed by the formula:

$DG = N1/N2$ , where DG- Gender diversity, N1-number of female members in the TMT and N2-total number of members in the TMT.

The gender diversity is a typical indicator for gender diversity in a company. Most of the companies encompass of very low number of females which makes the coefficient quite low.

*Hypothesis 2: Higher number of TMT Members Gender is negatively related to company performance*

#### *TMT Members Average Age*

Previous research indicates that the average age of TMT members influences the degree to which they are oriented toward risk during strategic decision-making (Hambrick and Mason 1984; Hitt and Tyler 1991). Older managers possess less physical and mental stamina (Child 1974), have greater psychological commitment to the organizational status quo, and see financial and career security as their primary goals (Hambrick and Mason 1984). Therefore, older executives generally tend to engage in less risk-taking (Vroom and Pahl 1971). Numerous studies have pointed out that personal performance of firm members are affected by the organizational atmosphere or culture of orientation toward risk-taking, tolerance for ambiguity, perseverance in the face of frustration, and a relative unconcern for social approval (Amabile 1996; Feldman 1980; Golann 1963; Stein 1974). Thus, firms with younger TMT members (on average) will be more inclined to pursue risk-taking strategies than firms with more mature TMT members. On the assumption that performance is enhanced in an environment where risk-taking is encouraged and supported (Amabile 1988; Sternberg et al.1997), we suggest the following hypothesis:

*Hypothesis 3: Higher amount of Average Age of TMT is negatively related to company performance*

#### *TMT Members Nationalities*

People from different nationalities have different life experiences. This flavors their interpretation of events. These differences can bring strength to the group if it is valued and integrated into the group dynamics. However, it can take time, intent and the willingness to be open-minded and non-judgmental about the value the differences bring. It definitely takes effort to make nationality diversity a strength. Nationality diversity is measured by the ratio between foreigners in the TMT team and total number of members in the TMT described by the formula below:

$DN = N1/N2$ , where DN- Nationality diversity, N1-number of foreigners in the TMT and N2- total number of members in the TMT. This coefficient is important for the top management team diversity because it shows the proportion of local nationals to the foreign nationals. In many IPOs there are more than two nationalities in the TMT which indicates that the companies are multinational.

*Hypothesis 4: Higher number of TMT Members Nationalities are negatively related to company performance.*

#### *TMT Members Tenure*

This coefficient basically indicates the distribution of time period of the top management team member within the team spent in years and it is important for us to see how long on average the top management team members spend with the companies within the TMT. Team Tenure Diversity is measured by the following formula below:

$DTT = N1/N2$ , where DTT- Team tenure diversity, N1-number of TMT members with team tenure less than 5 years and N2- total number of members in the TMT

*Hypothesis 5: Higher number of TMT Members Tenure is positively related to company performance.*

#### *TMT Members Company Tenure*

The company tenure diversity factor is very important for the company as well because it indicates how much the TMT members are devoted to the firm and how long they have been working for the company. In some cases TMT members have been working all their life for one company which shows loyalty, dedication and strong cooperation towards the employer.

We measure this coefficient by the following formula:

$DCT = N1/N2$ , where DCT- company tenure diversity, N1-number of TMT members with company tenure less than 10 years and N2- total number of members in the TMT

*Hypothesis 6: Higher number of TMT Members Company Tenure is positively related to company performance.*

#### *TMT Members Dominant Functions*

TMT members dominant function expresses their expertise and experience in certain business areas. Therefore, when company hires new TMT members is crucial to look in their dominant function in order to perform more in the TMT team.

The coefficient of dominant function diversity is measured by the formula:

$DDF = N1/N2$ , where DDF- dominant function diversity, N1-number of TMT members with dominant function in non-management field and N2- total number of members in the TMT.

*Hypothesis 7: Higher number of TMT Members Dominant Function is not positively related to company performance.*

#### *TMT Members Career Length*

This TMT characteristic is measured by the ratio between TMT members with career length less than 15 years and TMT members with career length more than 15 years. It is vital for each company that its TMT members possess long experience and exposure to their competent business areas in order to perform well their jobs. The formula below indicates the career length diversity:

$DCL = N1/N2$ , where DCL- career length diversity, N1-number of TMT members with length less than 15 years and N2- total number of members in the TMT

*Hypothesis 8: Higher number of TMT Members Career Length is positively related to company performance*

#### *TMT Members Education Background*

Each TMT member has certain education background but not always it matches their dominant function. Therefore, we measure the ratio between TMT members with non-management education background and the TMT members with education background in management expressed by the formula below:

$D_{EB} = N1/N2$ , where  $D_{EB}$ - education background diversity, N1-number of TMT members with non-management education background and N2- total number of members in the TMT

*Hypothesis 9: Higher number of TMT Members Education Background is not positively related to company performance.*

#### *Company Performance*

In the literature, Company Performance is measured mainly as a ration between Volume of Sales per one employee or ROA per one employee. For the purpose of this paper we have taken the first aforementioned option due to the fact that in the secondary data it was more accessible to collect Volume of Sales and number of employees of the selected companies.

*Hypothesis 10: Higher TMT Diversity is positively related to company performance.*

#### *TMT Diversity and OLC*

In addition to fitting the different characteristics in each stage of organizational life cycle, Miller & Friesen (1984) verify that the sequence of stages does not exactly follow the models found in the

literature. There is no sequence that is irreversible, unique and definitive. Hence, the progression stages of life cycle would not be deterministic. The major trend observed is that the organization remains at the same stage. Moreover, the duration of each stage varies considerably. With the growth of each organization, the diversity of their TMT is increasing due to changes in organizational structure, formalization of TMT positions and increasing management operations.

*Hypothesis 11: Higher TMT Diversity is positively related to OLC.*

#### *Empirical Data Set*

The sample of companies comprises of the largest 60 companies (around 200 TMT Members' profiles) in the Czech Republic at year-end 2015 according to number of employees and turnover. The independent variable in the paper is the TMT Diversity represented by gender, nationality, team tenure, educational background, age, company tenure. The moderator variable is Organization Life cycle (Birth, Growth, Maturity, Revival/Decline) and the dependent variable is the Company Performance. In the paper is employed correlation analysis by using SPSS software, which enables carrying out of different regression and correlation analysis among different independent variables in order to show to what extent there are interlinks between the independent variable and the dependent variables.

There are two levels from statistical stand point in the research study which are industry level and company level. Each company of the data set is designated with SIC code and the secondary data is gathered from the Thomson Reuters 1 database, annual reports of the selected companies and the website of Czech Trade. The companies are grouped according to the industry code (SIC code). For the purpose of the paper it is considered as an independent variable TMT Diversity, dependent variable Company Performance and moderating variable Organisation Life Cycle Stage. All variables in the paper are depicted in Table 1 below as follows:

### **DISCUSSIONS AND FINDINGS**

As mentioned in the literature review OLC phases have direct impact on the TMT diversity in all of the researched companies regardless the industry in which the companies are nested. Very little was found in the literature on the question of to what extent the OLC stages impact TMT characteristics but statistically we have proved that there is influence in each phase of the OLC.

The results of the paper indicate that OLC phase of Maturity has significant impact on the TMT Diversity. In the paper comparing management elites in the Czech Republic showed that the mean degree of TMT Diversity is noticeable and important for practitioners and academicians to understand the OLC and Company Performance impact on TMT Diversity.

This finding corroborates the ideas of Miller and Friesen (1984), who suggested that each individual phase of OLC has certain impact on the organization and its top management in terms of decision-making, structure, performance and turnover. The results of the research paper now will be compared to the findings of Miller & Friesen (1984). These results match the literature review on OLC, TMT and Company Performance which is verified through the hypotheses in the paper. It is therefore likely that such connections exist among OLC, TMT and Firm Performance and these findings have important implications for developing investigating all the aspects of OLC impact on TMT Characteristics. Thus, this is an important issue for future research in the area of OLC and TMT Diversity.

Table 2 illustrates the situation for the Central-European country-the Czech Republic, where the TMT members are relatively young in comparison to their counterparts in other Central European countries. We can state based on the table 2 that quite many TMT members possess Master Degree with dominant function in Management due to the fact that in the Czech Republic is highly appreciate it e.g. MBA degree in regard to the TMT characteristics. On other side, in the biggest Czech companies we observe not so diversified TMTs in respect to age, nationality, gender and career length diversity. Statistically, the ratio of female TMT members and foreigner to the total number of TMT is much lower than in neighbouring countries from the region. Furthermore, statistical results show positive relationship between TMT Diversity and Company Performance expressed in Table 3, which is related to the fact that highly diversified TMTs increase level of creativity, innovations, internationalization and firm performance. Moderation effects are tested with multiple regression analysis, where all predictor variables and their interaction term are centered prior to model estimation to improve interpretation of regression coefficients. A single regression equation forms the basic moderation model:

$Y = i_5 + \beta_1 X + \beta_2 Z + \beta_3 XZ + e_5$ , where  $\beta_1$  is the coefficient relating the independent variable, TMT Diversity, to the outcome, Company Performance, when  $Z = 0$ ,  $\beta_2$  is the coefficient relating the moderator variable-OLC Stages,  $Z$ , to the outcome when TMT Diversity = 0,  $i_5$  is the intercept in the equation, and  $e_5$  is the residual in the equation.

The regression coefficient for the interaction term,  $\beta_3$ , provides an estimate of the moderation effect. If  $\beta_3$  is statistically different from zero, there is significant moderation of the TMT Diversity-Company Performance relation in the data. Plotting interaction effects aids in the interpretation of moderation to show how the slope of Company Performance on TMT Diversity is dependent on the value of the moderator variable-OLC.

## CONCLUSIONS

The statistical findings of this study demonstrated that TMT diversity has an important influence on firm performance. These results propose some conceptual and practical implications about the relationship between TMT diversity and company performance. According to the results presented here the disadvantages related to a large TMT outweigh the benefits in terms of fostering management tool diversity. Structural inertia, increased cognitive and emotional conflict among TMT members, longer decision-making time, and decreased opportunities for interaction among members may contribute to this decline. Thus, to promote firm performance, the size of the TMT should be carefully considered. Such firms must develop mechanisms to increase interaction among TMT members and compositional diversity in order to reduce the risks of high organizational inertia and thus increase performance. The results of our research indicate that higher average age of a TMT has negative effects on company performance. This effect may be attributable to organisational structure rigidity, risk aversion, adherence to the status quo, and pursuit of financial and career security among older TMT members. Therefore, a firm must include younger executives on the TMT in order to increase organizational performance. In addition to TMT size and average age, TMT diversity had a significant effect on firm performance. Ten dimensions of TMT diversity were examined in this study: age, function, and educational background diversity. Only TMT functional diversity had a significant and positive effect on organizational performance. Our results indicate that hiring TMT members with diverse functional experience enhances performance by enabling a firm to exploit a variety of knowledge sources and different viewpoints.



In conclusion, the findings of this study suggested that TMT diversity must be considered for firms that desire to foster firm performance. In this paper, the relationship between TMT characteristics and firm performance was elucidated. Many previous studies have shown that TMT characteristics have critical effects on organizational outcomes and contextual factors such as firm culture, climate, and knowledge base. In addition, many scholars have studied the social and contextual factors that influence company performance. However, few studies have examined the direct relationship between TMT diversity and organizational performance through the prism of OLC, as most of existing studies are concerned with a group impact on firm performance. A few papers that examined the relationship between TMT diversity and organizational performance did not successfully address top managers' various characteristics other than their business-related abilities or backgrounds.

In this study, TMT characteristics are viewed as antecedents of organizational features that influence organizational performance. Future research may identify other organizational or environmental factors that enhance or undermine firm efficiency. For example, firms' strategy types can impact firm performance. Firms that focus on technological innovation and make large investments in R&D activities are expected to have higher efficiency and performance. As aforementioned, industry effects also may exist.

In addition, moderating factor between TMT diversity and firm performance is nested in organization life cycle stage. For instance, organizational structure or the learning process may also affect the relationship between TMT diversity and organizational performance. Organization life cycle stages may themselves play a role in mediating or moderating the effect of TMT diversity on firm performance. In terms of research methodology, increasing the number of sample firms for the Czech Republic will certainly enhance applicability and reliability of the paper. With a larger sample, we can conduct multilevel analysis of measurement items to understand better the influence of industry dynamism on TMT diversity and company performance. Sub-samplings from a sizable data set also provide researchers opportunities to broaden the scope of studies on TMT diversity by testing diverse hypotheses empirically. Future research may address issues above with a larger data set, shedding more light on TMT diversity and OLC phases and their importance in the business world.

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## Attachment 1:

**Table 1:** Descriptions of variables

| Variable   | Description  |
|--|--|
| (Dependent) Company Performance                  | Measured by volume of Sales per employee   |
| (Independent) TMT Size                           | Total Number of TMT members  |
| (Independent) TMT Members average age            | Average age of all TMT members   |
| (Independent) TMT Members Gender                 | Variation of the Blau index: $H_G = 1 - \sum_i^2 S$<br>, where H is the heterogeneity measure and S the percentage of TMT members in each of three gender categories                 |
| (Independent) TMT Members Nationality            | Variation of the Blau index: $H_N = 1 - \sum_i^2 S$<br>, where H is the heterogeneity measure and S the percentage of TMT members from two categories- Czech and Non-Czech Nationals |
| (Independent) TMT Members Tenure                 | Length of time period of member in the TMT   |
| (Independent) TMT Member Career Length           | Career Length of time period of member   |
| (Independent) TMT Member Educational Background  | $D_{EB} = N1/N2$ , where $D_{EB}$ - education background diversity, N1-number of TMT members with non-management education background and N2- total number of members in the TMT     |
| (Independent) Dominant Function diversity in TMT | Variation of the Blau index: $H_F = 1 - \sum_i^2 S$<br>, where H is the heterogeneity measure and S the percentage of TMT members in each of ten special dominant functions          |

**Attachment 2: Table 2: Descriptive Statistics**

|                      | Mean    | Std. Deviation | N   |
|----------------------|---------|----------------|-----|
| TMT Size             | 4,35    | ,000           | 187 |
| Average Age          | 1952,95 | 7,286          | 187 |
| Gender               | ,87     | ,341           | 187 |
| Nationality          | ,00     | ,000           | 187 |
| TMT Tenure           | 4,26    | 3,498          | 187 |
| Company Tenure       | 7,17    | 7,026          | 187 |
| Education Background | 21,91   | 12,797         | 187 |
| Career Length        | ,10     | ,303           | 187 |
| Dominant Function    | 32,28   | 6,867          | 187 |
| Company Performance  | 2,41    | 1,224          | 187 |

*Notes:* Means and standard deviations are reported for the unweighted sample

## **International Returnees and the Scaffolding of Knowledge across Boundaries**

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### **ABSTRACT**

This paper contributes to the literature on international boundary spanning and knowledge transfer by focusing on international returnee managers in large firms. It integrates research from the foreign assignee literature with research from knowledge transfer theory, absorptive capacity, and the educational theory of scaffolding, to provide a framework for understanding how the work of boundary spanning is enacted over time. Though vignettes drawn from international returnee managers and executives in large Korean firms, we found that returnees can go about the complex social process of boundary spanning by building scaffolding. The framework of scaffolding includes the cognitive, social, and physical augmentations that boundary spanners employ to help their firms recognize and value knowledge that would be otherwise beyond their capabilities. By engaging their colleagues, developing themselves, tailoring knowledge, and using organizational resources, returnees can create an environment where network members come to understand, accept, and apply knowledge which was previously outside of their ability to recognize and value.

### **KEYWORDS**

Boundary Spanning; International Returnees, Knowledge Transfer, Absorptive Capacity, Scaffolding

# How approach and avoidance personality predict moral foundations through values

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## Abstract

Past research has demonstrated a strong association between personality and morality; however, the determinants of morality are less clear. In this paper, we focus specifically on explaining moral foundations, and suggest that individual differences in individual (Harm/care, fairness/reciprocity) and group binding (In-group/loyalty, Authority/respect, Purity/sanctity) moral foundations can be partially accounted for by personality traits and values. A sample of 195 students was used to test a number of related hypotheses suggesting that personality traits Extraversion and Neuroticism predict moral foundations directly and indirectly through values of Stimulation, Hedonism, Universalism, and Benevolence. Personality dimensions and values were measured using a number of self-report scales (e.g., Goldberg, 1999; Jackson, 2005; Schwartz, 1992) and moral foundations were measured by Moral Foundations Questionnaire (MFQ) (Haidt, Graham & Nosek, 2009). Consistent with the hypotheses, Extraversion and Neuroticism directly predicted individualising moral foundations Harm/care and Fairness/reciprocity. The values of Benevolence, Hedonism and Stimulation played a mediating role between Extraversion and binding moral foundations In-group/loyalty, Authority/respect, and Purity/sanctity. The findings have implications, specifically in relation to personality traits and ethical values in the context of workplace moral behaviour.

**Keywords:** *Extraversion; Neuroticism; values; moral foundations*

## Introduction

Morality plays an important role in human social life providing justice, welfare and bonding among individuals and group (Suhler & Churchland, 2011; Turiel, 1983). Morality also provides psychological mechanisms such as values, virtues, norms and structural foundations for individuals and groups to live in harmony (Haidt, 2008). Pizarro and Salovey (2002) suggested that morality is critical for the survival of society. The most elaborate contemporary view on the broad moral domain was provided by Jonathan Haidt and his colleagues who have developed the now acclaimed Moral Foundations Theory (MFT) with the five comprehensive moral dimensions: Harm/care, Fairness/reciprocity, Ingroup/loyalty, Authority/respect, and Purity/sanctity (Graham, Nosek, Haidt, Iyver, Koleva & Ditto, 2011). However, the research on the association of moral foundations and personality is in early stage (Gary & Bates, 2011). To our knowledge, no research has been conducted on how personality traits influence moral foundations via values. In this paper we focus on how personality traits Extraversion Neuroticism are related to moral foundations, and

argue values have mediation influence on moral foundations. Overall, the objective of the present investigation was to examine personality traits predicting moral foundations through values.

According to Haidt and Kesebir (2010, p. 800), the domain of morality is very broad and related to many important aspects of human existence: “Moral systems are interlocking sets of values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological mechanisms that work together to suppress or regulate selfishness and make social life possible”. Moral Foundations Theory specifically measures moral foundations/intuitions through individualized and group oriented moral foundations. Individualized foundations are Harm/care (underlies virtues of kindness, gentleness, and nurturance) and Fairness/reciprocity (generates ideas of justice, rights, and autonomy). Group binding moral foundations/Intuitions are In-group/loyalty (underlies virtues of patriotism and self-sacrifice for the group), Authority/respect (underlies virtues of leadership and followership, including deference to legitimate authority and respect for traditions), Purity/sanctity (underlies religious notions of striving to live in an elevated, less carnal, more noble way). Recently, the theory was expanded by proposing a sixth moral foundation – Freedom/Oppression (Haidt, 2012). Prior to the development of Moral Foundations Theory, Turiel, Hildebrandt, & Wainryb, (1991) explored the conceptual overlap between human values and moral foundations. More specifically, welfare and fairness (e.g. universalism and benevolence) are underpinnings for both Schwartz (1992) values and morality (Graham, et al., 2011).

Social moral systems play an important role in creating moral values (Athota & O’Connor, 2014; Green & Haidt, 2002). Schwartz (1994) points out that values “serve as guiding principles in the life of a person or other social entity” (p.21). Theorists have also argued that values are a manageable set of constructs, which will provide a foundation for individuals and groups to live in cooperation (Graham et al., 2009; Rokeach, 1979; Schwartz, 1992). Schwartz (1992, 1994) presented a plausible structure of values that argues human values are derived from the needs of individuals’ biological needs, coherent social interaction, need for survival and welfare among individuals and groups. Furthermore, Schwartz’s (1992) values have a tension in the intrinsic nature of the values. For example, Hedonism opposes Conformity and Tradition, Stimulation opposes Security, and Universalism and Benevolence values oppose Power and Achievement values. This paper focus on the values of Universalism (Social Justice, Equality, Broadmindedness) and Benevolence (Helpful, forgiving, Responsible) because of their nature of care and welfare for others; and Hedonism (Pleasure and Sensuous gratification) and Stimulation (Excitement, novelty, varied life) because of their self- and pleasure-oriented nature (Schwartz, 1992, 1994, 2005) to further understand mechanisms of individual and group oriented moral foundations.

Research suggests that there are some intrinsic differences between values and moral foundations. Moral foundations theory links anthropological and evolutionary accounts of morality (Haidt & Graham, 2007; Haidt & Joseph, 2004). Moral intuitions derive from innate psychological mechanisms that coevolved with cultural institutions and practices (Richerson & Boyd, 2005). According to Graham, Haidt, and Nosek (2009), moral foundations are evolved psychological mechanisms. Values are the fundamental social and biological needs of human beings (Athota & O’Connor, 2014; Schwartz, 1992; Rokeach, 1973). Moral foundations are the psychological systems that give feelings and intuitions that make social life possible (Graham, Haidt, & Nosek, 2009). The

key difference is that moral foundations are the result of moral intuitions and values are the result of biological needs.

The third construct especially relevant for this research pertains to personality traits. Larsen & Buss (2014, p. 4) provided a comprehensive definition of personality: "Personality is the set of psychological traits and mechanisms within the individual that are organized and relatively enduring and that influence his or her interactions with, and adaptations to, the intrapsychic, physical and social environments. The Big-Five model, with five factors or dimensions Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect or Openness to Experience is nowadays considered by most researchers as a shared model, or the paradigm in personality psychology (John, Naumann & Soto, 2008).

Previous research has established the association between the Big Five personality traits; and values (see Aluja & Garcia, 2004; De Raad & van Oudenhoven, 2008; Roccas, Sagiv, Schwartz, & Knafo, 2002; Stankov, 2007). Research also points to biological base to the Big Five personality traits (Cloninger, 1987; Cloninger et al., 1993) and values (Athota & O'Connor, 2014; Schwartz, 1992; Rokeach, 1973). However, more detailed research on the Extraversion, Neuroticism and moral foundations is needed.

Extraversion was found to be associated with Schwartz's values of Stimulation, Hedonism, Benevolence and Universalism (Roccas et al., 2002; De Raad & van Oudenhoven, 2008; Schmitt, Schwartz, Steyer & Schmitt, 1993). Boyatzis, Goleman and Rhee, (2000) suggested that Extraversion was also associated with communication and leadership. Curtis, Billingslea, and Wilson (1998) found significant associations between moral maturity and socialization (extraversion). Research suggests that Extraversion (Blair, Peters & Granger, 2004; Kochanska, Aksan, Penney, & Doobay, 2007) is associated with reward-seeking conditions. Hedonism and Stimulation are associated with pleasure and self-indulgence (Schwartz, 2006), which offer only *short-term reward* and likely interfere with the more salient long-term rewards.

Furthermore, research found that individuals who score high on Extraversion are largely motivated by social reward (Austin, Salofske, & Egan, 2005; Olson & Weber, 2004) based on their biological sensitivity to rewards (Coscina, 1997; Gray, 1970; Jackson, 2005; Zuckerman, 1979). Research has also shown that Extraversion has significant conceptual overlap with Stimulation (Patterson et al., 1987). Athota, O'Connor and Jackson (2009) found the association between Extraversion, and Neuroticism with moral reasoning. Many personality traits related to foundations have already been shown to be moderately heritable, including, Extraversion, Neuroticism and Harm avoidance (Goldberg 2014; McCrae & Costa, 1990; Keller, Coventry, Heath, & Martin, 2005) and right-wing authoritarianism (McCourt, Bouchard, Lykken, Tellegen, & Keyes, 1999). Larsen & Buss (2014) state that the estimations of heritability for Extraversion is .60 and .54 for Neuroticism. Research also points an association between Agreeableness and Individualizing moral foundations (Gary and Bates, 2011).

Furthermore, Graham, et al., (2011) suggest that environment can influence individuals' moral differences. For example, individuals raised by liberal parents lean towards harm/care and fairness/reciprocity and conservative back group leads to second order of modules. We also argue that values can play a mediating role between extraverts and group binding moral foundations/Intuitions such as In-group/loyalty (underlies virtues of patriotism and self-sacrifice

for the group), Authority/respect (underlies virtues of leadership and followership, including deference to legitimate authority and respect for traditions), Purity/sanctity (underlies religious notions of striving to live in an elevated, less carnal, more noble way). It is likely that openness to experience being a negative predictor of conservatism and binding moral foundation, but our focus is on how extraversion and neuroticism predict moral foundations via values. The following hypotheses stem from conceptual overlap between personality and values; values and moral foundations.

### **Hypotheses**

H1 Extraversion is directly associated with Harm/care and fairness/reciprocity.

H2 Neuroticism positively predicts individualized moral foundations Harm/Care and Fairness/reciprocity.

H3a Stimulation plays a mediating role between Extraversion and individualized moral foundations Harm/Care and fairness/reciprocity.

H3b Hedonism plays a mediating role between Extraversion traits and individualized moral foundations Harm/Care and fairness/reciprocity.

H4 Universalism plays a mediating role between Extraversion and individualized moral foundations Harm/Care and Fairness/reciprocity.

H5a Stimulation plays a mediating role between Extraversion and group binding moral foundations in-group, authority and purity.

H5b Hedonism plays a mediating role between Extraversion and group binding moral foundations in-group, authority and purity.

H6 Benevolence plays a mediating role between Extraversion and group binding moral foundations in-group, authority and purity.

### **Method**

#### **Participants**

The participants comprised 195 students from the University of New South Wales who were paid \$20 per hour for taking part in this study. Forty-four (44.6%) were male and 47.2% were female (8.2% did not indicate their gender). Participants' ages ranged from 18 and 47, with younger than 21 years (54.9%) and only a few older than 35 years (2.1%).

#### **Measures and procedure**

##### **Moral Foundations Questionnaire (MFQ) (Graham, Haidt, Nosek, 2009)**

The 32 item MFQ questionnaire measures the degree to which a person relies on each of the five moral foundations: Harm/care, Fairness/reciprocity, In-group/loyalty, Authority/respect, and Purity/sanctity. The scale was built to measure "individualizing" and "binding" moral foundations. Individualizing foundations are Harm/care, Fairness/reciprocity; and binding foundation are Ingroup/loyalty, Authority/respect, and Purity/sanctity.



*The International Personality Item Pool (IPIP)* (Goldberg, 1999).

The IPIP is a 50-item scale targeting the Five-factor model personality factors to assess the dimensions of Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C). The 5-point Likert scale operates with 1 'Very Accurate' to 5 'Very Inaccurate', and 16 items are reverse-scored. The alpha reliabilities for the scale are: Conscientiousness, .81; Extraversion, .86; Agreeableness, .77; Neuroticism, .86; and Openness to Experience, .82 (Goldberg 2014: [http://ipip.ori.org/newNEO\\_DomainsTable.htm](http://ipip.ori.org/newNEO_DomainsTable.htm)).

*Schwartz Value Scale (SVS)* (Schwartz, S.H. 1992)

The *Schwartz Value Scale* is an inventory with 7-point Likert-type scale: 0=Not important; 3= Important; 6=Very important; and 7= Of supreme importance. The inventory has 56 single-value items representing 10 motivationally distinct value dimensions, which include openness to change, self-transcendence, self-enhancement, and conservation. The alphas were in the range of .8 to .9. Good reliability and validity was found for the SVS inventory (Schwartz & Sagiv, 1995).

## Results

The results of the current study support the hypotheses. Means, standard deviations and correlations between the variables are shown in Table 1. Hypotheses 1 to 4 were tested simultaneously using Structural Equation Modelling (AMOS version 17.3).

Table 1. Intercorrelations, Descriptive Statistics Among Moral Foundations and Personality Traits, and Values (N = 195)

|            | Me    | SD   | 1      | 2    | 3      | 4      | 5      | 6     | 7     | 8      | 9     | 10     | 11 |
|------------|-------|------|--------|------|--------|--------|--------|-------|-------|--------|-------|--------|----|
| an         |       |      |        |      |        |        |        |       |       |        |       |        |    |
| version    | 26.62 | 3.20 | 1      |      |        |        |        |       |       |        |       |        |    |
| roticism   | 31.48 | 3.70 | -0.15* | 1    |        |        |        |       |       |        |       |        |    |
| volence    | 2.30  | 3.20 | -0.25* | 0.16 | 1      |        |        |       |       |        |       |        |    |
| ersalism   | 1.54  | 5.55 | -0.09  | 0.03 | 0.32** | 1      |        |       |       |        |       |        |    |
| ulation    | -1.65 | 3.27 | 0.25*  | 0.05 | -      | -      | 1      |       |       |        |       |        |    |
|            |       |      | *      |      | 0.27*  | 0.03   |        |       |       |        |       |        |    |
|            |       |      |        | *    |        |        |        |       |       |        |       |        |    |
| onism      | -0.76 | 3.60 | 0.16** | -    | -      | 0.07   | 0.23*  | 1     |       |        |       |        |    |
|            |       |      |        | 0.06 | 0.33*  | *      |        |       |       |        |       |        |    |
|            |       |      |        | *    |        |        |        |       |       |        |       |        |    |
| n/Care     | 25.71 | 3.95 | -      | 0.14 | 0.21*  | 0.30   | -      | -0.13 | 1     |        |       |        |    |
|            |       |      | 0.23*  | *    | **     | 0.23*  | *      |       |       |        |       |        |    |
|            |       |      | *      |      |        | *      |        |       |       |        |       |        |    |
| is/recipro | 25.66 | 3.61 | -      | 0.14 | 0.13   | 0.28   | -0.13  | -0.05 | 0.72  | 1      |       |        |    |
|            |       |      | 0.25*  |      |        | **     |        |       |       |        |       |        |    |
|            |       |      | *      |      |        |        |        |       |       |        |       |        |    |
| p/loyalty  | 22.57 | 4.36 | -0.01  | 0.06 | -0.11  | -      | -      | -     | 0.33* | 0.38** | 1     |        |    |
|            |       |      |        |      |        | 0.16   | 0.23*  | 0.18* | *     |        |       |        |    |
|            |       |      |        |      |        | *      | *      | *     |       |        |       |        |    |
| ity/respec | 22.82 | 4.18 | -0.03  | 0.06 | -0.20* | 0.27   | -      | -     | 0.21* | 0.27** | 0.69* | 1      |    |
|            |       |      |        |      | **     | 0.23** | 0.20*  | *     | *     |        | *     |        |    |
|            |       |      |        |      |        | *      |        |       |       |        |       |        |    |
| sanctity   | 22.24 | 5.37 | -0.05  | 0.04 | -0.12  | 0.27   | -0.18* | -     | 0.27* | 0.19** | 0.61* | 0.64** | 1  |
|            |       |      |        |      |        | *      |        |       | 0.40* | *      | *     |        |    |
|            |       |      |        |      |        |        |        | *     |       |        |       |        |    |

\*\*p<0.01; \* p<0.05

## Results 1

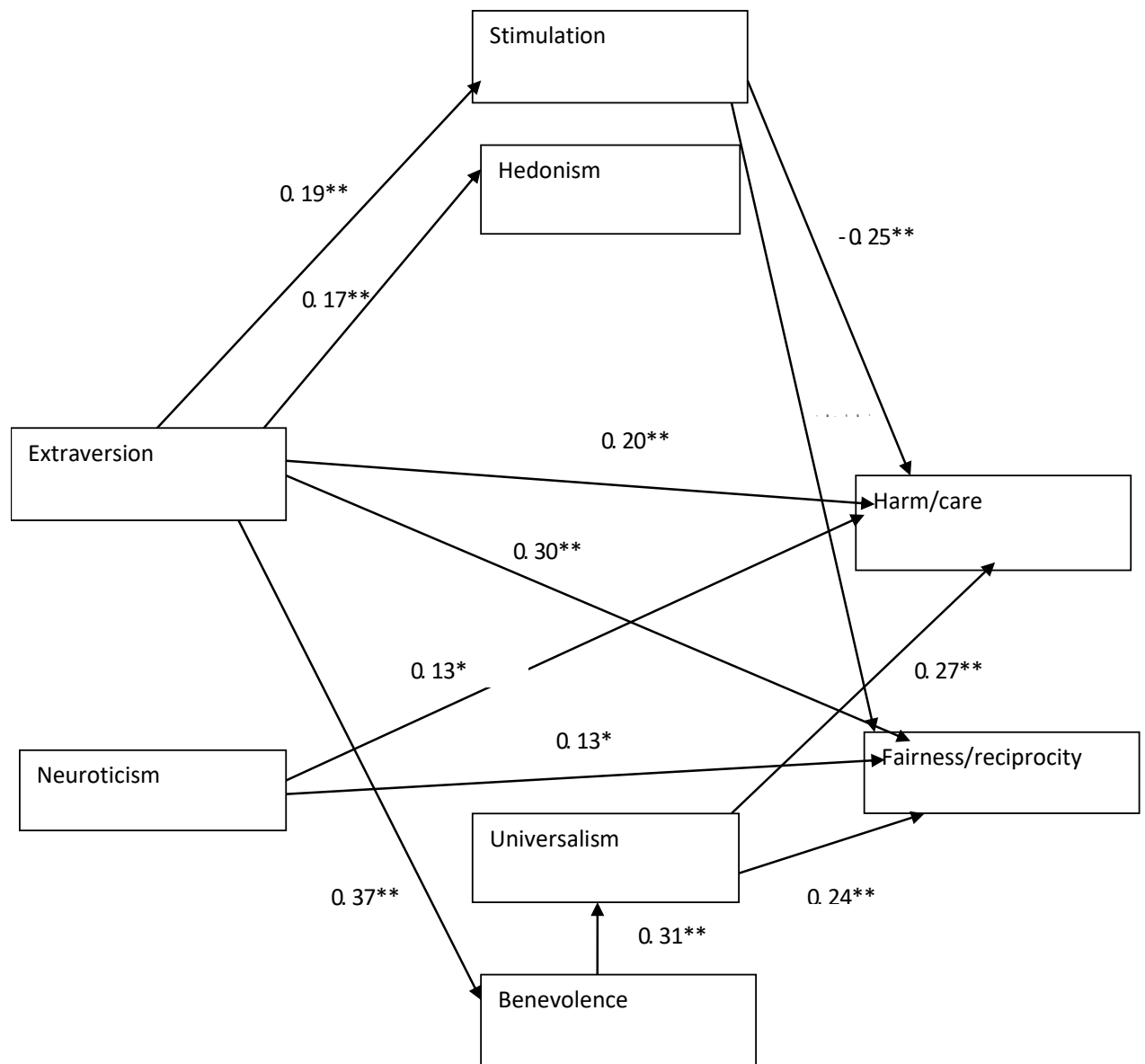


Figure 1. Parameter estimates for the hypothesized pathways between personality traits, individual based moral foundations and values.

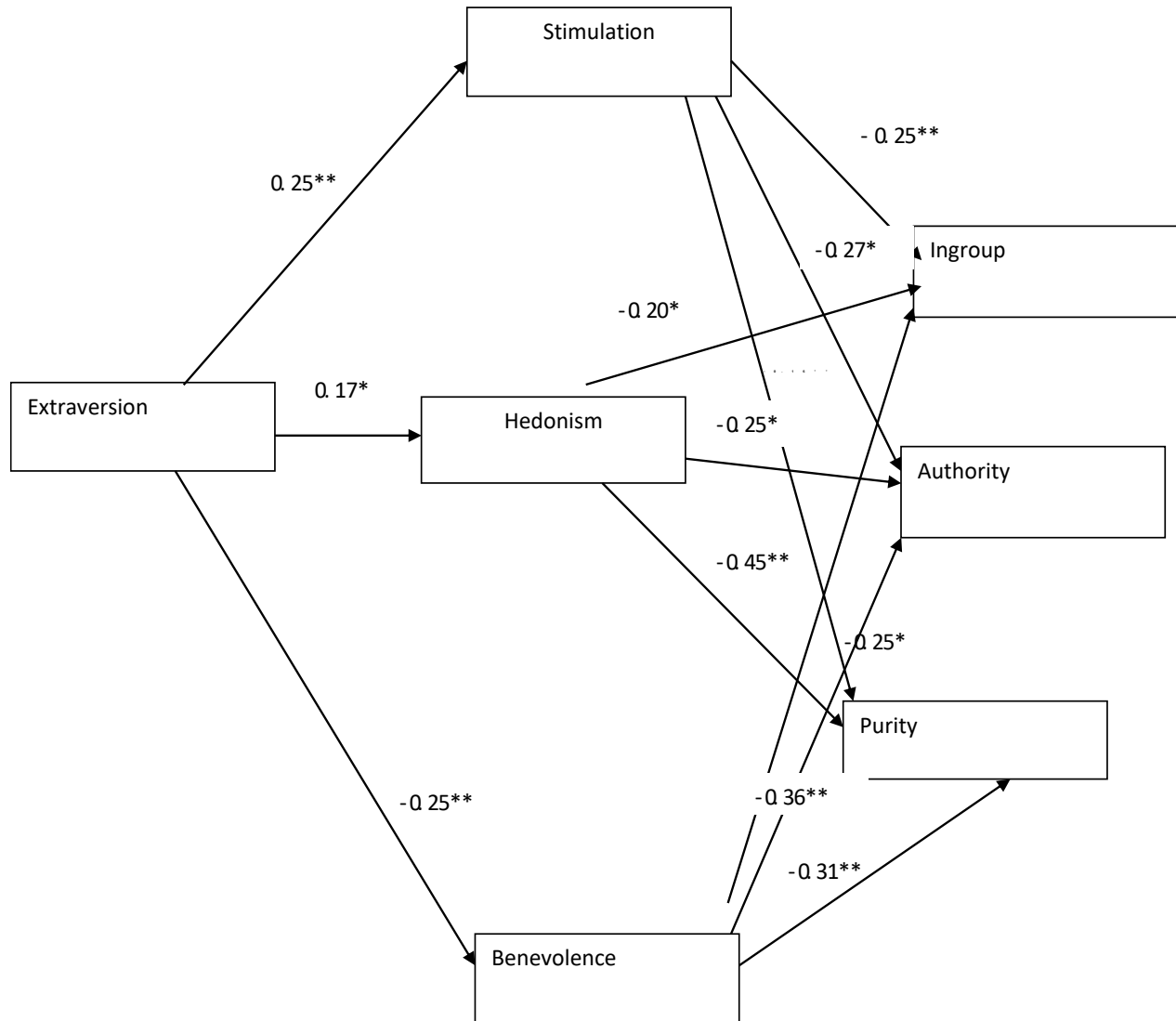


Figure 2. Parameter estimates for the hypothesized pathways between personality traits, values and group based moral foundations.

## Model Fit Summary

### Results:

Path Analysis (AMOS version 17.3) was used to test Hypotheses 1 to 6. The relationship between personality, values and moral foundations was tested in two structural models. As pointed above, values mediated the relationship between personality, values and moral foundations. Parameter estimates are summarized in Figures 1 was hypothesized models: Chi-square = 17.8,  $df = 16$ ; CFI > 0.45; RMSEA < 0.22; GFI > .88 and AGFI > .70. Parameter estimates are summarized in Figures 2. Relatively good fit was obtained in all hypothesized models: Chi-square = 23.8,  $df = 9$  CFI > 0.39; RMSEA < 0.35.

As can be seen in Figure 1, support was obtained for Hypothesis 1. Extraversion positively associated with Harm/Care ( $\beta = 0.20, p < 0.001$ ) and Fairness/reciprocity ( $\beta = 0.30, p < 0.001$ ). In support of Hypothesis 2, Neuroticism positively predicted Harm/Care ( $\beta = 0.13, p < 0.001$ ) and Fairness/reciprocity ( $\beta = 0.13, p < 0.001$ ). In support of Hypothesis 3a, Stimulation played a mediating role by positively associated with Extraversion ( $\beta = 0.19, p < 0.001$ ) and negatively associated with individualised moral foundations Harm/care ( $\beta = -0.25, p < 0.001$ ) and Fairness/reciprocity ( $\beta = -0.15, p < 0.001$ ). In partial support of Hypothesis 3b, Hedonism was positively associated with Extraversion ( $\beta = 0.17, p < 0.001$ ) but was not significantly associated with individualised moral foundations. Partial support was found for Hypothesis 4, Universalism was not associated with personality traits but positively associated with individualised moral foundations Harm/care ( $\beta = 0.27, p < 0.001$ ) and Fairness/reciprocity ( $\beta = 0.24, p < 0.001$ ). These results are generally consistent with suggestion that personality traits and values predict moral foundations.

As can be seen in Figure 2, support was found for Hypothesis 5a; Stimulation mediated positively with Extraversion ( $\beta = 0.25, p < 0.001$ ) and negatively with binding moral foundations In-group ( $\beta = -0.25, p < 0.001$ ), Authority ( $\beta = -0.27, p < 0.001$ ), and purity ( $\beta = -0.16, p < 0.001$ ). In support of Hypothesis 5b, Hedonism mediating positively with Extraversion ( $\beta = 0.17, p < 0.001$ ) and negatively with binding moral foundations In-group ( $\beta = -0.20, p < 0.001$ ), Authority ( $\beta = -0.25, p < 0.001$ ), and purity ( $\beta = -0.45, p < 0.001$ ). Finally, consistent with Hypothesis 6, Benevolence was negatively mediated by Extraversion ( $\beta = -0.25, p < 0.001$ ) in the prediction of with binding moral foundations In-group ( $\beta = -0.25, p < 0.001$ ), Authority ( $\beta = -0.36, p < 0.001$ ), and purity ( $\beta = -0.31, p < 0.001$ ).

### Discussion

In this research we explored the relationship between Extraversion (Costa & McCrae, 1992), Values of Hedonism, Stimulation, Benevolence, and Universalism (Schwartz, S.H. 1992); and individualising Harm/care, and Fairness/reciprocity; binding In-group/loyalty Authority/respect, and Purity/sanctity moral foundations (Graham, Haidt, Nosek, 2009). This study has added to the Moral Foundations Theory (Graham, Haidt, Nosek, 2009) literature by assessing the influence of Extraversion, Neuroticism and values on individualising and binding moral foundations (Gary & Bates, 2011).

**First, Extraversion directly predicted individualising Harm/care, and Fairness/reciprocity.** There was a positive association between Stimulation and Extraversion and a negative association between Stimulation first order moral foundations of Harm/care and Fairness/reciprocity. The findings support the literature that when Extraverts are pleasure oriented it leads to Harm/care and Fairness/reciprocity. We suggest that extraverts are by nature social and open to new experiences and reward oriented (Austin, Salofske, & Egan, 2005; Olson & Weber, 2004) based on their biological sensitivity to rewards (Gray, 1970; Jackson, 2005; Zuckerman, 1979). The conceptual overlap between Extraversion and Stimulation (Patterson et al., 1987) points to their association to Harm/care, and Fairness/reciprocity. We found reasonable support for the hypothesized association between Neuroticism and **individualising moral foundations** Harm/care, and Fairness/reciprocity. Neuroticism by nature is associated with focussing on self and emotions (Jeronimus, Riese, Sanderman, Ormel, 2014) and therefore may have supported individualised moral foundations, especially Harm/care that has a significant emotional component.

Support was found for the hypothesized mediation of Stimulation between Extraversion and individualising moral foundations Harm/Care and Fairness/reciprocity. Contrary to the expectation, Hedonism did not mediate between Extraversion and individualising moral foundations Harm/Care and Fairness/reciprocity. The important finding is that Stimulation and Hedonism were positively associated with Extraversion. Stimulation was negatively associated with individualising moral foundations Harm/Care and Fairness/reciprocity. The results complement the existing research that individuals with Stimulation value are pleasure-oriented (Schwartz, 1992, 1994, 2005) than concern for binding foundations. Partial support was found for the mediating role of Universalism between Extraversion and individualising moral foundations of Harm/Care and Fairness/reciprocity. The positive association between Universalism and individualising moral foundations of Harm/Care and Fairness/reciprocity is consistent with Schwartz's (1992) theory that Universalism is associated with Social Justice, Equality, and Broadmindedness.

Hypotheses 5a, 5b, and 6 are focussed on the mediating role of values between Extraversion and binding moral foundations in-group, authority and purity. Support was found for the hypothesized mediating role of Stimulation and Hedonism between Extraversion and binding moral foundations in-group, authority and purity. The results are consistent with literature that Stimulation is negatively associated with binding values. The values of Stimulation and Hedonism are associated with pleasure, novelty, varied life and sensuous gratification (Schwartz, 1992, 1994, 2005) than binding values. Support was found for the mediating role of Benevolence between Extraversion and binding moral foundations in-group, authority and purity. The results suggest that the negative association between Extraversion and Benevolence leads to negative association to binding moral foundations in-group, authority and purity. The positive association between Benevolence and Extraversion may have resulted in positive prediction of binding values.

Various cross sectional studies suggested that Extraversion was positively associated with pleasure orientation (e.g., risk-taking behaviors) (Eysenck, 1976; Smillie, Cooper, Wilt, & Revelle, 2012; Tamir, 2009). This study also demonstrated that Extraversion was positively associated with pleasure-oriented values of Hedonism and Stimulation. We found that Extraversion was also positively associated with welfare-oriented values (e.g. Benevolence) and individualised moral foundation. We also found no association between Neuroticism and welfare-oriented values of

Universalism and Benevolence. Therefore, Extraverts have an ability for pleasure orientation as well as taking part in welfare of others.

Finally, it is surprising that we found no relations between the personality dimension Agreeableness and moral foundation Harm/care, due to their theoretical overlap and similarity in content (Gary and Bates, 2011). The reasons may be found in the specificities of the sample in this study. Therefore, at this point, we could only express a need for replication of this study, using diverse samples, possibly in cross-cultural contexts that could shed more light on the presumed relation between Agreeableness and Harm/care.

Overall, evidence points to the validity of hypothesized models and personality can influence directly individualizing moral foundations and indirectly binding moral foundations through values.

### **Theoretical Implications**

Contrary to the current paper's finding, Gary and Bates (2011) found that extraversion was associated with binding moral foundations and neuroticism was associated with individualised moral foundations. Graham, et al. (2009) suggested that moral foundations are evolved psychological intuitions while, Schwartz (1992) suggested that values are the result of biological needs of human beings. Gary and Bates's (2011) research was not clear about this distinction between moral foundations and values. Therefore, the current findings explored this difference and provided evidence on how biological values can influence intuitive based moral foundations.

From a theoretical point of view, this research has made several contributions to the Moral Foundations Theory (Graham, Haidt, Nosek, 2009). First, and most importantly, results are reasonably consistent; Second, the influence of Extraversion on moral foundations is an important finding. We know of no research to date, which has examined the role of Extraversion predicting moral foundations. Furthermore, the current findings support the credibility of MFT (Haidt & Joseph, 2011). Overall, the major contribution is establishing how personality and values influence individualising and binding moral foundations.

### **Limitations**

Mostly self-report data was used for this study. We suggest that a person's moral foundations are better known through self-report than any other method. However, peer-report studies on moral foundations are also needed for estimating the various views on a person's morality. Another limitation is that the study included mostly university students. This calls for further studies from beyond college age; perhaps a working population or more representative samples from the total population under study. Finally, it would be useful to compare these findings from a Western culture with other cultural settings.

### **Conclusion**

This paper has established how Extraversion, and Neuroticism directly predict individualising moral foundations and Extraversion predicted binding moral foundations through mediating values of Stimulation, Hedonism, and Universalism. One potential extension of this research is to find the association between Cloninger, Svrakic, and Przybeck's (1993) personality

theory and moral foundations. Cross-cultural extension, specifically exploring the moral foundations of immigrants would be an interesting to explore.

This study empirically demonstrated the link between personality, Values of Stimulation, Hedonism, Universalism, Benevolence (Schwartz, 1992), and moral foundations (Graham, Haidt, Nosek, 2009). Results were generally consistent with the proposed model; personality traits directly predicted individualizing moral foundations and values mediated between Extraversion and binding moral foundations.

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## International Trade

# **Impact of Russia-China Trade Relationship on Global Economy**

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### **Abstract**

Over the years, bilateral trade between China and Russia experience many turbulences but in recent years has grown rapidly. Their relationship has evolved in such a way that they have come to rely on each other. The reason why Russian-Chinese relationship improved is because of U.S. and EU economic sanctions due to Russian invasion of Crimea and military attacks of Eastern Ukrainian territory. Russia needs China for funding and infrastructure development, and China needs Russia to feed its large energy needs. China and Russia have a strong trade partnership that extends into many different sectors throughout each country. While deep mistrust exists between both sides, China and Russia have proud cultures that desire to be viewed as global powers and believe their relationship with each other will advance that objective. Further, both countries view the West as a hindrance to their overall trade goals, and this marriage of convenience strengthens their position in global affairs which could result in far reaching implications for the world. This paper provides a short overview of how the China-Russia relationship developed, where it is at now, how it could be harmed, and how a stronger trade relationship with the U.S. and rest of the world could subvert those fears. It will also provide recommendations based on a solid foundational understanding of global trade and management.

### **Introduction to the Problem**

#### **A Short History**

How will the China-Russia strategic partnership ultimately impact the United States and the world? For the past 65 years, China and Russia have had a steady building trade relationship. Currently, the China-Russia relationship is considered as a partnership. They do not see themselves as allies, but they do both actively support one another. The relationship started to progress in 1992 when Russia and China signed a joint statement on the foundation for bilateral ties. In 1996, a partnership of strategic coordination was developed. When the Treaty of Good-

Neighbourliness and Friendly Cooperation was signed in 2001, the strategic partnership between the two countries was formally institutionalized and was based on, “mutual respect for sovereignty and territorial integrity, mutual nonaggression, non-interference in each other’s internal affairs, equality and mutual benefit, and peaceful coexistence” (Ying, 2016). Russia and China then signed a statement that deepened their comprehensive strategic partnership of coordination in 2013 (Li, 2014). This brought the Russia-China relationship to a whole new level where it stands today. The situation of their economic relationship changed dramatically at the beginning of March 2014, after Russian occupation of Crimea. European Union and the United States applied a series of economic sanctions. Because of sanctions, the rate fell to a record low

\$1=36.75 rubles. The Russian Ruble depreciated approximately 20% between the end of December 2013, and the end of August 2014. The Ruble fall resulted in new troubles for Russian economy. Primarily, this means accelerated inflation and decrease of personal consumption. Russian government had no other option than seek for Chinese economic cooperation, as they have done many times in a past.

### **Trading Partners**

China and Russia are seen as complements to one another. China is known for its factory worker population, where Russia has many labor shortages. China holds advantages in telecommunications, while Russia has advantages in nuclear energy (Li, 2014). China is a major buyer of Russia’s large export of energy because China is not able to produce the amount of energy that they need on their own. They also did not want to rely on Europe for all its oil and gas sales. Because of this, making a deal with Russia seemed like a good idea to China due to Russia being the number one exporter of gas and number two exporter of oil amongst the world (Sidorenko, 2013). Russia on the other hand, has seen European oil and gas sales shrink since 2008 due to the global downturn, which has not yet recovered. According to Woods MacKenzie, a consulting firm, “The International Energy Agency does not expect gas demand in the European Union to rise back above 2010 levels until at earliest 2020” (Robertson, 2013). As a result of the current realities, Russia is desperate to sell the resources it has in abundance and has pivoted to the east. Meanwhile, China has actively been seeking ways to diversify how it gets energy from outside sources. Ultimately, Russia and China have determined that strengthening their energy trade relationship provides an opportunity for both, and they are committed to building the relationship going forward.

### **Military Capabilities and Shifting Trade Dynamics**

Russia and China are increasing and modernizing their military capabilities (Gelb, 2013). This relationship has potential to evolve into a force that could have threatening implications which places major threats upon the rest of the world, especially the United States. These include collusion to depress United States power and influence, strategic triangular diplomacy and combined military might which would threaten the world. Currently, China receives their weapons and military from Russia. China has demand for the Su-27 fighter, and the S-300 air defence missile systems, as well as other defence systems (BBC Monitoring Former Soviet Union, 2014). In 2005, Russia and China carried out their first ever joint military drill. In 2013, President Xi was invited to visit Russia’s command centre by the Russian Defense Ministry.

Military drills between Russia and China are now conducted yearly on a much larger scale (Li, 2014). However, it is important to recognize that China and Russia need more from the United States and the European Union than from each other (Gelb, 2013). This is made even clearer by actual trade relationships that exist currently. See Figure below.

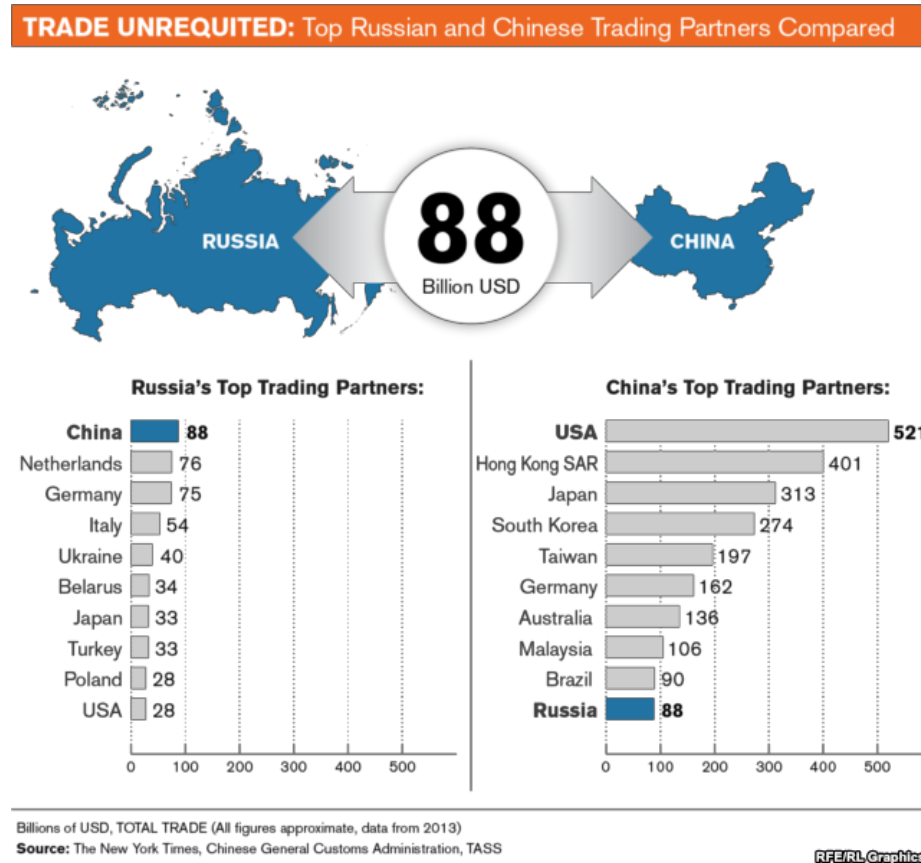


Figure 1: Trade Unrequited, (Recknagel, 2015).

As evidenced above, the United States is China's number one trading partner, and Russia comes in at tenth. For Russia, the European Union (EU) is the top trading partner followed by China, and the United States is fifth. For Russia in particular, Putin may do better for his country by improving his relationships with the EU and mending relationships with Ukraine. On the other hand, the United States is not immune to criticism. Developing foreign policy can help rebuild trading relationships with the China-Russia partnership while also furthering the interests of all three nations. This could also help reduce tensions that they may face as a result of their political alliances or lack thereof. Further, it will help push Russia out of its corner of an economic slump and perhaps soften Putin's affinity for annexation campaigns.

## Literature Review

The articles chosen for this topic contain information pertaining to several aspects of the relationship between Russia and China. They describe the history between the two countries and some of the issues that have risen as the two have become more intertwined. Also addressed are the implications of such a partnership on the world community, and how it can affect United States interests. Interestingly, the articles point to a level of mistrust between the two and how the relationship remains highly complex and is not guaranteed to be a successful endeavour. **“Development of China-Russia Relations”**

The article chosen as the basis for the literature review is by Jing-Yun Hsu called “Development of China-Russia Relations.” In the article Hsu argues that Russia and China have formed a strategic partnership that seems to lack a solid foundation, yet despite this, it would be a mistake to minimize the impact such a rising partnership can have on the world. Hsu points out how China is a rising power in the world and that, “in 1980, the Beijing government joined the World Bank, and China drew closer not only to the United States but to the whole world global capitalist system” (Hsu, 2014).

Hsu also explains how Russia and China’s relationship counters American hegemony superiority by stating that, “the two governments frequently have called for a multipolar world in which Russia and China would occupy key positions along with Europe, the United States, and perhaps Japan” (Hsu, 2014). Alarming, the article states that Russia and China militaries have also cultivated a relationship and both countries purchase arms, and military equipment from each other. However, as a source of potential friction, “China’s arms industry can now match Soviet-era technologies. In addition, Russia is reluctant to provide sophisticated technology and advanced weapons to China because they could be used against Russia if relations deteriorate” (Hsu, 2014). Despite this potential friction, in Kenneth Timmerman’s article, “China and Russia Align Against the U.S.,” an intelligence analyst claims that China and Russia are entertaining the idea of significant military sales to include: “Direct purchases of nuclear submarines and Long-range nuclear missiles” (Timmerman, 2001). Unlike Hsu’s article, Timmerman’s article seems to believe that despite Russia and China’s differences, combating U.S. dominance on the world stage is a strong enough motivator to overcome differences.

### Conclusions from “Development of China-Russia Relations”

Finally, Hsu states that, “China has become more important in Russia’s trade than Russia in China’s trade” (Hsu, 2014). Russia’s relationship with the West has been at its lowest point since the Cold War and has had to move its focus from the West to the East. Also, they have not diversified its export business and continue to solely focus on natural resources. Meanwhile, China has been nervous about how it imports its energy needs, yet at the same time, does not have to rely on oil and gas from Europe or Russia only. Hsu goes into detail about trade statistics

and quotes Chinese customs statistics that state, “rising from US\$5.86 billion in 1992 to US\$48.2 billion in 2007, there are good reasons for expecting trade volume to expand in the future. In 2008, the level of bilateral trade reached US\$56.83 billion” (Hsu, 2014).



### **“How China Sees Russia”**

Fu Ying’s article titled, “How China Sees Russia,” acknowledges Hus’s idea that China and Russia are not as close as their relationship would seem. The article posits that “Beijing and Moscow are close, but not allies” (Ying, 2016). Ying explains that the relationship is “vulnerable, contingent, and marked by uncertainties – “a marriage of convenience” (Ying, 2016). Ying also explains how the Russia and China relationship is perceived by the rest of the world. The Russian and Chinese governments officially state that they want their relationship to be positive and constructive. The west believes their intentions are much more sinister and are concerned that eventually it will negatively impact the United States and the world. In the article he claims that, “strategic and ideological factors form the basis of Chinese-Russian ties and that the two countries – both of which see the United States as a possible obstacle to their objectives – will eventually form an anti-U.S., anti-western alliance” (Ying, 2016). This alliance has already shown itself as Ying explains how Russia and China have acted in mutual interest on the world stage. Through the UN and the Security Council, of which both are sitting members, China has backed Russia on resolutions concerning Syria. Also, China has turned a blind eye on Russia’s involvement in Crimea, to the astonishment of the United States and others. In a BBC article it states, “Russia has an ally of China in voting in the UN security Council (as a rule, Russia and China veto proposals by Western countries together, as happened last week in relation to the idea of handing the “Syrian file” over to the International Criminal Court)” (BBC Monitoring Former Soviet Union, 2014).

### **Conclusions from “How China Sees Russia”**

Ying believes that, “Relations among China, Russia, and the United States currently resemble a scalene triangle, in which the greatest distances between the three points lies between Moscow and Washington. Within this triangle, Chinese-Russian relations are the most positive and stable” (Ying, 2016).

In sum, the articles tend to convey that Russia and China are reluctant partners and are together only because they have specific trade needs from each other at this moment in history. Also, without stating it directly, and with direct comments from the Russian and Chinese governments to the contrary, the articles lean toward the belief that despite their differences, both believe their partnership will help them challenge United States dominance in the world.

## **Statement of Relevant Principles to be Applied**

### **International Trading**

China and Russia are both engaged in international trade. China exports electronic equipment, machinery and textiles, and Russia is a large exporter energy. In December 2015, China and Russia had their central banks sign a memorandum of understanding. The intent of this was to expand cooperation by promoting local currency settlements, bank card issuance, access to local currency bond markets, and credit-rating partnerships. Simultaneously, the Russian Direct Investment Fund (RDIF), Vnesheconombank (VEB) and the China-Eurasia

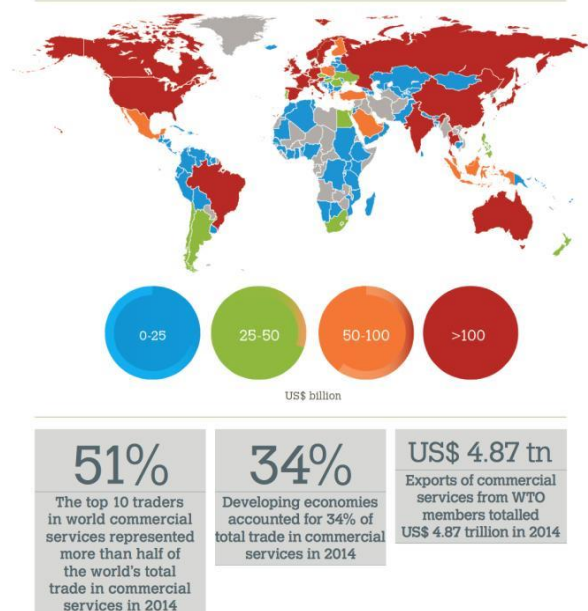
Economic Fund (CEEFC) announced that the financing of Chinese exports to Russia would occur; as well as the guidance for the flow of Chinese investment into the Russian Far East and Trans-Baikal areas.

China is Russia's largest single trading partner, with \$90 billion in trade volume that occurred in 2013 projected to only keep rising. In Comparison, Russia is China's ninth largest trade partner. Between 2003 and 2012, trade between China and Russia grew at an average of 26.4% per year (Sidorenko, 2011). By 2020, both China and Russia estimate the trade volume to be at \$200 billion (Ding, 2014). In order to accomplish this goal of \$200 billion, over 30 agreements have been signed including areas in economy and trade, foreign affairs, infrastructure, technology and innovation, agriculture, finance, energy, media, internet, and sports (Sidorenko, 2011).

Russia became a member state of the World Trade Organization (WTO) in August 2012. This has had a large impact on bilateral and international trade for China and the rest of the world due to trade and economic cooperation that is associated with the WTO. Russia's agreement to the WTO opened new markets for China, but also brought other competitors against China. With this being said, Russia's WTO agreement is still more beneficial for China than it is harmful. First, this agreement was helpful for making the trade system more standardized and improving the trade environment. In the long-term it will ensure stable development of trade and economic cooperation between China and Russia. Second, Russia tariffs were reduced on some goods based on WTO rules which were beneficial for expanding China's exports to Russia. In 2012 Russia's average tariff rate was 12.4 percent. This rate is higher than the tariffs in developed countries and below in developing countries (Soong, 2014).

China's Silk Road Fund agreed to provide 730 million Euros (about \$778 million) over a 15-year period for the Yamal liquid natural gas project. In 2015, Russian agribusiness exported to China for the first eleven months of the year increasing by over 14 percent to \$1.2 billion from the previous year. Russia, China and the U.S. are all active countries in merchandise trade and commercial services. Below shows a representation of the world trade and involved various countries are in the trade. It is evident that China and Russia play a key role in this world trade relationship.

### Economies by size of trade in commercial services, 2014



### Economies by size of merchandise trade, 2014

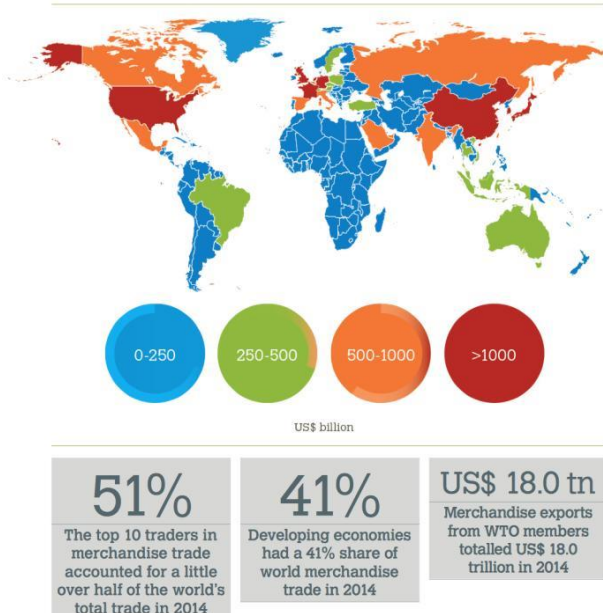
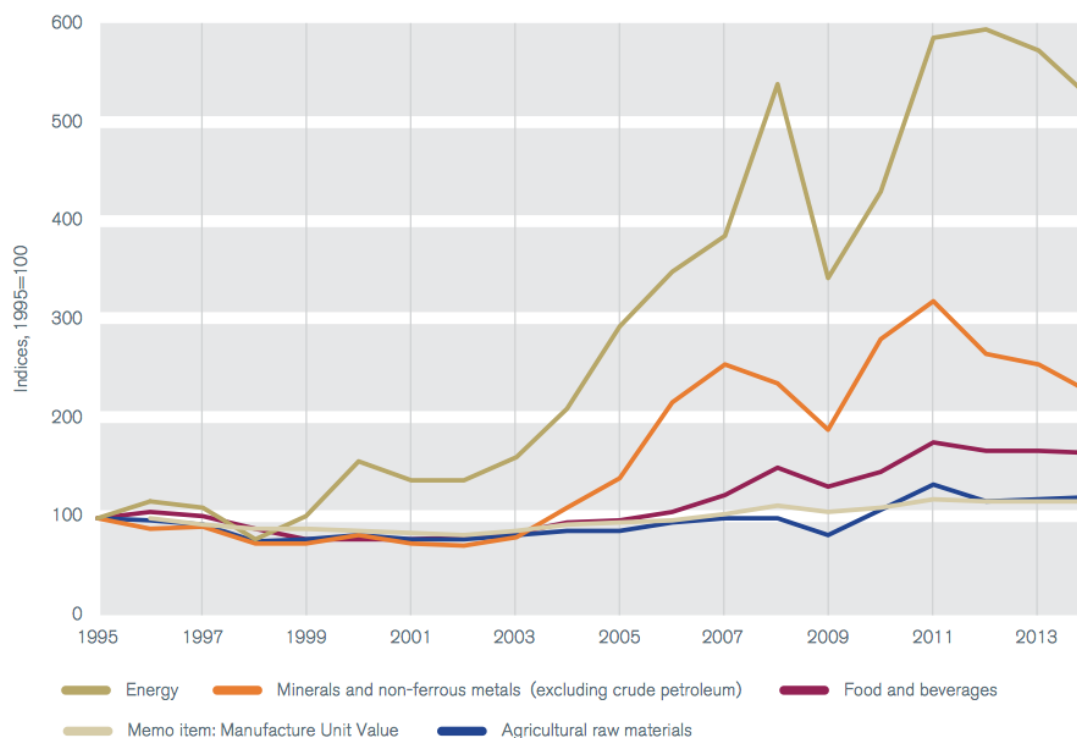


Figure 2: World Trade, (International Trade Statistics, 2015)

As shown below, energy prices have increased more than any other commodity. Energy products presented a much higher price increase than other merchandises between 1995 and 2014. In 2000 there was a turning point where energy prices started to grow. In 2003, there was

an upward trend until arriving at a peak in 2008. The reason of falling by 37% in 2009 was the economic crisis of 2008. Nevertheless, the value in 2009 was still over three times higher than in 1995. The second peak was in 2012, where the value was six times higher than in 1995. Since then, the energy prices had a declining trend, and they turned sharply negative in 2014 when the prices falling by 8% compared with the year of 2013 (WTO, 2015).

### Export prices of primary commodities, 1995-2014



Source: WTO Secretariat and World Bank.

Graph 1: Commodities, (WTO, 2015)

### Foreign Direct Investment

China-Russia relations are very asymmetric, but they are asymmetric in different ways. In certain areas China dominates. However, Russia has a lot of advantages that China does not have politically. The nature of the China-Russia relation remains to be fully seen (WTO, 2015).

Natural gas plays a key role in the FDI relationships China has with the world. Particularly because of the price fluctuations that China has between various trading partners. For Russian gas, the final price remains unknown for the trade secret, but it is estimated that China pays Russia around \$350.00/mcm (\$9.72/mmBtu) (Weitz, 2014). This can be considered high to some, but this was the final deal that China and Russia agreed upon. China's natural gas price from other countries already has FDI included in those areas. China relies on importing natural gas nearly one-quarter of its necessary volume for one year. The average price is \$285.50/mcm

(\$7.93/mmBtu) (Oil Daily, 2011). Compared to China's domestic gas price in the recent decade, the current ex-factory price of gas to industrial users is \$211.00/mcm (\$5.87/mmBtu). But the transportation causes the price increase by 50-70% of the ex-factory price (Natural Gas Week, 2006).

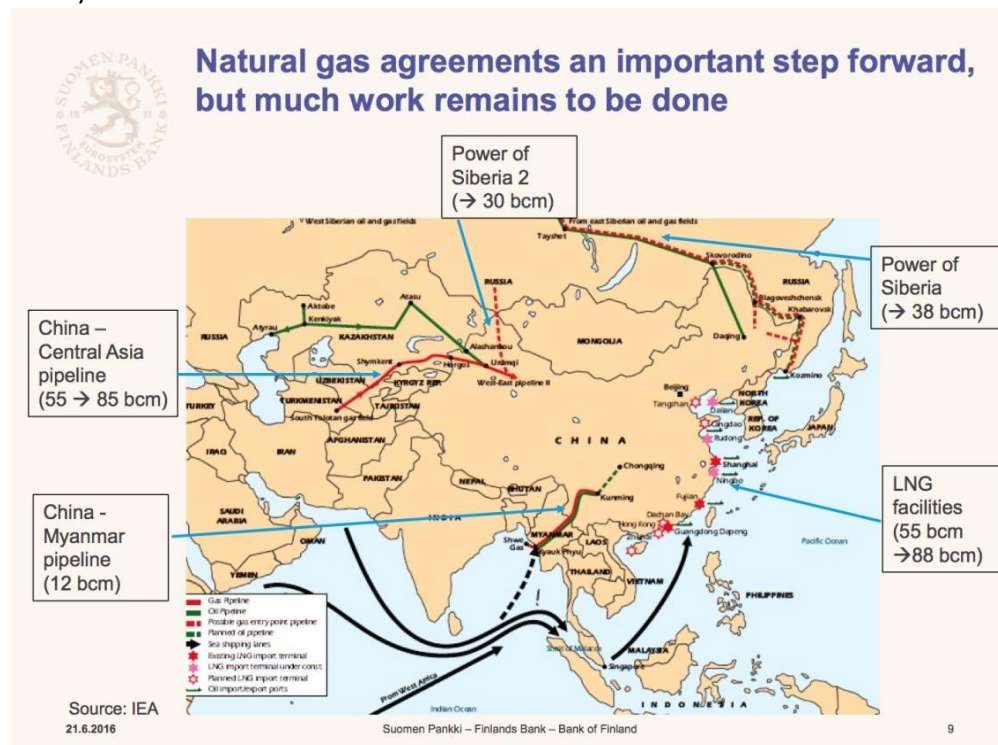


Figure 3: Natural Gas Agreement (Simola, 2016)

Central Asian states are the pivotal areas for the world's economy. To China, they have advantages of the geographic proximity and shared borders. To the world, they have rich energy resources. For China, it has FDI in the countries like Turkmenistan. China has its own exploration firms in those areas, and countries in those areas are mainly providing the natural gas locations. Hence with the relatively low exploration costs, China purchases their gas at a price lower than Russia's (Pahl, 2014).

China invested \$3 billion in building the Tajik segment of the Turkmenistan-Uzbekistan-Tajikistan-Kyrgyzstan-China gas pipeline. This line is more than 400 kilometres, and it is planned to be completed by the end of 2016. The agreements on the construction were signed in September 2013. The pipelines are estimated to ship 25 billion cubic meters (bcm) of gas per year. It will boost volumes of Turkmen gas to China up to 65 bcm every year (Central Asia General Newswire, 2013).

As the China-Russia has developed, there are several agreements that they have made between each other. China has promised to invest \$20 billion into Russia's domestic projects. These projects are focusing on transportation infrastructure, highways, ports and airports. In the long-term run, gas is non-renewable resource (Pahl, 2014). This is a factor that China must consider when creating these partnerships. The implications for ignoring this fact could have strong economic effects.

## **Environment**

The environment is an important topic that is being discussed worldwide. For Russia, it has the advantages that in the global warming trend, the volume of exploitable natural gas will be increased in the future. Both China and Russia have goals to maintain the world's environment. According to the United Nations, one of the goals is to ensure access to affordable, reliable, and sustainable energy. For almost every country and place, energy is vital for jobs, security, climate change, and food production. Obtaining the sustainable energy is an opportunity for not only China and Russia, but for the entire world as well. Another goal is to take immediate action to fight for climate change and the corresponding impacts. The world is experiencing major changing weather patterns, rising sea levels, and many other extreme weather events are occurring. In this situation, the poorest people are often affected the worst. Climate change does not respect national borders. This issue needs international cooperation to carry developing countries into a low-carbon driven development and economies. Countries signed the Paris Agreement to address the issue (UN, 2016).

Climate change has become the top concern of the world leaders in recent years due to it not changing, the rising concern and it affecting everyone. Measures taken against climate change may have a direct impact on the mode and speed of development. It can be difficult to find the balance on how to maintain efforts to address these climate changes. Economic development is a challenge for the entire world. The EU is the largest group of industrialized countries. China is the largest developing country and currently the largest greenhouse gas emitter in the world. These two both are important in regards to the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol (KP). To some extent, whether the efforts to contain climate change will be successful or not in the coming years will be affected by the positions and policies of the EU and China (Men, 2014).

The EU and China regard each other as partners in some aspects. Since the 1990s, cooperation has been expanding between Brussels and Beijing, with increased institutionalization of their bilateral relations. Hu Jintao, the previous Chinese President stated, "Global climate change has a profound impact on the survival and development of mankind. It is a major challenge facing all countries" (Men, 2014). While trying to defend China's position on climate change, Beijing has realized that work needs to be done internationally. In the absence of United States leadership and United States failure to approve the Kyoto Protocol, the EU sees itself as playing the leading role in global efforts against climate change to effectively reduce greenhouse gas emissions.

## **Globalization**

China and Russia have developed at a fast rate in economic and trade relations in the midst of a global economic slump. Their partnership is clear throughout the world, where billions of United States dollars are invested in the construction of oil and gas industries. Mineral fuels make up around half of all Chinese imports, but the volume will increase in the near future due to the effects of the new oil pipeline and the gas agreement. If the two states continue down this partnership road, it could challenge the future balance of world power, and eventually result in the change of the world order (Soong, 2014).

When Russia annexed Crimea, the move was considered by the United Nations as an invasion on a sovereign country and sanctions were put into place that have had a devastating

effect on the Russian economy. The West cut purchases of Russian oil and gas extensively, and in response, Russia turned its focus onto the east to sell their natural resources. Meanwhile, the deal benefits China in a couple of different ways. First, “The gas deal would ease China’s concerns that most of its fuel supplies come through the strategic chokepoint of the Strait of Malacca” (The Economist Intelligence Unit N.A., Inc. 2014). China’s worry is that so much of their energy needs filter through the Strait and should relations between the East and West deteriorated, the strategic chokepoint could be cut off by the West. Security for the nation would not be in Chinese hands, but rather would be vulnerable to outside influences, something that is unacceptable to the Chinese government. Second, the deal would “enable them to move away from burning so much coal that pollutes the air in Chinese cities” (The Economist Intelligence Unit N.A., Inc. 2014). Cities like Beijing, Chongqing, Urumqi, and Lanzhou are so polluted and the smog so thick, that you cannot see the sun even at its highest point in the day. In these areas, children and the elder population are at the most risk from complications from the pollution. This is a current health hazard that China must address or the result will be an unhealthy population that will overwhelm the health care system in China. This deal in part, addresses this issue.

### **Analysis and Application of Principles**

Russia’s top exports to China in 2015 included: oil (\$20.2 billion), wood (\$3.1 billion), nickel, fish, ash, fertilizers, wood pulp, copper, inorganic chemicals and machinery (\$390.6 million). This amounted to \$33.2 billion which is 2.2% of its overall imports. On the other hand, China’s top exports to Russia in 2015 included: electronic equipment (\$8.6 billion), machinery, footwear, clothing, plastics, vehicles, toys, knit clothing, iron/steel products, and organic chemicals (\$796.4 million). This amounted to \$34.1 billion which is 19.2% of its overall imports (Sidorenko, 2011).

Table 2

**China's Trade with Russia (%)**

| Imports from Russia                     |       |       |       |       |
|---|-------|-------|-------|-------|
| SITC                                    | 1996  | 2000  | 2005  | 2010  |
| Food and live animals                   | 4.2   | 7.3   | 7.2   | 5.3   |
| Beverages and tobacco                   | 0.0   | 0.0   | 0.0   | 0.0   |
| Crude materials, inedible, except fuels | 7.1   | 18.1  | 20.5  | 20.6  |
| Mineral fuels                           | 4.6   | 13.5  | 41.3  | 49.3  |
| Edible oils                             | 0.1   | 0.0   | 0.0   | 0.0   |
| Chemicals                               | 29.5  | 19.8  | 13.8  | 11.0  |
| Manufactured goods by material          | 32.3  | 30.1  | 15.1  | 12.2  |
| Machinery and transport equipment       | 17.7  | 4.1   | 1.9   | 1.3   |
| Miscellaneous manufactured articles     | 3.1   | 1.7   | 0.2   | 0.3   |
| Other items                             | 1.3   | 5.3   | 0.1   | 0.0   |
| Total                                   | 100.0 | 100.0 | 100.0 | 100.0 |
| Exports to Russia                       |       |       |       |       |
| SITC                                    | 1996  | 2000  | 2005  | 2010  |
| Food and live animals                   | 26.1  | 6.2   | 4.7   | 4.7   |
| Beverages and tobacco                   | 0.5   | 0.9   | 0.1   | 0.1   |
| Crude materials, inedible, except fuels | 2.7   | 1.8   | 0.7   | 0.5   |
| Mineral fuels                           | 1.4   | 2.2   | 1.0   | 0.7   |
| Edible oils                             | 0.0   | 0.0   | 0.0   | 0.0   |
| Chemicals                               | 2.4   | 3.8   | 3.6   | 5.2   |
| Manufactured goods by material          | 6.9   | 6.8   | 13.8  | 18.6  |
| Machinery and transport equipment       | 5.7   | 7.2   | 19.1  | 35.4  |
| Miscellaneous manufactured articles     | 54.3  | 71.2  | 57.0  | 34.8  |
| Other items                             | 0.0   | 0.0   | 0.0   | 0.0   |
| Total                                   | 100.0 | 100.0 | 100.0 | 100.0 |

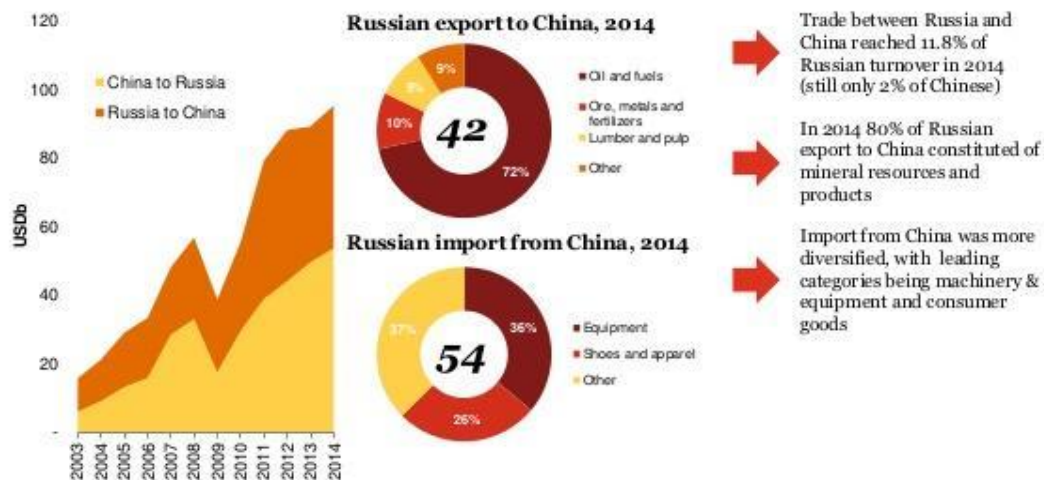
Source: PRC General Administration of Customs 2012.

Table 1: Trade, (Soong, 2014)



***In recent years cross-border trade has demonstrated substantial growth...***

#### Russia – China trade



Source: Federal Customs Service of Russia, PwC analysis

PwC Russia

19 January 2016

13

Figure 4: Federal Customs Service of Russia, (2016 China-Russia Business Seminar)

amongst the energy sector. On May 21, 2014 a 30-year gas supply contract was signed between Russia and China. This contract is a \$400 billion natural gas supply, which will be sent yearly to China through the pipeline until 2044. This volume will have a large impact for China. As a result of this deal, China will provide \$20 billion for a gas development and infrastructure. The new pipeline where gas will be transported linked Siberian gas fields to China's main consumption centres (Nakano, 2014).

## Russia-China Gas Deal

- 30-year agreement to start in 2018
- Up to 68 bcm of Russian gas to be delivered to China annually
- Est. price: \$350-\$400 per 1,000 cubic metres

Possible routes: Altai pipeline, Power of Siberia pipeline

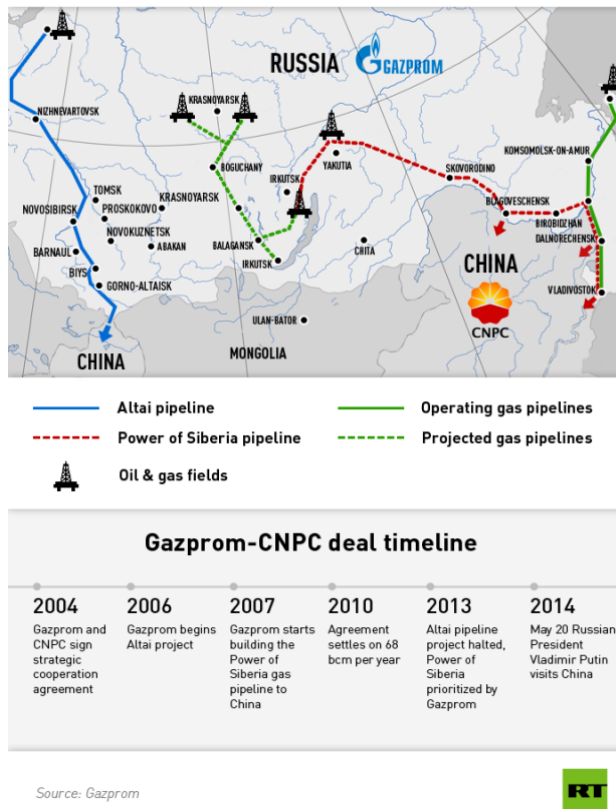


Figure 5: Russia China Gas Pipeline (Nanako, 2014)

China has been in a fast developing economic environment since the Economic Reform that started in the 1970s. In 2010, China turned into the global largest exporting country. China's rapid growth has made it the world largest energy consumer. Russia, on the other hand, is one of the world's largest energy producers and therefore in a position to fuel China's economy. In January 2011, an oil pipeline linking Daqing in China's Heilongjiang province and Skovorodino, a Russian city, officially began operation. It was expected to transport 15 million tons of crude oil per year, with a 30-million ton per year benchmark set for the immediate future. Bilateral ties have been strong for quite a while, and will likely only get stronger (Soong, 2014). In 2014, it became the largest economic entity, with a gross domestic product (GDP) of \$17.63 trillion.

This shows over ten times increase in its GDP since 1978. See Figure below.

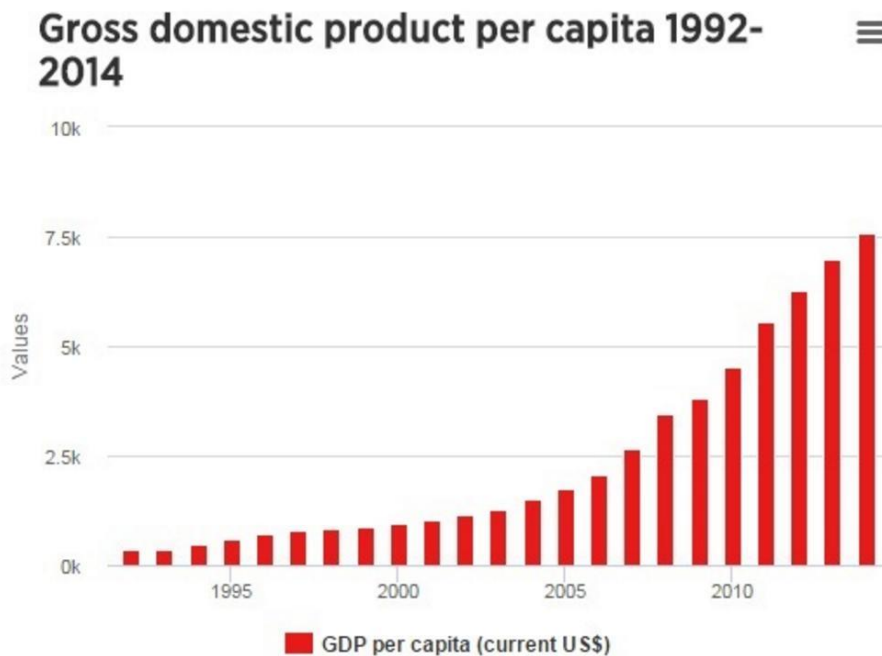


Figure 6: GDP, (Chaturvedi, 2016)

The China-Russia trade relationship is not the result of the market economy, but is more inclined to the political cooperation. China has had a mixed economy since it started the Economic Reform in 1979. Under the socialist market economy, with the hybrid regulations by plans and by the market, Chinese government has the power to connect the trading events with the politics. That means to mobilize capital from the market in exchange of political support from Russia. To a considerable extent, Chinese government promotes a stable business environment. Seeking mutually beneficial cooperation in trade, energy, transportation, nuclear, science and technology, space industry, etc., China-Russia relations are arguably better today than they have been at any point since World War II (Nanako, 2014). The two countries are very asymmetric. In natural gas reserves, Russia dominates. Of course, economically China is much stronger than Russia. Hence China made a concession on natural gas price.

Working together amongst the world will be the key in eliminating potential disasters such as climate issues and economy issues. There are many important topics that will not be addressed if mutual respect is not agreed upon.

## Recommendations

### Russia

Russia should consider developing more opportunities for innovation and entrepreneurship. "Russia considers oil and natural gas to be paramount strategic tools of its

diplomacy” (Hsu, 2014). This would create more products and services that the Russian Federation could export in an effort to increase trade with the world and thereby increase participation in global markets and reduce political, economic and legal fears other nations have in building lasting relationships with Russia. Putin’s Russia has vast resources both human and natural that could be used to encourage creativity. One solution could be to create a product or service that will be needed in the world in the near future. Water will be a scarce resource and Russia has access to many bodies of water and scientists that could develop desalination products, techniques or services that could help literally provide clean, drinking water to the whole world.

## **China**

It is in China’s interest to ensure that the relationship with Russia does not delve into something that can be misconstrued as a power play on Western interests. Russia cannot shake the corruption that has infected its government from the top down and while willing to be a part of the global community. Russia will continue to play by its own rules and will not be afraid to use shady backroom deals to further its own interests. Perception is reality and the China-Russia relationship has already brought frustration to the West. Through the UN, “the two have made common cause in geopolitics. China abstained from a UN Security Council vote in March, 2014, that would have rejected a referendum that Russia backed in Crimea before annexing it. China also joined Russia in vetoing UN attempts to sanction the regime of Bashar Assad fighting a civil war in Syria.” (The Economist Intelligence Unit N.A., Inc. 2014).

## **The United States**

“Compared with the Chinese-Russian relationship, the one between Beijing and Washington is wider and more complicated. Combined, China and the United States account for one-third of global GDP. In 2014, U.S.-Chinese trade reached nearly \$600 billion, and accumulated mutual investment exceeding \$120 billion” (Ying, 2016). The U.S.-China relationship is crucial to world stability, and the trade relationship between the two remains important to each. The United States needs to understand that China will not accept bloc politics in Asia. The TransPacific Partnership (TPP), championed by the United States, is a 12-country agreement that has excluded China because of their stance on worker’s rights and labor protections. By not being able to participate, the outcome of the TPP could have a negative impact on China exports. As noted in Ying’s article, “some scholars in China and elsewhere have suggested that if the United States insists on imposing bloc politics on the region, China and Russia should consider responding by forming a bloc of their own. But the Chinese leadership does not approve of such arguments. China does not intend to form such a bloc, either. China and Russia should stick to the principle of partnership rather than build an alliance. As for China and the United States, they should continue pursuing a new model of major-country relations and allow dialogue, cooperation, and management of differences to prevail.” (Ying, 2016).

## **Conclusion**

China and Russia understand that their relationship is a way to address United States’ dominance. This mindset will have lasting impacts on the entire world that are not yet understood and may ultimately be detrimental to western ideology. In the event complications arise because Russia and China form a de facto bloc that results in minimizing United States influence and devalues American currency, what happens? It is in the interest of the United States, who should monitor the relationship closely, that China and Russia continue a healthy relationship that

benefits each country regional, rather than globally. The United States, China and Russia need to find mutually shared interests in travel, free global trade, and cooperation against global threats. This will encompass terrorism, climate change and disease. Russia and China in theory benefit equally from their trade relationship.

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**Founding Environment, Inward Internationalization and Performance:  
Insights from Imprinting Theory**

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Extending the insights of organizational imprint, this study theorizes that the adverse founding environment can inspire firms to seek inward internationalization for alternative resources and that the performance effects of the inward internationalization depends on the development of subnational institutions in terms of intermediate institutions and FDI density. Based on the analysis of 2565 private enterprises in China, we found that the adverse founding environment characterized with legitimacy lacking and resource constraint at founding instigated private firms to undertake high degree of inward internationalization with foreign entrants, which further enhanced their subsequent performance. We also found that this performance-enhancing effect

became stronger in regions with more developed intermediate institutions and high foreign direct investment (FDI) density.

**Keywords:** Founding Environment; Organizational Imprint; Inward Internationalization; Subnational Institutions.

*Inferiority leads to introspection; adversity leads to self-improvement.*

## INTRODUCTION

Firms undertake inward internationalization (hereafter II) in various exchange relationships (e.g. imports, original equipment manufacturing (OEM), license, component/parts manufacturing, direct investment by foreign investors, etc.) (Welch and Luostarinen 1993; Luo, Zhao, Wang and Xi, 2011). Understanding what account for II is important since it plays an important preparatory role in the outward process (Child and Rodrigues 2005; Björkman and Kock 1997; Czinkoa and Tesar 2008; Ruzzier, Hisrich and Antoncic, 2006; Welch and Luostarinen 1993; Reid and Rosson 1987; Bilkey 1978) in helping local firms develop foreign market knowledge, accessing networks that may result in a subsequent outward selling move (Gu and Lu 2011; Czinkoa and Tesar 2008; Reid and Rosson 1987; Bilkey 1978) and in reducing the uncertainty of decision makers when considering whether to enter a foreign market (Björkman and Kock 1997).

Given this importance of inward internationalization, prior research has, so far, given considerable attention to three groups of influencing factors at firm-, industry- and country-levels. For instance, at firm-level, firm-specific advantages and experiential learning as the two major determinants of alliances with foreign entrants (Gu and Lu 2011) include the ownership advantages (Driffield 2002) and domestic alliance network positions on foreign partner selection (Shi, Sun, Pinkham and Peng, 2014). At industry-level, industry competitiveness agglomeration was found an important factors influencing II (Chidlow et al. 2009). At country-level, influential variables include country of origin (Cantwell and Narula 2001), host country effects of anticipated large market (Sethi et al. 2003), the low country risk conditions (Pan 1996), labour cost (Faeth 2009), low government intervention (Belderbos and Sleuwaegen 2005), and the information costs (Mariotti and Piscitello 1995). While extant researches provide important insights, they fall short in two aspects. First, they have paid little attention to whether firms' current internationalization activities are related to their founding environments, despite the criticism that "systematic investigation of historical evidence has disappeared from the research agenda of most IB scholars" (Jones and Khanna 2006). Second, the existing literature is sketchy about the consequences of II and the role of subnational institutions, except a few evidenced the industry-level productivity improvements due to the inward foreign direct investments (FDI) (Buckley, Clegg and Wang, 2002).

To address these lacunae, this study echoes to the call for IB research to bring history back to explore how it matters (Jones and Khanna 2006) in offering a different approach by focusing on the role of the firm founding environment in II and on the performance implications of II in relation to the development of subnational institutions in a large emerging economy. The important effect of founding environment on various firm behaviours and strategies is highlighted by a recent comprehensive review of imprinting research (Marquis and Tilcsik 2013). A recent study also evidenced the imprinting effect in the context of transition economies showing that founding environments (dichotomized as communist vs. post-communist funding environment) can have important impacts on the competitive aspirations of firms (Shinkle and Kriauciunas, 2012). Building upon the insights of organizational imprint theory, we propose that the economic transition from socialist planned economy to a market economy in



which firms were born exposes them to two institutionally-induced pressures (legitimacy-lacking and resource- constraining pressures) that serve to motivate private enterprises (hereafter PEs) to seek resources and learn through various alliance activities with foreign entrants. We also posit that II not only help firms survive the adverse founding environment but also, in turn, help them achieve better performance that is further strengthened for firms being embedded in regions with more developed subnational institutions.

We test these propositions using 2,565 private Chinese enterprises that were founded *after* 1978 when China's economic transition started. This context is meaningful to examine the issues of interest. Unlike their state-owned enterprises (hereafter SOEs) counterparts who inherently carried on the socialist stamps before and even after the transition began, PEs as new form of economic entities were born at the time when the socialist ideology (e.g. planned economy) just began to dwindle and the market forces began to come into play. Hence, PEs did not necessarily inherit the imprints of socialist economy; rather, they were exposed at birth more directly to a new environment of the economic transition, thus warranting the test of the imprinting prediction.

Borrowing perspectives from imprinting theory, this study contributes to the existing research on the determinants of II by adding a new perspective in understanding the determinant of II. Moreover, IB scholars recently have urged that the IB research involving geographically large countries, like China, India, and Russia, requires a subnational perspective (Wright, Filatotchev, Hoskisson, and Peng, 2005) and propose that incorporating the *within-country* institutions captures a relatively high level of theoretical complexity (long endurance and low exclusivity) (Ofori-Dankwa and Julian 2001). Our study examining the interplay between II and subnational institutions, thus, adds new perspectives on performance implications of inward internationalization.

## UNDERLYING THEORY AND HYPOTHESES

A key tenet of imprinting theory is that organizations are created out of technological, economic, political, and cultural resources available from their founding environment; these environmental resources allow firms to form certain structures and practices. Available in a particular founding context, these initial resources exert substantial and long-lasting influences over the character of a new organization (Stinchcombe 1965). Imprinting has three essential features: a sensitive period, the stamp of the environment, and the persistence of imprints (Marquis and Tilcsik 2013). Early studies focusing on the population-level founding conditions – density, industry age, founding rate, and founder characteristics – demonstrated that differences in founding conditions at least partly predict contemporary variations in firm strategies (Kimberly 1976; Boeker 1989), firm growths (Kathleen M. Eisenhardt and Schnoonhoven 1990), rates of organizational change (Tucker et al. 1990), organizational structures (Meyer and Brown 1977), and organizational mortality (Carroll and Hannan 1989). Extending this perspective to the context of a transition economy, a few recent studies have found that the socialist market imprints have had negative impacts on the technological innovation in Germany (Kogut and Zander 2000), on the knowledge set in Lithuania (Kriauciunas and Kale 2006), and on the strength of competitive aspiration of firms from a set of four formal socialist economies (Shinkle and Kriauciunas 2012). These studies added important insights to the founding impacts on various behaviours of firm. However, we have very limited knowledge regarding whether the

founding environment of the transition in which PEs were born is associated with II even though it is well established that the behavior of organization reflects the past influences. Extending the imprinting logic to the explanation of II requires the “mapping of an environmental condition onto the organization” (Carroll and Hannan 2004). In the following section, we develop hypotheses elucidating the relationship between founding environments and II, and the moderating effects of subnational institutions in terms of FDI density and intermediate institutions on the relationship between II and performance.

*Legitimacy-lacking Pressure.* Legitimacy refers to “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman 1995) and it is “a state in which organizational forms come to be buttressed by legal mandate or by widely shared cultural, professional, and political norms and values” (Baum and Oliver 1996). However, the early phase of transition often creates a “legitimacy vacuum” when clarity about the formation of a new type of ownership is lacking (Dobrev and Gotsopoulos 2010). It is suggested that in transition economies, one cannot assume the legitimacy of private entrepreneurial firms, and even when warranted, this legitimacy is often difficult to obtain (Wright et al. 2005). The transitional nature of the founding environment is sensitive since China began transforming the long-held socialist ideology by recognizing and cautiously introducing market elements into its economic regime in the late 1970s. PEs established in the process of transition typically suffered from the liabilities of “privateness”, lacking social/political legitimacy. Even though PEs were formally permitted to exist in 1988 (Lu and Tao 2010)<sup>1</sup>, in a strong socialist ideological climate, PEs “were still considered to be an inferior form of ownership for ideological reasons” and have suffered social and political discrimination (Li et al. 2008). Thus, private ownership lacked institutional legitimacy and was associated with high property risk, transaction costs (Gregory et al. 2000) and expropriation of their properties and discrimination in business dealings (Lee and Reisen 1994). They were often described as the ‘underdog’ (Nee 1992; Tan 1996) and had low legitimacy status as they were not consistent with the prevalent social values of public ownership (Tsang 1999). Even in recent years the government policies have become increasingly favoring the state sector and PEs have faced the risk of being crowded out by SOEs (Roda 2010; Anderlini 2010).

*Resource Constraint Pressure.* The restricted access to resources represents another salient characteristic at the founding in the early period of economic transition. Typically, nascent firms are subject to liability of newness and tend to have limited resources (Kathleen M Eisenhardt and Schoonhoven 1996; Stinchcombe 1965). The constrained access to resources associated with the legitimacy-lacking further aggravated pressures for PEs. The financial, technological, and managerial inputs of PEs in the early period of founding are important resources for their survival and growth. However, the pressures induced by the institutional biases and the liability of newness (Stinchcombe 1965) impeded the newly-born PEs to access financial capital and technology. Unlike the SOEs that have enjoyed ‘soft budget constraints’ (expected sufficient support by the government) (Kornai 1986), private enterprises had very limited access to bank loans (Tsai 2002; Herd et al. 2010). Nee (1992) succinctly noted that in China, “in the absence of well-defined private property rights, PEs are vulnerable to unauthorized interference...that may discriminate against PEs, and restrict the access to critical factor resources allocated by the state agencies.” As a result, PEs often faced institutional biases that thwarted both their access to financial loans and their ascension to social legitimacy (Li et al.

2008; Nee 1992).

The above elaborations of the institutionally-induced dual pressures (lack of legitimacy and constrained resources) typify the environment stamping the primary imprints on PEs at their founding. The imprinting perspective proposes that, in the founding period, the specific contextual features taken on by organizations often reflects organizational attempts to achieve isomorphism and fit with the environment to address uncertainty and legitimacy pressure (DiMaggio and Powell 1983; Hannan and Freeman 1977). We argue that it is just for these imprints of the adverse founding environment that motivate PEs to proactively seek exchanges relationship with foreign entrants as alternatives to compensate their disadvantages. As it has been proposed, undertaking II can serve as the legitimacy-building effort since the PEs' business linkages with foreign partners may signal reputation, credibility, and legitimacy (Ahlstrom and Bruton 2001).

The founding environment characterized with the dual pressures also compels PEs to engage in business relationships with foreign entrants for the purpose of learning. Early organizational research suggested that being founded in difficult times might enhance organizations' resilience (Swaminathan 1996) and a certain amount of stress necessary for learning to occur (Hedberg 1981). Learning as an important and complex resource can generate competitive advantages for a firm in dynamic and turbulent markets (Hanvanich et al. 2006). Under the dual pressures of the lack of legitimacy and resource constraint, PEs become plausibly more inclined to learn through exploring business opportunities with foreign partners. Engaging in a high degree of internationalization (such as joint ventures that not only bring in financial resources but also transfer technology and managerial expertise) can help PEs access the needed financial capital and technology that were difficult to access from the local institutions. It has been argued that in transition economies, such as China, foreign partners normally bring in technology and management know-how, and are a vital source of useful knowledge (Anderson and Gatignon 1986; Caves 1982; Hill et al. 1990). Thus, for the purposes of learning and compensating the disadvantages suffered at founding, PEs came under high pressures to actively undertake II. Thus, a focal PE founded in a more adversarial environment is more likely to be motivated to undertake a high degree of II.

**Hypothesis 1.** The founding environments are significantly associated with the degree of II: PEs founded in the more adversarial environment are more likely to undertake a higher degree of II than firms established in less adversarial environment.

### **Performance Effects of II**

While the adverse founding environment induced PEs to actively engage in II, however, does it help them obtain better performance? We argue that undertaking II helps PEs mitigate the adverse impacts of the founding environment to obtain better performance. Inward internationalizations offer PEs learning opportunities from their foreign business partners and expose them to new sources of foreign market information and access. In other words, the positive performance effects are materialized through mechanisms of learning and market-access arising from the interaction with foreign business partners for two specific reasons. First, through alliance activities firms benefit from learning from their foreign counterparts. In so far

alliances encompasses a variety of foreign business linkages (e.g. material process, co-production, licensing, OEM, joint venture, etc.), engaging in these activities allows PEs to interact and learn a heterogeneous bundle of knowledge in the form of organizing capabilities, knowledge-based procedures, and technical and managerial expertise. Table 1 illustrates various forms of recent II by PEs. For example, licensing allows PEs to acquire technology know-how while co-production

(Insert Table 1 here).

and OEM also provide avenues for PEs to observe and learn operational and managerial expertise. As previous studies suggest, II normally brings in technology and management know-how, and is a vital source of useful knowledge (Anderson and Gatignon 1986; Caves 1982; Hill et al. 1990). Particularly, the high level of II in the form of joint ventures offers local partners the opportunities to observe, learn and acquire knowledge from foreign partners (Lyles and Salk 1996; Makino and Delios 1996; Shenkar and Li 1999; Salk and Lyles 2007). The tight coupling between partners often facilitate learning of tacit knowledge and development of critical capabilities for long-term benefits (Lane and Lubatkin 1998) which tend to generate better performance (Lane et al. 2001). Thus, the higher degree of II involving more frequent and intensive interactions between PEs and their foreign business partners, the more likely PEs will benefit from it.

Second, undertaking II not only creates learning opportunities but also exposes firms to multiple sources of market information and access. Multiple linkages with foreign business partners provide rich market information to firms through business exchanges that enable them to tap into other foreign markets. For example, studies showed that inflow of foreign direct investment boosted foreign sales by China through their established international marketing networks (Song and Zhang 2002), improved industry productivity, and generated technological and international market access spill over that benefits for Chinese firms, particularly for non-state owned enterprises (Peter J Buckley et al. 2002). Taken together, undertaking II enhances PEs' knowledge-based capability and market accessibility to compensate their disadvantages at the time of their founding. Therefore, we hypothesize:

**Hypothesis 2.** The degree of inward internationalization is significantly and positively related to performance.

### **The Moderation Effects of Subnational Institutions**

The economic transition undertaken since 1978 has moved China toward a market-oriented economy. However, in the process of transition, the institutional landscapes are unevenly progressing at varying paces in China (Zhou and Poppo 2010; Shi et al. 2012). These sub-national institutional differences are more profound than those in developed economies exerting varying impacts on firm strategy by constraining or releasing various resources (Chan et al. 2010). This means that some regions may offer more abundant resources – known as munificence (Dess and Beard 1984) than others. We argue that, taken information and knowledge as resources that are critical for collaborations with foreign partners, the variance in the development of subnational institutions will impact differently the relationship between II and performance. Though institutions consist of multi-dimensions, we choose intermediate institutions and FDI density for the reason that engaging in exchange relationships with foreign entrants is primarily learning motivated. Regions with more developed intermediate institutions and the heavy presence of FDI epitomize the

information-rich environment. We propose that the more developed subnational institution in terms of intermediate institutions and FDI density complement the performance effects of II by ameliorating the information asymmetry issues typically associated with the transition economies (Khanna and Palepu 2006) and by benefiting from spill overs from FDI. In a broad sense, our analysis is consistent with the call for more refined study of the relationship between institutions and strategy (Peng, 2003).

*FDI Density.* The density of foreign direct investment broadly reflects an agglomeration of competing and complementary firms that are located in relatively close geographical proximity (Birkinshaw and Hood 2000) and it refers to “a number of organizations in a bounded organizational population” (Hannan et al. 1995). We propose that FDI density provides two spill over benefits that enhance the performance effects of II: legitimacy spill over and knowledge spill over. First, FDI density entails a source of positive legitimacy spill over that can pass onto PEs. “Legitimacy spill overs” (Kostova and Zaheer 1999) occur when greater social recognition for one organization (or group of organizations) leads to similar organizations receiving greater social recognition. Density-dependent research proposes that the legitimacy of an organization increases with the increasing density of organizations (Hannan et al. 1995). Though this theory refers to organizations in a similar population category, it is applicable to our research where the domestic private enterprises and the foreign invested enterprises are both categorized under the general populations of “non-state owned business forms” and they share similar identities of “privateness” and “newness” in the transition economy. In a broad sense, the densely populated FDI in a region is indicative of general social recognition. That is the value and expectations of the social institutions, such as the general public and local governments, would be receptive. The high presence of FDI creates legitimacy ‘contagion’ (Zucker 1988) to socially justify PEs’ various II activities. Thus, the performance effects of II are likely to be further strengthened in regions with high FDI density.

The second complementary benefit from FDI density is the knowledge spill over. The knowledge spill over literature suggests that firms spatially closed to each other share common conditions, communal social life (i.e. norms, values and conventions), and perceived opportunities and threats, which allow and facilitate vicarious learning (Maskell 2001). Previous studies show that the potential for firms to internalize the cross-firm-boundary spill overs tend to be high within certain geographic proximity (Saxenian 2000; Powell et al. 1996). M. E. Porter (1996) and M. Porter and Stern (2001), for example, propose that geographically localized firms enhance the frequency and impact of interactions, which results in knowledge spill over. We argue that the positive effects of learning and spill over from FDI can complement the performance benefits of II. Firms embedded in the regions with densely populated FDI are likely to benefit from knowledge spill overs effects that can be permeated into efficient operation of internationalization thereby PEs are able to obtain better performance. We hypothesize:

**Hypothesis 3.** Inward internationalization has stronger performance effects for firms located in regions with high FDI density.

*Intermediate Institutions.* Intermediate institutions connote professional service organizations that provide firms with supporting services in areas such as accounting and finance, talent search, law, and technology services (Zhang and Li 2010). They are market-supporting institutions filling in the void by providing supporting services to facilitate market-based transactions and flow of information. In a way the abundant presence of intermediate institutions epitomizes munificent environment since intermediate institutions “facilitate the development of competitive capabilities among local firms by acting as network intermediaries for interaction and information exchange among firms” (Zaheer and McEvily 1999). Particularly, because intermediate institutions sit at the intersection of many firms, organizations, and industries, they often facilitate the exchange of information about innovation among firms and the process of technology transfer (Howells 2006; Wolpert 2002). In a transition economy, these organizations are especially instrumental to remedying the information asymmetry associated with the heterogeneous institutional developments across the regions. Thus, we expect that in regions where there is large presence of intermediate institutions, market information is more munificent that provides adequate support for economic transactions. We hypothesize:

**Hypothesis 4.** The inward internationalization performance effects are stronger for PEs in the regions with more developed intermediate institutions.

(Insert Figure 1  
here)

## Sample and Data

### METHOD AND ANALYSIS

The data used to test the hypotheses were from three different sources. The first data source was a nationwide survey of private firms in China. This data were used for constructing the measures of II and performance. This is a nationwide survey of PEs jointly administered by the *Chinese Academy of Social Science, All China Industry and Commerce Federation*, and the

*United Front Work Department of the Central Committee of the Communist Party* in 2006. The purpose of the survey is to collect information from entrepreneurs in the Chinese private sector to provide information to the central government for policy-making purposes. The sampling method was multistage stratified random sampling, for achieving a balanced representation across all regions and industries. The survey covered the information such as the founders’ background (e.g., age, education) as well as the firm-specific information (e.g., current business activities with foreign partners, etc.).

The original survey data included 3,457 private enterprises across 19 industries (Appendix 1) located in 31 provinces and municipalities in China (Appendix 2). The second data source was from the Chinese Statistical Yearbook published by *National Bureau of Statistics* of China (NBS). This dataset was used to construct the measures of founding environment and FDI density as explained in the following section. The third data source was from the Index of Marketization of Chinese Provinces developed by *the National Economic Research Institute* (NERI) in China and was used to measure China’s market development progress at the provincial level (Fan et al. 2009). After combining three data sources and excluding missing values, a total of 2,565 Chinese PEs that have the complete information were included in this analysis. To correct this selection bias due

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to the incidental truncation of data (Greene 2003), we adopted the two-stage model developed by (Heckman 1979). Specifically, we first computed the Heckman correction factor Lambda with a Probit selection model. First, we estimated a probit selection equation whereby the dependent variable was coded as a dummy variable taking on the value of “1” if the firm has been engaged in II and “0” if not. The explanatory variables in this selection model include predicting variables and controls. The selection equation was defined as:  $Alliances_i = \text{Prob}(X_{1i}\beta_1) + \mu$  with vector  $X_{1i}$  a set of firm demographic variables as well as the key research variables. Second, the predicted values from the probit estimation were saved and then were used to construct the inverse of Mill's ratio. Then, we included it in subsequent regression analysis.

## Measures

*Founding Environment.* Previous imprinting studies typically used firm age (Kriauciunas and Kale 2006) or dichotomized time period (Shinkle and Kriauciunas 2012, 2009) to capture founding environments (We used the age in our robust analysis reported in the late part of the paper). However, we feel these measures are coarse, masking important information. Hence, in this study, to construct the measure of founding environment, we used the number of private enterprises and the number of employees of these private firms in a province as the measure of founding environment. We believe that a region with densely populated private sector at founding provides richer information and reflects reasonably well the founding conditions in which the social acceptance and legitimacy of private firms are high. Thus, the larger the value of this founding environment measure indicates a higher favourable (less dual pressures) environment PEs enjoyed at founding. Specifically, we first gathered from *Chinese Statistical Yearbook* the provincial level data on the number of PEs and number of employees in PEs in the founding year of a given private enterprise. Second, we logged the product value of the number of PEs by the number of employees (number of PEs x employees in PEs) for normal distribution. As it is measured, we expect a negative relationship between the founding environment and II to be consistent with the hypothesis.

*II (inward internationalization).* The survey asked if firms in recent years have engaged in collaborative activities with foreign partners ranging from distribution agent for a foreign firm to joint venture with a foreign business partner. Because these collaborative arrangements vary along with the level of resource commitment and management complexity, we used a total weight of “1” to assign different weights to each type of alliance arrangement. Specifically, based on

Chen (2004)'s argument that licensing (i.e., brand and technology) as well as OEM require unilaterally imposed contracts, contractual co-marketing (i.e., agent) needs bilateral contracts, and direct investment (i.e., joint venture) involves internal hierarchical decisions, we calculated degree of II as the sum of the weighted alliance activities (0.3\*joint venture + 0.2\*licensing (brand) + 0.2\*licensing (technology) + 0.2\*OEM + 0.1\*agency) to reflect the degree of II.

*Intermediate Institution.* We constructed this variable by using a sub-index of marketization constructed by *National Economic Research* (NER). This marketization index has been used in the previous academic research (Fan et al. 2009). There are five dimensions in the NER index: relation between the local government and the market; non-state owned sector development; product market development; factor market development; market intermediary organizations development. We used the fifth

dimension to capture intermediate institution. This dimension contains scores of: (a) the development of market intermediary organizations (i.e., lawyers, accountants), (b) intellectual property protection (i.e., patents), (c) protection of producer rights, and (d) protection of consumer rights. We summed these scores to form the measure of intermediate institutions. The larger the score, the better developed intermediate institution.

*FDI Density.* Adapting from the existing measure (Miller and Eden 2006), FDI density was measured by total amount of FDI located in a given province. A log value was then taken for normal distribution and a one-year time lag was also taken into consideration for FDI spill over effect.

*Performance.* Different profitability ratios are commonly used in studies such as ROA (Return on Asset), ROS (Return on Sales), and ROI (Return on Investment). ROI is judging a company on the profit it brings to its shareholders and ROA is measuring the ability a firm using its assets to generate profit. From a strategic perspective, we decided to use ROS, because it captures the company's operational performance that is directly influenced by II and it is a widely accepted measure in the IB literature (Gómez-Mejia and Palich, 1997). Thus, in our study context, ROS is particularly well suited because it reflects realized performance through II rather than shareholder expectations.

*Controls.* To account for alternative explanations, we included several control variables to isolate their effects on II, and performance. *R&D investment* was measured by total investment in research and development. *Firm size* was measured by the total number of employees. *Industry type* was captured by a dummy variable, with manufacturing industry equalled 1 and other industries equalled 0 (Mike W. Peng and Luo 2000). *Location* was coded 1 for firms located in inland areas and 0 in coastal areas.

## ANALYSIS AND RESULTS

We tested our hypotheses in PROCESS (Hayes 2013). In addition to the traditional t-values and p-values, we also requested OLS (Ordinary Least Squares) confidence intervals to further justify the significance of our results. The basic statistics of the mean, standard deviation, and correlations of all variables are presented in Table 2. We carefully examined all the correlation coefficients among all the variables, and found the highest correlation coefficient was

0.16 between industry type and firm size, and between II and firm size. The relative low correlation ruled out the possibility of multicollinearity. Additionally, we examined the variance inflation factors (VIFs) of each independent variable. The largest VIF in our regressions was less than 2, which is much lower than the threshold value of 10, indicating no serious problem of multicollinearity (Neter et al. 1990).

(Insert Table 2  
here)

Table 3 presents the result of the effect of founding environment on II. Founding environment (favourable environment) was found to be negatively and significantly related to II

( $\beta = -0.01$ ,  $p < .01$ ) explaining as high as 52% of all the variations in II. This result lends support to our hypothesis 1 stating that the adversarial founding environment positively influenced PEs degree of II.

(Insert Table 3



here)

Table 4 illustrates the results for the moderation model using FDI density as the moderator between II and performance. II was positively related to performance ( $\beta=342.79, p<.001$ ). Thus, hypothesis 2 was supported. The interaction term between II and FDI density was positively related to performance ( $\beta=40.01, p<.001$ ), indicating that FDI density is playing a significant moderating role in the relationship between II and performance. We further plotted the moderation effect of FDI density in Figure 2. As illustrated in Figure 2, the relationship between II and performance is strengthened in regions exhibiting high level of FDI density.

(Insert Tables 4 &  
Figure 2)

Table 5 illustrates the results for the intermediate institution as the moderator between II and performance. Similar to the results of Table 4, II was positively related to performance ( $\beta=592.56, p<.001$ ), again conforming that hypothesis 4 was supported. The interaction term between II and intermediate institution was positively related to performance ( $\beta=46.04, p<.001$ ), indicating that intermediate institution was playing a significant moderation role in the relationship between II and performance. Specifically, the enhancing effect of II on performance occurs when intermediate institution is at a high or medium level, not at a low level. We further plotted the moderation effect in Figure 3. As illustrated in Figure 3, the relationship between II and performance is stronger in regions where the intermediate institutions were more developed than those regions with less developed intermediate institutions.

Insert Table 5 & Figure 3  
here)

## DISCUSSION AND CONCLUSION

Following the call for “a more complete understanding of imprinting” (Marquis and Tilcsik 2013) and to bringing history back to IB research (Jones & Khanna, 2006), this study extends the imprinting theory to the study of II by theorizing and testing how the founding environment characterized with the socio-political legitimacy pressures and resource constraints influences inward internationalization strategy. The findings based on the analysis of Chinese PEs show that firms established in the early phase of transition bore the stamps of dual institutionally-induced pressures that compel them to seek legitimacy and resources through undertaking high level of II. Further the findings also show that the high level of II is positively associated with high performance and this relationship is further amplified in regions with higher density of FDI. Our findings are consistent with the prediction of imprinting theory that the “the pressure of past” (Marquis, 2003) does affect the contemporary firm behaviour. Nonetheless, unlike the firms that established prior to transition the socialist imprinting retard their ability for change for new knowledge (Kriauciunas and Kale 2006) and their competitive aspirations (Shinkle and Kriauciunas 2012), the adverse pressures born by the PEs in the early phase of transition instigate them to engage in internationalization strategies.

### Contribution

Our findings make valuable contributions to the internationalization literature

by providing a novel insight from the imprinting theory that has been rarely applied in IB research. The existing research on II has primarily focused on concurrent determinants. However, our study fills in this gap by tracing back to the founding environment of firms and theorizing how the temporal-variant institutional pressures experienced by firms in the early period of transition influence II. Thus, our theoretical exposition based on imprinting concept provides a new lens through which to understand how the past founding environment as an antecedent to the present internationalization activities, as it is suggested by Zaheer et al. (1999) that, “examining the temporal limits of theory could contribute to the development of new theory or lead to the more complete and accurate specification of existing theory.”

Our study also provides evidence of how subnational institutions interact with firms’ II to affect performance. Just like we have little knowledge about whether and how institutions at home market play in shaping local firms’ outward FDI decisions (e.g., Cuervo-Cazurra and Genc 2008; Luo et al. 2010), we also have limited understanding how cross-regional institutions relate to firms’ II. Given that the IB research has largely ignored the role of subnational institutional differences and the substantiation of theoretical discourse on regional context continues to be largely unexplored (Chabowski et al. 2010), our study advances the existing knowledge of internationalization by suggesting that the better performance achieved through II can be further enhanced by locating in more institutionally-developed regions.

### **Limitations and Future Research**

There are two limitations to this study. First, the data used in this study limit our ability to precisely map the specific organization-level imprints onto II, rather we adopt a typical temporal approach as many existing studies do. While this represents an important step linking imprinting theory with internationalization strategy, it also masks detailed information such as specific organizational level mechanisms through which institutions imprint on internationalization. Future research should gather longitudinal data or use ground research method to unravel how the micro-level factors at the founding imprint on the subsequent internationalization endeavour. Second, since our studies focus on PEs, it begs for further research to examine whether the propositions developed in this study also apply to different types of firms such as SOEs as major economic key players in transition economies. For instance, future research can examine whether SOEs or foreign invested enterprises that were founded in the same transition period would exhibit the similar internationalization strategic behaviour. As suggested by Kogut and Zander (2000), imprinting may have differential effects for firms established in the same founding environment.

### **Practical Implication**

The findings in this paper have several implications for managers and policy makers. First, because firms’ internationalization strategies are determined by the past, both business managers and policy makers might also consider the organizational imprint and the institutional imprint a firm bears before making managerial decisions and public policy changes respectively. Second, an organization’s imprint is not absolutely good or bad, rather, it depends on the context in discussion. For both managers and policy makers, they should be aware of what is done today will have a long-term impact in future. More importantly, business managers should consider taking practical plans to proactively undertake II to improved firm performance and policy makers may consider improving the

institutional environment to help firms further amplify the performance effects of II.

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## Tables

**Table 1. Inward Internationalization (II) by Chinese PEs (year 2013)**

|  | Amount<br>(Million<br>\$US) | Percentage % | Increase<br>From Last<br>Year % |
|--|-----------------------------|--------------|---------------------------------|
| <b>OEM</b>   | 40914.90                    | 8.20         | 23.70                           |
| <b>Agency</b>  | -                           | -            | -                               |
| <b>Contractual Co-marketing (Brand and Technology)</b> | 16.10                       | 1.70         | 14.10                           |
| <b>Joint Venture *</b>                                 | 80013.90                    | 28.26        | -1.80                           |

<sup>a</sup> Data source: China Customs Office, National Statistical Bureau of China, 2013

<sup>b</sup> \* Joint venture is reported as foreign capital in private firms.

<sup>c</sup> Agency activities are not reported.

**Table 2 Correlation Coefficients and Descriptive Statistics (N=2565)**

| Variables                      | 1       | 2       | 3       | 4      | 5     | 6      | 7    |
|--------------------------------|---------|---------|---------|--------|-------|--------|------|
| <b>1. Performance</b>          | -       |         |         |        |       |        |      |
| <b>2. II</b>                   | .010**  | -       |         |        |       |        |      |
| <b>3. Founding environment</b> | -0.07** | -0.08** | -       |        |       |        |      |
| <b>4. Firm size</b>            | 0.12**  | 0.16**  | -0.08** | -      |       |        |      |
| <b>5. R&amp;D Investment</b>   | -0.01   | 0.01    | 0.02    | -0.01  | -     |        |      |
| <b>6. Industry</b>             | 0.04**  | 0.11**  | -0.10** | 0.16** | 0.02  | -      |      |
| <b>7. Location</b>             | 0.02    | -0.07** | -0.06** | 0.01   | 0.04* | -0.04* | -    |
| <b>Mean</b>                    | 39.55   | 0.08    | 5.24    | 170.85 | 0.03  | 0.55   | 0.50 |
| <b>Standard Deviation</b>      | 349.59  | 0.15    | 1.25    | 506.49 | 0.74  | 0.50   | 0.50 |

\* $p < .05$ ; \*\*  $p < .01$ .



**Table3 Founding Environment and II (N=2565)**

| <b>Variables</b>            | <b>II</b>            |
|-----------------------------|----------------------|
| <b>Constant</b>             | -0.01<br>(-0.33)     |
| <b>Founding Environment</b> | -0.01**<br>(-3.28)   |
| <b>Firm Size</b>            | 0.01***<br>(7.36)    |
| <b>R&amp;D Investment</b>   | 0.01<br>(0.73)       |
| <b>Industry</b>             | 0.06***<br>(13.01)   |
| <b>Location</b>             | -0.02***<br>(-13.81) |
| <b>LAMBDA</b>               | 0.10***<br>(49.46)   |
| <b><math>R^2</math></b>     | 0.52                 |
| <b><math>F</math></b>       | 448.22***            |

<sup>a</sup> LAMBD (the inverse mill's ratio) was included to adjust Heckman selection bias.

<sup>b</sup>\*\*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

**Table 4 Moderation Effect of FDI Density (N=2565)**

| <b>Variables</b>          | <b>Performance</b>            |
|---------------------------|-------------------------------|
| <i>Constant</i>           | 130.77***<br>(4.46)           |
| Founding Environment      | -19.58***<br>(-5.65)          |
| Firm Size                 | 0.11***<br>(11.36)            |
| R&D Investment            | -1.02<br>(-0.20)              |
| Industry                  | -8.18<br>(-0.87)              |
| Location                  | 1.19<br>(0.26)                |
| LAMBDA                    | -18.11**<br>(-2.96)           |
| II                        | 342.79***<br>(5.31)           |
| FDI Density               | 50<br>(0.32)                  |
| II*FDI Density            | 40.01***<br>(4.51)            |
| <i>R</i> <sup>2</sup>     | 0.08                          |
| <i>F</i>                  | 24.46***                      |
| <b>Conditional Effect</b> |                               |
| High FDI                  | -1.77 (LLCI=-5.37;ULCI=-0.27) |
| Mid FDI                   | -1.03 (LLCI=-3.10;ULCI=-0.18) |
| Low FDI                   | -0.29 (LLCI=-0.99;ULCI=0.04)  |

<sup>a</sup> *LAMBDA* (the inverse mill's ratio) was included to adjust Heckman selection bias.

<sup>b</sup> \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

**Table 5 Moderation Effect of Intermediate Institution (N=2565)**

| <b>Variables</b>               | <b>Performance</b>            |
|--------------------------------|-------------------------------|
| <i>Constant</i>                | 136.72**<br>(3.23)            |
| Founding environment           | -19.85***<br>(-5.68)          |
| Firm Size                      | 0.11***<br>(11.21)            |
| R&D Investment                 | -1.13<br>(-0.22)              |
| Industry                       | -7.59<br>(-0.80)              |
| Location                       | 0.08<br>(0.02)                |
| LAMBDA                         | -16.81**<br>(-2.76)           |
| II                             | 592.56***<br>(4.92)           |
| Intermediate Institution       | 0.03*<br>(2.77)               |
| II * Intermediate Institution  | 46.04***<br>(4.21)            |
| $R^2$                          | 0.08                          |
| $F$                            | 24.15***                      |
| <i>Conditional Effect</i>      |                               |
| High Institutional Development | -1.62 (LLCI=-5.27;ULCI=-0.33) |
| Mid Institutional Development  | -0.96 (LLCI=-2.86;ULCI=-0.21) |
| Low Institutional Development  | -0.30 (LLCI=-1.08;ULCI=0.01)  |

<sup>a</sup> LAMBD (the inverse mill's ratio) was included to adjust Heckman selection bias.

<sup>b</sup> \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

**Table 6 Firm Age in Additional Analysis (N=2565)**

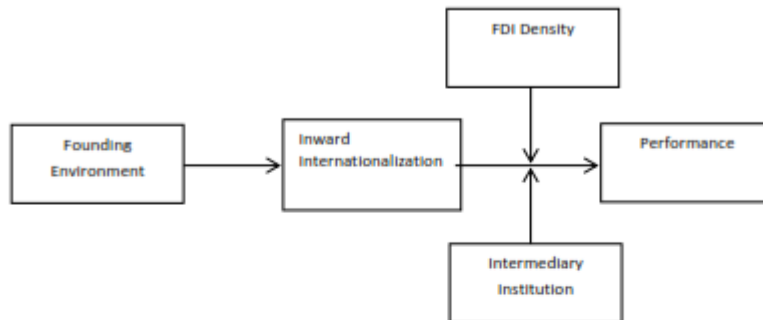
| <b>Variables</b> | <b>Model 1<br/>II</b> | <b>Model 2<br/>Performance</b> |
|------------------|-----------------------|--------------------------------|
| <i>Constant</i>  | -0.04***<br>(-6.91)   | -17.88<br>(-1.40)              |
| Firm Age         | 0.01**<br>(3.09)      | 4.67***<br>(4.59)              |
| Firm Size        | 0.01***<br>(7.28)     | 0.11***<br>(10.86)             |
| R&D Investment   | 0.01<br>(0.74)        | -0.70<br>(-0.13)               |
| Industry         | 0.06***<br>(12.96)    | -4.36<br>(-0.46)               |
| Location         | -0.02***<br>(-13.66)  | 4.35<br>(1.46)                 |
| LAMBDA           | 0.10***<br>(49.36)    | -7.90<br>(-1.38)               |
| II               |                       | 117.47**<br>(2.86)             |
| $R^2$            | 0.52                  | 0.07                           |
| $F$              | 447.80***             | 26.24***                       |

<sup>a</sup> LAMBD (the inverse mill's ratio) was included to adjust Heckman selection bias.

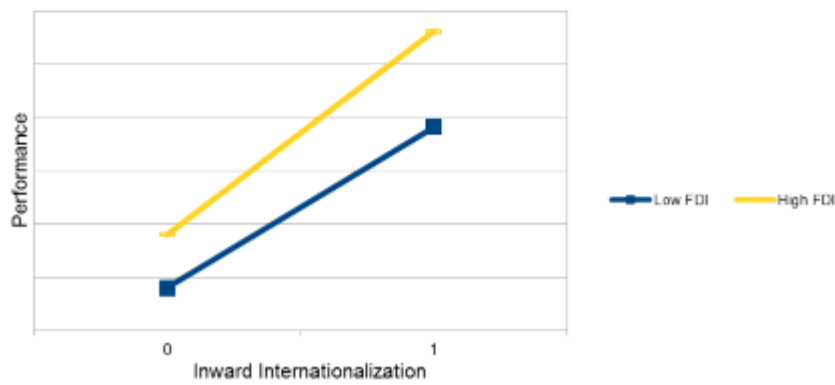
<sup>b</sup> \*\*if  $p < 0.01$ ; \*\*\* if  $p < 0.001$ .

## FIGURES

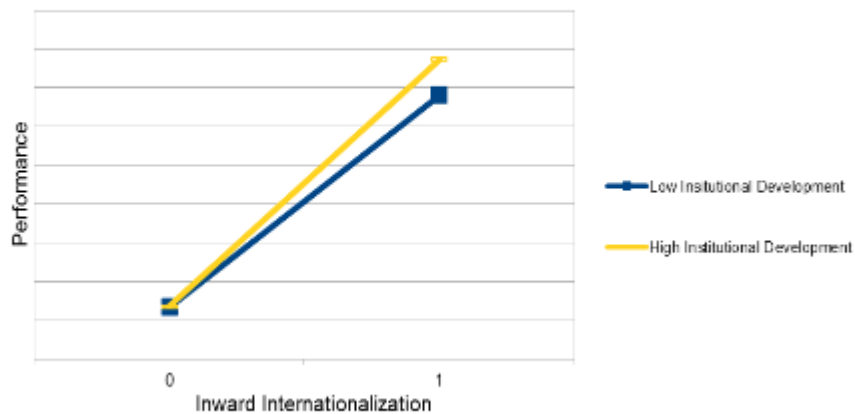
**Figure 1. Conceptual Model**



**Figure 2. Moderation Effect of FDI Density**



**Figure 3. Moderation Effects of Intermediate Institution**



### Appendix 1 Industry Descriptive

| Industry  | Number      | Percentage   |
|---|-------------|--------------|
| Agriculture, forestry, animal husbandry and fishery | 193         | 5.6          |
| Mining  | 64          | 1.9          |
| Manufacturing                                       | 1349        | 39           |
| Electricity, gas and water                          | 33          | 1            |
| Construction  | 167         | 4.8          |
| Communication and transportation                    | 79          | 2.3          |
| Information service                                 | 121         | 3.5          |
| Wholesale and retail                                | 654         | 18.9         |
| Hotels and catering services                        | 126         | 3.6          |
| Financial service                                   | 3           | 0.1          |
| Real estate   | 78          | 2.3          |
| Leasing   | 27          | 0.8          |
| Science and technology                              | 45          | 1.3          |
| Public utilities                                    | 12          | 0.3          |
| Residential service                                 | 65          | 1.9          |
| Education   | 10          | 0.3          |
| Health care   | 25          | 0.7          |
| Culture and sports                                  | 22          | 0.6          |
| Public administration                               | 3           | 0.1          |
| Missing   | 381         | 11           |
| <b>Total</b>  | <b>3457</b> | <b>100.0</b> |

## Appendix 2 Province Descriptive

| Province       | Number      | Percentage   |
|----------------|-------------|--------------|
| Beijing        | 188         | 5.4          |
| Tianjin        | 37          | 1.1          |
| Hebei          | 140         | 4            |
| Shanxi         | 35          | 1            |
| Inner Mongolia | 29          | 0.8          |
| Liaoning       | 172         | 5            |
| Jilin          | 27          | 0.8          |
| Heilongjiang   | 122         | 3.5          |
| Shanghai       | 381         | 11           |
| Jiangsu        | 419         | 12.1         |
| Zhejiang       | 342         | 9.9          |
| Anhui          | 39          | 1.1          |
| Fujian         | 58          | 1.7          |
| Jiangxi        | 150         | 4.3          |
| Shandong       | 170         | 4.9          |
| Henan          | 68          | 2            |
| Hubei          | 177         | 5.1          |
| Hunan          | 121         | 3.5          |
| Guangdong      | 320         | 9.3          |
| Guangxi        | 25          | 0.7          |
| Hainan         | 16          | 0.5          |
| Chongqing      | 40          | 1.2          |
| Sichuan        | 108         | 3.1          |
| Guizhou        | 19          | 0.5          |
| Yunnan         | 33          | 1            |
| Xizang         | 10          | 0.3          |
| Shanxi         | 48          | 1.4          |
| Gansu          | 101         | 2.9          |
| Qinghai        | 10          | 0.3          |
| Ningxia        | 9           | 0.3          |
| Xinjiang       | 43          | 1.2          |
| <b>Total</b>   | <b>3457</b> | <b>100.0</b> |

## ENDNOTE

<sup>1</sup> Private ownership was only constitutionally recognized in 2004, (Peter J. Buckley and Ghauri 2004)

# Network Structure as a Determinant of Foreign Direct Investment Based Competitive Advantage

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## Abstract

Management of the international value chain requires managers to better understand the impact of ties in company's operational network. Apart from the structural side of the network, the relational side also emerges as a critical perspective to fully understand the mechanisms affecting the investment success of MNEs in certain contexts. In parallel with these, the conceptual framework and research proposals presented in this study aim to cover these main aspects, while attempting to explain the impact of network relations on the investment patterns of MNEs. Specifically the relation between foreign direct investment patterns of MNEs in terms of value chain structure and generic strategies of cost and differentiation is the backbone of the model proposed here. The study further attempts to clarify this relationship by putting it into a framework consisting of moderating variables consisting of relational embeddedness determinants and networking behaviour mode.

**Keywords:** Foreign Direct Investment, Cost Leadership, Differentiation, Value Chain, Network Ties, Network Structure.

## INTRODUCTION

Activities of multinational enterprises (MNEs) have been an issue of interest in international business literature since forces of globalization started to shape market conditions. According to widely accepted international reports like that of OECD and UNCTAD, tracking "foreign direct investment" (FDI) flows - which consist of "financial processes associated with companies operating and controlling income-generating facilities in at least one country outside their country of origin" (Cohen, 2007; p.36) - is the best way to follow and capture the essence of MNE activities.

Adopting this notion, definition of MNE goes beyond just performing trading relationships of export and import, and emphasizes making a substantial amount of direct investment in foreign countries (Bartlett et al., 2008), which points out the need for a deep analysis of direct investment structure of MNEs to better interpret their activities and strategies.

MNC network is among the most complicated structures due to several dynamics and actors residing in it. Especially "*diversified MNC*" notion of Prahalad and Doz (1987), "*interorganizational network*" structure framework explained by Ghoshal and Bartlett (1990), "*flagship firm model*" of

Rugman (1996) and Rugman & D'Cruz (1997) and “*differentiated network*” description of Nohria and Ghoshal (1997) put emphasis on the importance of contextual factors and actors for the functioning of multinational structure.

As defined by Birkinshaw (2001) internal market model suggests that activities are configured and coordinated through a give-and-take process of mutual adjustment between units, rather than centrally planned and dictated by headquarters. So, the MNC network functioning as an internal market requires the subsidiaries to interact with sister units and the headquarters to design a specific firm behaviour. As further discussed by Birkinshaw (2001), “every internal market is embedded in an external market from which it draws and to which it contributes”.

Accordingly, the underlying structure of MNE network stands as another important dimension in research stream focusing on their investment decisions and subsidiary strategies. Especially, the impact of context specific factors is frequently explained with the help of network dynamics. In parallel with these, the conceptual framework and research proposals presented in this study aims to cover these main aspects, while attempting to explain the impact of network relations on the investment patterns of MNEs.

### CONCEPTUAL FRAMEWORK

As the MNE invests in several contexts, it is reasonable to see the structure as an “extended enterprise” (borrowing the term from Browne, Sackett & Wortmann, 1995) rather than a structure having clear cut boundaries. In these contexts the MNE is exposed to several “unique to the context” factors. Thus, it is not always possible – and actually “realistic” – to assume that this structure is solely managed by the hard strategies designed within the company.

Strategic decisions of a firm competing in the global marketplace is already far too complex due to interdependent nature of its global operations consisting of multiple products, different country environments, resource sourcing options, corporate and subsidiary capabilities, and strategic options (Pearce & Robinson, 2003). Moreover, the strategies and the main structure of the company are deeply affected by relational ties coming from the context in which the MNE is embedded. Supporting this view, Ozcan and Eisenhardt (2009) underlines that network - portfolio building is based on the strategic choices of companies.

The ties that make up the operational context of MNE have been issue of interest in international business literature in recent years. The issue has especially been discussed from the perspective of network approaches.

For instance, focusing on the boundaries, Ghoshal and Bartlett (1990) introduced two important concepts to describe the density of ties within different layers of MNE network: “within density” and “across density”. To briefly define, the density of ties within each of the local organization set is named as *within density*; while the density of ties within the total external network, in other words, across different organization sets, is named as *across density*. The main argument of authors is that, distribution of resources among different affiliates and the structural characteristics that mediate internal exchange relationships within the MNE network can be explained in terms of attributes stemming from these two densities.

Again conforming with the extended enterprise concept, the pattern and configuration of value-added activities in the international context has been largely discussed so far. As labeling a company an MNE requires that company has value-added facilities in



more than two countries (Cohen, 2007), dispersion of FDI among value-chain activities becomes an important indicator in analyzing certain dynamics in multinational network (e.g. Porter, 1986a, 1998; Chakravarthy & Perlmutter, 1985). According to Christiansen et al. (2007), the globalization of value chain is motivated by a number of factors one of which is the desire to increase efficiency, as growing competition in domestic and international markets forces firms to lower costs. Also, the need to enter new emerging markets and provide access to strategic assets that can help access to foreign knowledge are among other important factors.

As stated by UNCTAD, the intensity of integration both on a regional and a global scale, and the emphasis on the efficiency of the system as a whole forces global value chain become more fragmented, which in turn make related business functions consist of differentiated and specialized activities (World Investment Report, 2002). However, this fragmented structure also makes the MNE more exposed to context-specific factors prevalent in the markets invested.

Also referring to the need to better understand the context invested in, Kogut (1989) points out the need for a new perspective which combines the investments made overseas with the strategic purposes of the companies as since 1980s interest has shifted towards the decisions made on investing overseas to increase the strategic value of operating assets in multiple countries. Supporting this notion, several authors discuss these strategic decisions in relation with the coordinative structure of the MNE network (e.g. Levitt, 1983; Prahalad & Doz, 1987; Bartlett & Ghoshal, 2002; Ghemawat, 2003).

Managing these contexts is especially challenging in emerging countries and transition economies as the market is rather unstructured when compared to those of developed countries. Network ties in these contexts are of special importance to manage investments in the best possible way. If we are to state it a little bit more boldly, it might be claimed that in these unique contexts the local ties of subsidiary becomes strategically important. To put it more specifically, due to enhanced use of its networking capabilities different subsidiaries obtain resources which are difficult for others, including the headquarters, to secure. From a resource based view, it is obvious that this is a condition which provides the subsidiary an advantageous position (Andersson and Forsgren, 1996). By using its networking capability and building relational ties within its unique operational context, the subsidiary aims to overcome power asymmetry, and liability of foreignness, it frequently faces in host countries.

Following this line, it can be argued that management of the fragmented value chain, especially in highly-uncertain emerging market contexts, requires managers to better understand the network ties shaping their relationships which in turn affect the success of their investment. In other words, they are expected to carefully evaluate the optimality of the firm's global network for each value-chain activity along the dimensions of activity architecture, competencies at different locations, and coordination across locations and then, based on this evaluation, they should design and execute necessary actions to eliminate the sub-optimalities in the whole system (Gupta and Govindarajan, 2001).

Complementary to this notion, Knoke and Yang (2008) argue that the key orienting principle of network analysis is the structural relations between concrete entities, and accordingly define the network as "a structure composed of a set of actors, some of whose members are connected by a set of one or more relations". Supportively, Palmer and Richards (1999) point out that "the higher authority necessary for directing complex adaptive systems is a dynamically shared feature" of modern organization and further add that "network behavioral mindset switches our perceptual bias from discrimination to relationship". Especially this shared feature of network relations emphasizes the need to look at the phenomenon from a wider perspective basing on a multilevel-view.

In order to better understand this aspect, network approach stands as a useful framework that unveil the complex interdependent structure of the MNE as it allows the researcher to emphasize the issues of control and coordination, which are directly or indirectly related to dynamics regarding both transactions of the market and the administrative structure of the firm (Dunning & Lundan, 2008). Additional to the structural side of the network, however, the relational side also emerges as a critical perspective to fully understand the mechanisms affecting the investment success of MNEs in certain contexts. Building on this view, Birkinshaw (2002) underlines the relational aspect and suggests that the network should be viewed as “a set of nodes linked by a set of social relationships of a specified type” and argues that network related research exists at several level of analysis – the individual level, the sub-firm level, the firm level, and the industry-regional level.

### CONCEPTUAL MODEL AND RESEARCH PROPOSITIONS

Despite the fact that the multinational enterprise is frequently labeled as a “relational network structure”, as to author’s knowledge, literature so far lacks a framework relating strategic perspective to relational network determinants.

Following this gap, this study is a humble attempt to provide a comprehensive framework. Specifically, it attempts to integrate foreign direct investment patterns of MNEs in terms of *value chain* framework and *generic strategies* of cost and differentiation. It also attempts to further clarify this relationship by putting it into a framework consisting of moderating variables regarding the network structure of MNEs in terms of *relational embeddedness determinants*. Moreover, *networking behaviour modes*, as proposed by Joshi (2006) act as the other group of moderating variables in the model, as the behaviour practiced in the network domain is as important as the nature of ties in that domain.

For simplification purposes, only primary value chain activities are taken into consideration in this study and they are defined in two main groups, as originally classified by Porter (1986a): upstream (inbound logistics, production and some outbound logistics activities) and downstream activities (some outbound logistics activities, marketing and sales and services activities).

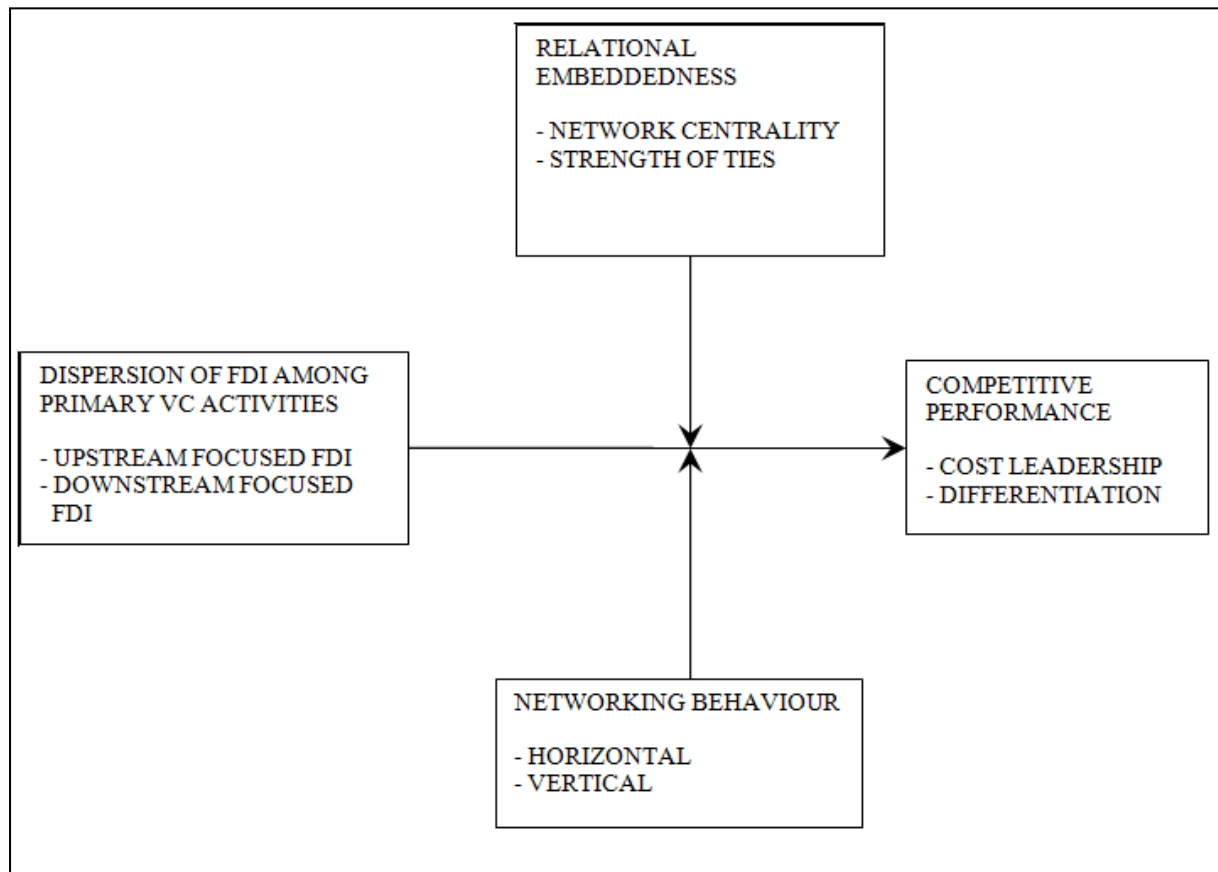
Depicting these concepts as the main constructs and related variables, the conceptual model in Figure 1 has been designed to shed light on research propositions.

While discussing the advantages created by the dispersion of investments among value chain activities, Porter’s generic strategies of “cost leadership” and “differentiation” have been highly referred to in literature (e.g. Yip, 1992). For instance, within this debate, as to clarify the differentiation aspect, Kogut (1984, 1985) emphasizes the role of “international marketing” by stating that the task of marketing in international dimension (and related functions) is to differentiate products/services (by using marketing tools and by adapting itself to country specific characteristics if necessary) which embody shared resources across product lines and countries. To clarify the configuration of these activities, Porter (1986b) suggests that downstream activities create competitive advantages that are largely country specific and that these activities should be located close to the buyer.

Relatedly, it can be further discussed that a product or service may be globally standardized in a large sense but also be differentiated from its competitors at the same time, and the source of differentiation may come from upstream or downstream activities in the value chain; but the role of marketing activities become prominent in either case, as differentiation requires the ability to offer buyers something attractively different from competitors. To communicate this difference, marketing related activities become critically important and should be designed in accordance with the local

environment's unique needs, as this is a prerequisite to build a healthy communication system to exploit differentiation advantages.

On the other hand, in terms of production activities, Porter (1986b) puts forth that configuration issues deal largely with location of production facilities for components and end products mainly due to structural characteristics which represent concentration costs. In other words, managing costs of sourcing, production and inventory is of critical importance to build a competitive edge if you heavily invest in upstream activities.



**Figure1.** The Conceptual Model

Regarding the configuration aspect, he further proposes that, competitive advantage in upstream largely comes for the entire system of countries in which a firm competes, rather than from its position in any one country.

Basing on these theoretical viewpoints, the first group of propositions regarding the relationship between FDI investment in certain value chain activities and competitive performance of the firm are designed as follows:

**P1a.** Firms with higher levels of FDI in upstream activities aim to build competitive edge mainly through exploiting cost leadership advantages.

**P1b.** Firms with higher levels of FDI in downstream activities aim to build competitive edge mainly through exploiting differentiation advantages.

Porter (1986b), while discussing the dispersion of value chain activities in terms of international configuration and coordination issues, argues that firms prefer to locate downstream activities in each of the countries in which it operates, mainly because of the motive to be close to the buyer. On the

other hand, “as the competitive advantage in upstream activities grows more out of the entire system of countries, firms may locate these activities decoupled from where the buyer is located”. To state in other words, degree of global integration will be more heavily required to integrate the “decoupled” upstream activities with other activities in the whole MNE network. However, as downstream activities will be located close to buyers, the need for global integration of these activities will be much less.

Basing on this integration aspect, it is argued in this paper that the type of networking behaviour will differ in terms value chain activity investment and the type of competitive advantage pursued.

As described by Joshi (2006), networking behaviour is observed in two main patterns: *horizontal networking behaviour* “takes place among members of teams or workgroups at comparable hierarchical levels”. Thus, horizontal networking activities involve coordinating tasks, sharing information and knowledge based resources, and gaining feedback.

On the other hand *vertical networking behaviour* is described as “ambassadorial” in its nature which involves exerting upward influence to obtain recognition and rewards from higher levels in the organization. Team members engaged in vertical networking seek to leverage the team’s position in the organization by lobbying for resources and support from individuals at higher levels, such as members of the senior management team at corporate headquarters.

Density of relational ties within each network domain will require different networking capabilities to foster a specific behavioral pattern. For instance when density of ties in the local operational context of the subsidiary is high, that is when there are multiple strong ties among focal subsidiary and local actors (indicating a high level of within density), the subsidiary will be exposed to high amount of context-specific knowledge. Such specific knowledge will put the subsidiary in an advantageous position as it will leverage the “specialized resources” (Birkinshaw, 1997) acquired. By use of this context-specific knowledge subsidiary managers will identify new opportunities which are not available to sister units and the headquarter.

Providing a theoretical framework to above discussion, Granovetter’s (1973) “strength of weak ties theory” proposes that “the degree of two individual’s friendship networks varies directly with the strength of their ties to one another”. Building on this notion Granovetter (1973) further clarifies the impact of tie strength:

“A strong tie can be a bridge ... only if neither party to it has any other strong ties. Weak ties suffer no such restriction, though they are certainly not automatically bridges. What is important, rather, is that all bridges are weak ties.”

According to Granovetter (1973), tie strength is determined by the amount of time, the emotional intensity, the intimacy and the number of reciprocal services that the relationship creates. As also underlined by Krackhardt (1992), strong ties bond similar and mutually connected people to each other, while weak ties act as local bridges between parts of the networks that are otherwise disconnected. Weaker relationships are not necessarily reciprocal and involve less frequent interactions (Perry-Smith & Shalley, 2003). They rather provide access to a wide array of units within a specific context while providing nonredundant information (Burt, 1992; Granovetter, 1973)

Basing on these points, it is expected that upstream oriented FDI will be more internal network focused and internal network-wide coordination will be of higher priority rather than specific local context related networking. To manage such relationships, already established strong internal ties will

be more critical for the subsidiary. On the other hand, if the subsidiary is embedded in a unique context and is in the need to inform the headquarter about the unique conditions of that context to attract investment (described by Bouquet and Birkinshaw (2008) with the terms of “voice” and “weight” of the subsidiary), then, vertical networking behaviour will be of higher priority and weak ties which will help the subsidiary to build further relations in the local context will be of critical importance.

Departing from above discussion, second group of hypotheses is stated as follows:

**P2a.** *The relationship between “upstream – focused – FDI” and “cost leadership based competitive advantage (CA)” is moderated by “horizontal networking behaviour” and “strong ties within the external MNE network”.*

**P2b.** *The relationship between “downstream – focused – FDI” and “differentiation based CA” will be moderated by “vertical networking behaviour” and “weak ties within the local context of the subsidiary”.*

Porter’s (1986b) argument also complements with “within density” and “across density” concepts of Ghoshal and Bartlett (1990). According to Ghoshal and Bartlett (1990), when the interaction density within different national organization sets are low – that is, when within density (WD) is low - the social context exerts limited influence and intended economic rationality becomes the dominant factor in resource configuration decisions, which prepares favorable conditions to exploit cost based competitive advantage. In such situation, mainly to benefit from scale and scope economies, the firm will concentrate production, assembly, and other upstream activities and locate them in certain regions on the basis of resource niches that may exist in different countries by taking comparative advantages into account. Therefore, the firm’s overall resource configuration will show relatively low dispersal and high specialization.

When within density is high, on the other hand, the company will be forced to fragment its activities and resources and redesign them to conform to the unique conditions imposed by dense ties in the local context of the subsidiary.

Following this, Ghoshal and Bartlett (1990) propose that, when across density (AD) is high in the external network of the MNE, resource configuration of the company will show lower degrees of dispersal coupled with increasing specialization, and when within density (WD) is high in the network, resource configuration will show increased dispersal and decreased specialization.

In network research, as a complementary variable, centrality also emerges as an important indicator to fully describe the functioning of network ties. Centrality is briefly defined as, the distance between a actor and all other actors in the network and thus, higher centrality provides easy access to other members of the network with the fewest links (Freeman, 1979; Perry-Smith and Shalley, 2003). Therefore, by occupying a central position in the interunit network, a unit is likely to access desired strategic resources (Tsai, 2001). Building on early research, Nohria and Ghoshal (1994, 1997) suggest that actors at the center of the network are better at problem solving and dealing with ambiguity than those in more peripheral positions.

Taking its roots from the above stated discussion, it is proposed that:

**P3a.** *The relationship between “upstream – focused – FDI” and “cost leadership based CA” will be moderated by “external network centrality” in a positive way such that higher degrees of centrality increase the strength of the relationship.*

**P3b.** *The relationship between “downstream – focused – FDI” and “differentiation based CA” will be moderated “local context network centrality” in a positive way such that higher degrees of centrality increase the strength of the relationship.*

## **CONCLUSIONS&FUTURE RESEARCH VEIN**

This study attempts to develop a theoretical framework to understand the antecedents and outcomes regarding the relationships between foreign direct investment made in upstream and downstream value chain activities, type of competitive advantage pursued by putting it into a relational network framework.

Still, to better grasp the underlying factors in this stream, research should also include investments in all parts of the value chain, including the support activities.

Also, the structure and functioning of network ties should be compared between those emerging country MNEs and developed country MNEs. This will present a resourceful vein that will clarify the impact of context related (cultural and structural) issues.

Lastly, again related to the impact of contextual issues, future research should further dig the emergence of ties in relational with certain institutional factors. For instance, whether the cognitive, normative or regulatory forces are dominant in the unique context of subsidiary will be important to properly define relational interactions and following decisions.

As a final note, this study should not be considered as a reductive attempt to explain all possible relationships between the variables in the conceptual model. Rather, the framework presented by this study will hopefully provide researchers and practitioners an insight to revisit the phenomenon and bring new perspectives to the fields of international business and management.

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## Process Improvement and Technology Trade

# **A Comparative Study of the Impact of ISO9000 Certification on Organizations**

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## **ABSTRACT**

This paper presents the results of a research project focusing on the advantages associated with ISO 9000 certification. In particular, this study compares the impact of ISO 9000 certification based on samples from US and Indian companies. A survey involving both ISO 9000certified and non-certified companies from US and India is conducted and the results are presented. The impact of certification on the organizational effectiveness of companies with and without certification for each country is compared based on a number of factors such as customer satisfaction, profitability and productivity.

**Keywords:** ISO9000 international quality standards, measures for organizational effectiveness

## **INTRODUCTION**

ISO9000 Quality Standard is a series of internationally accepted guidelines as to how companies should set up their quality assurance systems. Focusing on procedures, controls and documentation, the standard is designed to help a company identify mistakes, streamline its operations and be able to guarantee a constant level of quality. Certification to this quality standard is becoming to be a de facto requirement for doing business in many industries.

The process of obtaining ISO certification can be long and expensive and depends on the quality improvement efforts that exist in an organization. It requires a significant investment of both human as well as financial resources of the organization. A majority of organizations make this decision because many customers require certification as a pre-condition to do business with them. After a significant initial investment of several thousand dollars for getting the certification, the organization still has to spend substantial amounts annually to maintain its certification status. There have been questions raised as to the worthiness of making such investments by organizations for obtaining certification in relation to the financial and other related organizational outcomes such as profitability, quality and customer satisfaction. Even though the nature and the scope of ISO9000 is well researched and understood, there has been considerable debate in the literature as to whether or not ISO 9000 has a positive impact on the organizational effectiveness. These studies typically compare financial outcomes before and after implementation of the ISO standard. However, there is a lack of sufficient research in the area of direct comparisons of companies with and without certification to study the impact of certification and the current study attempts to fill that gap.

The objective of the study is to empirically estimate the impact of certification on the performance of factors that measure organizational effectiveness such as customer satisfaction, profitability and productivity. The study consists of a survey of companies from both the US and India. Samples of 500 companies each representing multiple sectors of business were selected. A questionnaire is used that consists of questions related to various aspects of quality management as well as quality outcomes. Comparisons between certified and noncertified firms are made within each country. In addition, some general insights on the differences in results between the two countries are also discussed.

## **LITERATURE REVIEW**

A majority of literature on ISO9000 discuss the general aspects of the standard. Generally research done in this area fall under three categories. The first category deals with the specific requirements mandated by the standard and what organizations need to do for compliance (Clements, 1993; Carter & Pasqualone, 1995; Hoyle, 1998; Haiyan & Alma, 2005).

The second category involves implementation issues. They provide specific steps for implementation including how to develop individual procedures to satisfy specific requirements mandated by the standard. A few of these papers also discuss the implementation of ISO9000 as a vehicle for implementing Total Quality Management Studies also show that the commercial aspects constitute a determining factor in the decision to implement the ISO9000 standard (Vloeberghs & Bellens, 1996); Quazi & Padibjo, 1998; Brown, Van der Wiele & Loughton, 1998; Douglas, Coleman & Oddy, 2003; Costa, Martinez-Lorente & Choic, 2008).

The third category focuses on the financial rewards of certification to ISO9000 standard. With a few exceptions, generally the literature supports increased financial rewards for organizations with certification as a result of implementing quality procedures required by the standard. Though the majority of papers in this category focus on the financial impact of ISO certification there are also studies that seek evidence that firms can achieve internal benefits such as quality, productivity, and market share improvements (Quazi, Hong & Meng, 2002; Corbett, Montes-Sancho & Kirsh, 2005; Terlaak & King, 2006; Koc, 2007; Sampaio, Saraiva & Rodrigues, 2010). Results in studies in the third category showed mixed results on significant improvements achieved due to certification.

## **METHODOLOGY**

Survey data was used for this study. A questionnaire that consisted of questions related to various aspects of quality management and quality outcomes was developed. Samples of 500 companies each from US and India were selected for the study. The companies were selected from publicly available data resources categorized by sectors. The surveys were sent by email with a link to the appropriate questionnaire depending on whether a company is certified or not. They were sent to the individual in charge of quality management programs in each organization. The questionnaire was designed to measure the differences between ISO certified and non-certified companies in specific areas related to various quality outcomes.

The questionnaire contains two sets of questions. Depending on the ISO certification status the respondent is directed to the appropriate set of questions. The first part of the questionnaire deals with the demographics. These questions refer to whether the company is in manufacturing or service, the age, the number of employees, annual sales, its multinational status as well as information regarding the major foreign markets the company is doing business with. For certified companies specific questions related to the various implementation issues. These questions seek details on the number of years since receiving ISO certification was achieved. as well as information on quality results. Specific information is sought on the quality improvements achieved as a result of satisfying requirements by the ISO standard related to a number of quality outcomes. They include areas such as

improvement in scrap/rework, customer satisfaction as well as overall profitability. For companies without certification the second part of the questionnaire deals with information on the current status of quality. The questions refer to areas of customer satisfaction, management of customer complaints and recent market performance. The questions on quality results are identical to that of the companies with certification. Measurable improvements achieved as a result of their quality management policies are rated in this section. Also all variables are measured by a five-point Likert scale with higher numbers representing better quality improvements. The responses were automatically entered into an SPSS file for analysis.

### **Research Hypotheses**

The primary intent of the study is to assess the impact of certification on a number of quality-related factors such as customer satisfaction, profitability and productivity. Since the specific quality system requirements mandated by the standard are aimed at preventing non-conformities at all stages from design to servicing, certified companies do have an advantage by having an effective quality management system already in place. They have procedures for monitoring all major functions that affect quality. As an example, let us consider the "Purchasing" element from the standard. The standard specifies how an organization should control the purchasing function. The requirements dictate that the organization must establish and maintain documented procedures to ensure that the products purchased from suppliers must meet specified purchase requirements. The standard specifies that the organization shall evaluate and select suppliers on their ability to supply product in accordance with the organization's requirements. It requires that the criteria for selection, evaluation and re-evaluation of suppliers must be established and records of evaluations and any necessary actions resulted from evaluation must be maintained. Procedures should provide, for example, that all purchasing documents should include data which completely describe the product such as name, type, class, grade, specifications, drawings and other relevant data. The standard dictates that purchasing documents are required to be reviewed to make sure that they are acceptable and meet customer's specified requirements.

The Standard addresses in a similar way a set of important characteristics of good management practices in critical areas of operation including contract review, product identification and traceability, performing corrective and preventive actions as well as identifying training needs. The standard provides requirements to establish a more effective management system through a process approach and continuous improvement.

An organization that is certified to the standard is expected to have in place a structured and effective quality management system that is being improved continuously through routine internal audits and procedures for corrective and preventive actions and under a management leadership that is committed to customer satisfaction. Such an organization is more likely to produce better quality products which in turn increases customer satisfaction, increased sales and hence profitability.

Increased customer satisfaction also enhances improved market share. In addition, a certified organization is more likely to recognize the importance of meeting customer

requirements and work towards understanding the customer needs to better customer satisfaction. Since in many ways certification to standard is a first step towards implementing TQM based policies, it is reasonable to expect more familiarity of TQM principles for certified organization compared to one that did not work towards achieving certification. Lastly, since certification is a requirement to do business with an increasing number of countries there is more pressure on manufacturing than service organizations to seek certified status in a global market. The following hypotheses were developed:

Hypothesis 1 Organizations with certification are likely to achieve higher customer Satisfaction and improved productivity measures

Hypothesis 2 Certification has a positive impact on profitability

Hypothesis 3 Certification has a positive impact on market share.

These hypotheses were tested using survey data with appropriate statistical tools. The results are summarized in the following section.

### Survey Results

Surveys were conducted based on random samples of 500 companies each from the US as well as from India. For the US survey, a total of 84 usable responses were obtained and 50 of these companies were ISO certified and the rest 34 were noncertified. For the survey from India, 86 responses were received in total and the numbers for ISO certified and the noncertified were 56 and 30 respectively. Analysis was carried out using both descriptive and inferential statistical methods. Table 1 below summarizes the demographic characteristics of the respondents.

| Respondent Characteristics  | US        |              | India     |              |
|---|-----------|--------------|-----------|--------------|
|   | Certified | Noncertified | Certified | Noncertified |
| Manufacturing   | 46.0      | 14.7         | 60.7      | 53.3         |
| More than 10 years of age   | 90.0      | 91.2         | 82.0      | 76.7         |
| Certified more than 5 years                                       | 84.0      | NA           | 53.6      | NA           |
| Less than 500 employees   | 22.4      | 20.6         | 80.4      | 90.0         |
| Multinational   | 73.5      | 66.0         | 17.9      | 6.7          |
| % of Annual sales from foreign markets                            | 75.5      | 63.5         | 72.0      | 60.0         |
| % who responded an increase in market share in the last two years | 61.8      | 58.0         | 64.3      | 26.7         |

**Table 1:** Summary of selected respondent characteristics (%)

The profiles of certified and noncertified companies in both countries vary in certain characteristics while show similarity in others. In general the majority of the companies from India in the sample were in manufacturing. In contrast, the number of manufacturing companies in the sample from the US was relatively less especially from those without certification. A high percentage of firms in both samples were at least ten years old, had maintained their certification status for at least five years, and had their major portion of their

sales from foreign markets. There was a significant difference with regard to the size of the firms. A vast majority of Indian companies in the sample were smaller and employed less than 500 employees. Also there was a substantially higher proportion of multinational firms in the sample from the US. Responses for the question regarding possible increase in the market share were also substantially different for the two countries.

A typical company in the sample from US with certification was a multinational company in manufacturing, with at least 10 years of age, with over 1000 employees, with annual sales over 50 million dollars and was certified for at least five years. In contrast, the typical firm with certification from India was also in manufacturing and with at least ten years of age but was not a multinational firm and was smaller with less than 500 employees and with less than 20 million in annual revenues. In terms of their contributions from foreign markets in annual sales the firms were comparable. For the noncertified groups, the typical US firm in the sample was a matured large multinational firm in the service sector compared to the typical from India was a matured non-multinational manufacturing firm with less than 500 employees with almost half in annual sales compared to the US firms.

For respondents without certification there were a few questions on the organization's quality status. These questions related to respondents clearly identifying both the internal and external customers, understanding the consequences of unmet customer expectations as well as seeking input from customers for improvement. A majority from both countries responded that they identified their internal and external customers and that they understood what the management expectations were in terms of quality. More than 70% of the respondents from both countries also felt that their management clearly understood the consequences of unmet customer expectations. For the question regarding the frequency by which the company would ask the customers to identify areas for improvement, the responses from the US firms were more than double compared to the Indian firms. About 55% of the US companies reported that their initial response time for customer complaints were less than 24 hours compared to less than 30% for the Indian firms. The companies that reported substantial (more than 40%) improvement in specific quality areas by both ISO certified and non-certified groups for the two countries are summarized in Table 2. In general the Indian firms reported substantial improvements in all areas with higher percentages compared to that of the US firms. The data also showed that a majority of the companies in the study adopted TQM based policies regardless of their certification status.

| Quality Characteristics | US        |              | India     |              |
|-------------------------|-----------|--------------|-----------|--------------|
|                         | Certified | Noncertified | Certified | Noncertified |
| Scrap/Rework            | 54.0      | 36.3         | 63.3      | 49.0         |
| Customer Complaints     | 48.0      | 53.0         | 69.6      | 50.0         |
| On time Delivery        | 58.0      | 54.0         | 82.1      | 86.7         |
| Customer Satisfaction   | 70.0      | 57.0         | 86.3      | 79.0         |
| Employee Satisfaction   | 60.0      | 56.0         | 83.9      | 86.7         |
| Profitability           | 64.0      | 51.0         | 82.1      | 68.0         |

**Table 2:** Summary of respondents who reported significant improvements (%)

Analysis using cross tabulation between each of the demographic variables and the performance variables discussed above provided more insights into whether or not

certification had an effect on the organization's overall performance. In general, there was no noticeable trend between manufacturing and service organizations when percentages of companies that reported substantial improvements in performance characteristics were compared.

Analysis of variance tests on individual performance characteristics showed that within groups variation was consistently large which is indicative of the fact there is considerable variability in the data. In addition, tests of independence using Chi-square tests were also conducted for each performance characteristic.

### Tests of Hypotheses

Standard statistical tests were used to test each hypothesis. For hypothesis 1 independent t-tests were used to compare the average responses of companies with and without the certification for evaluating the improvements achieved in various performance categories. In each case the null hypothesis was that there is no difference in the average ratings in improvements between the certified and the noncertified companies.

Table 3 below summarizes the averages and the standard deviations for responses for respondents from both US and India. The areas tested were scrap, customer complaints, on-time delivery, customer satisfaction, employee satisfaction and overall profitability. The questions in these specific areas were scored in such a way that the larger values were consistent with higher percentages of improvements achieved.

| Performance Characteristics | US               |                     | India            |                     |
|-----------------------------|------------------|---------------------|------------------|---------------------|
|                             | Certified (n=50) | Noncertified (n=34) | Certified (n=56) | Noncertified (n=30) |
|                             | Mean SD          | Mean SD             | Mean SD          | Mean SD             |
| Scrap/Rework                | 2.66<br>1.446    | 2.03 1.029          | 2.82<br>1.377    | 2.07 1.432          |
| Customer Complaints         | 2.68<br>1.349    | 2.66 1.249          | 3.25<br>1.405    | 2.72 0.816          |
| On time Delivery            | 2.66<br>1.394    | 2.94 1.455          | 3.57<br>1.142    | 3.70 1.179          |
| Customer Satisfaction       | 3.22<br>1.447    | 2.71 1.225          | 4.03<br>1.081    | 3.82 1.098          |
| Employee Satisfaction       | 2.74<br>1.212    | 2.60 1.310          | 3.48<br>0.991    | 3.43 0.971          |
| Profitability               | 2.56<br>1.098    | 2.01 1.329          | 3.38<br>0.849    | 2.94 1.167          |

**Table 3:** Summary statistics for performance characteristics

The results of the t-tests are summarized in Tables 4 and 5 for US and India respectively. The mean differences between the certified and the noncertified groups with their corresponding standard errors of estimate, the t values and the probability values are

presented in these tables. From Table 4, at a 5% level of significance, we see that, for US, the performance characteristics Scrap/Rework and Profitability are statistically significant. For India, based on the results in Table 5, we see that at a 5% level of significance, the same performance characteristics Scrap/Rework and Profitability are statistically significant. This shows that certification had a significant positive influence with regard to these two characteristics. No statistical evidence was observed to establish significant differences between certified and the noncertified firms for performance characteristics Customer Complaints, Customer satisfaction, On time Delivery and Employee Satisfaction.

| <b>Performance Characteristic</b> | <b>Mean Difference</b> | <b>Std Error of Difference</b> | <b>t-value</b> | <b>p.v. (2-sided)</b> |
|-----------------------------------|------------------------|--------------------------------|----------------|-----------------------|
| Scrap/Rework                      | 0.630                  | 0.2880                         | 2.1875         | 0.0316                |
| Customer Complaints               | 0.016                  | 0.2910                         | 0.0570         | 0.9550                |
| On time Delivery                  | -0.281                 | 0.3150                         | -0.8910        | 0.3750                |
| Customer Satisfaction             | 0.510                  | 0.3030                         | 1.1831         | 0.0962                |
| Employee Satisfaction             | 0.135                  | 0.2780                         | 0.4860         | 0.6280                |
| Profitability                     | 0.550                  | 0.2757                         | 1.9942         | 0.0494                |

**Table 4:** Tests of hypotheses results for US

The summary of t-tests for India is presented in Table 5 below.

| <b>Quality Characteristic</b> | <b>Mean Difference</b> | <b>Std Error of Difference</b> | <b>t-value</b> | <b>p.v. (2-sided)</b> |
|-------------------------------|------------------------|--------------------------------|----------------|-----------------------|
| Scrap/Rework                  | 0.750                  | 0.3160                         | 2.3734         | 0.0200                |
| Customer Complaints           | 0.530                  | 0.3170                         | 2.2129         | 0.0296                |
| On time Delivery              | -0.129                 | 0.2610                         | -0.4942        | 0.6240                |
| Customer Satisfaction         | 0.212                  | 0.2460                         | 0.8617         | 0.3910                |
| Employee Satisfaction         | 0.049                  | 0.2230                         | 0.2197         | 0.8266                |
| Profitability                 | 0.440                  | 0.2093                         | 2.1020         | 0.0386                |

**Table 5:** Tests of Hypotheses Results for India

Hypothesis 1 states that the organizations with certification are likely to achieve higher Customer Satisfaction and improved productivity measures. The results support this hypothesis only partially. For the US firms, the difference in Customer Satisfaction levels of certified and noncertified firms appear relatively large though not significant at a 5% level of significance while the same is not true for the Indian firms. For Indian companies the Customer Complaints showed statistically significant at 5% level but that was not the case for the US companies. For both countries the performance characteristic Scrap/Rework was found to be statistically significant partially supporting Hypothesis 1.

Hypothesis 2 states that the certification has a positive impact on profitability. Based on the results we reject this hypothesis at a 5% level of significance for both countries supporting the fact that the certification did have a positive impact on profitability for both US and India.

For testing the hypothesis 3 which states that the certification enhances increase in market share, proportions of firms that reported an increase in market share were compared for certified and noncertified firms for each country. A z-test was performed to test the



equality of proportions Results are summarized in Table 6. The proportions of firms surveyed who reported an increase are presented along with the z-values and the corresponding probability values for both countries.

| Country | Certified | Noncertified | Z      | p.v. (2-sided) |
|---------|-----------|--------------|--------|----------------|
| US      | 0.618     | 0.580        | 0.3499 | 0.7264         |
| India   | 0.643     | 0.267        | 3.3200 | 0.0020         |

**Table 6:** Test of Hypothesis Results for Increase in Market share

The results show that, for the US, the hypothesis of equality of proportions was not rejected implying that there was no significant difference between firms with and without certification with regard to increase in market share. However, for India, this hypothesis was strongly rejected implying that the certification really had an impact in improving market share.

## DISCUSSION AND CONCLUSIONS

A few studies in the past have shown mixed results on the benefits of certification. The current study perhaps belongs to this group. In general the results support the hypothesis that certification has a positive impact on factors that influence organizational effectiveness. However, specific comparisons between US and India show that the impact of certification is not consistent when individual factors are considered. Results show that certification had a significant impact in reducing the performance characteristic Scrap/Rework. For both countries this factor was significant at 5% level. The factor Customer Complaints was significant for India but not for the US. For both countries certification had a significant positive impact on profitability supporting potential incremental benefits of certification.

Certification to ISO9000 guarantees adoption of a process approach to developing a quality management system that enhances customer satisfaction. A certified organization will systematically collect, analyze and evaluate data in order to improve the quality management system on a continual basis. Specific procedures are in place for monitoring and measuring and controlling nonconformities. As a result, certified organizations are more likely to implement good practices to monitor and eliminate waste. It appears reasonable then to expect certified companies to do a better job dealing with problems arising from Scrap/Rework function. Both countries had significant results with regard to this factor. Customer complaints was a significant factor for India. That was not the case for US. The typical noncertified company from US in the sample was matured (a majority were 10-25 years of age) multinational, reporting significant improvements in dealing with customer complaints. These successful companies are likely to have good practices already implemented in this area and this could be the reason for the non-significance of this factor for the US. In contrast, noncertified companies in the sample from India were less matured and majority of them were not multinationals. Certification had a significant impact on addressing issues related to customer complaints in this case. A major aspect of implementation of procedures required by the international standard is to enhance customer satisfaction. For the US, it shows that certification did help to achieve improvements in this area. A majority of firms from India regardless of their certification status reported significant improvements in Customer Satisfaction which perhaps could account for the non-significance of this factor for India. As to be expected, for both countries, with effective quality

improvement systems in place to eliminate waste and improve customer satisfaction, certified companies did significantly better in the area of profitability.

There was considerable heterogeneity in the data due to variability in the demographic characteristics. This could be a limiting factor for this study and partly the reason for our mixed results. Survey data showed that a good majority of companies who do not have certification also practiced TQM based strategies such as continuous improvement and improving customer satisfaction. These factors appear to have contributed to comparisons being more similar resulting in differences being not significant in statistical tests. There may be other country-specific factors also at play here that would have an impact on quality such as good work ethics and individual pride in work. Also the cost of obtaining and maintaining certification is much higher in the US compared to India. For India, increase in market share was found to be a significant factor while this factor was not significant for US. Part of the reason for this could be the fact that India is a developing nation that depends on exports for its economic growth and international recognition through ISO9000 quality standard certification could be a valuable asset for improving business. A comparison of individual firms before and after receiving certification would have been ideal to control variability but it is difficult if not impossible to obtain that kind of data in practice.

Currently close to a million companies worldwide have certifications and it is reasonable to expect that the number will grow in the next several years as more companies require that their suppliers be certified as well. Also with increased global competition, more companies view certification to ISO9000 standard as a critical marketing tool. In addition, the decreasing cost of certification will also enhance the number of organizations that will join the rank in the foreseeable future.

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**Abstract**

Title of Presentation- Lean Innovation Capability: Applying the Construct in the East European and Central Asian Region

Presenter: **William H.A. Johnson**, Black School of business, Penn State University- Erie

Resources, their acquisition and utilization, have always been important to business pursuits- so much so that during the 1980's the RBV perspective on strategic competitive advantage suggested that resource management was the be all and end all of business success (Barney, 1991; Wernerfelt, 1984). Furthermore, the utilization of slack resources has been a mainstay in the management literature to both explain the success and failure of innovation endeavors. Recent work has focused on how radical innovators can do more with less (Keupp & Gassmann, 2013) and develop a capability towards efficient and effective innovation (Bicen & Johnson, 2014, 2015). In effect, to create companies that are 'Efficient Innovators'.

In this presentation, I explore the latest research that my team of business scholars has been working on in developing the concept of Lean Innovation Capability (LIC). I describe the methodology we are using for creating and testing a construct delineated from qualitative research that seems to capture firms that are better at handling resource limitation issues. The intent of the research is to continue the trajectory towards understanding theory of how and why certain people and companies are better, in terms of both efficiency and effectiveness, at innovative practices.

Extending the research into East European and Central Asian region would help generalize the concept of the 'Efficient Innovator' and help develop the capabilities needed to be an Efficient Innovator in the region. As such, I conclude the talk with a discussion of the plans to study LIC in that context- specifically Czech Republic and Poland.

# Conference Round Table

## **Implications, Applications, Trends, and Topics of Industry 4.0**

**Felipe Martinez – Petr Jirsák – Miroslav Lorenc**

**Faculty of Business Administration**

**University of Economics, Prague**

The fourth industrial revolution, Industry 4.0 (i4.0), involves changes in several aspects of the organization, economy, and society. The Hannover fair in 2013 introduces the concept of i4.0 (Sommer, 2015). This opens new perspectives for industrial organizations but also to other types of business and organizations. However, the focus of professional congresses, conferences or academic papers is related with the technology aspect of this topic. The current body of knowledge lacks specialization on topics related with management, economy, and society (Jirsák, Martinez, Lorenc, Jančík, 2016). Therefore, our i4.0 research looks after the digital transformation of the companies, economy, and society.

This round table is the result of more than one year of research and understanding this concept in Czech Republic. It searches for representatives of companies that are currently developing i4.0 aspects. The Round Table is an official session within the International Business and Management Conference held November 11, 2016 in Prague.

The round table has three main sections. The first section of questions set the relation of each speaker with the i4.0 concept. The second section includes the questions about the current situation of i4.0 at each organization. The third collects the future perspectives of the speakers in relation with management, economy, and society after the implementation of i4.0 in their organizations and society. Each section explores the topic with the help of the following questions:

### **1. Introduction.**

The introductory section determines the relation of the speaker with the topic. How did the speaker get involved with i4.0?

- a. Please introduce yourself.
- b. What is your relationship with this digital transformation?
- c. Why did you get involved in the 4th industrial revolution?

### **2. Current situation - i4.0 and your company**

This section explores the relation of your company with the topic, how everything started there and what has happened so far?

- a. Why did your company get involved in this revolution?
- b. What changes have your company realize to cope or take advantage of this revolution?
- c. Please let us know the real benefits that your company has gotten thanks i4.0.
- d. Please let us know the challenges that you are facing.
- e. How your suppliers are changing to take advantage of i4.0?
- f. Are your customers changing their consumption habits of your company's products?
- g. Are your employees changing their work habits?

3. Future - What i4.0 brings to you and your company?

Besides the current situation of your company on regards the i4.0, we would like to explore your perceptions on the future. How management, the economy and the society will look after the implementation of i4.0?

**Management**

- a. Describe one day of your managerial work in 10 years.
- b. What are the major changes of the management discipline?
- c. Will the future MBAs programs include programming and robotics?

**Economy**

- a. Routine work is likely to be taken over by machines. Will humans be productive?
- b. Will be monopoly of technologies? Will be one or few enterprises owning the digital era?
- c. Are freedom and democracy the base of the new economy?

**Society**

- a. Unemployment and machines. It is guaranteed basic income the solution?
- b. Does i4.0 contributes to reduce corruption?
- c. How to ensure, that teachers are etalon for their pupils in field of technological skills?

The speakers at the round table convey perspectives from organizations that are developing i4.0. Furthermore, the speakers possess a broad view on their businesses and their relationship with suppliers and customers. Additionally, they are part of the Czech society and can give an outlook on how this digital transformation will change the life of all us. These aspects constitute the selection criteria of the speakers at the round table. The selection process determines the following speakers:

|   |  |
|---|--|
|  | <p><b>Martin Bareš</b><br/>Technical product manager at GE Aviation</p> <p>Long term experience in developing Business Intelligence solutions, digitalization of manufacturing records (Digital Engine Build Book), digitalization of customer service (cloud based applications) for brilliant factory. Specialist in applying agile project management during development.</p>   |
|  | <p><b>Michal Dolejš</b><br/>M.L. Moran, a.s. (Alfa Plastik and Technistone)</p> <p>M.L. Moran is an investment management group specializing in private equity investments and with activities in the Czech Republic and other countries of Central and Eastern Europe. They are currently discussing the implementation of pilot projects on i4.0 particularly focused on advanced data analytics. Michal is part of these discussions and implementations. His professional carrier encloses several projects on Performance Improvement at Supply Chain &amp; Operations.</p> |

|  |  |
|--|--|
|   | <p><b>Petr Hůla</b><br/>Former Head of Didactic, Festo CZ</p> <p>Petr gained Dipl. Ing. &amp; Ph.D. at Technical Faculty, Czech University of Life Sciences Prague, specialization Automation and robot automation. He had worked in ABB (Robotic division) as Training Manager. In Festo CZ he was also responsible for Industry 4.0 in didactic.</p>   |
|   | <p><b>Jan John</b><br/>Group CEO of SimpleCell Networks</p> <p>Jan gained MBA &amp; M.Sc. at Nottingham Trent University. He co-founded telecommunication consulting company FUBAR. After a series of successful projects in ICT (FUBAR, Ceske Radiokomunikace, T-Systems/T-Mobile) he was so excited by Internet of Things, that he decided to bring IoT dedicated network to the Czech Republic – SIGFOX. He co-founded SimpleCell Networks (Czech Sigfox network operator) where he acts as a Group CEO and is responsible for business development and strategic partnership.</p>  |
|  | <p><b>Petr Knap</b><br/>Partner, Performance Improvement Leader, and Digital Champion in the Central &amp; Southeast Europe</p> <p>Petr Knap is a Partner of EY in the Czech Republic. He graduated from the University of Economics, Prague with a specialization in Business Administration. He gained his MBA from Warwick Business School in the UK. He started his career at Procter &amp; Gamble and since 1996 has worked in consulting. Since joining EY in 2002, Petr Knap led several domestic and international projects providing consultancy in manufacturing, telecommunications, and public administration. His clients include companies ranging from international corporations to purely Czech-owned family companies.</p> |

The speakers bring specific and contrasting points to enhance the discussion at the round table. After the introductory section, the speakers comment about the i4.0 activities that are been developed in their organisations. It was interesting to listen how the change is managed at each organization. Some organizations are having a global perspective and command on this issue. Others recognize i4.0 as the next level in their path of process excellence. And all of them distinguish a variety of possibilities in the implementation and earning from it.

Moreover, the most important issue refers to the human capital. This new revolution needs collaboration among individuals. The organizations need to develop cross functional teams that are responsible to set and develop i4.0 activities (Martin Bareš). The digital team is a combination of specialist from several departments (Petr Knapp). The individuals of those teams need to think holistic and understand the systems in all their aspects beyond their job specialization (Petr Hůla). The teams integrated with individuals from different background but same objective are the ones that can lead this revolution (Michal Dolejš). The business

has a lot of data from their processes but just the people can make sense of this with data mining and statistics. (Jan John).

Other important aspect is the traditional management style in the country, especially in manufacture business. Since this revolution implies several changes but the current management practices are traditional. Moreover, the 70% of the new digital economy involves the industry in all their aspects. This round table provides evidence of the i4.0 implementation in the Czech Republic.

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