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Section I
Abstracts
Managing Collective Memory in Organizations

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Abstract

The intention of this work is to introduce the concept of collective memory and memory work into the organizational literature, specifically looking for evidence of the use of memory work by corporate executives and diagnosing the purpose of employing memory work as a rhetorical device. We propose that the management of organizational identity is one of the key roles of organizational leaders, and that this objective is often pursued through the management of organizational members’ collective memory of organizational events. A sample of 100 letters to shareholders from Fortune 500 companies were reviewed for instances of memory work. Specific instances of memory work were sorted based on strength of expression and the specificity of the cultural value emphasized.
Greater Participation in Sport by Women Creates an Economic Benefit

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Abstract

According to the United Nations Population Fund [42], a higher number of women in the workforce correlate with higher gross domestic product (GDP) growth. However, today, women have little access to seats in business boardrooms, even in developed markets. Sport can be powerful vehicle for change. The full participation of women in team activities such as sports nurtures the advanced leadership skills that the complex world economy so urgently needs [16]. This paper will explore the impact sports participation by women can have on development, entrepreneurship, and social change in Nigeria and Zambia.

Key words: women in the workforce, global female entrepreneurship, women and sport, sport leadership, women in Africa
The Effect of Employer Branding on Attractiveness to First Job Seekers: A Case Study of the Banking Industry

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Abstract

Employer branding represents an important part of an organization strategy. The perception in employer branding leads to attracting and retaining the organization’s employees. In recent years employer branding has gained popularity among scholarly research. The objective of this paper is to explore the effect of employer branding on attractiveness to first job seeker. The paper surveyed new employees, who are between 20-25 years old and who have attained bachelors degrees and/or masters degrees working in the Thai banking and multinational banking which are tops brand in the banking industry in Thailand; for example, Siam Commercial Bank (SCB) and Standard Chartered Bank in Thailand. To create the questionnaire, the authors interviewed eight human resource consultants and managers who have experience in the banking industry in recruiting and retaining first job seekers in both Thai banking and/ or multinational banking in Thailand. The result indicates that employer branding effects the attractiveness to first job seekers since it relates to an organizational culture and employee engagement. Managerial implementation is addressed to develop employer branding as a useful insight for management of human resources. The article also provided direction for future research.

The application of branding principles to human resource management has been termed “employer branding” (Backhaus and Tikoo, 2004). Sullivan (2004) defined employer branding as “a targeted, long-term strategy to manage the awareness and perceptions of employees, potential employees, and related stakeholders with regards to a particular firm”. According to Martin et al. (2005), employer branding was discussed first by marketing academics and later, by Human Resource academics. The interest in employer branding is evident from numerous articles on the topic in the business and practitioner press (Eisenberg et al., 2001). Employer branding is argued to have become a significant addition to an HR academic and practitioner’s toolkit (Barrow, 2007; Martin, 2008). Many firms have developed formal employer branding techniques since it evidences result in the work culture of current
employees in an organization (Conference Board, 2001). Clearly, employer branding “suggests differentiation of a firm’s characteristics as an employer from those of its competitors, the employment brand highlights the unique aspects of the firm’s employment offerings or environment” ((Backhaus and Tikoo, 2004).

Most first job seekers are looking for a stable career, satisfactory benefits and establishing a relationship with the company. Previous research shows that employees of firms with strong employer branding feel a much greater sense of pride, attachment and trust towards their employer (Harter, et.al., 2002). Through right branding, the company can recruit the best talent and reinforce its position amongst its employees and applicants (Schmit and Allscheid, 1995). In other words, employer branding is tool to create a positive image of the organization (Martin, 2010).

The survey indicates that employer branding effects the perception of first job seekers. The attractiveness is specific to both organizations culture and an employee engagement. First job seekers specified as Generation X, focus more on employer branding than long term development and growth opportunity in the organization. Clearly, employer branding is a valuable concept in human resource strategy for both managers and scholars.

Keywords: Employer branding, First Job Seekers, Organizational culture, Employee engagement
The Call for Global Responsible Intergenerational Leadership in the Corporate World: The Quest of an Integration of Intergenerational Equity in Contemporary Corporate Social Responsibility (CSR) Models

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Abstract

Global systemic risks of climate change, overindebtedness in the aftermath of the 2008/09 World Financial Crisis and the need for pension reform in the wake of an aging Western world population, currently raise attention for intergenerational fairness. Pressing social dilemmas beyond the control of singular nation states call for corporate social activities to back governmental regulation in crisis mitigation. The following paper promotes the idea of intergenerational equity in the corporate world. In the given literature on global responsible leadership in the corporate sector and contemporary Corporate Social Responsibility (CSR) models, intergenerational equity appears to have widely been neglected. While the notion of sustainability has been integrated in CSR models, intergenerational equity has hardly been touched on as for contemporarily being a more legal case for codifying the triple bottom line. Advocating for integrating intergenerational equity concerns in CSR models in academia and practice holds advantages of untapped potentials of economically influential corporate entities, corporate adaptability and independence from voting cycles. Integrate a temporal dimension in contemporary CSR helps imbuing a longer-term perspective into the corporate world alongside advancements regarding tax ethics and global governance crises prevention. Future research avenues comprise of investigating situational factors influencing intergenerational leadership in the international arena in order to advance the idea of corporations aiding to tackle the most pressing contemporary challenges of mankind.
Sustaining Buyer-Supplier Relationships: The Buyer’s Perspective

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Abstract
Buyer-supplier relationships have been an important research focus of distribution channel and supply chain management. Maintaining sustainable relationships with partners is a value-creation process in exchange. Building on interfirm power-dependence and relationship marketing theory, this study takes the buyer’s perspective to explore how buyer-supplier relationships can be sustained by gaining the buyer’s satisfaction. Our findings suggest that the supplier’s role performance and dependence can help drive the buyer’s commitment to the buyer-supplier relationships through economic and social satisfaction. This study provides managerial implications for firms striving to develop and maintain sustainable relationships with channel and supply chain partners.

Keywords: buyer-supplier relationships, commitment, dependence, role performance, satisfaction, sustainability

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Identifying the moderating role of entrepreneurial orientation in the innovation uncertainty-collaborative technology development relationship: Findings from the Korean high-tech firms

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Abstract

Alliance studies propose that interfirm collaboration encourages innovation activities for resource- and experience-lacking high-tech small firms (HTSFs). Yet, they may not pursue collaboration due to potentially irreversible risks. This study examines drivers of HTSFs’ boundary decisions for innovation using transaction-cost and resource-based perspectives. Perceived uncertainties of innovation projects and entrepreneurial orientation were identified as core determinants among 178 Korean software-development firms. Some aspects of perceived uncertainty prevented collaboration, but entrepreneurial orientation of decision makers moderated and favoured more collaborative choices. This analysis provides valuable theoretical and practical insights on the conditions under which HTSFs should pursue in-house or external innovative activities.
Small Enterprise Development: Informational Challenge

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Abstract

As statistics shows, the share of small-scale enterprises exceeds 90% in developed countries and medium-sized enterprises make up less than 2%. The situation seems paradoxical: it is nearly identical for different countries and does not depend on economic or political climate and other external factors. Why do some companies grow while the rest stagnate? In the author’s opinion, there is one common internal cause, universal for small enterprises and related to an entrepreneur’s personality - the driving force of a small enterprise. The “informational challenge”. Timely and successful solution of this problem determines the future of an enterprise.

Keywords: informational challenge, small-scale enterprise development, differentiation between an entrepreneur and a manager, informational flow distribution.
Ethical Decision Making Under Social Uncertainty: An Introduction of Übèrhethicality

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Abstract

Decision making research has been revolutionized by prospect theory. In laboratory experiments, prospect theory captures human to code outcome perspectives as gains or losses relative to an individual reference point, by which decisions are anchored. Prospect theory’s core finding that monetary losses loom larger than gains has been generalized in many domains; yet not been tested for social status changes. Social status striving has been subject to social sciences’ research for a long time but until today we have no clear picture of how social status prospects relative to an individual reference point may influence our decision making and action. Understanding human cognition in the light of social status perspectives, however, could allow turning social status experiences into ethicality nudges. The perceived endowment through social status may drive social responsibility. Ethicality as a socially-appreciated, noble societal contribution offers the prospect of social status gains given the societal respect for altruism and pro-social acts. An Übèrhethical filling of current legal gaps or outperforming legal regulations grant additional social status elevation opportunities. Building on prospect theory, two field observations of environmentally conscientious recycling behavior and sustainable energy consumption tested if social status losses are more likely to be answered with ethicality than social status gains. Social status losses are found as significant drivers of socially-responsible environmental conscientiousness. Testing prospect theory for social status striving advances socio-economics and helps understanding the underlying mechanisms of social identity theories. Pegging social status to ethicality is an unprecedented approach to use social forces as a means for accomplishing positive societal change. Future studies may target at elucidating if ethicality in the wake of social status losses is more a cognitive, rational strategy or emotional compensation for feelings of unworthiness after social status drops.
A Multidisciplinary Perspective on Understanding

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Since the Age of Enlightenment in the 17th century Europe and the Industrial Revolution in the 18th century in the West, methods in natural and physical sciences understood by humans were adopted in the attempt to achieve system equilibrium or the near equilibrium state as a control mechanism for human well-being in numerous fields and industries. Without exception, the economic and financial market systems in the West had fervently embraced these scientific beliefs in the past decades and the applications of these methods had significant roles in the exploitation of a capitalist system. In light of the 2008 global economic crisis, this study challenges the prevailing practices in the market systems in the past decades based primarily on scientific methodologies without taking account human factors that led to the 2008 economic predicament. It lays out foundations of human understandings of matters surrounding us through the lenses of economic and financial systems with human components.
Factors Influencing Adoption of E-Books by Students

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Abstract

Students in schools, colleges, and universities across the US increasingly adopt e-Books, one of the latest innovations in education. This study investigates the factors influencing the adoption of e-Books. Regression analysis of the responses of 140 undergraduate students at the University of Tennessee at Knoxville shows that perceived ease of use, compatibility, attitudes, and subjective norms play a significant role in influencing the intention of students to adopt e-Books.
Electronic Reverse Auctions: A Post-Adoption Perspective

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Abstract

We investigate the conditions that promote the post-adoption of electronic reverse auctions. Based on an analysis of data collected from a survey of electronic procurement innovations at 166 buyer firms, we examine the levels of post-adoption by organizations. Using a Guttman scale, we find that many organizations use reverse auctions on a limited basis.
A Model of Social Media Marketing: A Case Study of Art Organizations

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Abstract

Social media marketing has undergone massive growth in the number of users over the past few years. Social media marketing provides information, advertising, and marketing. Prior research has affirmed the significance of social media marketing in various industries, yet little research has been investigated social media marketing techniques effect performance. The purpose of this paper is to explore social media marketing techniques would support for sales or number of audiences in arts. The paper describes art organizations include art museums and art galleries. The research surveyed 38 owners or marketing directors in the United Kingdom, Hong Kong, and Thailand. The result demonstrates that art organizations have already tended to apply Facebook and Twitter. This paper proposes interactive AIDAM model of social media marketing for art. The paper also illustrates metrics for social media marketing effectiveness. Finally, the paper presents guidance for applying social media marketing in art organizations.

Indicating a new version of World Wide Web after the dot-com bubble burst in 2001, Web2.0 brought an unprecedented change in the online users’ behavior (Chan and Guillet, 2011). In Web 2.0, websites are collaborative, dynamic, interactive, and users are actively participating in enrichment of content (Adebanjo & Michaelides, 2010; Kaplan & Haenlein, 2010). Accordingly, companies worldwide use a popular new tool called social media (Hogan, 2010). Social media marketing holds great promise for many nonprofit arts organizations (Arnold and Tapp, 2001). Art museums have relied heavily on benefactors for donations of works of art. Recently, these donations have declined quickly as a result of the changing tax laws (Blattberg and Broderick, 1991). Therefore, museums must reevaluate their marketing strategy. For support, museums and art galleries increasingly have to compete for funds, and provide evidence of their own attempts to attract visitors and, hopefully, donations (Todd and Lawson, 2001). Clearly, goal oriented museums focus on the number of visitors, while the objective of most of art galleries is based on sales (Baker et al, 1998).

This paper proposes social media marketing techniques for art organizations that would support sales and a higher number of audiences. The research surveys 38 owners/marketing director of art organizations among three countries: United Kingdom, Hong Kong, and Thailand. The author surveyed 10 art directors of art museums which are members in the Art Marketing Association in the
United Kingdom. The author surveyed 18 owners of art galleries who are members of the Hong Kong Art Gallery Association. Further, the author surveyed 10 owners of art galleries in Thailand. As the result, the paper identifies the model of social media marketing for art, called “Interactive AIDAM” which stands for awareness, interest, desire, action, and maintain respectively. The goal of this model is to identify sales or audience number.

Social media marketing techniques help to increase content quality (Chen and Wang, 2011) and speed of outreach and maintain the loyal customer more effectively than traditional media. The level of customer engagement has shown to be: 1) visitor; 2) potential customer; 3) engaged customer; 4) highly engaged customer; 5) new customer; and 6) loyal customer. The research presented here suggests that art organizations should concentrate on implementing social media marketing techniques. The research demonstrates that art organizations have already tended to apply Facebook and Twitter. However, other social media techniques are also popular in different countries. For example, YouTube is ranked the number three popular social media marketing technique in art organizations in the United Kingdom. The effectiveness metrics of social media marketing are presented; for instance, Facebook metrics employ number of fans, number of review ratings, and number of post on wall. The result indicates that few art organizations apply social media marketing with e-commerce.

In summary, the art organizations are likely to have differential effects on sales or number of audience in arts depending on the social media marketing technique which they employ for their target audience.

Keywords: Social media marketing, Art organizations
Entrepreneurship, Innovation and Growth Intertwined

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Abstract

There is currently a large body of research relating entrepreneurship (E), innovation (I) and aggregate economic growth (G). However, there are multiple perspectives on how these three variables are connected within this literature. As a first-step to identifying which (if any) of these possible mechanisms is in play, this study combines data from the World Bank, the Global Entrepreneurship Monitor (GEM) and the Global Innovation Index (GII). We present the preliminary results from this analysis, and comment on how our findings affect the structure of entrepreneurship and innovation policies in developing and high-income countries.

Keywords. Entrepreneurship, innovation, economic growth

JEL codes. E1, L26, O31
Socially Responsible Investment (SRI) as emergent risk prevention and means to imbue trust in the post-2008/2009 World Financial Crisis economy

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Abstract

Globalization and socio-economic changes heralded attention to Financial Social Responsibility. In the aftermath of the 2008/09 World Financial downturn, the interest in understanding social responsibility in the interplay of financial markets and the real economy reached unprecedented momentum. Financial Social Responsibility bridges the finance and society through Socially Responsible Investing (SRI) of screenings, shareholder advocacy, community investing, and social venture capital. SRI perpetuated in the eye of the 2008/09 World Financial Crisis. Innovatively scrutinizing financial social responsibility as an en vogue topic of interest helps portraying SRI as a panacea to avoid emergent risks – risks that emerge in complex interactive systems by collective outcomes of individual decision making fallibility over time. Future research may capture SRI as a real-world relevant means to averting emergent risks within a globalized economy and bestow market actors with trust in the post 2008/09 World Financial Crisis global economy.

Key words: Emergent Risk, Financial Markets-Real Economy Interaction, Financial Social Responsibility, Socially Responsible Investment, Socio-Economics, SRI-Stakeholder, 2008/09 World Financial Crisis
Does Inter-firm Market Orientation matter in international expansion?

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Abstract

The uncertainty in global expansion of retailing firms is intensified by the changing landscape of environment, such as political forces, economic climate and cultural issues, companies have to devise strategies to respond promptly to the diverse needs of customers and become market-oriented. Hence, market orientation is regarded extremely significant when designing marketing strategies. However, the study in market orientation and its impact on international activities of retailing firms has not been fully explored. This paper aims to explore inter-firm market orientation while entering emerging market. Ten face-to-face in depth interviews were conducted with senior and middle managers at Seven-Eleven in Thailand. The evidence of inter- firm market orientation demonstrates by gathering customer information and disseminate information in order to respond to customer’s needs.
The Role of Learning Orientation on Job Demands - Creativity Relationship

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Abstract
Drawing on the affective event theory and job demand-control model, this study examined the curvilinear relationship between challenging job demands and employee creative performance, as well as the moderating effect of employee learning orientation. Data were obtained from 216 employees and 47 supervisors of service firms in China. Results showed that employee learning orientation moderated the inverted U-shaped relationships between job demands and creative performance.

Keywords: job demands, learning orientation, creative performance
Data Mining is the modeling and analysis of large datasets where computers find patterns and regularities to perform prediction and forecasting. It is a relatively new discipline in academia and is still in its developmental stages. As a relatively new course, standards have not been set. As such, it is being taught in different manners by faculty throughout the United States. We compare and contrast the methods and approaches used by faculty from fifteen universities. We find that the course is being taught in Computer Science, Business, Statistics, and Education departments using various software, textbooks and notes. Topics vary by but often include preprocessing data, segmentation and modeling techniques where others use social networks and credit management. This research will be of value to faculty members that are currently teaching in this area or those planning to do so.
Abstract

The concept of Business Intelligence has been increasing in the recent times. Entering error-free operational data into the database generates the analytical reports. Managers have got an opportunity to convert business facts and data into a meaningful information upon which they were make decisions for their organizations ever since computer devices started accumulating huge data. Computer based techniques used to extract data, processing, storing, analyzing and interprets the business data is referred to as Business Intelligence. People also refer to this as decision support system (DSS) as its objective is to provide support to make better decision making.

Business Intelligence allowed organizations to extract information from multiple platforms and applications to take better decisions which drive tangible returns on their investments. The objective of Business Intelligence enables the management of organizations to make prudent decisions from the data extracted.

The objective of this paper is to demonstrate and present an appropriate BI solution for a business performance management problem context and focusing on how social, cultural, legal, political, ethical, and security issues associated with the implementation of BI solutions. Major part of this paper focused more to performance metrics used for strategic decision making and devising an appropriate technological architecture for a commercial solution.

Keywords: Business Intelligence (BI), Decision Support Systems (DSS), Key Performance Indicator (KPI), Data, ERP, Business Decision Making
Does Institutions Matter in Governance of Supply Network Work in Emerging Markets? The evidence from Vietnam Cassava Sector

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Abstract

This paper investigates how transactions between firms are organized in an emerging market and how supply network governance affects supply network outcomes. We explored firms’ choices of governance in a specific context of Vietnam, where legal institution is characterized by a weak legal system for contractual enforcement and socio-economic institution is characterized by transition from central planning into market mechanism. Our findings indicate the correlations among institutional context, supply chain structure, product characteristic, relationship investment and firms’ choices of governance, which correlate to supply network efficiency. We found that supply chain structure is a significant determinant of firms’ choice of governance. Apart from its direct effect on firms’ choice of governance, supply chain structure also moderates the effect on legal institution and mediates the effect on socio-economic institution on firms’ choice of governance.
Unique aspects of Corporate Social Responsibility within the context of Business as Mission (BAM) evidenced by cases of entrepreneurial initiatives in developing nations

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Abstract

Corporate Social Responsibility (CSR) and sustainability have garnered much interest internationally as well as domestically. Concerns center around the effects of globalization along with the expectations that globalization should result in sustainable development across all countries. Further, there is a dearth of coordinated efforts at governmental, regional and corporate levels to create and implement economic, environmental, and political policies that would affect the necessary changes. There is a myriad of sources that support the notion of linking CSR with sustainability, environmental responsibility, and global competitiveness. Another aspect related to CSR is its impact in social entrepreneurship. That is, CSR efforts can train social entrepreneurs to develop capabilities to launch local programs for maximum social impact. An even more focused aspect of CSR and its role in social entrepreneurship has been proposed by the novel model of BAM or Business as Mission. A review of the current literature indicates that BAM businesses operating on the for-profit, self-supporting (as opposed to donor-supported) model realized economic, social and spiritual gains. There is, however, a need to develop models that explain the different constructs of BAM as it relates to CSR and its social entrepreneurship dimension. This study aims to create a theoretical framework that explains the intersections among CSR, social entrepreneurship, and BAM. The analysis will focus on the altruistic nature of social entrepreneurship in support of local development in emerging markets. Also, it presents a recent and successful case of BAM based projects in developing nations under the model of social entrepreneurship.
Factors Affecting Social Media Addiction using Social Networking Applications

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Abstract

This study investigates and empirically evaluates factors that have the greatest impact on the social media addiction (SM Addiction) of social networking application users. Researcher reports on the preliminary results of an ongoing empirical study that is being conducted to determine the relative importance of each of these factors on SM addiction. Analysis was performed on data collected from n=58 social networking using simple and multiple regression with SPSS 20. Although our analysis identifies many factors that positively affect SM addiction, regression analyses show that "impulsive processes", "reflective process and "boundary conditions" have the greatest impact on the SM addiction of social networking applications users.
Trust and Reciprocity Drive Social Common Goods Contribution Norms

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Abstract

In the emergent field of tax psychology, the focus on regulating tax evasion recently shifted towards searching for situational cues that elicit common goals compliance. Trust and reciprocity are argued to steer a socially-favorable environment that supports social tax ethics norms. Experiments, in which 256 participants played an economic trust game followed by a common goods game, found evidence for trust and reciprocity leading to individuals contributing to common goals. The more trust and reciprocity was practiced and experienced, the more common goals were supported – leveraging trust and reciprocity as interesting tax compliance antecedents. The results have widespread implications for governmental-citizen relations. Policy makers and public servants are advised to establish a service-oriented customer atmosphere with citizens breeding trust and reciprocity in order to reach common societal goals.

Keywords: Common goods game, Common goals compliance, Reciprocity, Tax ethics, Trust, Trust game, Tax Psychology
Perceptions and experiences of international managers: some qualitative evidence from MNC affiliates in the Middle East region

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Abstract

A qualitative study of two affiliates of multinational corporations (MNCs) in Iran reveals that the international assignees’ experiences with and perceptions of their appointments in Iran are formed prior to their appointments and therefore are closely associated with their stereotype about the whole country. Our findings suggest that the HQ’s orientation towards control and its pressure on MNC affiliate to conform to its policies and practices – as opposed to local practices and culture – can be regarded as the major determinant of the international assignee’s approach towards managing the MNC affiliate. Although the performance of international managers and their value and continued use in the MNCs are influenced by many internal and environmental forces, the results find that the effectiveness of international managers is largely influenced by the host country’s political stability and the ability of the MNC affiliate to adopt a coherent political or country risk strategy. Together, these findings support the paramount importance of the notion of ‘organisation-environment fit’ in the sense that the degree to which organisational (individuals included) and environmental characteristics match serves as a determinant of the success or failure of the international assignees.

Keywords: Multinational Corporations, International Assignee, Case Study, Middle East (Iran).
Forward from Failures: Profiles of Psychological Perseverance in Life Science Leaders

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My research project-in-progress uses a qualitative approach to learning from the Chief Executive Officers, Chief Scientific Officers, and Chief Medical Officers of the most successful biotech and pharmaceutical firms in the U.S. The frequency of failure and the shocking amount of money spent trying to bring a safe and effective product to market are both increasing at alarming rates. Only about 5 out of 5,000 compounds synthesized gets the go ahead to move forward to clinical trials, and historically just 10 to 20 percent of drugs that make it to clinical trials end up approved for commercialization. That is a daunting failure rate. So how do life science professionals maintain the morale to keep moving forward? I will synthesize the industry leaders’ insights into how lessons learned from product pipeline failures can ultimately benefit efforts to innovate. By comparing and contrasting the psychological perspectives of those focused primarily on the science of R&D with those focused primarily with the financial health of an organization, I will discern patterns that will translate into useful insights that can be published and applied in practical ways by leaders already working in the Life Sciences and by younger professionals interested in entering industry careers.
How Does Internet Recruitment Impact on New Hire Voluntary Turnover? A Theoretical study

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Abstract

More and more organizations depend on Internet recruitment to recruit employee. It is argued that Internet recruitment will provide many advantages to organizations but it also bring some issues such as high new hire voluntary turnover. In this paper we will discuss the relationship between Internet recruitment and how it impacts on the new hire voluntary turnover rate. To address this question, this paper first discussed the special characteristics of Internet recruitment and its effectiveness. Then we review existing hypotheses and research in the relationship of the effectiveness of recruitment source. Based on these discussions and hypotheses reviewed, we present eight propositions on the relationship of the Internet recruitment and new hire voluntary turnover. The last part of paper discusses the limitation and future research agenda.

Keywords: Internet Recruitment, New Hire Turnover, Theoretical Study
Section II

Selected Papers
Managing Collective Memory in Organizations

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Abstract

The intention of this work is to introduce the concept of collective memory and memory work into the organizational literature, specifically looking for evidence of the use of memory work by corporate executives and diagnosing the purpose of employing memory work as a rhetorical device. We propose that the management of organizational identity is one of the key roles of organizational leaders, and that this objective is often pursued through the management of organizational members' collective memory of organizational events. A sample of 100 letters to shareholders from Fortune 500 companies were reviewed for instances of memory work. Specific instances of memory work were sorted based on strength of expression and the specificity of the cultural value emphasized.
Managing Collective Memory in Organizations

Collective memory is an idea that has been discussed in the disciplinary context of history (Confino, 1997), literature (Schwartz, 1998), communications (Hasian & Frank, 1999), political science, and sociology (Bal, Crewe & Spitzer, 1999). However, the idea has not permeated into the organizational literature. But the idea of collective memory—that members of a collective share and create meaning from a common sense of history—is not new. In this paper, we introduce the concept of collective memory at the organizational level, discuss its relationship to organizational identity, and then relate the concept to the work organizational leaders do in shaping organizational identity and managing organizational culture. We then report the results of cross-sectional study of 100 comparable executive communications to, first, report the frequency of memory work and, second, to determine how and why organizational leaders reference and manipulate collective memory of organizational events.

Collective Memory and Memory Work

Confino (1997) defines collective memory as simply “the ways in which people construct a sense of the past” (p. 1386). Schwartz (1998) gives a more specific definition of memory as a tool, conceptualizing collective memory in terms of present values, ideals, or vision reflected upon elements of the past: “as a model for the present, collective memory articulates collective values and provides cognitive and affective orientation for realizing collective goals” (p. 2; emphasis his). As such, collective memory is dynamic, and is under constant redefinition and reconstruction as the collective’s values, beliefs, and attitudes also fluctuate. Collective memory can also be the object of creative energy (Confino, 1997), such that key individuals in the collective may influence memory constructions in a way similar to how the values, beliefs, and/or attitudes of a collective might be influenced. These individuals we call memory workers, and their attempts at memory construction we call memory work. We define memory work, or doing memory, as the interpretation of the past not to merely make sense of the present, but to make a particular kind of sense of the present, aligned with the values, ideals, and/or vision of the memory worker.
Though there are commonalities, collective memory should not be confused with organizational memory (Walsh & Ungson, 1991). Research in organizational memory generally deals with the specific processes of how particular kinds of information are retained and propagated within organizations. While not exclusively, researchers of organizational memory tend to be concerned with information as objective fact (e.g. Loftus & Loftus, 1976) or as pertaining to technical skills or processes (Hewins, 1990). By contrast, collective memory is concerned with the subjective meaning that members of the collective derive from a shared construction of historical events. Collective memory thus hangs on the premise that constructions of the past are based on myth, not fact (Confino, 1997).

Collective memory has been studied primarily in macro, sociological contexts; in other words, the level of analysis is usually entire societies or communities defined by socio-political boundaries. For example, a popular focus of memory studies has been representations of the Holocaust (e.g. Berger, 1995; Langer, 1991; Young, 1993). As is the case with the Holocaust studies, forays into collective memory also tend to focus on a particular event, practice (the building of statues and memorials; Young, 1993), or phenomenon (see, for instance, Wallace’s 1996 treatment of the American cultural icon, Mickey Mouse). Yet the conditions necessary for the study of memory need not be dependent on the size of the community. Rather, any collective which shares some sense of common history and identity can and likely does possess a collective memory. In fact, even a nascent collective—such as a newly incorporated firm, or a freshly organized work group—has an identity, however weak, and a history, however short. Consequently, we believe actors maintain a collective memory and engage in memory work in collectives of any size and that it is reasonable to study collective memory at any group level of analysis. In this paper, we are concerned with the collective memory of the firm. Specifically, we are interested examining why and how firm executives will engage in memory work. Thus, the present exploration of the concept of collective memory is conducted at the organizational level of analysis.
Doing Memory, Doing Identity

Organizational identity has been widely described and studied within the organizational literature (e.g. Albert & Whetten, 1985, Ashford & Mael, 1989, Elsbach & Kramer, Whetten & Godfrey, 1998). Organizational identity is defined here as the collective understanding of the roles and attributes that organizational members agree define their organization; it is that character of an organization which organization that is central and distinctive to it (Albert & Whetten, 1985).

Organizations have rich histories that are open to subjective, interpretive analysis (Bal et al, 1999; Parry-Giles & Parry-Giles, 2000; Peri, 1999). Ashford and Mael (1996) explain that whenever an organization asks “who are we?” or “who do we want to be?” they are asking questions of identity and modifying their perceptions of the past (Loftus, 1980). Identity questions are, then, not only inquiries into the meaning of the present, but also the meaning of the past. Because the meaning of the past is only loosely linked to events that could be considered objective fact, and that individual perception of facts is likely to vary from individual to individual the meaning of the past is fuzzy, socially-constructed, and is constantly being negotiated (Gioia, Schulz, & Corley, 2000).

An illustrative example of how managers can manipulate the meaning derived from an organization’s history comes from Biggart’s (1977) study of the U.S. Postal Service’s (USPS) reorganization. Executives felt that enduring beliefs about what the organization does and what it means to be an employee of the USPS were inconsistent with the new direction top executives envisioned for the firm. However, the meaning that USPS employees created from organization events stood to impede employees from adopting new standards of performance and reworked organizational processes. Organizational leaders, recognizing this, sought to create new meaning from these events, meaning consistent with the goals of the organization as they were newly defined. The process was described as “creative deconstruction,” the destruction of old meaning structures with the creation of new, replacement meaning structures. This process did not mandate a complete dismissal of the organization’s identity with a novel, manufactured identity, but as theorists suggest, the organization’s past was manipulated and a new identity emerged from the old organically (Gioia et al, 2000). Indeed, as it has been suggested that no meaningful organizational change effort can succeed without the
reinterpretation or reinvention of an organization’s identity (Gioia & Thomas, 1996), it may be that at the root of any successful identity reinvention lies a successful reworking of a collective memory. In any event, the link between an organization’s collective memory and its identity is clear—how organizational members interpret the “facts” of their common history informs their shared organizational self-concept.

A memory worker creates meaning from historical events. Bill Clinton, acting as a memory worker for the whole of the United States (if not more) during his presidency, used references to the civil rights movement (a shared memory for Americans) to expound his vision for the country and excuse personal shortcomings (Parry-Giles & Parry-Giles, 2000). Following the assassination of Israeli Prime Minister Yitzhak Rabin in 1995, political leaders capitalized on his memory to justify political policy and/or action (Peri, 1999). The memory worker makes meaning of past accomplishments, failures, ideas, ideals, values, and visions. Such work is necessarily agenda-oriented—the memory worker interprets the past through his or her own lens of social construction with an eye to the organization’s present and future. For example, a memory worker who regards honesty and integrity as important values for all members of the organization to share will interpret events of the past with a focus on respected leaders or figureheads who were admired for their honesty and/or integrity. It is important to remember that identity, even at the individual level, is socially constructed (Berger, 1990; Gergen & Davis, 1985). Social identity is, as well, the product of social interaction and subsequent social construction (Searle, 1995). Therefore, in doing memory work, the memory worker is also doing identity.

The Work of Managers

Early management scholars adopted competing views on the work managers do. The classical school, typified by Fayol (1916), cataloged an array of activities in which managers were thought to engage: planning, organizing, staffing, directing, coordinating, reporting, and budgeting. The entrepreneurship school (Collins & Moore, 1970) explained managerial behavior using an economic model of rationality, arguing that executives make decisions based simply on the criteria of what will maximize profit. By contrast, the decision theory school (Simon, 1947; Cyert & March, 1963; March
& Simon, 1958) described a behavioral theory of management decision-making under conditions of complexity and ambiguity. Pseudo-institutional managers, rather than making decisions based on analytic rational reasoning, rely largely on past behavior to guide present decision-making.

Minzberg, in his seminal 1973 work, changed the way management scholars think about managerial work. By observing and recording the actual managerial work of five chief executives he concluded that their various activities fell into three general categories and various subcategories: interpersonal (figurehead, leader and liaison), informational (monitor, disseminator and spokesman) and decisional (entrepreneurial, disturbance handlers, resource allocators and negotiators). We believe that it is within the sets of roles characterized by interpersonal interaction and information generation and transmission that managers perform memory work.

Pfeffer (1981) argued that an analysis of managerial roles that is confined to substantive behavior and decision-making misses important symbolic aspects of managerial work. Organizations are social collectives which are built on, among other things, the constellation of shared beliefs and values held by its members. Managers’ use of symbolic action can serve to legitimize and rationalize the tasks, policies, and beliefs that form the organization’s identity. Thus, the behavior and voice of the manager, as an organization leader, cannot be analyzed without also considering the social effect of the action, and that its interpretation by organizational members is inseparably connected with organizational identity. An organization’s identity shapes the work it does and how it does it.

Ultimately, a salient organizational identity will do more to define expectations of organizational members than any amount or level of sophistication of employee handbooks. This realization led Gagliardi (1986) to observe, “The primary strategy of an organization is the maintenance of its cultural identity in terms of prevailing values” (p. 117). While Gagliardi’s claim may be overstated, this view of organizational identity is nonetheless consistent with that of Gioia and his colleagues (2000) who characterized identity as malleable and therefore capable of being managed. Regardless, it is unlikely that any strategist would argue against the claim that organizational identity influences firm performance, and thus is worth influencing, to the extent that it can be influenced. We
believe this conclusion is consistent with the nature of managerial work as it has been described by the work of the various theorists reviewed above.

**Memory Work in Organizations**

To this point, we have made only casual statements about managers being explicit memory workers within organizations. Although any individual within a social collective can be a memory worker, or influence the identity of the collective through memory work, the scope of this paper is limited to the memory work performed by the heads of organizations (operationalized below as chairs of boards of publicly traded firms) in the context of their stewardship over the organizations they lead. Executives who head organizations are principally communicators, acting as liaisons, disseminators, spokesmen, and figureheads (Mintzberg, 1973; Shapira & Dunbar, 1980), symbolic leaders (Pfeffer, 1981), and managers of the organization’s identity (Gagliardi, 1986). It is in these roles that we expect executives will engage in memory work, whether consciously or unconsciously, as they attempt to manage—maintain or modify—organizational identities.

As symbolic leaders (Pfeffer, 1981), executives may be doing memory work in myriad contexts. To the extent that executives manage organizational identity through memory work, evidence of that work is expected to be found in the communication they produce for public consumption. The letter to shareholders contained in the annual report of every publicly-traded company is a symbolic communication directed to various stakeholders, including shareholders, employees, journalists, industry analysts, fund managers, clients, competitors, and the general public. The letters are largely symbolic because, while they report facts about the performance of the firm and plans for the future, they will not contain any substantive information that any industry insider should not already know. However, it is clear that firms spend a great deal of effort in crafting and presenting these letters, and that chairmen use a language intended to highlight accomplishments, reassure fears, and paint a confident future for the financial health of the firm.

**Method**

**Sample.** To compile a sample of executive communications comparable from firm to firm, we chose to analyze the letters to shareholders that customarily introduce a firm’s annual report. One
hundred companies were randomly selected among *Fortune* 500 firms with fiscal years ending in 2013. In two cases, an annual report was either unavailable or unpublished. These firms were excluded from the analysis and replaced in the sample from others randomly selected from the same pool.

**Measures.** Letters to shareholders were analyzed to determine (1) if any memory work was attempted and (2) how many attempts at memory work were observed in the text. Two undergraduate student raters, trained to recognize memory work within written communication independently analyzed the text and counted the number of instances of attempted memory work within the text. The raters were provided several definitions of “collective memory” and “memory work” (e.g. Hasian & Frank, 1999; Parry-Giles & Parry-Giles, 2000; Peri, 1999; Schwartz, 1998) and given examples of text considered by the authors to be memory work plus additional examples of text with historical references but not considered memory work. Several sample communications were analyzed prior to rating the research sample to verify that the raters understood what the authors intended as “memory.” After the sample of letters was coded by the raters, specific cases of disagreement among raters were resolved by discussion between the raters with the authors mediating.

**Analysis and Results**

**Coding Memory.** While any classification of text as “memory work” is necessarily a subjective judgment, raters were instructed to focus on statements that appeared to be efforts to communicate values or vision by creating meaning from a historical event or historical identity. Also included were references to the age of the company if the reference was identity oriented. For example, an executive boasting “over a century of progress” is clearly interpreting the company’s history as one of continual progress. Another executive celebrated the founding of his company “over 150 years ago.” Other executives made references to the company’s founder. These references were made either as an attempt to generalize the founder’s positive character traits to the organization or to remind the reader of the company’s powerful heritage, embodied in the larger-than-life stature of the founder.

Another example of text interpreted as memory work included this statement in the letter to one company’s shareholders, “The heritage of where we’ve been individually is much less important than the future we create together.” This statement captures a seemingly important usage of memory work.
Corporations are continually changing entities, where membership in the community is temporary and fluid. This dynamic is further complicated by mergers and acquisitions, so that membership in one organization may be instantly transformed into membership of a new organization. Additionally, employees, including executives, move from company to company, therefore, if an organization is to share a common understanding of its history, its history must be continually reinterpreted. In this instance of memory work, the chairman is attempting to devalue the diversity of memories within the organization by concentrating the focus on something everyone presumably has in common: the future.

Alcoa provides an example of a company making specific reference to historical figures only tangentially related to the company’s heritage by mentioning both the Wright Brothers and Henry Ford (both customers of the company that later became Alcoa; Alcoa, 2013). The rhetorical intention appears to be to capture the positive character traits (bold creativity, ingenuity, industriousness) and bleed those positive values into the fabric of Alcoa’s modern-day corporate identity. The focus is on Alcoa’s present-day values, but the discussion centers around well-known historical figures. The author implies that Alcoa has inherited the spirit of American innovators who "changed the face of international transportation and commerce" (Alcoa, 2013). Furthermore, Alcoa is making a case that its products have fueled past (and are thus essential for future) industrial innovation.

Taken at face value, the corporate annual report is a retrospective of the firm’s performance over the past fiscal year. Thus, it should come as no surprise that the authors of letters to shareholders reflect on the past and indeed make reference to mundane financial details, market share, quantifiable research progress, etc. However, a reference to the past does not memory work make and, to the extent that this kind of text was limited to the reporting of facts and not the interpretation of facts, it was not coded as memory work.

Sometimes executives find themselves in the position of having to explain away or justify subpar financial performances or other events which may have occurred during the year that put the company in a bad light. Such letters often take a semi-apologetic, apologizing-without-really apologizing tone. While an apology draws attention to the past, its focus does not necessarily fall on a specific history (though it may), but on the individual offering the apology. On the other hand, an
apology accompanied by an explanation of the events apologized for does put the focus sharply on the past, and by its very nature is an attempt to label it with meaning. Therefore, text coded as apologies were not considered memory work, but texts coded as apologies accompanied by explanation were.

**Counting Memory Work...and then Making Sense of it.** We found evidence of memory work in the letters to shareholders of 13 of our sample of 100. Among this 13, eight included only one instance of memory work, four had two instances, and one contained three passages of text coded as memory work.

It became clear through coding and subsequent reflection that although we found evidence of memory work in some letters and none in others, the instances of memory work that we observed varied in both function and form. Function, in the sense of what the intention of the memory worker appeared to be in relation to the cultural values and identity of the organization. Form, in the sense of the intensity or strength of the specific attempts at memory work.

To promote cultural identity, executives sometimes highlighted specific, desirable cultural values and sometimes promoted cultural identity in a more general, non-specific way. For example, the CenterPoint letter to shareholders states, “we have the right vision, strategy and values for the future” (CenterPoint, 2013). This statement is very broad and does not reference a specific value or cultural element. On the other hand, the letter from Baker Hughes provides an example of a company displaying much more specific cultural values. In emphasizing innovation as a differentiating cultural value the chairperson writes, “innovation is both our heritage and the foundation for our future” (Baker Hughes, 2013).

We also observed variance in the strength or intensity of the memory work observed. For instance, we coded the instance of memory work in the letter to shareholders in Tractor Supply Company’s annual report as being weak. The letter contains a historical timeline, highlighting key events in the company’s history (Tractor Supply Company, 2013). Even though there is a strong origin story as evidenced by the events in the timeline, there is no effort to create meaning behind these events or highlight specific values or ideals. Chipotle’s letter to shareholders also contains a weak instance of memory work. There is no reference to a specific person or event, but instead states, “The
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food we serve today is better than it was 10 years ago...” Implied is the value placed on a quality product and continuous improvement, but without making specific reference to either (Chipotle Mexican Grill, 2013).

The memory work in Comcast’s letter to shareholders provides an example of strong memory work. The chairperson makes specific references to the company founder, company origin, and events in the company’s history. “As my father often says, we never could have imagined back in 1963 that Comcast would become the company it is today.” And, later, “My father, Ralph, started our incredible journey in 1963 by acquiring a 1,200 subscriber community antenna television company in Tupelo, Mississippi” (Comcast, 2013). Also included were references to the age of the company, written in such a way as to highlight identity—interpreting the company’s history as one of continual progress.

In an effort to capture the texture of how executives used memory work in our sample of letters to shareholders, we ranked each letter in regards to (1) the specificity of the cultural values promoted by the memory worker and (2) the strength or intensity of the memory work being attempted. The results are represented graphically in Figure 1.

*** Insert Figure 1 about here. ***

Discussion and Conclusion

In this paper we have discussed how the concept of collective memory can shed light on how organizational leaders manage identity within their organizations. Memory workers do memory not for the past’s sake, but to promote and highlight desirable organizational values with an eye to the future. We have provided examples of executives doing memory work through a sample of comparable communications from a sample of Fortune 500 companies. And we have also argued that these instances of memory work vary in both their intensity and the specificity of the cultural values promoted through the attempt.

While we believe that there is insight and explanatory power in the observation of memory work by organizational leaders, we acknowledge the limitations in using company annual reports (chairs of boards’ letters to shareholders, specifically) as the target of our analysis. It would perhaps be

preferable to analyze speeches by CEOs or company presidents to internal audiences. Communication of this type may offer a good deal more texture and nuance to an examination of the hows and whys organizational leaders attempt memory work and use collective memory.
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Figure 1. Visual map of the specificity of cultural identity work (x axis) with the strength of the memory work attempt (y axis) in the letters to shareholders of the 13 annual reports in which at least one attempt at memory work was coded.
Greater Participation in Sport by Women Creates an Economic Benefit

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Abstract

According to the United Nations Population Fund [42], a higher number of women in the workforce correlate with higher gross domestic product (GDP) growth. However, today, women have little access to seats in business boardrooms, even in developed markets. Sport can be powerful vehicle for change. The full participation of women in team activities such as sports nurtures the advanced leadership skills that the complex world economy so urgently needs [16]. This paper will explore the impact sports participation by women can have on development, entrepreneurship, and social change in Nigeria and Zambia.

Key words: women in the workforce, global female entrepreneurship, women and sport, sport leadership, women in Africa
In 2010, Aguirre and Sabbagh determined that nearly one billion women around the world could enter the global economy during the coming decade, equal to and just as significant as that of the billion-plus populations of India and China, leading them to dub this group of women the “Third Billion.” The Boston Consulting Group [7] predicts that by the year 2028, women will control close to 75% of discretionary spending worldwide.

There is compelling evidence that women can be powerful drivers of economic growth. Aguirre and Sabbagh [2] estimates indicate that greater involvement from women in the workforce, leadership roles in businesses, and entrepreneurship has an impact far beyond the direct gross domestic product ratings. For example, Revenga and Shetty [36] report that women are more likely than men to invest a large proportion of their household income in the education of their children. As those children grow up, their improved status becomes a positive social and economic factor in their society. While there is enormous potential, there is a wide gap between that potential and the current reality. Aguirre and Sabbagh [2] contend that closing that gap and propelling women forward can bring powerful positive change to the global economy.

It is clear that addressing gender equality, closing the income gap, and in general, engaging some 50% of the world’s population in greater participation in the global economy must take a multi-faceted approach. This paper seeks to shed some light on the role that women’s participation in sports can have in producing a positive impact on development, entrepreneurship, and social change in Nigeria and Zambia. In particular, women in sport leadership can shape attitudes towards women’s capabilities as leaders and decision-makers, especially in traditional male domains [39].

Sport has been a long-established male domain and the participation of women and girls in sport challenges a multitude of gender stereotypes, not only those that relate to physical ability but also those regarding women’s roles in local communities and society at large. However, by directly
challenging and dispelling misconceptions about women’s capabilities, integrated sport programs are seen to help reduce discrimination and broaden the role prescribed to women [41].

Women around the world face significant discrimination and barriers to success in business, sport, and society at large. Nowhere have those inequities been quite so stark as Sub-Saharan Africa (SSA). Stringent social, cultural, and legal barriers have excluded more than half of the region’s population in decision-making and full-participation in sports and in the economy. There is some reason to hope that many more leaders in government, business, non-government organizations (NGOs), and sports are coming around to agreement with Nelson Mandela who was frequently quoted as saying:

Sport has the power to change the world. It has the power to inspire. It has the power to unite people in a way that little else does. It speaks to youth in a language they understand. Sport can create hope where once there was only despair. [28, para. 3]

Kelley, Brush, Greene, Litovský, and Global Entrepreneurship Research Association [26] found that the highest regional female Total Entrepreneurial Activity (TEA) levels can be seen in Sub-Saharan Africa, where 27% of the female population is engaged in entrepreneurship (40% in Zambia) and that on average, SSA and Developing Asia exhibit the greatest gender parity. Zambia and Nigeria are two SSA nations where women showed much greater confidence in their entrepreneurship capabilities. Kelley et al. [26] found that four out of five women in Zambia and Nigeria say they have the skills necessary to start their own business. Figure 1 reflects the macro view of regional TEA.

Figure 1. Comparison of Female and Male Total Entrepreneurship Activity Rates by Region

Perceptions of opportunity and capability are strongly linked to entrepreneurial activity, says the Harvard Business Review [43] in their report on The Global Rise of Female Entrepreneurs. While it does not negate the influence of access to capital and property ownership, a sense of agency, self-empowerment and personal freedom constitute essential building blocks for starting a business. That perception of capability or confidence in their ability to succeed is one of the chief outcomes of women’s participation in sports. An EY [17] study of more than 800 female chief executives from more than 400 companies in 15 countries says the most important contributors to their current career success are persistence, ambition and drive, and confidence, much of which they learned from their participation in sports.
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There are many challenges to be faced, but there is also some evidence to believe that greater access to and participation in sports by girls and women in SSA, specifically Nigeria and Zambia, can build a more viable workforce and spark more economic prosperity in emerging markets.

The Global Marketplace

“Women are the most underutilized economic asset in the world’s economy,” proclaimed Angel Gurria, secretary-general of the Organisation for Economic Co-operation and Development (OECD), from remarks given at the “The Global Economy: Strengthening Growth and Job Creation” 2014 G20 Leader’s Summit [20].

In 2010, Aguirre and Sabbagh presented the concept of the “Third Billion.” The report proposed the idea that if China and India each represent roughly one billion emerging participants in the global marketplace, the third billion represents women who are entering the mainstream economy for the first time. This notion grew out of their analysis of International Labor Organization data on women in the global workforce [2].

According to EY [16], women own approximately one third of all businesses in the world, and nearly half of those businesses are in developing markets. Furthermore, the Boston Consulting Group [7] predicts that by the year 2028, women will control close to 75% of discretionary spending worldwide.

A higher number of women in the workforce correlate with higher gross domestic product (GDP) growth, according to the United Nations Population Fund [42]. In the next five years, the global incomes of women will grow from US$13 trillion to US$18 trillion. That incremental US$5 trillion is almost twice the growth in GDP expected from China and India combined [16].

While the economic potential is clear, Aguirre and Sabbagh [2] further determined that approximately 860 million women worldwide are “not prepared” (lacking sufficient secondary education) and/or “not enabled” (lacking support from families and communities) to take part in the
world economy. Most of these women are between the ages of 20 and 65, and nearly 95% live in emerging economies; the rest live in North America, Western Europe and Japan.

**Entrepreneurship**

One key factor in harnessing the potential of women world-wide is entrepreneurship. VanderBrug [43] acknowledged that while increasingly a recognized force, women’s entrepreneurship still lags men’s in all but seven countries in the world. If women’s labor participation were closer to male participation, it would contribute $1T to GDP in emerging economies. Women led businesses are key to this opportunity [43].

Women face significant obstacles to starting their own businesses, not the least of which is their lack of confidence and fear of failure. Perceptions of opportunity and capability strongly link to entrepreneurial activity [26]. This means that if you think you will succeed and will be supported, you are more likely to try. In the US and developed Europe women are 18% less likely to perceive they have the capability to start a business. While the difference is less for developing economies, in every economy women report being generally more afraid of failure than their male counterparts [26].

In 2012, GEM, in the 14th study of its kind, surveyed 198,000 people in 69 countries. The GEM Women’s Report [26] examined 67 of those economies. In all but seven of the countries surveyed, women represent a minority of the nation’s entrepreneurs.

In other findings, even while more than 126 million female entrepreneurs were either starting or running new businesses in 2012 in the 67 countries measured, they are less confident about their abilities than men. In every economy studied, women reported lower perceptions of their entrepreneurial capabilities than men [26].

If women have lower perceptions of their capabilities, then it is important to showcase the enormous opportunity for an enabling environment which would boost entrepreneurial activity rates. Kelley et al. [26] report that “foundational to this environment are access to healthcare, education, land
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rights and affordable childcare. Just as critical are role models and mentors.” Another way for women to boost self-confidence has been directly linked to their participation in sports [38].

Women in Corporations

It is not just entrepreneurship where women prove their economic worth to the business world. Studies have repeatedly indicated that corporations with a higher proportion of women in top management show more successful growth in terms of a range of goals including operating results, employee satisfaction, public image, and stock price [8, 11].

Although the number of female CEOs of Fortune 500 companies has doubled in the last decade, in 2012 it was still only 4% of the total. When the world’s industrialized economies are viewed as a group, just 11.1% of board directors are women, and in rapid-growth markets, that number falls to 7.2%, according to Governance Metrics International (GMI) [21].

The missed opportunity is all the more striking in light of the difference that empowered women, and the diverse viewpoints they bring, can make to the world. Closing the gender gap enables both public- and private-sector organizations to fuel measurable economic growth.

Beyond the Boardroom

The economic advancement of women does not just empower women but also leads to greater overall prosperity. The idea has been a consistent theme in the literature of women’s issues, but it is typically argued with anecdotal rather than quantitative results. As Caroline Anstey, managing director of the World Bank, put it, “Gender equality is good in and of itself, and it is smart economics. But the first one of these alone never seems to convince anyone,” [3, p. 15].

The research findings of Aguirre and Sabbagh [2] related to their Third Billion Index strongly suggests that economically empowering women is the key to greater societal gains. Such a relationship indicates that positive steps taken by governments, non-government organizations, businesses, and other agents
intended to economically empower women not only contribute to the immediate goals of mobilizing the female workforce, but also lead to broader gains for all citizens, such as economic prosperity and improvements in health, early childhood development, security, and freedom. [1, p. 15]

Revenga and Shetty [36] recognized that closing the gap in well-being between males and females is as much a part of development as is reducing income poverty. Greater gender equality also enhances economic efficiency and improves other development outcomes.

Aguirre and Sabbagh [2] defined broader indications of well-being, such as per capita GDP, literacy rates, access to education, and infant mortality. They indicate, however, that improving the economic lot of women in a country can generate benefits that transcend traditional gender boundaries and improve society at large. Revenga and Shetty [36] agree and provided policy implications. They suggest that to bring about gender equality, policymakers need to focus their actions on five clear priorities: reducing the excess mortality of girls and women; eliminating remaining gender disadvantages in education; increasing women’s access to economic opportunity and thus earnings and productivity; giving women an equal voice in households and societies; and limiting the transmission of gender inequality across generations. All areas of development can be influenced by sport.

The Role of Sport

Sport has been one of the most important socio-cultural learning experiences for boys and men for many years. Gerdy [18] identified one of the primary reasons for the development of organized sport, particularly in schools, as the need expressed by business and industry leaders to socialize young men into productive workers for the growing industrial economic system at the beginning of the 20th century. Early US industrialists such as J.P. Morgan, J.D. Rockefeller, and Andrew Carnegie helped finance many public school athletic teams because they believed participation in sports would ultimately produce workers that were loyal, competitive, who responded to authority, and could work as part of a team [31].
The connection between business and sports is reflected in a report by Fortune Magazine [9] that says 95% of Fortune 500 executives participated in high school athletics. Kniffin, Wansink, and Shimizu [27] found that former student-athletes display significantly higher levels of leadership, self-confidence, and self-respect than those who were active outside of sports.

It cannot be surprising that the benefits men derive from participating in sports also accrue to women. EY [15] found that there is a direct correlation between women’s participation in sport and their leadership capabilities. Some of the world’s most senior women leaders participated in sports. International Monetary Fund head, Christine Lagarde, is a former member of France’s synchronized swimming team. Condoleezza Rice, former US Secretary of State, was a competitive figure skater. Another former US Secretary of State, Hillary Clinton played basketball, soccer, and softball. Brazilian President, Dilma Rousseff, played volleyball. PepsiCo CEO, Indra Nooyi, played cricket in India and baseball in the United States. DuPont CEO Ellen Kullman played lacrosse, softball and college basketball.

Sport is where boys have traditionally learned about teamwork, goal-setting, the pursuit of excellence in performance and other achievement-oriented behaviors necessary for success in the workplace. The Women’s Sports Foundation (WSF) asserts, “In an economic environment where the quality of our children’s lives will be dependent on two-income families, our daughters cannot be less prepared for the highly competitive workplace than our sons,” [44, pp. 1-2].

The evidence for women athletes taking on leadership in the business world is compelling. A 2002 survey by MassMutual Financial Group and Oppenheimer Funds (From the Locker Room to the Boardroom: A Survey on Sports in the Lives of Women Business Executives) [29] revealed 80% of the women executives surveyed played sports growing up. The survey of more than 400 senior women executives found that:

- 86% say sports helped them to be more disciplined.
- 69% note sports assisted in the development of their leadership skills.
- 68% say sports helped them deal with failure.
- 59% believe sports gave them a competitive edge.
A separate survey by Ernst and Young [13] of more than 800 women executives, found that a far greater proportion of women who occupy roles as CEO, CFO, COO, etc. (referred to as C-level positions) rather than lower-level managers had participated in sports at a higher level, especially at university or as a working adult. Nearly 67% of women now in C-level positions have participated in sports as working adults, compared with 55% of other female managers.

The majority of women executives say that a sport background can help accelerate a woman’s leadership and career potential, and has a positive influence on hiring decisions. Furthermore, they believe the ability to motivate others is one positive outcome of playing sports, while the commitment to complete projects is another. Discipline as honed by sports also translates into positive corporate qualities, such as determination and work ethic. Women chief executives note that the most important contributors to their current career success are persistence, ambition and drive, and confidence, much of which they learned from their participation in sports [17].

Additional research findings on the connection between female executives and sports include [19]:

- Ninety percent of women agree that teams are the best way to address increasingly complex business problems, while 82% agree that improving their organization’s ability to develop and manage teams will be essential for future competitiveness.
- When comparing C-level female respondents to other female managers, a far higher proportion had participated in sports at a higher level, especially at university or as a working adult.
- More than three-quarters or 76% of women agree that adopting behaviors and techniques from sport in the corporate environment can be an effective way of improving the performance of teams [19].

World Focus on Women and Sport

In many parts of the world, women do not have equal access to sports. Yet there is clear evidence that participation on the playing field correlates with sizeable gains. The Women’s Sports...
Foundation [44] has long-term research that shows for example, women and girls who participate in sports are less likely to take drugs, be overweight, suffer from depression and diabetes, engage in abusive relationships or have unwanted pregnancies. They are more likely to graduate from high school, earn postgraduate degrees and earn more money.

In 2003, the Secretary-General convened the United Nations Inter-Agency Task Force on Sport for Development and Peace that subsequently provided a report on *Sport as a tool for development and peace: Towards achieving the United Nations Millennium Development Goals (MDG)* [41]. The report found that all areas of development can be influenced by sport, including health, education, employment, social inclusion, political development and peace and security. Throughout the world, leaders in all arenas have also recognized the power of sport as a catalyst for social and economic development. Women have been found to play an integral role in the achievement of every MDG [41].

Sport and physical activity were first specifically recognized as a human right in the International Charter of Physical Education and Sport, adopted in 1978 by the United Nations Educational, Scientific and Cultural Organization (UNESCO). The Charter states:

One of the essential conditions for the effective exercise of human rights is that everyone should be free to develop and preserve his or her physical, intellectual, and moral powers, and that access to physical education and sport should consequently be assured and guaranteed for all human beings. [40, p. 1]

Since then, governments, the United Nations system, numerous agencies and NGOs, as well as civil society have supported the notion of sport and physical education as a human right. Many have worked on a variety of initiatives, policies, and programs to encourage women to practice regular sport and recreational activities. There is much agreement that such efforts have a positive impact on women’s health, well-being and fitness throughout the whole life cycle, and seek to ensure that women enjoy equal opportunities to practice sport, use sport facilities and take part in competitions.

The International Olympic Committee (IOC) is one such group that plays a central leadership role in the world of sport, and its policies set standards in international, regional and national sporting
events and procedures. The IOC and its National Olympic Committees (NOCs) established the Women and Sport Commission, to annually monitor the participation of women in the Olympics as well as their representation in decision-making. The Commission defines priority actions to increase the involvement of women. They initially set a goal of 20% women in decision-making roles by 2005 [22, 23, 25, 38].

Sixty-two percent of NOCs had achieved these targets by 2005. There were nine women NOC Presidents: five in Africa, three in Europe and one in the Americas; and there were 14 women Secretaries General: four in Europe, four in the Americas, three in Africa, two in Asia and one in Oceania. According to the IOC’s official website, Africa is leading the way for women’s leadership, and in 2005, the National Olympic Committee of Zambia became the second in the world to elect women as both President (Miriam C. Moyo) and Secretary General (Hazel M. Kennedy) [22, 25, 38]. It is the leadership shown by Africa in the promotion of women to leadership roles in sport governing bodies which provides some hope that this vision can be duplicated in other aspects of women’s lives.

Women of Africa (Nigeria and Zambia)

According to The Prosperity Index of Africa [35], the entrepreneurial landscape in Africa is multi-faceted. It includes informal and formal sectors, traditional and modern, as well as local and foreign-owned enterprises, all of which are geographically dispersed across rural and urban areas. It ranges from small enterprises (providing employment for a single individual) to large corporations (employing hundreds). Small and Medium-sized Enterprises (SMEs), however, are the dominant form of entrepreneurial activity in sub-Saharan Africa (SSA). SMEs constitute around 90% of SSA business operations and create over 50% of employment and GDP [37].

In the recent decades, most SSA countries have seen economic growth rates surpassing those of Western Europe, the United States and even some Asian countries. SSA is now the second fastest growing region of the world after Asia. The informal economy represents more than 70% of economic activity in most SSA countries and women are responsible for the largest percentage of players in that informal economy, some 70% according to Roxburgh et al. [37].
McCarthy [30] found one in seven adults worldwide (14%) who are not already business owners said they plan to start their own business in the next year. Entrepreneurial intent was highest in SSA. Entrepreneurial intentions tended to be highest in regions where many new businesses are born out of necessity rather than opportunity. SSA and the Middle East and North Africa region, where 23% planned to start a business, had the lowest Payroll to Population (P2P) employment rates in the world in 2013.

Also significant in this review is the United Nations Population Fund [12] reports that demographic transition occurs when a population shifts from high fertility rates and high mortality rates to low fertility rates and low mortality rates. They report there has historically been a window of rapid economic growth in countries experiencing the demographic transition, a benefit called the “demographic dividend.” This accelerated growth occurs when a country’s working age population grows larger than the non-working age population, creating a more productive economy where a state faces fewer costs associated with non-workers, like children and the elderly.

The United Nations Population Fund [12] identified a way forward, saying the successful implementation of policies that empower women and girls and promote gender equity in social and economic environments are vital to securing the demographic dividend. Nigeria and Zambia are two nations poised to take advantage of the demographic dividend, provided their women receive the support needed.

According to Forbes [32] Nigeria and Zambia account for 20% of the 20 Young Power Women in Africa (Figure 2). This provides further positive correlation that these two regions are poised to grow as a result of young power women through entrepreneurial endeavors and continued C-level boardroom control.

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**Figure 2. Power Women in Africa**
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Women, Sport, and Business Development in Nigeria and Zambia

Nigeria is a nation of contrasts. It is home to the notorious Boko Haram, a militant Islamist group known for its many human rights abuses, including the abduction of more than 5,000 women and girls over the past five years. A poor nation within the SSA, Nigeria experiences high fertility rates, and a lack of education (some 36% of adolescent girls not in secondary school, compared to 7.39 in Latin America and the Caribbean). The United Nations Population Fund [12] has identified Nigeria is a country that could reap significant benefits from the demographic dividend with the proper investments in human capital. It is noted the successful implementation of policies that empower women and girls and promote gender equity in social and economic environments are vital to securing the demographic dividend. On the other extreme, Nigeria has three placements on the Forbes list of the 20 Young Power Women in Africa 2013 (Tara Fela-Durotoye, Founder, House of Tara; Ola Orekunrin, Medical Doctor and Founder, The Flying Doctors; and Folake Folarin-Coker, Fashion Designer).
It is also a nation whose women have made inroads into athletics and into such traditional male sports as soccer, combat sports (such as judo) and weight lifting. At the Atlanta Olympics in 1996, Nigeria’s female athletes won one gold, one silver, and two bronze medals. The first individual gold medal won by Nigeria after 38 years of Olympic participation was by the female long jumper, Chioma Ajunwa. In an analysis of gold medals won by Nigerians in all the African Games since inception, Nigerian men have won 28 gold medals; their female counterparts have won 57 medals [4].

The International Platform on Sport and Development [24] report on *The Role of Sport in Addressing Gender Issues*, notes evidence from post-apartheid South Africa shows that young women from different backgrounds could use football as a platform to engage with one another, mentor each other, as well as develop friendships and strengthen relationships. Similar findings from Nigeria suggest that sport plays a crucial role in enhancing social cohesion and encouraging social interaction among young women and girls.

Zambia, although smaller than Nigeria in SSA, is similar with regard to the challenges their women face with regards to full participation in sports and business opportunities. In 2005, the National Olympic Committee of Zambia became the second in the world to elect women as both President (Miriam C. Moyo) and Secretary General (Hazel M. Kennedy), according to the official website of the IOC. Zambia placed one woman on the Forbes list of the 20 Young Power Women in Africa 2013 (Monica Musonda, Chief Executive Officer and Founder of Java Foods) [22].

Whether, because of, or in spite of, the challenges women in Nigeria and Zambia face, they have shown remarkable resilience and confidence in their ability to start a business. Some 44% of the population in Zambia and 41% in Nigeria intended to start their own business [30]. Additionally, unlike much of the rest of the world, women in SSA showed much greater confidence in their entrepreneurship capabilities. Kelley et al. [26] found that four out of five women in Zambia, Malawi, Ghana, Uganda and Nigeria say they have the skills necessary to start their own business. Part of the higher levels of confidence in SSA is because almost 60% of women report that they know other women entrepreneurs [26]. The entrepreneurship confidence levels in SSA are also related to the types
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of businesses being started, often small, necessity-driven, and consumer-oriented with few or no employees.

When girls participate in sports they are more likely to attend school and participate in society. When women and girls can walk on the playing field, they are more likely to step into the classroom, the boardroom, and step out as leaders in society. Studies in the United States, for example, have also pointed to a positive relationship between girls’ participation in sport, positive attitudes towards education and higher academic achievements, girls being more likely to finish high school and college [5, 6]. Using the concept of self-esteem, girls and women who participate in sport and physical activity in both developed and developing countries demonstrate higher self-esteem as well as improved self-perception, self-worth, and self-efficacy [34]. Evidence is especially strong from developing countries like Zambia and Nigeria which indicates that involvement in organized sports activities helped to enhance girls’ sense of agency, self-empowerment and personal freedom [24].

Conclusion

Sport plays a vital role in laying the foundation for developing women’s capabilities [39]. It can be an important tool for social empowerment through the skills and values learned, such as teamwork, negotiation, leadership, communication and respect for others. The social benefits of participation in sport are thought to be especially important for girls, given that many girls, particularly in adolescence, have fewer opportunities than boys for social interaction outside the home and beyond family structures [34, 44].

The great potential of women has yet to be realized. In both developed and emerging economies, women are vastly underrepresented in leadership roles and in many aspects of business, social and political life. Sport can be an energizing factor in society, yet in many countries women and girls do not have access to sporting activities and do not play a significant part in sports’ ruling bodies, according to the 2005 Parliamentary Assembly, Council of Europe Report, Discrimination against women and girls in sport [10].
For women, having opportunities and choices early in life is particularly vital. Ensuring that girls are educated to the same level as boys in developing countries means that the world’s economy could be improved by US$92B a year [14]. The benefit lasts for generations. Children of educated mothers, especially daughters, are more likely to be enrolled in school and to have higher levels of educational attainment.

Women and girls who participate in sports, acquire new interpersonal networks, develop a sense of identity and access new opportunities, allowing them to become more engaged in school and community life, to enjoy freedom of expression and movement, and increase their self-esteem and self-confidence. These are the foundational components that can lead to a seat in the boardroom or to becoming a successful entrepreneur. For SSA, particularly Nigeria and Zambia, encouraging greater participation by women in sports can have a significant economic dividend.

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The Call for Global Responsible Intergenerational Leadership in the Corporate World: The Quest of an Integration of Intergenerational Equity in Contemporary Corporate Social Responsibility (CSR) Models

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Abstract

Global systemic risks of climate change, overindebtedness in the aftermath of the 2008/09 World Financial Crisis and the need for pension reform in the wake of an aging Western world population, currently raise attention for intergenerational fairness. Pressing social dilemmas beyond the control of singular nation states call for corporate social activities to back governmental regulation in crisis mitigation. The following paper promotes the idea of intergenerational equity in the corporate world.

In the given literature on global responsible leadership in the corporate sector and contemporary Corporate Social Responsibility (CSR) models, intergenerational equity appears to have widely been neglected. While the notion of sustainability has been integrated in CSR models, intergenerational equity has hardly been touched on as for contemporarily being a more legal case for codifying the triple bottom line. Advocating for integrating intergenerational equity concerns in CSR models in academia and practice holds advantages of untapped potentials of economically influential corporate entities, corporate adaptability and independence from voting cycles. Integrate a temporal dimension in contemporary CSR helps imbuing a longer-term perspective into the corporate world alongside advancements regarding tax ethics and global governance crises prevention. Future research avenues comprise of investigating situational factors influencing intergenerational leadership in the international arena in order to advance the idea of corporations aiding to tackle the most pressing contemporary challenges of mankind.

1. Introduction

Globalization leveraged pressure on contemporary society. Unprecedented interdependency of massive global systems cause systemic risk to increase exponentially creating pressing social dilemmas beyond the control of singular nation states (Centeno, Creager, Elga, Felton, Katz, Massey,
Shapiro, 2013). Global challenges of climate change, overindebtedness in the aftermath of the 2008/09 World Financial Crisis and the need for pension reform in the wake of an aging Western world population, currently raise attention to transnational intertemporal fairness. Intergenerational equity has come into public scrutiny entering the academic and practical discourse in the public and private sector. Since the 2008/09 World Financial Crisis pervaded societal demand to increase the socio-ethical commitments of corporations. Social awareness due to mass media reporting heightened stakeholder pressure exerting influence on corporate decision makers for ethicality. Therefore today's most pressing societal long-term downfalls call for corporate social activities to back governmental regulation on intergenerational justice (Puaschunder, 2015).

The age of globalization shifted the influence of national governments and their policies as a predominant forces in the economy to international governance of the corporate sector. Since decisions in one country can directly impact on the interest of citizens of other societies in a whole new range of trans-boundary problems, the range of influence and efficacy of national democracy got challenged. Limits to and the constraints on national economic autonomy and sovereignty have become blatant due to increased international interdependence. With a trend towards the constitutionalization of free trade and capital movements through bi- and multilateral agreements to protect free markets around the world, corporatism grew (Panitch & Gindin, 2012). Holding widespread access to vital economic resources and markets, multinationals have become quasi-global governance institutions as for having leveraged into legal and political authorities to regulate economic activity in the architecture of the world economy.

The following paper promotes the idea of intergenerational equity in the corporate world as an alternative to national governance and novel extension of contemporary Corporate Social Responsibility (CSR) models. Intergenerationally responsible leadership is built on the idea that corporate executives have an obligation to incorporate needs of far-ranging constituents, including future generations. In the eye of a current pressing demand for attention to intergenerational equity in the domains of climate justice, austerity and pension reform needs in an aging Western world population, the following paper theoretically highlights the corporate world’s potential to alleviate
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current intergenerational equity imbalances and explores intergenerational justice implementation strategies of the corporate world.

2. **Current quest of an integration of intergenerational equity in CSR**

Globalization converged the concept of nation states (Held & McGrew, 2007). Nowadays the range of opportunities of what contemporary states can autonomously do is ultimately limited by their dependence on each other (Panitch & Gindin, 2012). The role of states in maintaining property rights, overseeing contracts, stabilizing currencies and reproducing class relations has gradually deteriorated in the age of internationalization. Due to global capitalism, the power and political authority have been diffused away from local state ruling to global governance. The classic ideal of the command and control state was displaced by a philosophy of economic hegemony (Held & McGrew, 2007). As multilayered economic system are structured by the strategic coordination of international corporate entities, corporate multinationals nowadays have turned to solve global societal crisis beyond the control of singular nation states.

While the trend of internationalization has weakened the power of local governance and national control, globalization has also lead to unprecedented problems of climate change, overindebtedness in the aftermath of the 2008/09 World Financial Crisis and pension reform needs of an aging Western world population. In the light of growing socio-political and environmental challenges, heightened stakeholder concern has risen attention of global stakeholders on corporate ethical conduct. In the aftermath of the 2008/09 World Financial Crisis, corporations are under scrutiny for societal contributions and corporate board managers increasingly respected for corporate social conduct with stakeholders playing a conspicuous role in influencing the interaction between governments and business. The corporate world is nowadays more than ever urged to consider the needs of a wider range of stakeholders in their decision-making, go beyond ethical requirements and outperform responsibility expectations within the surge of a positive organizational scholarship movement.
In the age of heightened shareholder and stakeholder activism towards corporate social endeavors, the time is ripe to investigate the potential of corporate activities to engage on intergenerational equity in the aftermath of the 2008/09 World Financial Crisis. With growing socio-political and environmental challenges around the world in the domains of financial social irresponsibility, environmental resource consumption and growing costs for an aging populace, there is increasing pressure from stakeholders – among them governments, local communities, NGOs, and society at large – that corporations and their leaders contribute to societally-attentive business practices. Access to information law revolutions in the Western World have steered attention to corporate ethicality. Corporate social reporting and the engagement of stakeholders have led to the adoption of a variety of global ethical standards, which may directly impact on the propensity to engage in intergenerational equity implementations. Local communities, customers, employees, and NGOs as well as shareholders are increasingly monitoring ethical behavior in the digital age featuring greater transparency, accessibility and reachability of corporate conduct.

In the international arena, the UN Global Compact has raised over 10,000 members 2000, including over 7,000 businesses in 145 countries around the world (Puaschunder, 2010). Increasing and expanding Corporate Social Responsibility (CSR) initiatives indicate that more and more business leaders commit their companies to contribute to the “triple bottom line” to harmoniously considers social, environmental, and economic sustainability in every day corporate decision making (Elkington, 1997). Respect for ‘people, planet, and profits’ has become a corporate necessity and industrial imperative. Corporate sustainability and social responsibility has thus emerged to unprecedented momentum in academia and practitioners’ discourse. Today business leaders tend to contribute to the creation of economic and societal progress in a globally responsible and sustainable way by means as never before experienced.

Given the pressing demand for attention to climate change mitigation, overindebtedness soft landing in the aftermath of the 2008/09 World Financial Crisis as well as pension reform in the eye of an aging Western World population, the need for an introduction of intergenerational equity conscientiousness in the corporate world is blatant. In a climate of corporate governance and global
challenges beyond the control of singular nation states, the idea of promoting intergenerational equity in the corporate world has reached unprecedented momentum. Departing from narrow-minded, outdated views of responsibilities of corporations only adherent to making profit for shareholders and abiding by the law (Friedman, 1970); corporate executives nowadays are more prone to act responsibly in meeting the needs of a wide range of constituents. Apart from avoiding unethical societally harmful behavior, such as bribery, fraud and employment discrimination, corporate executives currently pro-actively engage in corporate governance practice with a wider constituency outlook, including the needs of future generations.

The future conceptualization of sustainable and responsible managerial behavior may therefore embrace the wider constituency range and stretch the concept of corporate responsibility to voluntary sustainability for future generations. An extended stakeholder view considers a broader set of constituencies, including future generations, in corporate decision making with impact on the social performance and long-term viability of their organizations. A broader, social contract between business and future society may be enacted by discretionary activities that are not expected of corporations and their leaders in a moral or legal sense but directly contribute to societal welfare and the wellbeing of future generations. This suggests that there is a need for a broader definition of corporate responsibility that goes beyond compliance and encompasses the obligation to contribute to societal progress in a responsible and sustainable way.

Intergenerationally responsible leadership is called for that steers intentional corporate executive actions to benefit the stakeholders of the company as well as the larger society including future generations. Intergenerational corporate leadership imbues should-do care for future generations alongside concerns about future society. Not simply considering to avoid unethical behavior, such as bribery, fraud and employment discrimination, but also adopting a positive and pro-active ethics lens, intergenerationally responsible leadership is an ueberethical drive to consider the interests of a wider range of stakeholders (Puaschunder, 2015). Intergenerational justice concerns of the corporate world thereby directly reach out to future world inhabitants. Surpassing state-of-the-art ethical corporate leadership quests on ethically compliant behavior and avoidance of unethical
corporate conduct, incorporating intergenerational equity into contemporary CSR models may extend the idea of ‘positive CSR’ – that is outdoing legal and ethical expectations – with respect for future constituents. Going beyond mere compliance involves actions that pro-actively promote social good, beyond what is required by law, intergenerational corporate responsibility would extend CSR as a broader social contract between business and society over time. Corporate leaders thereby pro-actively outperform legal and ethical expectations regarding the rights and needs of future generations. This positive CSR drive refers to an ueberethical enhancement of societal welfare beyond the narrow scope of the current generation. As a broader definition of corporate responsibility beyond avoidance of negative downfalls, the call for intergenerational responsible leadership in the corporate world encompasses the obligation to contribute to societal progress with respect for the needs of future generations. Defining novel responsibilities with a broader social contract between business and society will help embracing discretionary activities that contribute to sustainable societal welfare.

3. Intergenerational CSR model advantages

In the given literature on global responsible leadership in the corporate sector and contemporary Corporate Social Responsibility (CSR) models, intergenerational equity appears to have widely been neglected. While the notion of sustainability has been integrated in CSR models (Steurer, Martinuzzi & Margula, 2012), intergenerational equity has hardly been touched on as intergenerational fairness differs from sustainability as for being a more legal case for codifying the triple bottom line, which pays attention to a balance of social, economic and environmental obligations of corporations to the wider constituency.

Since 2008 the International Law Commission of the United Nations has been promoting intergenerational equity primarily on global governance issues – such as climate change awareness, overindebtedness and pension reform – to the public sector (Puaschunder, 2015). The implementation of intergenerational equity in this domain, though, seems to be slowed by an ongoing
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discussion of whether international law can overrule nation states’ sovereignty. The debate has just recently started and may not come to a satisfactory end in the foreseeable future.

Integrating intergenerational equity in CSR models in academia and practice appears as advantageous alternative given the enormous untapped potential of transnational Corporations and Multinational Enterprises (TC&MEs) to implement equity. Nowadays, international trade is driven by transnational corporations. As corporate entities with economic influence beyond the borders of nation states holding subsidiaries in various nations of the world (Binder, Kriebaum, Marboe, Nowak, Reinisch & Wittich, 2014), TC&MEs are acknowledged as international legal entities and must therefore abide by international law standards and fulfill international court laws (e.g., ICSID and UNCITRAL). As a consequence TC&MEs should, like nation states, consider adopting concern for intergenerational equity.

There are several advantages of TC&MEs implementing intergenerational equity as a CSR means. TC&MEs hold enormous economic power, with the largest multi-national corporations having revenues larger than many nation states. In their corporate governance, TC&MEs leadership decision making quickly adapts to market demands without having to reach international consensus – contrary to stakeholder engagement and international negation demands of classic global governance entities such as the United National, International Monetary Fund and the World Bank.

In addition, TC&MEs are not dependent on voters – such as governmental officials – and can thus address intergenerational concerns faster and more flexibly than governmental technocrats. Further TC&ME leadership may be more stable than governmental officials enacted through voting cycles – that is global corporate leaders are likely to stay longer in ‘office’ than their governmental counterparts. Governments, being unsure to be re-elected, are inherently short-sighted and do not fully take into account the longer term implications of deficits.

If the corporate world adopts intergenerational equity in current CSR endeavors, it could help governmental officials in very many different ways ranging from tax ethics to first-aid global governance support. For society, acknowledging intergenerational equity in the CSR practices promises to alleviate currently-pressing societal predicaments of overindebtedness, social welfare
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reform needs and environmental threats in the wake of climate change. Investigating the possibilities to integrate a temporal dimension in contemporary CSR thus innovatively guides the implementation of financial social responsibility, environmental protection education and social welfare. Corporate attention to intergenerational concerns would thereby embrace future crisis prevention in the eye of the societal costs and negative externalities of corporate misconduct and financial collapse resulting in economic downturns, unemployment and pension saving losses. Besides averting negative impacts of managerial unethical corporate conduct, corporate intergenerational ethicality would also build business reputation attracting talent, raise customer confidence as well as sustainable employee and citizenry welfare. Within academia integrating the notion of intergenerational fairness in corporate governance models fills an up-to-date undiscovered research gap that spearheads interdisciplinary behavioral law and economic models.

Overall, enhancing intergenerational social conscientiousness in the corporate world is an innovative way to unprecedentedly leverage untapped potentials to implement social welfare and environmental protection through future-oriented and socially responsible economic market approaches. Thereby averting future predictable economic, social and environmental crises serves the greater goal to ensure a future sustainable and temporally-harmonious mankind.

4. Future perspectives

Globalization has placed social and environmental concerns on managerial agendas to an increased extent while more and more managers operate in a global environment. Multidisciplinary and multilevel research approaches may therefore investigate the comparative and cross-national dimensions of intergenerational equity and their implications for leadership decision making and behavior in the global arena. Interdisciplinary and multilevel research approaches could feature scientific collaborations with researchers based in different countries to investigate the comparative and cross-national dimensions of intergenerationally responsible managerial behavior representing different disciplinary backgrounds (economics, business, psychology, etc.), research fields (e.g., strategy, organizational behavior, and international and cross-cultural management within the field of
business), methodological approaches (both qualitative and quantitative), and regional expertise (in-depth knowledge of North-American, European, and Asian business systems and institutional environments). International studies of intergenerational equity should be targeted at deriving a sophisticated conceptualization of ‘responsible behavior’ that is applicable to all cultural groups and stakeholders.

International research on intergenerational equity could unravel drivers of intergenerationally responsible managerial behavior. Cross-national, multi-level analyses could thereby retrieve influence factors on the adoption of globally responsible intergenerational leadership and corporate practices. Knowledge of contextual factors that promote intergenerational managerial decision-making with regard to corporate sustainability and social responsibility could include favorable characteristics of the organization and aspects of the broader institutional and cultural contexts in which firms are embedded that automatically trigger intergenerational concern. Thereby the antecedents of sustainable and responsible management at multiple levels (individual, group, organization, national context, supranational bodies) but also the interlinkages among variables should be investigated.

Institutional contexts within which companies and their managers operate determine executives’ responsible choices. Differences in corporate governance and legal contexts but also the nature of regulation and the likelihood of enforcement shape business ethics as well as expectations of what is considered good governance and ethical conduct in a country. Managers’ responsible leadership may therefore vary across institutional contexts in the international arena. What may be considered as intergenerational practice in one part of the world may not be ethical state-of-the-art in another. As a consequence, corporate leaders embedded in different national systems may exhibit different intergenerational ethics. Cross-national variations in socially responsible practices could be captured in order to derive implications for organizational decision-makers on how their corporate responsibility. Adopted CSR strategies may be scrutinized for globally standardized, locally adapted, and transnational factors to delineate globally consistent as well as locally-oriented intergenerational equity CSR approaches.
With the underlying premises of exhibited behavior being a function of both the person and the environment in which that behavior takes place, future research may also unravel ethical decision-making under situational constraints that the broader cultural and institutional environment impose on the adoption of sustainable and socially responsible practices. Cross-culturally operating institutions may face challenges for intergenerational equity implementation stemming from local differences in corporate practices and social ethical norms as well as differing thresholds to sustainable behavior. For instance, challenges arise if corporations or even nation states of the industrialized world outsource intergenerational practices (e.g., environmental pollution) into territories with weaker law enforcement and public scrutiny. These findings emphasize the need for sensitivity to local conditions, transparency along the production and value chains as well as stakeholder expectations monitoring when conducting business in different contexts. Future research may also address ethical dilemmas facing managers in the global arena and their coping strategies in order to enhance research outcomes are leaders’ potential operating in the global arena to balance global and local considerations in making responsible decisions. As an implication, intergenerational CSR practices should be locally-oriented and emphasize sensitivity to local conditions when conducting business in different cultural contexts. Corporate executives with foreign subsidiaries should gain training to adapt to specific needs and circumstances of local CSR intergenerational equity customs.

The role of supranational factors that influence responsible leader behavior provide further insight into the propensity to engage in intergenerational equity. With supranational institutions – such as the UN – having turned to the codification of the triple bottom line in the UN Global Compact, managers are increasingly respected for their accountability and responsibility. Insights on the influence of supranational regulatory measures and institutions (e.g., NGO activism and the enactment of the UN Global Compact) on intergenerationally-responsible managerial behavior may shed light on success factors in the adoption of intergenerationally socially responsible corporate practices.
The organizational-, situational-, societal, and supranational-level determinants of responsible managerial behavior can be influenced by top management teams, policy makers, educators, and external regulators. Avenues of future research could enhance our understanding of how companies and other stakeholders can effectively promote socially responsible behavior for future generations. Best practice studies in this area could shed light on how companies can systematically design and utilize human resource management practices and leadership development programs to promote responsible managerial behavior. Prospective findings may thus enhance our understanding of how companies and other stakeholders can effectively prevent, manage and control the corporate risks associated with unethical conduct of leaders. The implementation of intergenerational equity could be solicited through building corporate cultures that enhance an ethical climate. On the corporate incentive level, intergenerational equity may be implemented through performance management and reward systems to hold managers accountable for irresponsible behavior as well as creating psychological incentives to think about future consequences of current corporate conduct. Capturing the impact of external factors on intergenerational equitable decision making and coping with the ethical dilemmas in leadership challenges may serve as a basis for training and development activities.

At the organizational level, when recruiting, selecting and promoting managers, it is essential for organizations to understand how individual-level variables such as personality traits, motives and values may predict managers’ propensity to engage in ethical behavior. For example, firms can use personality tests and integrity tests, along with interviews and assessment centers, to help determine which employees might be more likely to act irresponsibly. They can also assess applicants’ attitudes and values to determine whether they will match the corporate culture, with the assumption that candidates’ formal qualifications and job-related skills may not be the best predictors of responsible behavior on the job. Studying personality traits but also motives and values that steer managers’ propensity to engage in intergenerational equity will allow to set up assessment centers that reveal which individuals are more likely to act irresponsibly and if the managerial ethics will likely match the corporate culture.
Intergenerational equity can also be imbued in corporate activities by creating and enforcing company policies and codes of conduct, supporting training and development initiatives which are aimed at increasing moral awareness. Once the individual has joined the organization, induction programs, individual coaching by the supervisor, training and development programs, and other socialization practices could ensure that newcomers learn values, expected behaviors, and social knowledge that are necessary to become intergenerationally conscientious managerial leaders. In terms of communication and control systems, top management teams and governmental officials may actively promote responsible behavior and discourage irresponsible behavior by communicating ethical integrity messages. Implementing performance management and reward systems to hold managers accountable for irresponsible behavior could in addition create a psychologically favorable situation for intergenerational ethicality (Crane & Matten, 2007).

5. Conclusion

In the age of globalization, when internationalization trends impose significant challenges regarding sustainability of climate stability, indebtedness and social welfare for an aging Western world population, the call for intergenerationally responsible leadership has leveraged into an international concern. The call for an integration of intergenerational equity in contemporary CSR models of capitalism in the 21st century is targeted at strengthening socially responsible economic market approaches. Adopting intergenerational equity in the corporate world underlines the legal case for codifying intergenerational fairness on a global basis. Contributing to interdisciplinary behavioral law and economic models in intergenerational leadership may help alleviating current intertemporal predicaments and future predictable economic, social and environmental crises. Acknowledging the untapped potential of corporate entities to address global challenges beyond the reach of singular nation states, calls for the integration of intergenerational equity into contemporary CSR models with attention to differing societal cultural values and institutional aspects related to social responsibility and ethics. Differences in business systems, legal context, the nature of
regulation and the likelihood of enforcement and punishment modes therefore have to be scrutinized when shaping intergenerational business ethics in the global arena. Cross-national sustainability solutions and interculturally-sensitive intergenerationally equitable business practices may help imbue intergenerational equity in corporate conduct in the global arena with direct implications for today’s and tomorrow’s society.
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References


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Abstract

Buyer-supplier relationships have been an important research focus of distribution channel and supply chain management. Maintaining sustainable relationships with partners is a value-creation process in exchange. Building on interfirm power-dependence and relationship marketing theory, this study takes the buyer’s perspective to explore how buyer-supplier relationships can be sustained by gaining the buyer’s satisfaction. Our findings suggest that the supplier’s role performance and dependence can help drive the buyer’s commitment to the buyer-supplier relationships through economic and social satisfaction. This study provides managerial implications for firms striving to develop and maintain sustainable relationships with channel and supply chain partners.

Keywords: buyer-supplier relationships, commitment, dependence, role performance, satisfaction, sustainability
Sustaining Buyer-Supplier Relationships: The Buyer’s Perspective

Sustaining buyer-supplier relationships has been an important research focus of distribution channel and supply chain management for decades; and excellent progress has been made in our understanding of the interfirm relationships, from the initial accumulation of knowledge relying on a power-dependence view to an application of relationship marketing perspective [25]. Earlier research on buyer-supplier relationships emphasizes on the control of one party over the other (i.e., power) and the resulting reliance of one party on the other (i.e., dependence) [12, 14], whereas more recent work derived from relationship marketing argues that firms strive to achieve a sustainable competitive advantage by engaging the other party in exchange relationships and maintaining quality relationship in order to manage uncertainties and reduce transaction costs during the value-creation exchange process [3, 15, 17, 24].

To date, empirical investigations of buyer-supplier relationships have revealed a number of valuable constructs showing important indicators of relationship quality, including commitment, satisfaction, and trust [25]. Among these constructs, commitment represents not only the length of but also the intimacy in the exchange relationship [15]. According to Morgan and Hunt [24], commitment is the strength of the intention to develop and continue a stable and long-term relationship between two parties. Dywer et al. [10, p. 19] describe commitment as “the highest stage of relational bonding”. Viewing the relationship commitment as a final status in a sustainable buyer-supplier relationship, our study takes the perspective of the buyer. Although the buyer and the supplier may differ in the functions they perform in exchange, symmetry is expected in the nature and pattern of the behavioral constructs that underlie the buyer-supplier relationship [20]. Further, a study of supplier dependence and buyer commitment from the buyer’s perspective is warranted because the buyer’s (e.g. Walmart) power has been widely recognized [8].

According to Ganesan [15], determinants of commitment in buyer-supplier relationships include satisfaction and dependence. Although the positive relationships between satisfaction and commitment have been well established in prior research [17], the link between dependence and commitment is less clear. For example, Ganesan [15] reports that supplier dependence has a negative
impact on buyer commitment but buyer dependence has a positive impact on supplier commitment, whereas Lusch and Brown [22] find that the negative impact of supplier dependence on buyer commitment is not confirmed. To address these inconsistencies, we propose that the effect of one party’s dependence on the other party’s commitment must be considered together with the other party’s satisfaction, that is, through the mediation of satisfaction. In other words, we argue the relationship between supplier dependence and buyer commitment can be positive, but the positive relationship is mediated through the buyer’s achieved satisfaction with the supplier.

Moreover, supplier role performance is also proposed as a determinant of sustainable buyer-supplier relationships. In order to make a relationship sustainable, channel members need to perform their roles in exchange. Previous research emphasizes the significance of role performance in building long-term relationships [9, 27]. Role performance has been investigated as either an outcome of commitment [4, 27] or an antecedent to commitment [6]. In this study, we posit that commitment is the ultimate goals of a sustainable relationship and supplier role performance positively affects the buyer’s commitment to the relationship through achieved satisfaction.

We collect data from the retail industry in China, one of the largest emerging consumer markets with a booming retail sector. In this growing economy, the confluence of traditional cultural influences and new modern concepts makes channel relationships dynamic; China therefore provides an excellent venue for examining potential sustainable relationships between the buyer and the supplier. Now we develop the framework of our model (see Figure 1) and propose hypotheses. Then, we describe the research method and report results. Lastly, we conclude with a discussion of the limitations and suggestions for future research.

**Conceptual Framework and Hypotheses Development**

Understanding sustainable buyer-supplier relationships requires a distinction between discrete transaction and long-term value-creation exchange. A sustainable buyer-supplier relationship can be achieved through relationship marketing. Morgan and Hunt [24] refer relationship marketing
as marketing activities directed toward establishing, developing, and maintaining successful relational exchanges. In this sense, a sustainable relationship is both relational and durable, reflecting an ongoing process that contributes towards creating a competitive advantage. The buyer and the supplier both obtain benefits from sustainable relationships [10].

We propose the buyer’s economic and social satisfaction with the supplier as a key to a sustainable relationship. Satisfaction is “a positive affective state resulting from a firm’s appraisal of all aspects of its working relationship with another firm” [2, p. 63], including economic as well as social aspects [10, 15, 16]. Satisfaction, as a central construct in the relationship marketing, is crucial to understanding the development and maintenance of buyer-supplier relationships [1]. Dwyer et al. [10] also views relationship satisfaction as a key to long-run relationship viability. Without satisfaction, it is hard to continue the relationship with the supplier. Moreover, for both parties, constructive long-term relationships through satisfaction can be a sustainable competitive advantage which can lead to superior performance [15].

Satisfaction is not a unitary concept; it has two dimensions—economic satisfaction and social satisfaction [16]. Understanding the two aspects of satisfaction is important because “a channel member’s activities may produce economic satisfaction with its counterpart, while undermining the counterpart’s social satisfaction or vice versa” [16, p.12]. Economic satisfaction is defined as “a channel member’s evaluation of the economic outcomes that flow from the relationship with its partner such as sales volume, margins, and discounts” [16, p.13]. Geyskens and Steenkamp [16, p. 13] also define social satisfaction as “a channel member’s evaluation of the psychosocial aspects of its relationships, in that interactions with the exchange partner are fulfilling, gratifying, and facile”. Thus, economic satisfaction and social satisfaction are conceptually distinct in buyer-supplier relationships.

Role performance is also important in buyer-supplier relationships. The buyer and the supplier perform their functional roles in a distribution channel or a supply chain. According to Frazier [12], role performance refers to how well a firm performs in exchange, including delivery performance, quality, relative price/margins, marketing support, etc. It is hard for a firm to maintain
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the relationship without meeting the minimum expectations of the partner. For the buyer, a supplier’s role performance is the primary criteria for supplier selection decisions and future purchase intentions [9]. The supplier’s superior performance on its role helps the buyer operate effectively and efficiently, thus supplier role performance frequently leads to the buyer’s commitment in a relationship [28, 24].

The mediating role of economic satisfaction and social satisfaction

Firms need to establish and maintain beneficial relationships with exchange partners. Their success in large part depends on how well their partner performs in fulfilling the required channel or supply chain functions [14]. It is obvious that supplier role performance affects the buyer’s operations. A supplier’s superior role performance may lead to relationship commitment from the buyer, but supplier role performance alone will not guarantee that. We propose that satisfaction is necessary because it serves as a bridge between supplier role performance and buyer commitment.

Satisfaction is a vital determinant to relationship commitment. Ganesan [15] states that relationship satisfaction leads to a positive long-term orientation. Thus, satisfaction results in commitment which is the ultimate goal of a sustainable relationship. Prior research has shown that both economic satisfaction and social satisfaction positively affect buyer commitment [16, 17, 26]. Economically satisfied buyers will continue the relationship to obtain greater economic rewards and socially satisfied buyers will tend to engage in constructive communication. Sharing information and sound communication will improve social exchange and mutual understanding, and in turn, can maintain longer and closer relationships with partners [26].

We expect that supplier role performance positively influences buyer economic satisfaction and social satisfaction. With a supplier’s superior role performance, the buyer can gain the benefits of achieving higher sales volume and profits (economic satisfaction) [21] and also perceive the supplier as doing a good job (social satisfaction) [27]. A high level of role performance will lead to buyer
commitment through achieved economic and social satisfaction. Thus, economic satisfaction and social satisfaction both serve as vital mediators in establishing long-term sustainable exchange relationships. Thus, we hypothesize:

H1: The effect of supplier role performance on buyer commitment will be mediated by the buyer’s (a) economic satisfaction and (b) social satisfaction with the supplier.

As aforementioned, firms cannot survive or achieve success without collaborating with their channel and supply chain partners, i.e. they cannot be independent from each other. Even though the degree of dependency varies, they rely on each other to create value in the exchange process. Dependence is the resulting reliance of one firm on the other due to its lack of alternatives in a relationship [11, 18, 24]. The positive relationship between one party’s dependence and its commitment to the relationship has been well established [15, 7], but the relationship between supplier dependence and buyer commitment is not clear. Some researchers posit that supplier dependence negatively affects buyer commitment due to the burden of relationship costs [15, 22] while others find no relationship between supplier dependence and buyer commitment [22]. We argue that this inconsistency is due to the indirect relationship between supplier dependence and buyer commitment; alternatively, we propose satisfaction as a mediator in the relationship.

Anderson and Narus [3] argue that firms can exercise its power to demand changes from the partner when needed. According to Carr et al. [7], those suppliers who are more dependent are more likely to make accommodations to their production processes and inventory to meet the buyer’s needs, and they are also more willing to cooperate in the relationship. When the supplier depends more on the buyer, the supplier tends to communicate and interact more with the buyer [7], which leads to a higher level of achieved social satisfaction for the buyer. A powerful buyer also attains more economic satisfaction from a dependent supplier because, when the supplier depends on the buyer, the buyer can reap more financial benefits such as discounts or margins. Thus, we hypothesize that the positive relationship between supplier dependence and buyer commitment is possible only when the buyer gains economic and social satisfaction with the supplier in exchange. Thus,
H2: The effect of supplier dependence on buyer commitment will be mediated by the buyer’s (a) economic satisfaction and (b) social satisfaction with the supplier.

Insert Figure 1 here

Research Methodology

Based on a literature review of prior studies on buyer-seller relationships, we developed a survey instrument. The questionnaire was back-translated by two independent translators and then tested with five purchasing managers from a large retailer located in Shanghai, China. Based on their feedbacks, we made a few wording modifications. For the final survey, we randomly selected a sample of 50 retailers in Beijing, Shanghai, Guangzhou, Shenzhen, and Nanjing (five largest cities in China) from a list provided by a marketing research company. Trained interviewers called each retailer and asked its buyers to participate in the survey. The final number of respondents (i.e. retail buyer) is 121. The respondents were asked to answer questions with respect to the interfirm relationship with a major supplier to ensure that the buyers had sufficient information to evaluate the supplier. We checked for non-response bias by comparing participating retailers with a sample of nonparticipants on annual sales volume and found no significant differences between these two groups.

The retail format in the sample included hypermarket, supermarket, department store, and convenience store. The average annual sales volume of retailers in the sample was RMB 3.67 million. The average length of relationship with the reported supplier was 5 years. Among the firms in the sample, 55% was state-owned; 31% private; and 14% joint venture.

All constructs are derived from previous literature [16, 15]. Items are measured using 7-point Likert scales (1 = strongly agree, 7 = strongly disagree) except supplier role performance which is 11 point scales (-5 = very poor, 5 = very good). The items for each construct are included in the Appendix. The mean and the standard deviation (S.D.) of each construct along with the correlations...
among the five constructs are shown in Table 1. All constructs exhibited acceptable reliability (all Cronbach’s alpha > .60).

Regression is the most common method for testing mediation [23]. We follow a three-step procedure to examine the mediation effects using multiple regressions. First, we evaluate the effect of the predictor on the outcome. After that we examine the relationship between the predictor and mediator. Lastly, we include the predictor and the mediator simultaneously as independent variables in regression. These three steps are conducted for each hypothesis.

Result

The results from hypotheses testing are shown in Table 2. As the results show, buyer economic satisfaction is a full mediator between supplier role performance and buyer commitment (H1a), and between supplier dependence and buyer commitment (H2a), respectively. Similarly, buyer social satisfaction is a full mediator between supplier role performance and buyer commitment (H1b), and between supplier dependence and buyer commitment (H2b), respectively.

Specifically, H1a proposes that economic satisfaction mediates the relationship between supplier role performance and buyer commitment. As shown in Model 1, supplier role performance had a significant effect on buyer commitment (b = .254, p < .05), and supplier role performance also had a significant effect on buyer economic satisfaction (b = .359, p < .001). Without economic satisfaction as a mediator, supplier role performance significantly affected buyer commitment. After entering economic satisfaction, however, the effect of supplier role performance on buyer commitment was no longer significant (b = .111, p > .05) while the effect of economic satisfaction on buyer commitment was still significant (b = .344, p < .05). Therefore, buyer economic satisfaction fully mediated the relationship of supplier role performance and buyer commitment, in support of H1a.
H1b posits that social satisfaction mediates the relationship between supplier role performance and buyer commitment. As shown in Model 2, supplier role performance significantly affected buyer commitment ($b = .254$, $p < .05$), and supplier role performance significantly influenced buyer social satisfaction ($b = .350$, $p < .05$). After adding social satisfaction as a mediator, however, the effect of supplier role performance on buyer commitment was no longer significant ($b = .037$, $p > .05$) while the effect of social satisfaction on buyer commitment was still significant ($b = .619$, $p < .001$). Thus, social satisfaction fully mediated the relationship between supplier role performance and buyer commitment, in support of H1b.

H2a proposes economic satisfaction mediates the relationship between supplier dependence and buyer commitment. As shown in Model 3, supplier dependence had a significant effect on buyer commitment ($b = .275$, $p < .05$), and supplier dependence also had a significant effect on buyer economic satisfaction ($b = .266$, $p < .05$). After entering economic satisfaction as a mediator, however, the effect of supplier dependence on buyer commitment was no longer significant ($b = .181$, $p > .05$) while the effect of economic satisfaction on buyer commitment was still significant ($b = .347$, $p < .05$). Therefore, buyer economic satisfaction fully mediated the relationship of supplier dependence and buyer commitment, in support of H2a.

H2b posits that social satisfaction mediates the relationship between supplier dependence and buyer commitment. As shown in Model 4, supplier dependence significantly affected buyer commitment ($b = .275$, $p < .05$), and supplier dependence significantly influenced buyer social satisfaction ($b = .290$, $p < .05$). After adding social satisfaction as a mediator, however, the effect of supplier dependence on buyer commitment was no longer significant ($b = .111$, $p > .05$) while the effect of social satisfaction on buyer commitment was still significant ($b = .575$, $p < .001$). Thus, social satisfaction fully mediated the relationship between supplier dependence and buyer commitment, in support of H2b as well.

Insert Table 2 here
Discussion and Conclusion

In line with the belief that favorable buyer–seller relationships enhance exchange performance [25], developing a sustainable buyer-supplier relationship is gaining attention in both business practice and academic research. Further, the value-creation nature of interfirm exchange drives the buyer and the supplier to increasingly depend on each other, thus making a sustainable relationship more critical in this sphere. As the number of exchange partners increases, as the competition becomes more intense, and as the environment grows more uncertain, sustainable relationships become increasingly important as means to secure business partners and protect against business risk.

This study examines pathways to engage the buyer in commitment to a sustainable relationship with the supplier in interfirm exchange. We propose the positive effects of supplier role performance and supplier dependence on the buyer’s commitment to the relationship through the mediation of the buyer’s economic and social satisfaction with the supplier. The results support the proposed relationships and find that both supplier role performance and supplier dependence help drive buyer commitment through the buyer’s economic and social satisfaction.

This study contributes to the literature on relationship marketing by providing the insights about means of building sustainable buyer-supplier relationships. From a buyer’s view, supplier role performance is a key determinant to drive the satisfied buyer to relationship commitment. Further, in bridging the dependence literature and the relationship marketing literature, this study seeks to reconcile the equivocal relations between supplier dependence and buyer commitment [15, 22]. By proposing two types of satisfaction as mediators, this study finds that supplier dependence can also lead to buyer commitment as long as the buyer is satisfied with the supplier in the relationship, economically and socially. Thus, this study provides a more nuanced view of the important role of satisfaction in sustaining a buyer-supplier relationship.
Sustaining Buyer-Supplier Relationships: The Buyer’s Perspective

Implications

The findings from this study provide important implications for suppliers. First, for suppliers, providing superior role performance is of paramount importance in driving both economic and social satisfaction of the buyer. The supplier’s superior role performance helps the buyer reap financial benefits and establish intimate and reliable relationships. Productive and beneficial relationships help organizations achieve their ultimate goals [3]. Without satisfaction, it is hard to drive the buyer to commit to the relationship. Thus, suppliers should try to provide high quality of operations and assistance to the buyer in the supply chain.

Second, being a supplier with a higher level of dependence does not mean that the supplier is not able to have a sustainable relationship with the buyer due to its vulnerable position in the relationship. Although the power structure between the buying firm and the supplier has changed, and indeed the buyer (particularly the retail firms) has been gaining power over the supplier [8], it is still possible for the more dependent supplier to develop a sustainable buyer-supplier with the more powerful buyer as long as the supplier can gain the buyer’s satisfaction. Specifically, suppliers are advised to strive to invest more time and effort to meet the buyer’s expectation so that the buyer’s economic and social satisfaction will be achieved [3, 7]. In doing so, the supplier can maintain a sustainable relationship with the buyer, and this kind of sustainable relationship itself can be a competitive advantage.

Limitations and Future research

First, this study used the data gathered from one side only. Although we are in line with prior research in taking the buyer’s perspective, and the buyer and the supplier are expected to show similarity in their behavior patterns in a buyer-supplier relationship [20], only empirical data from both sides would verify the symmetrical nature of two parties.

Further study may collect dyadic data from both sides in order to provide more enriched information on the buyer-supplier relationship. Despite using one side of data, we argue that the perspective of retailers is more important in our study due to the rising power of retailers [8]. As well, the retailer’s
perception of the levels of supplier role performance and dependence is more important than the supplier’s own perception. Therefore, we cautiously argue that the data used in our study provides sufficient evidence to investigate our model even though we collected data from the buyer only.

Second, the data for our study was collected from one country --- China. Using samples from a single country means that we cannot draw definitive conclusions about how these findings apply to buyer-supplier relationships in other countries and cultures. However, China is one of the biggest markets in the world and its retail industry has been growing rapidly. Moreover, China has opened the door to foreign investment for several decades, and the business practices in China have been influenced heavily by Western business concepts and practices. Thus, our theoretical model and empirical findings are likely applicable to other countries, especially emerging markets. However, future research may seek to collect data from other countries to validate the results, and to allow for cross-cultural comparisons.

Third, our data is cross sectional in nature. Although the testing of the models yielded results that are consistent with the hypotheses, the cross-sectional design often limits the ability to rule out alternative causal inferences. Future studies may need to employ a longitudinal design to establish the causal links implied in the model.

Lastly, despite the effort in collecting data, the sample size remained small, which precludes complex model testing. Future research may seek to collect more data and test more complex relationships. For instance, further studies may examine the role of trust in developing a sustainable buyer-supplier relationship and how a sustainable buyer-supplier relationship evolves over time.
References


Sustaining Buyer-Supplier Relationships: The Buyer’s Perspective


Sustaining Buyer-Supplier Relationships: The Buyer’s Perspective

Marketing Science Institute.


Figure 1: A Mediation Model of Satisfaction in Buyer-Supplier Relationships

- Supplier Role Performance
- Supplier Dependence
- Buyer Economic Satisfaction
- Buyer Social Satisfaction
- Buyer Commitment
- Relationship Consequence

Sustaining Buyer-Supplier Relationships: The Buyer’s Perspective

### Table 1. Descriptive Statistics and Correlations

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Note: * p < .05, ** p < .001 (two-tailed)
## Table 2. Summary of Hypotheses Testing

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Note: * p < .05, ** p < .001
Appendix

Supplier Role Performance (-5=very poor; +5= very good)

1. Reasonable margin for retailer
2. Unique products
3. Delivery of goods
4. Well known/respected brand
5. Levels of advertising support
6. Levels of slotting fees
7. Levels of yearly rebates
8. Product quality

Supplier Dependence (1= strongly disagree; 7= strongly agree)

1. If this supplier’s relationship was discontinued with us, they would have difficulty in making up the sales volume in our trading area.
2. Our company is crucial to this supplier’s future performance.
3. It would be difficult for the supplier to replace our company.
4. It would be difficult for this supplier to replace the sales and profits generated from our distribution.

Buyer Economic Satisfaction (1= strongly disagree; 7= strongly agree)

1. Our relationship with this supplier has provided me with a dominant and profitable market position in my sales area.
2. Our relationship with this supplier is very attractive with respect to discounts.
3. We are very pleased with our decision to distribute this supplier’s products since their high quality increases customer traffic.
4. The marketing policy of this supplier helps us to get our work done effectively.
5. This supplier provides us with marketing and selling support of high quality.

Buyer Social Satisfaction (1= strongly disagree; 7= strongly agree)

1. This supplier expresses criticism tactfully.
2. Interactions between my firm and this supplier are characterized by mutual respect.
3. This supplier explains the reasons for its policies.

Buyer Commitment (1= strongly disagree; 7= strongly agree)

As to the sustainability of the relationship with this supplier, ….

1. We expect our relationship with
2. This supplier will last for a long time.
3. Any concessions we make to help out this supplier will even out in the long run.
4. We believe that over the long run our relationship with this supplier will be profitable.
5. Maintaining a long-term relationship with this supplier is important to us.
6. We focus on long-term commitment in this relationship.
7. We are willing to make sacrifices to help this supplier in order to sustain our relationship.
Identifying the moderating role of entrepreneurial orientation in the innovation uncertainty-collaborative technology development relationship: Findings from the Korean high-tech firms

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Abstract

Alliance studies propose that interfirm collaboration encourages innovation activities for resource- and experience-lacking high-tech small firms (HTSFs). Yet, they may not pursue collaboration due to potentially irreversible risks. This study examines drivers of HTSFs’ boundary decisions for innovation using transaction-cost and resource-based perspectives. Perceived uncertainties of innovation projects and entrepreneurial orientation were identified as core determinants among 178 Korean software-development firms. Some aspects of perceived uncertainty prevented collaboration, but entrepreneurial orientation of decision makers moderated and favoured more collaborative choices. This analysis provides valuable theoretical and practical insights on the conditions under which HTSFs should pursue in-house or external innovative activities.
Identifying the moderating role of entrepreneurial orientation in the innovation uncertainty-collaborative technology development relationship: Findings from the Korean high-tech firms

Introduction

High-tech small firms (HTSFs) tend to lack the financial resources and relevant experience needed to keep pace with technological advancement. To overcome such limitations, HTSFs must gain a valuable, rare, imperfectly mobile, and unique set of technological resources to achieve competitive advantage. The pursuit of new technology and innovation is among the most critical organisational activities of HTSFs to achieve this goal. New technology development projects are organisational attempts to obtain valuable assets enabling the cultivation of organisational capability and growth potential. Recently, increasing numbers of HTSFs have used interfirm collaboration to accomplish technological development (BarNir and Smith 2002; Rhee 2008; Kang and Kang 2009; Ryoo 2012). In the current competitive environment, reliance on interfirm collaboration for innovation activities is beneficial for realising many organisational objectives, ranging from cost efficiency with better access to distant markets and shared risk to efficient acquisition of knowledge about new technology and recognition of a firm’s legitimacy by other companies (Lee and Lim 1999; Geh 2011).

Despite the numerous potential advantages of interfirm collaboration, 30–70% of such efforts fail (Kale and Singh 2009). Occasionally, interfirm collaboration has resulted in shareholder destruction or complete business failure. This situation creates a paradox for HTSF decision makers. On one hand, they should choose interfirm collaboration to acquire knowledge and enhance competitiveness, given its enormous benefits; on the other hand, the obstacles presented by such collaboration dissuade them from pursuing it (Dickson and Weaver 1997; Steensma, Marino, and Weaver 2000; Jacobides and Winter 2007). Decision makers must carefully consider these obstacles and evaluate whether collaboration suits their strategic goals. To resolve the paradox, they must justify the decision to engage in interfirm collaboration for the pursuit of technology development activities. Despite its significant implications for HTSF interfirm collaboration studies, however, in-depth investigation of this issue is lacking. This study was conducted to fill this gap.

HTSFs make boundary decisions about how they undertake innovation activities. For instance, they must decide whether to utilise their internal capacity alone (make), collaborate with other firms on technological innovation (ally), or utilise other companies via contract agreement (buy) (Pateli 2009; Ranft and Lord 2002; Song and Montoya-Weiss 2001). By nature, technological innovation and development activities are potentially risky and time and resource consuming; they may lead to business failure if they are not successfully undertaken and commercialised (Ryoo 2012). Thus, identification of the most efficient method of technological development is critical to reduce risk and increase the success of a technological development project (Hemmert 2003).

Given the need for further investigation of this issue, the aim of this study was to examine how HTSFs’ entrepreneurial strategic orientations influence boundary decisions for new technology
Identifying the moderating role of entrepreneurial orientation in the innovation uncertainty-collaborative technology development relationship: Findings from the Korean high-tech firms

development projects in the context of various perceived project uncertainties. This study was conducted from the perspective that boundary decisions for SMEs’ innovation activities cannot be understood without consideration of entrepreneurial nature. However, little is known about which aspects of entrepreneurial orientation should be considered or how they play a role (if any) in association with other key determinants.

Thus, we examined the extent to which perceived uncertainties lead HTSFs to choose interfirm collaboration in pursuing innovation projects, and the role of entrepreneurial orientation in mitigating these relationships. The rationale for the study framework was the discrepancy between strong recommendations for interfirm collaboration to better and more efficiently achieve technological innovation, which have appeared in anecdotal case studies, and the reality of the situation.

In sum, the research questions examined in this study were:

Which core variables determine HTSFs’ boundary decisions regarding new technology development activities?

How does the perceived level of uncertainty regarding a new technology development project impact these boundary decisions, and does decision makers’ entrepreneurial orientation moderate this impact?

Theoretical background

New technology development

A new technology development project entails a firm’s efforts to develop new technologies or products as part of its innovation activities via, for instance, R&D projects and new product development programmes (Hemmert 2003; Ranft and Lord 2002). However, the achievement of technological innovation alone has become increasingly difficult due to the rapidly changing technology environment. In response to this shifting environment, companies utilise other ways of obtaining knowledge, such as technology partnerships and joint investments and developments.

For ease of analysis, technology development methods were dichotomised as internal and external in this study (Stuart 2000). These two modes are characterised by stark differences in terms of commitment, control, and ownership.

Transaction cost perspective

The transaction cost perspective (TCP) has dominated research seeking to understand the antecedents of boundary decisions for new technology development. According to this perspective, a firm’s consideration of efficiency is central in selecting a method (internal or external) for a new technology development project (Santos and Eisenhardt 2009; Song and Montoya-Weiss 2001; Williamson 1985; Croisier 1998). Scholars have argued that collaboration on technology development is
inefficient under high levels of environmental and technological uncertainty (Santos and Eisenhardt 2009), as external development or exchange via a market mechanism is susceptible to holdup by opportunistic partners (Leiblein and Miller 2003; Williamson 1985) and complete, enforceable contracts are difficult to write. Under conditions of high perceived uncertainty, internal development of new technology would be more appropriate (Leiblein and Miller 2003; Williamson 1985).

**Resource-based perspective**

The resource-based perspective (RBP) holds that a firm’s competitive advantage is a valuable resource and capability that cannot be easily copied or replaced by a competitor (Leiblein and Miller 2003; Barney 1999; Conner and Prahalad 1996). According to this perspective, boundary decisions are not based solely on TC-related considerations, such as perceived level of uncertainty, but also on the firm’s need to obtain necessary resources and skills that may be available externally (Barney 1999; Gulbrandsen, Sandvik, and Hauland 2009; Rothaermel and Alexandre 2009). A firm’s organisational capability is thus a core determinant of the boundary scope of innovation activities (Espino-Rodriguez and Padron-Robaina 2006).

The RBP emphasises entrepreneurial orientation as an important dimension of SMEs’ organisational capabilities (Brouthers, Nakos, and Dimitratos 2014). This orientation stimulates SMEs by enabling better use of internal resources and exploitation of external resources (Lu and Beamish 2001; Hillman, Withers, and Collins 2009). In implementing such entrepreneurial activities, interfirm collaboration is an effective way of overcoming the disadvantages of a firm’s newness and smallness by resolving resource deficiency and sharing essential knowledge (Brouthers, Nakos, and Dimitratos 2014).

To build an overarching explanation, this study was thus conducted using a combined approach (Chen and Chen 2003; Combs and Ketchen 1999; Gulbrandsen, Sandvik, and Haugland 2009; Steensma and Corley 2001). Three dimensions of uncertainty (market, demand, and technological uncertainties) and entrepreneurial orientation were first identified as core factors in this research based on consideration of the operational nature and cognitive characteristics of decision makers in small firms. Then, we examined how these variables individually and interactively affected boundary decisions about new technology development projects among Korean HTSFs.

**Hypotheses**

**Market uncertainty**

Market uncertainty is exogenous and cannot be controlled by a single firm. This term refers to abrupt changes in and unpredictability of the market, which, in turn, generate ambiguity among decision makers (Chari et al. 2014). To remain viable, a firm must adapt to its market. By focusing on the
market, including relationships with customers, suppliers, and competitors, a firm is able to identify macro-level profit determinants and assess how it should alter its relationship with them to maximise profit (Folta 1998).

Several studies have shown that perceived market uncertainty has considerable effects on organisational structures and processes (Sutcliffe and Zaheer 1998). According to the TCP, market uncertainty generally increases the likelihood of contract complications, leading firms to favour internal development for new technology innovation projects. Such uncertainty complicates alliances, creating far greater contingencies that must be addressed ex post and increasing transaction costs arising from the specification, monitoring and, enforcement of workable contracts for new technology development projects (Robertson and Gatignon 1998). The efficiency of external development for new technology and innovation activities thus decreases with increasing perceived market uncertainty, as expressed in the following hypothesis:

Hypothesis 1: With increased market uncertainty surrounding technology development activity, an HTSF will pursue internal development for a new technology project.

Demand uncertainty

Demand uncertainty was considered to refer primarily to customer and competitive uncertainties, which may be a combination of non-strategic and behavioural uncertainties (Sutcliffe and Zaheer 1998). Uncertain demand is generated by rapid shifts in consumer preferences, rapid changes in knowledge and technology resulting from short product life cycles, rapid dissemination of critical information, and seasonal fluctuation (Jones, Hesterly, and Borgatti 1997). Competitive uncertainty creates potential contingencies that transform the market into a more competitive setting. Due to a lack of knowledge of other firms, many firms tend to perceive more uncertainty regarding competitors’ behaviour in a highly turbulent marketplace (Sutcliff and Zaheer 1998). In the case of new technology development projects, competitors’ and suppliers’ strategic behaviours are even more unpredictable.

In a competitive market, consumers’ tastes and preferences for new technology are likely to shift dramatically. Competitors’ deliberate actions are far more noisy and difficult to grasp for nascent firms in the market. The TCP posits that the pursuit of technology innovation through external development may entail several contractual problems. For instance, the number of possible unforeseen contingencies that may affect interfirm contracts increases with the potential for shifts in consumer taste (Song and Motoya-Weiss 2001). When a contract is incomplete, partners’ reactions to the same information may differ, raising the possibility of suboptimal results through poor coordination. Under such conditions, internal development or hierarchical structuring for new
technology development is far more advantageous because good coordination under unified ownership allows firms to better manage project transactions. Thus, we proposed the following:

Hypothesis 2: With increased demand uncertainty surrounding technology development activity, an HTSF will pursue internal development for a new technology project.

**Technological uncertainty**

Technological uncertainty is endogenous; it is related to a firm’s will and activities and can be influenced by its actions (Folta 1998). Two dimensions of technological uncertainty were considered in this study: (1) uncertainty regarding whether the technology will work as intended throughout the project, and (2) commercial uncertainty (whether new technology will satisfy customers’ expectations) (Huber, O’Connell, and Cummings 1975; Cantarello et al. 2011).

Technological uncertainty may be caused by an inability to assess key specifications of the technology to be developed or to define key components enabling the product to perform at its specification level (Cantarello et al. 2011). It may arise because the technology’s performance potential is not fully proven and the firm is unable to grasp customers’ expectations. These kinds of uncertainty are resolved only by actually undertaking a project.

The TCP posits that technological uncertainty is a source of inefficiency in market contracts; in the present case, those related to external development (Schilling and Steensma 2002; Pisano 1990). A high level of technological uncertainty renders the writing, execution, and monitoring of contractual arrangements (Teece 1986). Because the future of technology is uncertain, the establishment of a complete contract covering all possible contingency clauses to cope with likely disputes is impossible (Pisano 1990; Van de Vrande, Lemmens, and Vanhaverbeke 2006). Thus, internal development may be preferable due to more efficient and stronger incentive structure relative to external development under technologically uncertain conditions. Thus, we proposed the following:

Hypothesis 3: With increased technological uncertainty surrounding technology development activity, an HTSF will pursue internal development for a new technology project.

**The moderating role of entrepreneurial orientation**

The uncertainty-related factors described above are thus considered to generally push HTSFs’ boundary decisions for innovation activities toward internal development to avoid partners’ opportunistic behaviour due to incomplete contracts. Proponents of the RBP, however, have pointed out that this argument fails to account for the impact of organisational capability on these boundary decisions (Barney 1999); they argue that an HTSF’s strategic objective should be geared toward securing valuable tangible and intangible resources, which are key to its competitive advantage, to overcome its “newness” and “smallness” (Barney 1999; Geh 2011).
Many studies have found that entrepreneurial intention and characteristics are crucial to small firms’ strategic behaviour (Marino et al. 2002; Geh 2011). Entrepreneurial orientation is thus among the most essential aspects of a small firm’s organisational capability. This orientation represents the overall strategic posture and attitudes toward risk taking, pro-activeness, and innovation that are required to achieve competitive advantage (Covin and Slevin 1991). Entrepreneurial orientation is thus the primary antecedent of a small firm’s active propensity and intention to engage in interfirm collaboration (Franco and Haase 2013).

Several studies have provided support for this contention. Geh (2011) and McIvor (2009) found that small firms with entrepreneurial capability showed a strong tendency to seek new technological opportunities, innovation, and change externally, and were more willing to cooperate with other firms to accomplish related goals. Steensma, Marino, and Weaver (2000) also showed that entrepreneurially oriented SMEs were more willing to cooperate with other players to effectively acquire new opportunities, such as new technology development. Recently, Franco and Haase (2013) found that entrepreneurially oriented small firms in Portugal tended to choose more collaborative methods for organisational activities due to their collective and innovative natures. Similarly, Marino et al. (2002) showed that Indian entrepreneurs displaying high levels of pioneering, innovation, and risk taking were more likely to build various alliances for R&D, financing, and market access purposes.

Thus, entrepreneurial orientation likely mitigates HTSFs’ propensity to select internal development due to perceived uncertainty by diminishing potential hazards associated with interfirm collaboration on technology innovation activities for several reasons. First, HTSFs actively seek external opportunities and interstices between various economic players, positively framing seemingly risky and uncertain opportunities (Stuart 2000; Miller and Friesen 1982). Second, in a similar vein, entrepreneurially oriented HTSFs should show a greater propensity for further growth by seeking new solutions and opportunities outside the realm of their existing activities through interaction with other firms (Geh 2011). Third, entrepreneurial orientation enhances relational capability (Geh 2011). Firms seeking external business opportunities may form unofficial relationships and informal networks enabling the exchange of important information about the market and new technologies (Ramachandran and Ramnarayan 1993), including information about which firms own new technologies (which aids assessment of their trustworthiness) (Gulati and Singh 1998) and about players’ strengths and weaknesses, technological capabilities, and reputations (which aids prediction of their future behaviour) (Park and Ghauiro 2011).

As expressed above, following hypotheses are proposed:

Hypothesis 4: Entrepreneurial orientation will moderate the relationship between perceived uncertainty and internal development of a new technology project.
Hypothesis 4-1: Entrepreneurial orientation will weaken the relationship between perceived market uncertainty and internal development of a new technology project.

Hypothesis 4-2: Entrepreneurial orientation will weaken the relationship between perceived demand uncertainty and internal development of a new technology project.

Hypothesis 4-3: Entrepreneurial orientation will weaken the relationship between perceived technological uncertainty and internal development of a new technology project.

Methods

Setting and sample

The study hypotheses were tested among Korean HTSFs in the software development industry (Korean Standard Industry Code [KSIC] 5822). Firms included in this study were identified using the online KORCHAMBIZ (www.korchambiz.net) database, through which the Korean Chamber of Commerce and Industry supplies information about companies and their products and business transactions to potential investors and researchers. The selection criteria listed in Table 1 were used in this study to identify representative firms.

[Insert Table 1 here]

Measurement

Most questionnaire items measuring independent variables were structured by a seven-point Likert scale ranging from 1 (strong disagreement or much less) to 7 (strong agreement or much more). Item responses were summed to yield overall scores (Hair et al. 1998).

Dependent and independent variables

The dependent variable, new technology development method, was measured by asking respondents whether they pursued the reference projects through internal (e.g. R&D department) or external (e.g. collaboration with another company, a laboratory, or a university institute) development. Independent variables included market uncertainty (five items), or the perceived level of industry competition and the firm’s ability to control the industry environment, potential threats, and the rate of new technology introduction; demand uncertainty (two items), or the perceived degree of predictability of consumer taste and future product-market changes; and technological uncertainty (five items), or the perceived degree of confidence in a firm’s technological market goal and technical expectation, consumers’ technological satisfaction, technological design, and commercial success. The moderating variable, entrepreneurial orientation (six items), was measured using a continuum of
binary pairs (entrepreneurial vs. conservative orientation) representing the perceived degree of innovativeness, risk taking, strategic posture, reactiveness to competitors, pro-activeness, and leadership in R&D and new product/technology/service introduction.

The control variables were firm size (number of full-time employees) (Lee, Lee, and Pennings 2001), firm age (number of years since foundation), government support (as the Korean government’s promotion of technological collaboration through various policies may be a determinant factor), and previous experience of the entrepreneur (number of years in the industry prior to founding of current firm; a potential predictor of the decision to collaborate) (Lee, Lee, and Pennings 2001).

Data collection procedure

Using 50 randomly selected samples, we pretested the questionnaire. After correcting inadequacies, we e-mailed questionnaires to key informants in targeted firms who were responsible for new technology development projects (e.g. CEOs, R&D department directors, strategic planning department heads). The survey was conducted from December 2013 to April 2014. Respondents were asked to complete the questionnaire with reference to the most significant new technology development project in the previous 5 years (2008–2012). A total of 541 firms were identified for study inclusion based on the probability sampling method. Respondents from 183 firms completed the questionnaire and 178 samples were included in analyses (Table 2).

Findings

Ninety four of 178 responding firms engaged in internal development and 84 firms were engaged in external development for innovation activities. All Cronbach’s $\alpha$ values of entire scales exceeded 0.6 (Table 3), indicating internal consistency and reliability of measurement (Churchill 1979). Factor analysis was used to test whether all instrument items actually measured the intended concept (validity). Principle component analysis with varimax rotation was applied. Each variable had only one component with an eigenvalue >1, indicating that all independent and moderating variables measured single concepts of interest accurately. The log-likelihood and chi-squared coefficients of the five models indicated significance and goodness of fit (Table 4). Finally, using a cut-off value of 0.7, we found no collinearity among independent variables (Table 5).

Model 1 contained only the control variables. Model 2 showed that respondents’ likelihood to choose internal development increased with perceived market uncertainty ($\beta = 0.631, P < 0.005$) and technological uncertainty ($\beta = 0.463, P < 0.005$), supporting hypotheses 1 and 3, respectively. Hypothesis 2 was not supported, as the perceived level of demand uncertainty did not affect respondents’ boundary decisions for new technology development. Model 3 provided no support for
hypothtesis 4-1, as entrepreneurial orientation did not affect the relationship between perceived market uncertainty and boundary decisions. However, models 4 and 5 indicated that respondents’ entrepreneurial orientation tended to diminish the positive relationships between the choice of internal development and demand ($\beta = -0.506, P < 0.05$) and technological ($\beta = -0.392, P < 0.05$) uncertainties, supporting hypotheses 4-2 and 4-3, respectively.

Discussion and implications

Discussion

This study showed that decision makers in HTSFs who perceive greater market and technological uncertainty regarding innovation projects tend to select internal technology development. However, this logical finding is not complete without consideration of entrepreneurial orientation. We found that decision makers with a strong entrepreneurial orientation were less attracted to internalisation than were others who perceived equivalent levels of demand and technological uncertainty. Thus, the findings of this study indicate that variation in HTSFs’ boundary decisions is attributable to two interlinked critical factors: decision makers’ perceptions of uncertainty surrounding innovation activities and their entrepreneurial orientation.

Implications

Several theoretical implications can be drawn from these findings. First, the combined examination of interfirm collaboration and entrepreneurship facilitated understanding of the interface between these fields of research. The results provide evidence that further combined analysis is warranted. In contrast to previous studies, which examined uncertainty without elaborating its constructs (Robertson and Gatignon 1998) and tested only the direct effect of entrepreneurial orientation (Franco and Haase 2013), this study examined various dimensions of uncertainty, verifying that market and technological uncertainties are significant predictors of HTSFs’ alliance decisions.

Second, the observed interactions among entrepreneurial orientation, perceived demand and technological uncertainties, and the use of interfirm collaboration provide hard evidence of respondents’ actual reactions to some aspects of uncertainty in making decisions about interfirm collaboration. This study also revealed differences in entrepreneurial and conservative leaders’ views of some uncertainties. Entrepreneurial leaders appear to be more invigorated than intimidated by demand and technological uncertainties; they are less discouraged than other leaders by the increase in the perceived risks of interfirm collaboration due to project-related uncertainties.

Third, this study established the significant moderating role of entrepreneurship in the choice of innovation development method. Most previous investigations of entrepreneurship have focused on its impact on alliance performance (Lee, Lee, and Pennings 2001; Li et al. 2008; Brouthers, Nakos, and Dimitratos 2014). For instance, entrepreneurial leaders with strong growth aspirations tend to envision interfirm collaboration as a way to realise this potential (Perry, Chandler, and Markova 2011). Alternatively, entrepreneurially oriented decision makers tend to exploit their relational capital, which provides more opportunities for the development of inter-organisational routines that make the behaviour of each firm predictable (Zollo, Reuer, and Singh 2002; Reuer, Arino, and Mellewigt 2006).

The results of this study also have practical implications. Although academics and business professionals emphasise the advantages of interfirm collaboration, they must recognise that HTSFs are not equally motivated to use collaboration when pursuing innovation activities. We suggest that firms should be able to accurately evaluate whether collaboration or any other external development method truly benefits their innovation efforts. In this evaluation process, decision makers should consider the degree of certainty or predictability related to the market and technological aspects of innovation activities, to reduce the likelihood that the project will be ruined by collaboration.

Conclusion

This study clarified why not all HTSFs choose interfirm collaboration in undertaking innovation activities, despite its powerful benefits. This study also provides evidence that variation in key persons’ entrepreneurial orientation can affect decision makers’ perceptions of uncertainties surrounding innovation activities, which, in turn, influences boundary decision making. Considered together, the findings of this study enrich the picture of HTSFs’ boundary decisions for innovation activities.
Identifying the moderating role of entrepreneurial orientation in the innovation uncertainty-collaborative technology development relationship: Findings from the Korean high-tech firms

References


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Table 1. Selection criteria for high-tech small firms in the software development industry.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Founded between 1995 and 2005</td>
<td></td>
</tr>
<tr>
<td>Ten to 300 employees</td>
<td></td>
</tr>
<tr>
<td>Involved in new technology development projects</td>
<td></td>
</tr>
<tr>
<td>Annual sales of US$250,000–30,000,000 as of 2014 ($1 = 1,000 Won)</td>
<td></td>
</tr>
<tr>
<td>Independent (not a subsidiary or incubating firm of a large domestic or foreign firm or government-run institution)</td>
<td></td>
</tr>
<tr>
<td>Registered as a venture company approved by the Small and Medium Business Corporation, Korean Venture Capital Association, and Korean Technology Finance Corporation</td>
<td></td>
</tr>
<tr>
<td>Identifiable contact address</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Descriptive statistics of respondents (n = 178).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm age (years)</td>
<td>15.62</td>
<td>11.98</td>
<td>6</td>
<td>28</td>
</tr>
<tr>
<td>Number of employees</td>
<td>53.24</td>
<td>57.02</td>
<td>10</td>
<td>300</td>
</tr>
<tr>
<td>Number of R&amp;D workers</td>
<td>17.63</td>
<td>18.76</td>
<td>3</td>
<td>124</td>
</tr>
<tr>
<td>Annual sales (US$, average in previous 4 years)</td>
<td>n</td>
<td>%</td>
<td>Cumulative %</td>
<td></td>
</tr>
<tr>
<td>250,000–900,000</td>
<td>28</td>
<td>15.7</td>
<td>15.7</td>
<td></td>
</tr>
<tr>
<td>900,001–4,500,000</td>
<td>71</td>
<td>39.8</td>
<td>55.5</td>
<td></td>
</tr>
<tr>
<td>4,500,001–9,000,000</td>
<td>43</td>
<td>24.1</td>
<td>79.6</td>
<td></td>
</tr>
<tr>
<td>9,000,001–20,000,000</td>
<td>24</td>
<td>13.7</td>
<td>93.3</td>
<td></td>
</tr>
<tr>
<td>20,000,000–30,000,000</td>
<td>12</td>
<td>6.7</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>178</td>
<td>100.0</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

SD, standard deviation.
## Table 3. Reliability and validity of questionnaire items measuring independent study variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Items</th>
<th>α</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived level of market</td>
<td>· General and overall level of industry competition</td>
<td>0.717</td>
<td>0.762</td>
</tr>
<tr>
<td></td>
<td>· Level of environmental control and manipulation</td>
<td></td>
<td>0.756</td>
</tr>
<tr>
<td></td>
<td>· Level of threat to firm’s survival and well-being</td>
<td></td>
<td>0.676</td>
</tr>
<tr>
<td></td>
<td>· Rate of product/technology/service obsolescence</td>
<td></td>
<td>0.676</td>
</tr>
<tr>
<td></td>
<td>· Frequency and extent of changes in production/service mode</td>
<td></td>
<td>0.648</td>
</tr>
<tr>
<td>Perceived level of demand</td>
<td>· Predictability of competition and product market</td>
<td>0.612</td>
<td>0.620</td>
</tr>
<tr>
<td>uncertainty</td>
<td>· Predictability of customer demand and taste</td>
<td></td>
<td>0.620</td>
</tr>
<tr>
<td>Perceived level of</td>
<td>· Confidence in meeting technical expectations</td>
<td>0.786</td>
<td>0.772</td>
</tr>
<tr>
<td>technological uncertainty</td>
<td>· Confidence in meeting customer demand</td>
<td></td>
<td>0.764</td>
</tr>
<tr>
<td></td>
<td>· Confidence in achieving market goal</td>
<td></td>
<td>0.795</td>
</tr>
<tr>
<td></td>
<td>· Confidence in commercial success</td>
<td></td>
<td>0.756</td>
</tr>
<tr>
<td></td>
<td>· Confidence that technology would work as intended</td>
<td></td>
<td>0.772</td>
</tr>
<tr>
<td>Perceived level of entrepreneurial orientation</td>
<td>· Responsiveness to industrial environment</td>
<td>0.654</td>
<td>0.688</td>
</tr>
<tr>
<td></td>
<td>· Risk-taking propensity</td>
<td></td>
<td>0.681</td>
</tr>
<tr>
<td></td>
<td>· Strategic posture toward potential opportunities</td>
<td></td>
<td>0.678</td>
</tr>
<tr>
<td></td>
<td>· Reactivity to competitors’ behaviour</td>
<td></td>
<td>0.621</td>
</tr>
<tr>
<td></td>
<td>· Leadership in introducing technology/service techniques</td>
<td></td>
<td>0.604</td>
</tr>
<tr>
<td></td>
<td>· Leadership in R&amp;D and technological innovation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Identifying the moderating role of entrepreneurial orientation in the innovation uncertainty-collaborative technology development relationship: Findings from the Korean high-tech firms

Table 4. Results of logistic regression analysis (n = 178).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm size</td>
<td>0.030 (0.030)</td>
<td>0.020 (0.030)</td>
<td>0.030 (0.03)</td>
<td>0.02 (0.03)</td>
<td>0.03 (0.03)</td>
</tr>
<tr>
<td>Firm age</td>
<td>0.041 (0.021)</td>
<td>-0.050 (0.020)</td>
<td>-0.030 (0.020)</td>
<td>0.011 (0.021)</td>
<td>-0.010 (0.019)</td>
</tr>
<tr>
<td>Government support</td>
<td>-0.133 (0.007)</td>
<td>-0.197 (0.089)**</td>
<td>-0.170 (0.087)**</td>
<td>-0.167 (0.086)</td>
<td>-0.183 (0.087)</td>
</tr>
<tr>
<td>Length of experience</td>
<td>0.065 (0.04)</td>
<td>0.070 (0.04)</td>
<td>0.068 (0.04)</td>
<td>0.074 (0.04)*</td>
<td>0.066 (0.045)</td>
</tr>
<tr>
<td>MU</td>
<td></td>
<td>0.631 (0.231)**</td>
<td>0.211 (1.259)</td>
<td>0.576 (0.217)**</td>
<td>0.563 (0.214)**</td>
</tr>
<tr>
<td>DU</td>
<td></td>
<td>0.070 (0.163)</td>
<td>0.072 (0.174)</td>
<td>0.120 (0.130)</td>
<td>0.210 (0.197)</td>
</tr>
<tr>
<td>TU</td>
<td></td>
<td>0.463</td>
<td>0.217 (0.160)</td>
<td>0.201 (0.159)</td>
<td>0.806</td>
</tr>
<tr>
<td>EO</td>
<td></td>
<td>(0.158)**</td>
<td>-0.622 (1.360)</td>
<td>-0.706 (0.916)</td>
<td>(0.296)**</td>
</tr>
<tr>
<td>EO × MU</td>
<td></td>
<td>-0.226 (0.212)</td>
<td>0.576</td>
<td>0.563</td>
<td>-0.899 (0.154)</td>
</tr>
<tr>
<td>EO × DU</td>
<td></td>
<td></td>
<td>-0.083 (0.087)</td>
<td>-0.506 (0.235)**</td>
<td></td>
</tr>
<tr>
<td>EO × TU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.392 (0.189)**</td>
</tr>
<tr>
<td>n</td>
<td>178</td>
<td>178</td>
<td>178</td>
<td>178</td>
<td>178</td>
</tr>
<tr>
<td>-2 log likelihood</td>
<td>235.98</td>
<td>226.59</td>
<td>226.50</td>
<td>221.44</td>
<td>221.54</td>
</tr>
<tr>
<td>Chi-squared</td>
<td>15.70**</td>
<td>18.09**</td>
<td>18.18**</td>
<td>23.24**</td>
<td>23.14**</td>
</tr>
<tr>
<td>Correct classification (%)</td>
<td>53.1</td>
<td>64.4</td>
<td>64.4</td>
<td>65.5</td>
<td>66.7</td>
</tr>
</tbody>
</table>

MU, market uncertainty; DU, demand uncertainty; TU, technological uncertainty; EO, entrepreneurial orientation.

*P < 0.1, **P < 0.05, ***P < 0.001.

Numbers in parentheses are standard errors. Positive coefficients indicate a greater probability of internal development, and negative coefficients indicate a greater likelihood of external development.
Table 5. Descriptive statistics and correlations between predictor variables (n = 178).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Boundary decision</td>
<td>1.53</td>
<td>0.50</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Market uncertainty</td>
<td>4.72</td>
<td>0.85</td>
<td>0.247**</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Demand uncertainty</td>
<td>3.89</td>
<td>1.03</td>
<td>-0.432**</td>
<td>1</td>
<td>-</td>
<td>-</td>
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<td>4. Technological uncertainty</td>
<td>5.04</td>
<td>1.16</td>
<td>0.210**</td>
<td>0.183*</td>
<td>-0.131</td>
<td>1</td>
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<td>5. Entrepreneurial orientation</td>
<td>4.26</td>
<td>0.81</td>
<td>-0.028</td>
<td>0.135</td>
<td>-0.194**</td>
<td>0.165*</td>
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<td>6. Firm size</td>
<td>53.24</td>
<td>57.00</td>
<td>0.080</td>
<td>0.080</td>
<td>0.084</td>
<td>-0.045</td>
<td>-0.169</td>
<td>1</td>
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<td>7. Years after foundation</td>
<td>19.63</td>
<td>8.55</td>
<td>0.025</td>
<td>0.034</td>
<td>0.017</td>
<td>-0.004</td>
<td>0.156*</td>
<td>-0.151*</td>
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<td>8. Government support</td>
<td>4.19</td>
<td>1.99</td>
<td>-0.107</td>
<td>0.030</td>
<td>0.006</td>
<td>0.198**</td>
<td>0.093</td>
<td>0.134</td>
<td>-0.020</td>
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<td>9. Length of experience</td>
<td>5.37</td>
<td>3.84</td>
<td>0.105</td>
<td>0.071</td>
<td>0.082</td>
<td>0.049</td>
<td>0.131</td>
<td>-0.035</td>
<td>0.019</td>
<td>0.112</td>
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SD, standard deviation.
*P < 0.05, **P < 0.01 (two-tailed).
Small Enterprise Development: Informational Challenge

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Abstract

As statistics shows, the share of small-scale enterprises exceeds 90% in developed countries and medium-sized enterprises make up less than 2%. The situation seems paradoxical: it is nearly identical for different countries and does not depend on economic or political climate and other external factors. Why do some companies grow while the rest stagnate? In the author’s opinion, there is one common internal cause, universal for small enterprises and related to an entrepreneur’s personality - the driving force of a small enterprise. The “informational challenge”. Timely and successful solution of this problem determines the future of an enterprise.

Keywords: informational challenge, small-scale enterprise development, differentiation between an entrepreneur and a manager, informational flow distribution.
Introduction

There is no doubt about the significance of small- and medium-scale enterprise development. Most of developed countries are interested in development and support of small businesses. However, the statistics shows that the share of small-scale enterprises in developed countries is more than 90%, while the share of medium-scale enterprises does not exceed 2%. The figures are much about the same in European countries, the USA and Russia. The situation seems paradoxical in view of obvious difference in economic situations and political climates, as well as other significant factors. All these facts suggest that the main cause of growth or stagnation does not relate to external factors (such as government policy in respect of enterprises, tax treatment, resource cost, market conditions, etc.) and is to be sought inside an enterprise. In this context, it is worth mentioning that an entrepreneur is the driving force of an enterprise at the initial stage of development. Therefore, the enterprise activity is determined by a concrete person and is affected by his (her) personality characteristics. The disclosure of psychological aspects of entrepreneur’s personality within the present research will identify the main factors influencing small enterprise development.

When analyzing the approaches currently used in management (administrative approach; approach from the viewpoint of human relations, behavior science, quantitative methods; process approach and system approach), it cannot go unnoticed that they are not designed to solve the problems of small-scale developing business, particularly because they are focused on organizations with a certain structure implying multi-element system and various relations between the elements of this system. These approaches are suitable only for training managers of multi-level systems of management.

Development problems of small-scale developing enterprises are caused particularly by the lack of various resources (from intellectual to financial), and modern science cannot offer any universal method of their problem solution and intensification of their shift from small to medium business.

Entrepreneur’s psychological portrait is studied in detail within the framework of Economic Psychology. In the author’s opinion, it is necessary to identify the factors of an entrepreneur’s personality that create obstacles to small enterprise development. Based on the research results of European, American and Russian scientists, the author comes to the conclusion that, in spite of the diversity of subjective characteristics of entrepreneurs’ personality, there are certain regularities typical for each individual due to the objective laws of human mentality, which is one of the main factors impeding small enterprise development. Human perception and processing capacity is limited. Therefore, an entrepreneur inevitably faces the information challenge in the course of information traffic handling, which increases as the enterprise develops. So, on the one hand, the informational challenge can be regarded as an indicator of enterprise development, and, on the other hand, it is a factor objectively prevents a small enterprise from effective development. The timely solution of the informational challenge through redistribution of informational flows will promote the effective business development.

The problem of small-scale enterprise effective development is closely associated with another important factor – the problem of differentiation between two phenomena, entrepreneurship and management. In this paper, the author determines the difference between an entrepreneur and a
manager according to the psychological constitution of their activity and analyzes the prospects for cooperation of entrepreneurs and managers as a solution to the informational challenge.

Method

The research is theoretically and methodologically supported by scientific works in the sphere of economic theory, scientific methodology, economic psychology, psychology, management, self-organization theory, information theory etc., including works by E. Penrose, R. Hisrich, J. Schumpeter, P. Drucker, G. Tarde, J. Katona, George Miller, Arnold C. Cooper, David J. Storey etc.

Considering that the psychology of entrepreneur’s personality is of primary importance in the context of the informational challenge, an interdisciplinary approach is required. The approach used by the author integrates subject fields of economic theory and psychology in order to use theoretical and methodological potential of psychological science in response to economic problems. The empirical part of the research includes the survey of small- and medium-scale enterprises from different industrial sectors in thirteen years, as well as the analysis and differentiation of specific features, regularities, and common preconditions for small-scale enterprise development.

Results

The development of an enterprise inevitably leads to increase in informational flows. The increase takes place both at the qualitative level (the perceived information becomes more complicated), and the quantitative level (the number of input and output informational flows increases, as well as the number of internal flows). It appears that these quantitative changes in the amounts of information characterize the abovementioned processes as development processes leading to qualitative restructuring of an enterprise, according to the common logic of the dialectical development.

The ability of a small-scale developing enterprise to adapt to variable conditions of the external and internal environment leads to its restructuring. The restructuring of an enterprise means its shift to a new quality and is one of the stages of enterprise development as a system.

Development involves qualitative changes. In other words, movement and development are the forms of the process of change, which are distinguished depending on the level of orderliness of this process and which necessarily involve the appearance of new sustainable structural components – elements, relations, regularities, i.e. the development process is related to the system structure transformation.

These processes cause objective challenges for representatives of small-scale business regardless of their industrial specifics. The fate of their undertakings depends on the degree of awareness of these challenges objectivity. This process is akin to the process of growing-up. Most everybody has to face the challenges of awkward age, and only the awareness of objective character and unavoidability of these processes often assists to cope with them. In this regard, growing-up should be perceived not as a time lag, but as experience accumulation, and what is more important, the maturity of self-
consciousness. The informational challenge is the same unavoidable consequence of business development. Therefore, the entrepreneur’s awareness of the objective nature of these processes facilitates the way for the business development. A reasonable question mostly guarantees a correct answer. Moreover, since the modern science recognizes the significant, or even crucial, importance of psychological component of business activities, along with existing micro- and macroeconomic laws, the recognition of this problem, as well as the search for its solution, will, undoubtedly, promote the small- and medium-scale enterprise development. An entrepreneur should learn that the challenges he (she) faces in the process of his (her) business development are logical consequences of business development rather than individual problems of his (her) own. The awareness of these laws, understanding of their essence and the ability to use them allow to solve serious problems in the sphere of improvement of a small-scale developing enterprise effectiveness.

It appears that for evolutionary development of an enterprise, its shift from a small-scale business to medium-scale business is the most significant stage since it is the period when the basis for its successful development is formed, as well as the potential for such a shift emerges.

Based on the present research, it is assumed that the process of business development inevitably leads to creation of a certain system of interrelated informational flows. The degree of order of these flows determines the effectiveness of an enterprise at this stage. Therefore, an enterprise is considered an open system. By virtue whereof, it should be emphasized that a proper running of an enterprise in market conditions needs a sweep of informational flows both within the system itself and in coordination with other social systems.

This conclusion is entirely consistent with the law of awareness and orderliness: “The more information on internal and external environment is available to an enterprise, the higher probability of stable functioning (self-preservation) it has”.

![Figure 1. Organization as an open system](7, p.80)

Thus, an enterprise as an open system is characterized by interaction with the external environment, where the processes of transformation of information take place. The organization development is characterized by the inevitable increase of informational flows, which makes a small-scale developing enterprise adapt to changing conditions of the external and internal environment in order to move to the higher development level.
It should be noted that the term “organization development” is the central notion in the concept of organization development, which appeared in the mid-1960s. Within the mentioned concept, organization development is perceived as a systematic and long-term application of scientific knowledge of behavior as a means of an enterprise efficiency improvement in the aspect of its ability to adjust its objectives, structures, workstyle etc., to environmental changes. According to D. Stuart, organization development involves the creation of an organizational form, which is expected to be more capable of self-management of changes [10, p. 177].

In accordance with N. Tom’s definition, organization development is “a long-term, thorough and comprehensive process of change and development of an enterprise and its employees” [8 p.70]. This definition outlines that any change inside of an enterprise can be implemented by its employees, and this implies the availability of control system elements.

U. French and C. Bell define organization development “... as a long-term work on improvement of problem-solving processes and updating procedure inside of an enterprise by more effective co-regulation of corporate principles, with special attention to the culture within the formal working groups” [7, p.538]. Summarizing, the inference should be drawn that the specified authors associate the development process with the employees of this enterprise, and the concept of organization development includes, above all, the aspect of human resources. Based on the common logic of the concept of organization development, the human resource performs functions of a processing system leading to redistribution of informational flows and, consequently, to solution to the informational challenge.

However, it is the aspect that cannot be taken into consideration in small-scale enterprises because in most cases the functions of “a processing system” in such organizations are performed solely by the entrepreneur. The lack of intellectual and financial resources is the main reason of failure in small-scale enterprise development. Therefore, the source of both the problem and the method of its solution is the entrepreneur himself, because the management structure is in its nascent stage at this period of enterprise development.

It should be noted that the cause of development is the contradiction between the structural relations within the enterprise and their interaction with the external environment. The external environment (in the form of external informational flows) affects the management system. This effect leads to establishment of new relations both within the system and with the external environment, which, in turn, complicates the ways of interaction between the elements of the system. Thus, with increase in the number of informational flows, an entrepreneur needs “to throw off” a piece of information on employees. The appearance of employees means the appearance of new structural elements, relations and dependencies in an enterprise. A small-scale enterprise starts its development process that will lead to creation of a management structure.

In fact, effective redistribution of informational flows results in establishment of new relations, which represent the prototype of a professional management system.

The informational challenge concept is based on the following statement: inevitable emergence of the informational challenge characterizing development process of an enterprise as a system is the
motivation for the further transformation of this system; the degree of problem solving effectiveness determines the direction of these transformations; high efficiency of the informational challenge solution determines the positive vector of development.

At the same time, consideration of development problems, as well as efficiency improvement in small-scale developing enterprises within the situational approach allows to take a fresh look at one of the central topics of entrepreneurship research – the problem of differentiation between entrepreneurship and related phenomena. As a rule, the disclosure of peculiarities of entrepreneurship is based on differences between an entrepreneur and a manager, according to the main psychological characteristics of their activities.

“It was J. Ronen who differentiated an entrepreneur and a manager for the first time. According to his theory, the differences between an entrepreneur and a manager can be interpreted as follows: managers are largely willing to preserve the enterprise, the team they manage, and their business activity is directed to the company’s survival in most situations. An entrepreneur, on the contrary, strives for changes, development risk” [1, p.18].

Companies need both forms of business activity during their life cycle. The question about the interrelation of entrepreneurship and managerial activity is controversial, because the functional essence of management and entrepreneurship is different. On the one hand, entrepreneurship is wider than management. On the other hand, not every entrepreneur is able to implement effective management.

The disclosure of peculiarities of entrepreneurship is based on differences between an entrepreneur and a manager, according to the main psychological characteristics of their activities, and therefore the functional-structural and the role-based approaches are applied.

Since the phenomenon of an entrepreneur reveals itself through the personal peculiarities of each representative, there is a reason suppose that, in spite of variety of individual traits, there are common features that cause one or another model of behaviour.

Risk appetite is one of defining features that characterize persons capable of business activity. Unlike a manager who is an employee, an entrepreneur has to experience the uncertainty in selection of not only means, but also objectives of activity. According to psychologists findings, it is impossible to develop risk appetite as a skill (we do not mention morbid forms of dependency, such as gambling, etc.).

As the main goal of management is to achieve certain financial indicators (first of all, profit) by applying the most effective system of control, then management is closely related to entrepreneurship. However, researchers emphasize the semantic aspect of differences between an entrepreneur and a manager. Entrepreneurship is more associated with an entrepreneur’s personality, who carries out business, starts a new business, implements innovations, puts up the capital and takes personal risk. L.I. Evenko notes that the correlation of concepts “entrepreneur” and “manager” is quite flexible [2]. Since all the entrepreneurs are actively involved in formulation of business goals and manage their enterprises at the beginning of their activity, all of them can be considered...
Managers to some extent. This opinion is shared by P. Drucker stating that a manager is not actually an entrepreneur, while an entrepreneur should always be a manager a bit. However, such qualities as “personal risk, response to the opportunity of income generation and moral intelligence”, as a rule, indicate the inability for effective management of an enterprise as far as it develops. The overwhelming majority of entrepreneurs simply do not have the ability for effective performance of management functions, such as planning, organisation, motivation and control. Therefore, it is no wonder that outstanding entrepreneurs become ineffective managers. In a number of studies it is emphasized that, in practice, the majority of new enterprises disintegrate, and the main cause is not bad ideas, but poor management” [7, p.46].

Moreover, according to psychologists, such qualities as excessive diligence, punctuality, although they are traditionally regarded as positive, are contraindicative for an entrepreneur [5]. These qualities are good for employees – managers, and in changeable conditions of economic activity. Flexibility is more important than constancy.

Both managers and entrepreneurs reveal strong leadership qualities, but a manager is a leader within a hierarchy, and an entrepreneur is a leader of ideas [3, p.163]. However, sometimes there is no clear border between entrepreneurs and managers, since this division is to some extent conventional, although the expressed personal traits define their role functions.

It appears that the opposition “manager – entrepreneur” represents a number of consequences of great practical importance for small enterprise development and its shift to the segment of medium-scale business.

There are many explanations of the inefficiency of an entrepreneur acting as a manager. The essence of these explanations is that entrepreneur’s psychological type does not involve systematic and routine work associated with manager’s activity. Moreover, entrepreneur’s ambitions are not connected with powers of authority. Entrepreneur is not an expert in management, as a rule. However, the presence of the informational challenge forces an entrepreneur to attract additional human resources. The representatives of small-scale business, as a rule, have no financial resources for highly skilled specialists. Besides, such specialists are hard to be motivated to work in a small company. They usually prefer to be engaged in big businesses. This partly explains the fact that, according to many polls, employment issue is one of the most urgent issues in small business. Unsuccessful experience of staff recruitment can largely be explained by low qualification of the staff, as well as the lack of entrepreneur’s professionalism in the sphere of management.

Since entrepreneurs are bewildered with the low efficiency of most employees, for the purposes of solving the informational challenge, despite unformulated official duties and functions, they often try to use subcontractors - people similar to themselves, capable of performance of different types of activities and prone to quick independent decisions.

The attempts to recruit such people may result in cooperation with persons of the same psychological type. It often leads to partnership between two entrepreneurs.
Turning to traits of entrepreneur’s psychological portrait, it is important to emphasize that there are such qualities as ambitiousness, lack of consistency, intolerance to any nonconformity along with other traits. In this connection, it seems doubtful that the alliance of two entrepreneurs will provide the overall coordination of work. Considering peculiarities of an entrepreneur’s personality, the partnership of people with similar psychological traits would rather lead to conflicts and division of spheres of influence between entrepreneurs than to efficiency improvement. Therefore, the faster an entrepreneur involves a manager to work, the higher is the probability of success of the enterprise.

As a result, the partnership of an entrepreneur and a manager can provide the enterprise development with synergetic effect at any stage of their joint activity. The Figure 2 illustrates the most probable ways of a small enterprise development depending on whether the entrepreneur acts on his own authority or together with an entrepreneur / a manager.

![Figure 2. Time lag for the solving of informational challenge](image)

As informational flows increase, the informational challenge appears which is marked on the scheme as a bifurcation point, because it is a launch point for the transformation of a small-scale enterprise into a small-scale developing enterprise. Further development of the enterprise is possible if the informational challenge is solved.
C. Entrepreneur + Entrepreneur

The enterprise is managed by two entrepreneurs.

As informational flows increase, the informational challenge appears. It is marked on the scheme as a bifurcation point, because it is a launch point for the transformation of a small-scale enterprise into the small-scale developing enterprise. At some timepoint, due to the personal psychological peculiarities of entrepreneurs, the ties between them get splintered. Then the possible paths of development can be reduced to variants A or B that will lead to the loss of time.

B. Entrepreneur (his own authority)

Entrepreneur manages the enterprise on his own authority.

Entrepreneur needs to redistribute informational flows. In the absence of a partner-manager, entrepreneur will be forced to redistribute informational flows between employees, which does not provide the increase in efficiency at this stage of development, as optimal distribution of informational flows requires the organizational structure, and therefore more time expenditures. In any case, if the entrepreneur’s goal remains the same, the way of active development of a company is inevitable.

A. Entrepreneur + Manager

Entrepreneur manages the enterprise together with a manager.

This alliance is the most optimal and provides the fastest and, therefore, the most effective development of an enterprise.

Discussion

The advantage of the approach based on the informational challenge concept is that in spite of the diversity of entrepreneurs’ personality characteristics and external factors, it provides the opportunity to find objective laws of development typical for small-scale developing enterprises.

This approach allows to specify general preconditions for development and determine the emergence of the informational challenge as the key one. The informational challenge shall be understood to mean the achievement of a critical level of informational flows that exceeds an entrepreneur’s perception capacity limited due to the objective laws of human mentality. It results in inability to respond timely and adequately to information requests of an enterprise, as well as in inefficient use of resources (first of all, time resource).

It is presumed that the process of structure creation in a small-scale developing enterprise takes place in the absence of professional management skills. In this connection, practical difficulties are faced in...
functional responsibilities formation for new employees, as well as methods of influence and control. This particular aspect of business development represent the major problem faced by the entrepreneur managing a small-scale enterprise. At the present stage of development, managerial functions are not yet separated from the actual work performed by an entrepreneur. It explains the existence of the problem. The process of managerial functions separation proceeds gradually as the enterprise develops. The logical completion of this process leads to professional management that will characterize the shift of a small-scale enterprise to the qualitatively higher level and indicate its development.

One of the most important problems related to the distribution of informational flows is that an entrepreneur does not understand which particular tasks and functional duties ought to be imposed on employees. In the absence of clearly formed management functions, it is difficult to expect specific tasks assignment and delegation of appropriate powers.

The problem is to a large extent determined by the entrepreneur’s personality characteristics, since such positive features as ability to risk, response to financial opportunities and ability to work long and hard, do not prove that this person can manage the enterprise effectively as it grows. Moreover, most of entrepreneurs do not have the ability to perform the management functions, such as planning, organisation, motivation and control.

As an enterprise grows and develops, the need for coordination of its operations increases, and the entrepreneur should know how to interpret the situation properly, considering the existing circumstances. This corresponds to the principles of the situational approach, which is the most comprehensive and satisfactory system designed to make management effective. The success of an entrepreneurial venture depends on his (her) ability to organize the effective redistribution of informational flows at the early stage of development.

The increase of a small enterprise efficiency is associated with progressive development characterized by complication. The main development direction for any open system is “the emergence of new opportunities along with implementing the main objectives of the system: internal requirements and those imposed from the outside” [4, p.47]. The appearance of new opportunities for an entrepreneur is associated, first of all, with the ability to perceive and process the incoming information. In order to perceive and process new information, the entrepreneur must possess time resource that gives opportunity to create an appropriate space necessary for perception of new opportunities – new informational flows. This space is possible only in case of informational flow distribution. The faster the process of distribution starts, the more effective are the entrepreneur’s actions and the more effective is the achievement of goals by a small-scale developing enterprise. This provision corresponds to the conclusions stated by V.K. Prokhorenko in his “Methodological Principles of General System Dynamics”. According to his opinion, “any change in a thing’s internal structure results in a corresponding transformation of its external properties. Any change in the external world is accompanied by a certain (significant or insignificant) change in the internal structure of a thing” [9, p.67]. The strategic redistribution of informational flows leads to the formation of the enterprise structure.
It should be noted that processing and redistribution of informational flows, in fact, serve as a management mechanism for an enterprise. This view of the management does not match the idea dominating in the Economic Theory, which understands management as a special type of professional activity. The specified approach to management supposes the allocation of “classical” functions of a leader: planning, organisation, management, coordination and control. Despite the fact that an entrepreneur has not yet allocated such management functions at this stage, his activities should be recognized as managerial.

It should be noted that the modern stage of management development could be called integrative, as it involves a number of different and, at first glance, mutually contradictory concepts, turning the management science into a kind of art, which, however, can and should be learnt. P. Drucker is a typical representative of this approach. The main components of the integrative management include the principles of the situational approach, as well. The situational approach assumes that the adequacy of various management methods is determined by the situation itself. “As there are so many factors both internal and external, there is no such thing as a single “best” way to manage an enterprise. The most effective method in a particular situation is the method that most closely matches this situation” [7, p.65]. The situational approach in management is actually based on the principle of relativity and specificity of any truth. “The fundamental attributes of truth are the adequacy and objectivity of knowledge, i.e. the correspondence between the knowledge and the object of research. The objectivity of truth provides its absoluteness. However, at the same time any truth is relative. The objectivity of a scientific theory means the result security in case the theory is applied, regardless of a user and upon conformance with the conditions stipulated in this theory. It is the specificity of conditions or a situation, that determines the relative nature of truth” [6].

Although the situational approach revealed itself within the management theory and the management practice in large enterprises, its principles seem applicable to the management of small-scale developing enterprises.

This approach implies that there is no prescription fit for any occasion. A particular solution depends on the situation that offers an outlook for its use by entrepreneurs in order to increase the efficiency of small-scale enterprises, because one of the main properties of an entrepreneur is flexibility, developed intuition and the ability for quick response to a change of circumstances.

A number of important practical consequences follow the results of the research.

For the purpose of a small enterprise development, the joint activity of two entrepreneurs is the least effective, because this alliance will disintegrate at some time. However, at the stage of creation of an enterprise, such alliance can have a positive impact expressed in mutual support of entrepreneurial initiative.

The efficiency of the enterprise development under the entrepreneur’s own authority, as well as in all other cases, depends on the entrepreneur’s ability to redistribute informational flows timely and properly. One of the negative aspects of this path, which significantly postpones the development process, is the lack of support from a “system manager”, whose psychological features and skills facilitate the establishment of the organizational structure.
Small Enterprise Development: Informational Challenge

It appears that the alliance of an entrepreneur and a manager is potentially the most preferable from the point of view of the enterprise development due to the opportunity for synergetic effect achievement from such a partnership.

In any considered method of a small-scale developing enterprise management, the entrepreneur’s main task is to solve the informational challenge. The faster an entrepreneur initiates the process of informational flow redistribution, the higher is efficiency of a small enterprise development.

References

Every female engineer suffers - A study of defense strategies in the work of female engineers who work in construction

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Abstract

The engineering work has peculiarities that still stand as barriers to women's role in the workspace. Like any type of work, it also generates suffering, resulting in individual defense strategies. The aim of this paper was to understand the defensive strategies applied by female engineers in the states of Bahia and Ceará against the suffering of work. The research is characterized as qualitative and data were treated with content analysis. As a result it was identified a new defense strategy category developed by female engineers, in addition to the ones pointed by the literature.

Keywords: Defense Strategies; Female Engineers; Suffering at Work.
Introduction

The differentiation of gender permeates the history of mankind and brings the principle of difference, as called by Agacinski [1]. This occurs through several different identities between men and women (biological, psychological, social identities), and they only reinforce this idea of differentiation between genres. This issue has been explained, therefore, through social and cultural constructions or using biological determinism in justification of the argument [6]. Therefore, a difference that "justifies" a hierarchy of men over women was instituted.

The Brazilian market had a rise in its graduated manpower in engineering in the 2000s, also rising its wages, in relation to other professionals [23; 27; 34]. The combination of these two factors points to a hot market, but it still falls short of demand because of missing accredited professionals [18; 22; 29; 30]. The different areas that engineering today offers should be taken into account and divided in traditional areas (civil, electrical, production, mechanical and chemical) and specific (oil, telecommunication, textile, fisheries and food), but even with these new options the civil engineering market is still the area forming more professionals [23].

Despite the market presenting itself as promising for engineering as a whole, as there was a small drop in unemployment from 4% to 2% of engineers between 2000 and 2010 [27], civil engineering is still presented as a male-dominated space over the last 17 years, despite the active participation of women in the segment [8].

Given this context, the aim of this study was to understand the defensive strategies applied by female engineers in the states of Bahia and Ceará against the suffering of work. It was observed that the female engineers not only are in a predominantly male market, but they also deal with certain peculiarities of competitiveness with the other gender that makes up the historical preference of the professional profile of this area.

Gender and Suffering at Work
From the 1970s intensification of inclusion of women in the labor market due to industrialization, urbanization and economic expansion was noticeable [16; 32]. The incorporation of female labor force becomes constant and growing without significant points that can be considered declines. In the 90's the occupation in both the formal and informal markets in Brazil, as well as in France and Japan is noticeable [19; 7].

This expansion is based on historical events and social changes that allowed female participation in the labor market, as the feminist movements of schooling expansion, reduction of number of children and outsourcing of some functions such as housemaid and babysitter [16; 9]. A new identity that "seeks recognition in the twenty-first century labor market" is developed [32].

Woman seeks a balance between the time dedicated to work and the time available for family issues, beyond the personal ones. It is believed to be possible, and completely feasible and reasonable for the balance between professional and personal life to exist, despite the instability that the dynamics of today's world offers [36].

The idea of women as the weaker sex was something created and not necessarily arisen naturally, and it was enhanced by the characteristics that differentiate the genders as as emotion being mostly attached to women, being it said in a general and empirically way. This concept is presented in an attempt to enhance a male superiority that has been resignified over time, but not yet terminated. It is defined by gender a socio-cultural construction and social representation, something that goes beyond simple physical distinction that lies on sex [6].

Simone de Beauvoir, gender reference in discussions, brings how the woman was conceived as the "other" in various social contexts throughout history. The denial of female identity as an "other" transformed females into a being without soul, without values, lifeless over the man and seen as an absolute subject. The author also stresses that for Aquinas the woman was an incomplete man, and despite the advance of history she has always been subordinate to man [5].
The hierarchy of ideas related to gender are legitimized by mythological, religious, philosophical and ideological foundations that create a reality that is not necessarily natural, but orders the relationships and experiences in society. Throughout human history, you can see the disappearance of women in records, making the development of humanity a story carried by men [6] and the conscious omission, if analyzed, left clues of active women.

The gender difference exists, but the ranking and positioning power of one over the other is not something that is linked to human nature, but to a social institutionalization, created to regulate social relationships, and create a kind of order that is accepted as the best way of living in society, as an acceptable reductionism [20].

All social changes reflect in labor relations, and women's work is no different, "translating a way of organizing work that reflects a dimension of social segmentation" [31]. The need for rationalization of work [2] and control practices that maintain order in the activities rise as a component of these processes, populated by human labor, which allows the concreteness of the transformation of raw materials.

The almost imperceptible divide that separates the pleasurable work of one who brings suffering is translated in a way that is not necessarily logical. The activity that does not allow the escape of drive energy, tension that demands to be discharged [17; 11], leads the individual to suffering in carrying out the activity. In this same logic is work, as at the same time it generates a kind of pleasure and wear (physical, psychological, or both) [28].

There is not, by the employee, a stranglehold on the activities carried out, before that it is seen as a productive resource, which receives a kind of "programming", is now molded, domesticated, forced to behave the way that the other wishes [11]. To Lancman and Uchida [21], Dejours contribution brings a different focus to the psychodynamic, where the normal state is not necessarily a healthy state. In the same way normality may reflect the a healthy state, it may also indicate a condition, from the moment in which there is dispensed effort in an attempt to create a balance, which destabilises efforts against it, so that the individual can be kept active and accepted.
In this scenario, we can see the power that the organization has over the worker, and using the pretext to remain competitive the organization is able to mobilize the mass of employees towards a specific objective of the company. It is not taken into account if this movement generates the worker some kind of suffering, and the end is a scenario where employees suffer without position themselves against the situation, and accept the organizational purpose that justifies such a sacrifice [10]. They are, therefore, complicit in a kind of suffering they cause themselves, but the options do not allow many choices, because this behavior is systematic in organizations, leaving only to accept or to be excluded from that environment (to be dismissed from the organization).

The workers are explored in various aspects. Physically their body is explored through work, as it has to answer with the activity that it exerts in the way expected by the company. But their psychic functioning is operated by the organization of work, that covers the significant level of the individual. So the centralization appears in the subject, independent of their will, but shaped by the environment in which they operate. Their "behavioral style" is built along the experiences living and surviving in this environment. The will of the workers themselves does not direct their behavior, which is shaped by the very activities they carry out, taking this as regent of their speeches, behavior and conduct [14].

The dynamics of the studied work involves investments of practical intelligence, the individual's personality and cooperation, which are the elements that if well 'managed' are able to deal with the "madness" of the work and maintain health. Because of this, it is important for the psychodynamics of work the issue of mobilization and engagement required by the organization to the employee. The dependence of this level of involvement and requirement of the organizations to individuals occasionally make the subjectivity in tools that are exploited for productivity, performance and excellence, but end up causing suffering that can generate social pathologies such as violence, perversion and bondage [24].

The defense strategies can be defined as a set of rules related to conduct that are conducted and created by the people [14]. As they are related to the kind of work, they can take
several forms "being marked by subtlety, ingenuity, diversity and invstivity" [24]. According to Dejours [12], defenses can be divided into three groups: protection, adaptation and exploitation strategies.

Defense strategies aimed at the protection are manifested by thinking, feeling and acting compensating for something. The situations of suffering become streamlined, alienating the employee of the generating causes of suffering. The employee does not act on the organization of work, but keeps the existing order unchanged. Over time this defense can lose its effect due to the increased casualization of the labor organization that intensifies the suffering, since no modification was developed.

The defenses considered adaptive and exploitative have the ability to run out in an even greater speed than the defenses of protection, because they demand a "physical and sociopsychic investment beyond their desire and ability" [24].

The defensive strategy on the one hand, presents itself as a solution to living with suffering that can also lead to alienation of the individual and hiding of the real causes of the problem. For the organization, the retention of alienation maintains the domain exercised over the worker, without question or changes in work organization. The experience of this paradox of organizations in making the maintenance of defenses and generate the suffering that it triggers, ends up making the safeguarding of employees' jobs, maintaining productive work and causes of suffering for employees unknown.

Methodological Procedures

For this work were chosen active women in the profession of engineering as subjects of research, not being taken into account the time in the market. The insertion was made for accessibility and the bond is considered.

The female engineers often have direct and constant contact with subordinates (supervisors, foremen), and indirect contact with teams of servants and masons. The locus occurred in Bahia and Ceará, with acting in the various aspects of engineering.
As collection method, semi-structured interviews were used, made by the researchers, with audio recording, as authorized by the interviewees.

The group researched totaled 15 female engineers, all graduated, with different insertion time in the market to expand the perception of this study. This number has not been pre-established because the purpose of the study was the saturation also known as redundancy [3].

For processing and analysis of data the technique of content analysis was chosen, as it is more suitable to the present paper form. In this work we proposed one categorie of analysis based on the literature, namely ‘how to deal with work’ where all the defense strategies are presented (table 1).

<table>
<thead>
<tr>
<th>Categories and Subcategories of Study Analysis</th>
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<tbody>
<tr>
<td>1 – How to deal with work</td>
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<tr>
<td>1.1 Naturalization</td>
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<tr>
<td>1.2 Denial</td>
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<td>1.3 Racionalization</td>
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<tr>
<td>1.4 Reactive Violence</td>
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<td>1.5 Compensation</td>
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<td>1.6 Distortion of Speech</td>
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<tr>
<td>1.7 Cleavage</td>
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<tr>
<td>1.8 Reframing</td>
</tr>
</tbody>
</table>

Source: Survey data, 2014

As an aid in the treatment of the data, the Atlas TI software was used generating the figure 1.
Analysis of Results

The first category refers to the defenses used by the female engineers to deal with the suffering of labor. Suffering is presented as something that is part of the workspace, as there is a deadlock between the female engineers and the organization, which exhaust the known possibilities to deal with the situation, combined with lack of possibility to change the task [13]. The constantly mentioned pressure and the course content in the interviews show how suffering of work is present and accepted.

The way in which they relate to the environment that constantly puts pressure denotes the fact that they are unable to imagine the workspace as a place that does not generate suffering. In this work this subcategory was called naturalization which appeared seven times. When dealing with data from this study that category, which had not been observed previously, was found and thus defined. It was identified that the female engineers get used to working structures that previously were strange to them.

The naturalization is presented not only as the custom with suffering of work generated by the pressure and unbalanced relationship between prescribed and real work, but it is also related to the fact that no longer were identified more discriminatory factors related to gender or impediments of performance and charges they related to the fact that they are women.
Denial is presented as a defense widely practiced in the engineering environment. In many instances, so that the work flow and interpersonal conflicts are circumvented, the female engineers have used denial as a way to euphemize unpleasant situations.

This mechanism, according to Dejours [11] is able to give rise to another problem: lie in organizations, which appears in the distortion subcategory of the speech and was present in this study when the female engineers said they had not had problems in their environment work, and later on in their interviews they told stories and experiences that showed otherwise. Interestingly, the content of this interview is that the subject says that there is lack of differences between the professionals related to their gender, but then they immediately state that it does not happen 'mainly' in the office.

Rationalization was also presented several times in interviews with the female engineers. The content consists of conformity, socially acceptable justifications, as pointed out by Mendes and Abrahão [25], Mendes and Morrone [26], Ferreira and Mendes [15] and Barros and Mendes [4]. With this type of defense, the cited authors point to a passive behavior of the individual and a type of conformity to the existence of suffering. This subcategory showed the highest incidence in the interviews, being identified thirty times. One of the measures used by engineers is the justification of the existence of a hierarchy that needs to be present for the work to be done.

The shift between the coping and passivity are ways in which the rationalization may be presented [25; 26; 15; 4]. This way of defending the suffering brought a curious point in this study. Aware of the harsh environment in which engineering can be provided, some respondents said they deal with interpersonal issues emphasizing polishing and education in dealing with employees.

Even with the influences of other engineers and supervisors who treat work teams sharply, the female engineers make use of treatment pronouns such as "Mr.", and words like "please" and "thank you." This form of treatment to employees results, in their perception, in greater satisfaction in the workplace by the respect given by the female engineer to employees, and greater ease in meeting the goals and targets. Rationalization brings justifications for adopted
behaviors. Also for this reason the female engineers consider themselves better in interpersonal relationships. They believe their dexterity is directly related to the fact that women are more empathetic to the problems of those around them.

Another way in which the rationalization is presented is in the fact that it is accepted that women are more docile and men are more cold and rude. This socially accepted justification makes the female engineer accept a rational explanation for the fact that there are differences between male and female engineers [25; 26]. Another issue presented is hierarchies. All engineers who referred the hierarchy mentioned the importance to accomplish it. The hierarchy is presented here as a defense strategy, the rational explanation of the facts justifies its importance. But as the female engineers themselves said, few reported having had female heads, which directs to a masculine hierarchy [33; 35].

The way that can be considered by this work as one of the healthiest ways to deal with the suffering of the work is the redefinition. Applying this defense strategy the female engineers do not minimize or deny that there is suffering in their work, but come to see the situation from another angle, a worked-through angle [14; 24].

The redefinition appeared more latent among the most experienced female engineers. Apparently, this kind of defense is acquired for applicability to the professional maturity. The female engineers who had this type of defense showed less fear in relation to the questioning of their professional capacity than the younger female engineers. The situations that generate the suffering of work are seen in a different way, so the defense strategy used is exactly to see problems from a different angle that does not generate so much suffering.

Conclusion

Being a female engineer is not presented as something easy. It required from the female professional a great deal of identity with the profession and resilience that makes her stay in business despite the suffering brought by work. The engineering environment is presented as a workspace that has yet to be conquered by female engineers. The professionals still feel the
masculinization of space. So the female engineers end up creating defense strategies in an attempt to stay competitive, deal with the suffering of labor, and not give up careers as they witnessed some of their female classmates do.

Suffering at work is presented in a more latent form for younger female engineers who appear not to have been used to reality. Over the years of experience various defense strategies emerge as a way to maintain balance in workspaces, which is not necessarily synonymous with health. In this study a category that was called naturalization came out. In this defense strategy suffering is assumed and goes on to become customary for the female engineer.

The most common defense strategies found were rationalization and denial, followed by many others, such as naturalization and reframing. These strategies were not presented as a collective, despite the experiences being shared, but each one of the female engineers receive their suffering portion of the work and deals with it alone, without group support. Defense strategies exist only because of the duality of pleasure and pain that is presented at work, as they are an attempt of trying to balance the suffering with pleasure in work, seeking emotional and mental health [10].

But despite the work being presented in this way, the female engineers who keep working in the area identify with their activities. Please note that the perception of considering the limiting gender that hinder women's participation in the market was seen with two specific defense strategies, denial and rationalization.

The limitations of the participation of female engineers in the market in relation to gender trigger defense strategies as ways of dealing with the suffering of labor. The way in which the defenses are presented are the most diverse, and the contribution of this study was to identify a new category that allows a more clearly way to understand how defenses are established for the female engineers.

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Small Enterprise Development: Informational Challenge


Ethical Decision Making Under Social Uncertainty: An Introduction of Überethicality

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Abstract

Decision making research has been revolutionized by prospect theory. In laboratory experiments, prospect theory captures human to code outcome perspectives as gains or losses relative to an individual reference point, by which decisions are anchored. Prospect theory’s core finding that monetary losses loom larger than gains has been generalized in many domains; yet not been tested for social status changes. Social status striving has been subject to social sciences’ research for a long time but until today we have no clear picture of how social status prospects relative to an individual reference point may influence our decision making and action. Understanding human cognition in the light of social status perspectives, however, could allow turning social status experiences into ethicality nudges. The perceived endowment through social status may drive social responsibility. Ethicality as a socially-appreciated, noble societal contribution offers the prospect of social status gains given the societal respect for altruism and pro-social acts. An Überethical filling of current legal gaps or outperforming legal regulations grant additional social status elevation opportunities. Building on prospect theory, two field observations of environmentally conscientious recycling behavior and sustainable energy consumption tested if social status losses are more likely to be answered with ethicality than social status gains. Social status losses are found as significant drivers of socially-responsible environmental conscientiousness. Testing prospect theory for social status striving advances socio-economics and helps understanding the underlying mechanisms of social identity theories. Pegging social status to ethicality is an unprecedented approach to use social forces as a means for accomplishing positive societal change. Future studies may target at elucidating if ethicality in the wake of social status losses is more a cognitive, rational strategy or emotional compensation for feelings of unworthiness after social status drops.
Introduction
Social status is as old as human beings. Already ancient sources attribute rights and allocate assets based on status (DiTella, Haisken-DeNew & MacCulloch, 2001). Status ranks individuals on socially-valued individual characteristics and group membership (Ball & Eckel, 1996; Hong & Bohnet, 2004; Loch, Huberman & Stout, 2000; Ridgeway & Walker, 1995). At the same time, surprisingly scarce is the information on how individuals perceive status changes and how their social conscientiousness is related to social endowments. In general, social status upward prospects are seen as favorable – but the downside of social status losses is rather vaguely described and no stringent framework exists on how status prospects impact human decision making and actions.

One of the most influential theories explaining human decision making under uncertainty is prospect theory (Kahneman & Tversky, 1979). Prospect theory holds individuals’ perceptions about prospective outcomes as individually-evaluated changes from the status quo. Laboratory experiments find individual aggravation over losing monetary resources to be greater than the pleasure associated with gaining the same amount (Bazerman & Moore, 2008). Originally prospect theory was captured for monetary gains and losses but replicated in various fields (Levy, 1997). In the application of prospect theory, social comparisons have mildly been touched on – if we consider the impact social identities have on our day-to-day judgment, decision making and actions (Loewenstein, Thompson & Bazerman, 1989). Understanding social status prospects’ influence on individual behavior, however, could explain the underlying socio-psychological motives of decision making in the social compound. More concretely, if certain social status prospects are found to be perceived as more or less favorable, they are prone to elicit certain behavior and may steer respective action. In individuals’ constant striving for favorable social status enhancement, social status prospects could put people into a specific mindset that drives pro-social acts.

As a pro-social behavior, ethicality is socially-honored. In the social compound, ethicality offers social status elevation prospects derived from respect for socially-valued altruism. Ethicality as a noble act may thus grant social status elevating opportunities. In reverse, social status perspectives could be used to nudge people into pro-social behavior. If ethicality is related to social status gain
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perspectives, social-status awareness could become a means to nurture a favorable climate within society. Social status endowments may thus be the core of socially responsible behavior; social status prospects the driver of the warm glow.

In accordance with prospect theory holding that status losses loom larger than status gains, foremost social status losses may steer ethicality in the wish to regain social status based on a reference point relative to previously-held status positions. In the light of ethicality being an implicit social status enhancement tool, social status losses are potentially answered by pro-social behavior. Social status manipulation could thereby serve as a non-monetary nudge to foster ethicality in society. The following paper applies prospect theory to social status and proposes ethicality as a means of social status enhancement with attention to regaining prior social status losses.

Status
All cultures feature some form of social status displayed in commonly-shared symbols. Social status attributions posit people in relation to each other in society (Huberman, Loch & Önçüler, 2004). As ascribed status can be improved throughout life, relative status positions are assigned in zero-sum games – thus one individual’s status gain lowers another ones’ status. Individuals implicitly weigh their social status based in the number of contestants in ranks above and below them (DiTella et al., 2001). In societal hierarchies, status is related to a diverse set of opportunities as different rules and availability of resources apply to variant social status positions (Young, 2011).

As an intrinsic fundamental human characteristic, people are concerned about their social status in relevant domains, leveraging social status striving into a pivotal motivation factor in human life (e.g., Coleman, 1990; Duesenberry, 1949; Friedman, 1953; Friedman & Savage, 1948; Mazur & Lamb, 1980; Ridgeway & Walker, 1995; Weber, 1978). Social status impacts on an individual's social identity and emotional state (Postlewaite, 1998). Status gains and superiority are associated with positive emotions and well-being derived from positive interaction (Bird, 2004; Brown, Gardner, Oswald & Qian, 2004; Galiani & Weinschelbaum, 2007; Hong & Bohnet, 2004). Individuals are psychologically satisfied when experiencing to be better off than others and feel uneasy when they see others doing better (Easterlin, 1974; Hopkins & Kornienko, 2004). Status
losses are embarrassing and drive a desire to enhance one's self-image in the wake of experienced unhappiness and risk aversion (DiTella et al., 2001; Harbaugh, 2006).

In the social compound, we favor positive status superiority of our groups compared to groups we do not belong to (Tajfel, 1978; Tajfel & Turner, 1986). Favorable group membership experiences are based on social opportunities (Meeker & Weitzel-O’Neill, 1977; Ridgeway, Berger & Smith, 1985). Group members with high status have more control (Bales, 1951; Berger & Zelditch, 1985), receive more credit for success (Fan & Gruenfeld, 1998), and enjoy higher degrees of well-being (Adler, Epel, Castellazzo & Ickovics, 2000). In contrast, low status group members are more likely to be neglected (Chance, 1967; Savin-Williams, 1979), more often blamed for failures (Weisband, Schneider, & Connolly, 1995), and feel more negatively (Mazur, 1973; Tiedens, 2000).

The emotional, social and economic consequences of status striving and related decision making appear as an open research question. Unsolved remains how social status pursuits drive motivation and behavior. No stringent decision making pattern of social status prospects impacting on decision making and human action can be given in the eye of social uncertainty. If social status endowments lead to more social conscientiousness or social status losses may loom larger than social endowment gains is an unsolved question. One of the most influential theories to predict human decision making in the light of future uncertainty is prospect theory.

Prospect Theory

Prospect theory revolutionized decision making sciences by capturing economic outcomes to be coded as gains or losses relative to a neutral reference point (Kahneman & Tversky, 1979; Schkade & Kahneman, 1998). In laboratory experiments, Kahneman and Tversky (1979) found individuals’ perceptions about outcomes as evaluative changes from their current state. Based on deviations from the status quo, prospect theory depicts an S-shaped expected utility function for perceived monetary gains and losses with a convex value curve for gains and a concave value function for losses (Currim & Sarin, 1989; Thaler, 1999). A comparatively steeper loss than value function captures peoples’ aggravation over losing money to be greater than their pleasure associated with acquiring the same amount of money (Kahneman & Tversky, 1979). Individuals taking losses more serious than gains are motivated to preserve their status quo (Bazerman & Moore, 2008). The status quo bias holds
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individuals to be risk averse in the domain of gains while they are risk seeking when facing loss prospects (Bazerman, 2007; Jervis, 1992; Kahneman, Knetsch & Thaler, 1991; Kahneman & Tversky, 2000; McDermott, Fowler & Smirnov, 2008).

Overall, prospect theory has leveraged into one of the most influential social sciences paradigms (Kahneman & Tversky, 1992). In manifold application of prospect theory, hardly any information exists on social status changes. Although social comparisons may directly impact on decision making under social uncertainty, decision making in the eye of social status endowment prospect remains an underexplored scientific area. Until today we have no information on the generalizability of monetary prospects on social status outcome perspectives and how decision making is influenced by social status outlooks and endowments (Huberman et al., 2004).

Decision Making Under Social Uncertainty

While the idea that people care about their relative status is well-acknowledged in social sciences, the behavioral consequences of social status prospects are rather unknown (Güth & Tietz, 1990; Nowak & Sigmund 1998; Robson, 1992; Tooby & Cosmides, 1990; Wedekind, 1998). The applicability of prospect theory on social status perspectives is untested (Loewenstein et al., 1989). Already in the original presentation of prospect theory, Kahneman and Tversky (1979) envisioned applications onto more ‘typical’ situations of choice. Apart from prospective monetary outcomes, prospect theory was proposed to be investigated for probabilities, in which outcomes are not explicitly given and more likely to be based on skills and chances (Kahneman & Tversky, 1979). Especially the status quo bias being theoretically isolated from motivational and social factors raised questions about social references, future aspirations and recent gains and losses (Chernev, 2009; Levy, 1997, 2003; McDermott et al., 2008; Tversky & Kahneman, 1991).

First comparisons of monetary and social utility in relation to prospect theory were started by Loewenstein et al. (1989). Social utility was defined as the level of satisfaction derived from outcomes of the self in comparison to others that were depicted as alternative or additional salient reference points. Regarding social comparisons and framing, Fox and Dayan (2004) found deviations from the original prospect theory in gain preferences over loss aversion.
Building on preliminary research that holds social status striving leading to investors’ risk aversion (Roussanov, 2009) and happiness being dependent on relative comparison results, Falkenstein (2006) argues that people become more risk seeking when facing negative social comparison outcomes (Axelrod, 1984; Easterlin, 1974; Siegel, 2002). One application of prospect theory in social contexts showed that accommodations to losses tend to be slower than to gains and people incur excessive risks to recover from social status drops (Jervis, 1992; Levy, 1997). The view of social status striving as driver of risk-seeking behavior is also supported by descriptive research on wealth distribution and entrepreneurship (Cole, Mailath & Postlewaite, 1992). Naturally following experimental extensions of prospect theory could integrate the role of social comparisons for judgment and decision making – as outlined by Festingers’ (1954) social comparison and Adams’ (1965) equity theory.

As most of our decision making takes place in social and hierarchical contexts, applying prospect theory for social reference dependence appears as an interesting and necessary extension. In an attempt to explain the underlying socio-psychological motives of human decision making under social uncertainty, investigating prospect theory in the social status domain will help understanding the behavioral consequences of social status prospects. In addition, becoming knowledgeable about emotions and behavior consequences related to prospective status changes could help unraveling the bounds of collective decision making and overcome harmful collective decision making outcomes – such as risk shifts, social stratification and group polarization (Janis, 1982). Finding how social status perspectives drive our actions and steer emotions will also enable us to create certain social status experiences that may instigate pro-social behavior. In particular, social status prospects could be used to drive ethicality.

Social Status Striving as Ethicality Nudge
Social status comprises of individual characteristics but also the amalgamated social status ascribed to groups one belongs to. Social identity captures that the mere belonging to a group contributes to an
individual’s status and self-esteem derived from the assigned respect towards membership groups (Tajfel & Turner, 1979). As social identities are related to a certain social status, exposure to social identity cues create situations of heightened social status awareness that influence the self-esteem. Social identity experiences put people in a specific mindset that impacts on their self-worth and determines their decision making and actions.

In an implicit social hierarchy of social groups, individuals are in a constant struggle for status by orienting themselves onto higher social status groups they aspire to enter (Sidanius & Pratto, 1999). Social group membership cues of groups with higher social status steer the wish to belonging to a group. The longing to gain access to higher social status groups and striving for their respect could enhance compliance on collectively-shared goals.

In these features, social identity experiences could be used to change peoples’ actions according to social norms. In an implicit social contract, social norms trigger solidarity on common goals and cultivate virtues within society – foremost through emotional experiences. Groups bestow with self-worth elevating pride when members are complying with socially-favorable goals and shame arises when individuals act socially irresponsible. Fear of social status losses breaks unfavorable anti-social habits. Through emotions exposure to social identity and social norm cues may drive social responsibility. Emotions depending on social experiences could be used to drive pro-social action. Social forces could steer social norm compliance based on emotional experiences in the light of social status prospects. Pegging social identity to social norm cues may create a specific mindset that influences the judgment and decision making of individuals who may then act in a socially favorable way. Through cognition and emotions, social status prospects and social norm cues may trigger social norm compliance contributing to ethicality.

Ethics capture social responsibility based on explicit and implicit social norms. Ethicality not only comprises people choosing to not do wrong (Gino, Shu & Bazerman, 2010; Shu, Gino & Bazerman, 2011) or when people unconscientiously enter a slippery slope leading to unethicality (Bazerman & Chugh, 2005; Bazerman & Tenbrunsel, 2011; Tenbrunsel & Messick, 2004). Ethicality also depicts when human are outperforming legal requirements and policy recommendations in the search for doing more good than required. In this natural human drive to do good to others, human
are overdoing legal regulation whilst incurring costs and impose risks onto themselves. Similar to Zimbardo’s heroic imagination (2011a,b) describing the voluntary service to others that involves a risk to physical comfort, social stature or quality of life; this kind of Überethicality captures the voluntarily filling of legal gaps or outperforming of public policy goals that impose costs and risks onto the individual. In closing current legal gaps, the evolutionary-based natural law of Überethicality is forerunning legal codifications if considering laws to be the expression of our shared nature and amalgamated sum of societal norms over time (Cicero in Keyes, 1966).

Ethicality offers potential implicit or explicit strategies to express and enhance social status in the social compound. In general, the natural behavioral drive of Überethicality ignites without material gain prospect. To draw an extreme example, Mother Theresa was monetarily unfortunate, yet obtained highest social status for her Überethical pro-social work. Also financial investors who gained a fortune by rational market calculus are often prone to feel they have to return to society by philanthropy – for instance, Warren Buffett and George Soros dedicate extraordinary amounts of time and money to promote ethical causes.

Apart from monetary considerations, Überethicality is more motivated by social incentives in the social compound. Status may play a key role. Based on Maslow’s (1943) hierarchy of needs, one can only be Überethical if having reached a certain social status. Not having to worry about food and shelter, frees mental capacities to address higher societal, ethical needs and future-orientedly filling current legal gaps. As ethicality is perceived as noble act that grants others’ respect, individuals may use ethical decisions as a conspicuous social status symbol in the social compound. Beyond governmental regulation and legal obligations, the nobleness of Überethicality may bestow individuals with social status elevation prospects. The foresightedness of fulfilling future requirements also implies leadership advantages (Young, 2011). Given the natural respect for the voluntary willingness to incur risks for the sake of pro bono-outcomes as well as leadership advantages attributed to pro-actively tackling ethical problems that may likely cover future regulation, Überethicality is thus an implicit social status elevation means apart from any monetary gains.
The following hypothesis brings together social status striving, prospect theory and Überethicality. Under the assumption of individual self-esteem being dependent on social status and human constantly wishing to maintain or gain positive social status, Überethicality is seen as a social status pedestal. Pro-active ethicality can be used to claim or regain social status. In accordance with prospect theory holding that losses loom larger than gains based on an individual reference point, especially the prospect of losing prior social status may trigger individuals’ wish to compensate social status losses by gaining status through ethical acts.

In order to investigate whether social status is related to ethicality in a way prospect theory would suggest; the following two studies test if social status prospects lead to a rise in ethicality and if – in accordance with prospect theory and Überethicality assumptions – social status losses are associated with higher degrees of ethicality than social status gain prospects.

Study 1: Method

In accordance with prospect theory and Überethicality notions, study 1 tests if social status losses are more likely to be answered with ethicality than social status gain perspectives. A field experiment was staged at North American university dormitories during the 2011 summer in order to scrutinize if (1) the mere presence of social identity in combination with social norm cues leads to a rise in ethicality; if (2) social status losses heighten ethicality more than social status gain prospects.

Four similar on-campus summer school residences were selected for creating different status experiences. During a summer school at a North American university campus, the summer school students, comprising of high school students, lived in the regular university campus dormitories. Four dormitories were chosen to stage field experiments featuring an observation of the summer school students’ recycling behavior. In total 711 summer school students lived in the selected dormitories, whose recycling choices were observed in 4 independent dormitories. Per dormitory, an average of 178 students’ environmentally conscientious behavior was recorded every working day of the observation period. All dormitories were home to summer school students with approximately the same schedule – for instance, summer school students faced the same arrival period, study and exam periods and move out times. Extraneous influences that potentially could lead to a higher amount of
disposals – like cardboard boxes from moving in or out – were therefore assumed to be constant for all dormitories.

**Design:** In order to capture the effect of social identity pegged to social norm cues on socially responsible environmental ethicality (Hypothesis 1), the impact of a three week exposure to university logos and ‘Sustainability’ initiative logos on summer school students’ recycling behavior was observed.

For six weeks during the 2011 summer school, the residing summer school students faced different environments. Some of them were exposed to logos of the university (Test condition 1 representing social identity status striving), others to ‘Sustainability’ initiative logos of the university (Test condition 2 representing social, ethical norms), others to both logos concurrently (Test condition 3 representing social identity status striving pegged to social, ethical norms) and even others did not see university logos or ‘Sustainability’ logos of the university in dormitory recycling areas at all (Control condition 1: neutral).

Four posters were placed in each of the selected test dormitory around the recycling bins and buckets. Two of the 8.3 x 11.7 inches sized poster displayed the university logo featuring the emblem and letters of the university slogan on a red shield and below the university name on a white bandage. Two other posters exhibited the ‘Sustainability’ initiative logo featuring the described emblem and letters of the slogan a green shield and on the right hand side the words ‘Sustainability’ and the name of the university. Both logos were printed in color on individual posters filling approximately 2/3 of the poster. All hardcover print-outs of the university logo or ‘Sustainability’ initiative logos were secured by a waterproof, lucent shield. The posters were placed on the wall next to recycling bins and buckets with easily removable tape. A similar poster location in all dormitory recycling areas was chosen. No posters were placed on doors, fences, entry posts, gates, poles, utility or sidewalks.

In the test dormitory, four copies of the university logo or ‘Sustainability’ logos per dormitory were installed concurrently around the recycling bins and buckets. In order to have comparison groups, the recycling behavior in three other, independent university dormitories of a North American campus was observed during the entire six-week observatory period. In two of the other test dormitories, four copies of the university logo or ‘Sustainability’ Initiative logos were placed
around the recycling bins and buckets. The control dormitory remained without logo installment. The time of the logo exposure was balanced between dormitories – one dormitory remained without any logos in the first three weeks and two featured no logos in the last three weeks in order to control for general temporal biases.

In the first three weeks, 153 students of test dormitory 1 were exposed to university and ‘Sustainability’ logos. Test dormitory 2, which hosted 161 summer school students, did not feature any logo exposure prior to a planned future ‘Sustainability’ logo exposure. Test dormitory 3 exposed university logos to 147 students. The control dormitory, in which 250 summer school students lived, had no logos.

In the beginning of week four of the field observation, the conditions changed for all the test dormitories. The 153 students of the test dormitory 1, in which students were exposed to university and ‘Sustainability’ logos, faced an environment without any logo exposure. The test dormitory 2, hosting 161 summer school students – that did not feature any logo before – now showed ‘Sustainability’ logos. In test dormitory 3 – with prior university logos exposed to 147 students – the logos were removed. The control dormitory, in which 250 summer school students lived, remained without logo exposure.

Results

The recycling behavior of 2011 North American dormitories’ residents was observed by weighting recycled disposals. Recycled waste was measured every day during the regular disposal collection in the four respective dormitories during the summer school. The recycled disposals were weighted on a regular scale. The weight of different recycling buckets was recorded manually on a paper spreadsheet and the data transferred onto an Excel-computer spreadsheet later each day of the data collection.

The recycling behavior during times of exposure versus non-exposure to logos was compared within the test dormitory. In addition, the effect of logo-installment versus non-logo-exposure was captured between dormitories. The effect is determined by a significant change in the recycled disposals’ weight.
The combined presence of university logos and ‘Sustainability’ Initiative logos heightened common goals compliance. After a time of exposure to the combined logos, in the phase of the removed social status and social norm insignia, pro-social behavior increased significantly ($t(27)=-2.042; p<.032$), which was not the case in any of the other dormitories. Figure 1 holds the recycled weight during university and ‘Sustainability’ logo exposure recycled weight monitored within the test dormitory over time. Logo versus non-logo exposure impacts on recycled disposals’ weight within the test dormitory. Removed university in combination with ‘Sustainability’ logos heighten recycling compliance significantly.

Insert Figure 1 here

Figure 2 exhibits the recycled weight per dormitory resident of the test dormitory featuring the university and ‘Sustainability’ logo in comparison to the test dormitory with the university logo and the test dormitory with the ‘Sustainability’ logo as well as the control dormitory. Logo versus non-logo exposure impacts on the environmental ethicality measured by recycled disposals’ weight between the test dormitories and the control dormitory. Removed university in combination with ‘Sustainability’ logos heighten recycling compliance significantly when comparing between dormitories (One way ANOVA $F(7,104)=5.914$, $p<.000$). Recycling compliance was measured based on the recycled weight per resident during exposure and after exposure to cues.

Insert Figure 2 here

Figure 3 holds the test and control dormitories’ recycled disposal’s total weight over the six week observation period per dormitory.

Insert Figure 3 here

Figure 4 holds the test and control dormitories’ recycled disposal’s total weight over the six week observation period per resident for each dormitory.

Insert Figure 4 here

Discussion
Study 1 provides evidence for ethicality being a context-dependent phenomenon nudgeable by social forces. Social status prospects can steer ethicality. Social identity and social status striving in combination with social norms can be used to improve day-to-day environmental protection.
behavior. Building on prospect theory, social status losses more likely trigger social norm compliance than prospective social status gains.

Unanswered remains if social status related ethicality can be extrapolated onto other contexts. While social status losses appear to be linked to ethicality, it is still unclear if this effect is innate humane and would hold robust in other contexts. If so, social status losses could be a powerful nudge to gain a pro-social environment and instigate environmental ethicality on a broader scale. Study 2 was thus designed to test if the effect of social status losses triggering social conscientiousness holds for environmentally conscientious energy consumption domain.

**Study 2: Method**

A field experiment at two North American university libraries targeted at investigating if (1) the mere presence of social identity in combination with social norm cues leads to a rise in ethicality and if (2) social status losses heighten ethicality more than social status gain perspectives.

The field experiment comprised of a field observation at two North American university libraries featuring user-controllable light-switches at reading desks and carrels. In a quasi-public location of two university libraries that are accessible by all general students, researchers and affiliates of the university, data was collected during six weeks. For six weeks the energy light consumption was monitored and recorded manually.

*Design:* In the first two weeks, the field experiment featured a baseline observation of energy light consumption without any installation followed by two weeks exposure to social status symbols and ‘Sustainability’ initiative logos featuring slogans followed by two weeks with removed logo exposure.

In order to capture the effect of social identity and social norm cues on socially responsible energy light consumption (Hypothesis 1) in a field observation, at one university library students were exposed to university logos (Test condition 1 representing social identity status striving) and ‘Sustainability’ (Test condition 2 representing social, ethical norms) at the respective university logos plus instructions to ‘Please avoid losing energy by switching off lights after use’ (Test condition 3 representing social identity status striving pegged to social, ethical norms) for two weeks. The postcard-sized (5,1 x 3,1 inches) stickers displayed the university logo and/or ‘Sustainability’
initiative banners stating ‘Please avoid losing energy by switching off lights after use’ in color filling approximately 2/3 of the card.

The cards were formed into cardboard tents. The tents were placed onto reading desks and carrels on three floors of one of the chosen university libraries. Per reading desk either one or two tents were placed so that a person sitting at a carrel would see one tent. At the desks three tents were installed so that approximately one to two people sitting down and using the reading desk would directly face one tent and could potentially also see two other tents. On the first floor of the test library, approximately 32 university logos were put on the reading desks and carrels. At the second floor of the test library, approximately 47 cardboard tents displaying the ‘Sustainability’ at the respective university logo were placed on reading desks and carrels under scrutiny so that one reading desk user could see one tent. On the third floor of the test library, approximately 120 cardboard tents displaying the university logo and the ‘Sustainability’ at the respective university logo were shown on the reading desks and carrels in similar locations per reading desk and carrel so that approximately one person could see one tent. All tents were maintained throughout the observation period and replaced on a daily basis if missing or damaged. As a control group, the energy light consumption of another library of the university campus was observed independently during the study. The control library (Control condition 1: neutral) remained without any logo or instruction placement.

The energy light consumption was observed several times daily in the respective libraries for six weeks. During the prospective observation time, the energy light consumption was recoded manually on a paper spreadsheet and transferred on an electronic computer spreadsheet on a daily basis. The library visitors were not informed about the energy light consumption measurement to avoid study participation biases. All information on energy light consumption was recorded in such a manner that the consumers were never identifiable insofar as linking the consumption to the individual library visitor, who were potentially university college and graduate students, post-doctoral researchers, scholars and professors. All observation data was collected and analyzed anonymously. During the energy meter data collection, no contact with students or affiliates studying
or working in the library was sought. At no point there was any disruptive research activities that could influence or impact the study activities of library visitors.

**Results**

The energy light consumption during times of exposure versus non-exposure to social status insignia and social norms instructions was compared over time within the test library and between the test and the control library. The recorded energy light consumption conscientiousness was measured by creating an index of abandoned burning lights divided by used burning lights per floor of the observed test library and the entire control library.

Insert Figure 5 about here

As exhibited in Figure 5, significantly improved energy consumption conscientiousness was found for the floors featuring the university logo (t=3.127, df=106, p<.002) for the two-week period after the logo had been removed. Improved energy consumption conscientiousness was found in the wake of removed university logos and social norm instructions.

As exhibited in Figure 6, significantly improved energy consumption conscientiousness was found for the floors featuring the ‘Sustainability’ at the university logo (t=2.898, df=85, p<.005) for the two-week period after the logo had been removed.

Insert Figure 6 about here

When comparing the energy light consumption conscientiousness between the test library and the control library, there was a significant effect between libraries (ANOVA, F(3, 578)=7.009, p<.000) after removed logos (p<.001) as exhibited in Figure 7.

Insert Figure 7 about here

When comparing the test library floor featuring university logos and the control library, there was a significant increase of energy light consumption conscientiousness after the removal of status symbols in the test library (ANOVA, F(7)=6.695, p<.000) after removed logos (p<.025). When comparing the test library floor featuring ‘Sustainability’ signs and slogans between the control library, there was a significant increase of energy light consumption conscientiousness after the removal of social norm cues and instructions in the test library (ANOVA, F(7)=6.695, p<.025) after
removed logos (p<.000). While there was a significant change in the light energy consumption in the test library, there was no significant change in the control library without any logos.

General discussion

Overall the presented studies provide evidence for ethicality being a context-dependent phenomenon. In the field of behavioral law and economics, connecting social status to ethicality contributes to the upcoming trend of sociology entering behavioral economics. Capturing social forces as the core of collective decision making on social responsibility at the same time spearheads the idea of ethicality as a natural behavioral law. The presented results present evidence for situational cues as the driver of pro-social decision making.

On a practical basis, pegging social status to ethicality is a novel idea to use social forces as a means for accomplishing positive societal change (Thaler & Sunstein, 2008). Unraveling social status striving impacting on ethical decision making thereby helps fostering socially responsible goals beyond stringent legal enforcement and governmental policy control. Deriving information on circumstances under which decision makers are likely to exhibit social responsibility grants recommendations on how social forces can be used to stimulate socially responsible outcomes. The presented connection of social status and social conscientiousness will help promoting ethicality. In a plethora of research on ethical downfalls and negative consequences of accidental ethical decision making failures, Überethicaliy is a powerful contribution shedding light on how to strengthen our inner ethical forces. Understanding ethical decision making under social uncertainty allows to foster a moral dimension of social life. Exploring further how psychological ownership and social status attributions can drive socially conscientious behavior offers a cost-effective, easily implementable ethicality nudges to steer and promote socially responsible acts on a daily basis. On a grand scale, relating individual experiences to future common goals will allow public policy specialists designing context that advance societal welfare and sustainable prosperity. Modeling the full realm of social
decision making promises nudges to steer civic virtues and motivate citizens to contribute to common goals.

The presented research serves as a way to better understand the socio-dynamics of environmental ethicality. The application of social identity on environmental ethicality is also an unprecedented approach to prepare for major challenges ahead for mankind in the light of climate change and natural resources constraints. Finding circumstances under which decision makers are environmentally conscientious and potentially identifying social forces that trigger environmental ethicality is aimed at modeling day-to-day environmental protection decision making and find easily-manipulated, real-world relevant sustainability incentives.

Exploring ethicality in the light of social status drops is novel. We therefore do not have any further information whether this effect is more likely to be driven by a rational calculus or rather an emotional whim. Although we find social status losses to be answered with ethicality, we do not know if ethicality spikes in the eye of social status losses are caused by a more future-oriented rational calculus or more likely to be elicited by an unconscious wish to release from a feeling of unworthiness in order to compensate for unpleasant past social status losses. Unanswered remains in this finding whether social status related ethicality derives from a future-oriented cognitive strategy or a more subconscious emotional compensation mechanism in the aftermath of social status drops. Ethicality in the light of social status losses could be a rational calculus to gain a competitive advantage. In the wake of social status losses, individuals may strategically use pro-social acts to enhance their status by egoistic altruism (Becker, 1976). At the same time, social status losses could also be accompanied by feelings of unworthiness and ethicality be a means to compensate for hurtful losses. As such ethicality may serve as a way to relieve from a feeling of unworthiness in the wake of former social status drops.

Future follow-up studies may therefore investigate if social status loss related ethicality is more likely to be associated with a rational profit maximization calculus or emotional loss compensation act. Exploring if social status-driven ethicality is more of a cognitive-rational strategy than subconscious, emotional social status loss compensation will help understanding the underlying mechanisms of social identity and societal responsibility.
Future planned research could add laboratory experiments to back our findings in the field. Finding similar effects in a controlled environment, for instance by having students recycle under different conditions as they leave an experimental session or partake in some other type of ethical behavior could back the hereby presented results. Extrapolating the findings onto the organizational level would allow professionals to develop practical remedies on how to strengthen their inner moral muscle in a work setting. Future investigations about different ethical dilemmas could provide additional practical applications of social status as a driver of ethicality following the greater goal of finding strategies how to ensure a pro-social and sustainable mankind.

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Ethical Decision Making Under Social Uncertainty: An Introduction of Überethicality


Figure 1: Within test dormitory comparison of recycled weight during university and ‘Sustainability’ logo exposure and afterwards
Figure 2: Between test and control dormitories comparison of recycled weight per resident during university and ‘Sustainability’ logo exposure and afterwards

Data collection: 6/6-8/12/11
North American university dormitories
Figure 3: Test and control dormitories’ recycled disposal’s total weight
Figure 4: Test and control dormitories’ recycled disposals’ weight per dormitory resident

Data collection:
6/6-8/12/11
University dormitories

Week

Recycling weight
Figure 5: Within test library comparison of energy light consumption before and after university logo exposure.

North American university campus library
March 5-April 1, 2012
Figure 6: Within test library comparison of energy light consumption before and after ‘Sustainability’ logos and instructions exposure

North American university campus library
March 5-April 1, 2012
Figure 7: Between test and control library comparison of energy light consumption before and after logo exposure

Energy light consumption conscientiousness

Index based on abandoned lights/used lights

North American university library campus
March 5-April 1, 2012
Since the Age of Enlightenment in the 17th century Europe and the Industrial Revolution in the 18th century in the West, methods in natural and physical sciences understood by humans were adopted in the attempt to achieve system equilibrium or the near equilibrium state as a control mechanism for human well-being in numerous fields and industries. Without exception, the economic and financial market systems in the West had fervently embraced these scientific beliefs in the past decades and the applications of these methods had significant roles in the exploitation of a capitalist system. In light of the 2008 global economic crisis, this study challenges the prevailing practices in the market systems in the past decades based primarily on scientific methodologies without taking account human factors that led to the 2008 economic predicament. It lays out foundations of human understandings of matters surrounding us through the lenses of economic and financial systems with human components.

The central questions are:

From understandings in physical and natural sciences, what are the laws and orders of Nature?

From understandings in social and natural sciences, we realize that there are differences in quality and magnitude between humans and other natural species. Are the laws and orders of Nature applicable to human societies or what are the ramifications when humans violate laws and orders of the Nature while attempt to achieve well-being?

Upon understandings in the differences between humans and other natural phenomena and in the search for an equilibrium or near equilibrium system for sustainable human welfare, how could human reconcile its conflict with Nature while continue its desire to create and to fulfill myriad pursuits?
As part of the Nature yet given consciousness, ideology, and other distinctive traits, humans inquire about matters in nature through sciences such as physics in order to understand Nature while attempt to control and to meet challenges imposed by Nature as part of a survival mechanism. Similarly, humans have the desire to study natural sciences such as biology in order to understand the organisms and their workings among natural living beings, including themselves, to prevent diseases while prolong life expectancy. These human inquiries about the workings of Nature started few hundred years before century. In the philosophical realm, written documents can be found in the works of Heraclitus and Pythagoras in the West and I-Ching in the East. However, while humans were preoccupied by their passions to explore nature and its orders, they have neglected the importance of their mind and its role as part of the natural order in numerous practices. The subjective physics of the mind and emotions include reason and passion or consciousness and sub-consciousness which are comprised of psycho-neurophysiology, desires, and values leading to behavior. Further, the state, shape, and dynamics of the both consciousness and sub-consciousness are compositions of the bio-makeup, environment, experiences, and memories that contribute to the human capabilities of reasoning, intuition, beliefs, and moral judgments.

Thus, unlike other living organism, humans possess an advanced mind. These characteristics in humans lead to issues of human psychology in both biophysical and social terms that explores how human minds work given their physical structures, mechanisms, and biological evolutions in a specific natural, social, cultural, and political environment. Further, the outstanding level of human consciousness, often demonstrated in their earthly achievements with various capacities, had not only separated them from other species but also altered and distinguished themselves in their relationship with other parts of the Nature. Given the combined talents and particular aptitudes of humans, quests for understandings of matters surrounding them are often reflected in the field of philosophy in search of meaning, contentment, and other optimality in human lives with respect to the natural, social, and other externalities.

1 Human mind is defined as a set of cognitive faculties that enables consciousness (cognition/reason), perception (feelings/emotions/desires), thinking (ideology/imagination/creation), judgment (values/beliefs), and memory (integration of various thoughts and perceptions). It also includes intelligences generated from unconsciousness (soul/spirits).
Since the scientific revolution, development in physical and natural sciences have advanced rapidly in human societies in understanding the human physiology as well as the universe surrounding us. While these advances have benefited human lives in many aspects, they also had significant impact on the development of the industrialization since the 18th century in building a more materialistic world among human pursuits. The applications and adoptions of scientific methods from the physical and natural sciences can be observed in fields in social sciences such as economics and its sub-segment such as finance and the financial markets. While some of the methods adopted from the hard sciences are applicable given their feasibility, tractability, and practicality, this study posits that the application of methods from physical and natural sciences to social sciences are not only partial but also inappropriate given the unique human attributes and their involvement as major players in the environment.

Hence, while humans have the intellectual capacities to find physical laws, these natural orders discovered by humans are unable to dictate human needs, wants, desires, and its mind given human conceit yet limits to know and to cognize due to the realities of change, information asymmetry, and other restrictions in the natural and artificial environment. Considering their ability to observe, in addition to experience, and the acquired desires (Papineau) not only to live but also to live well in a capitalist system in light of mortality at the individual level, humans compete among themselves for finite resources which lead to conflicts that distort the social and natural orders and equilibrium causing destruction. Applying the market system case, the hypotheses of the study are: (1) the prevailing physical sciences or laws in reduced forms cannot predict or rule human minds in achieving equilibrium either because the assumptions and measures under these laws are simultaneously too simplistic in the expectations of aggregate behavior and too demanding in the expectations of individual behavior given human heterogeneity, biases, preferences, and knowledge capacities within time and change under a capitalist system (2) While we can’t assume and measure the constructivist/objective rationality\(^2\) given ecological/subjective rationality\(^3\) due to limits to know

\(^2\) Constructivist rationality attempts to model, formally or informally, rational individual action. The Cartesian rationalism assumes or ‘requires’ agents to possess information at the level far more than could ever be given to one mind. The ‘if-then’ parables assume in the parameters hardly capture the realities survived as part of the world of

\(^3\) Constructivist rationality attempts to model, formally or informally, rational individual action. The Cartesian rationalism assumes or ‘requires’ agents to possess information at the level far more than could ever be given to one mind. The ‘if-then’ parables assume in the parameters hardly capture the realities survived as part of the world of
in a dynamic capitalistic market environment that promotes competition and self-interest, market equilibrium can be achieved through teachings of ethics, arts, aesthetics or enforceable regulations at all levels. In light of numerous crises in economics, financial markets, and politics in contemporary human societies, this research contributes to the understandings of the limitations of scientific methods in managing human matters and the importance of understanding the human mind and its intersections with Nature. It demonstrates how the world operates in dialectic and pluralistic terms with human presence in Nature and how equilibrium for a society can be reached through teachings of ethics and aesthetics. The study provides solutions to the problems of fundamental understandings of the universe with human factors by suggesting an integrated pluralism approach with moderation. To summarize, the study searches for understandings of (1) the similarities between the physical aspects and biological aspects by showing how the biological and physical part of humans can follow the laws in physical science at times (e.g., the System II mechanisms) but our understandings of world phenomena had been biased due to the negligence of the human mind and the over emphasis of scientific methods largely adopted from physical sciences excluding human minds and emotions leading to numerous crisis (2) the differences of the physical aspects and psychological/philosophical/social science aspects of human by demonstrating how and why physical laws cannot rule human minds (e.g., the System I and other contradictory mechanisms that quantitative methods cannot solve) (2) the importance of equilibrium in the social systems and in market practices and to achieve it through teachings of aesthetics and ethics rather than imposing abstract assumptions and measures from objective rationality given human characteristics with subjective rationality.

The study provides evidences from both quantitative and qualitative research results in addressing the premise through the case of the market system with practical values. The study observes the influences of the scientific revolution on current state of understanding and its impact on the human society since the Industrial Revolution in pursuit of capitalism. Using the concept of intersectionality,
the study addresses questions of the similarities and differences among varieties of understandings and redefines the mechanisms of how these understandings could work in concert to avoid calamities. Specifically, it takes an integrated pluralist approach to the problem and applies (1) the dialectic theory in philosophy and its development (2) the dual-process theory in cognitive psychology, e.g., the System I and II mechanisms, to show the functions and necessities of both systems in addressing the physical and the mind issues (3) the limitations in the understanding, the applications, and the epistemological value in practice e.g., the dilemma of measurements in physical sciences for the human mind from works of von Mises, Knight, and Dusek (4) the conflict between human will and the Nature’s operations – objective vs. subjective rationalities and the pseudo-rational models in practice on two counts: (i) neglected human mind with emotions at all levels (ii) based on one-sided human rationality, e.g., assuming scientific and objective methods without realizing the intentions, motivations, and incentives of the designer, and (5) the role of ethics, art, and aesthetics, and other means of external regulations in achieving general equilibrium and well-being given human characteristics.

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natural social systems. It has an empirical, evolutionary or historical basis (Smith).


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Factors Influencing Adoption of E-Books by Students

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Abstract

Students in schools, colleges, and universities across the US increasingly adopt e-Books, one of the latest innovations in education. This study investigates the factors influencing the adoption of e-Books. Regression analysis of the responses of 140 undergraduate students at the University of Tennessee at Knoxville shows that perceived ease of use, compatibility, attitudes, and subjective norms play a significant role in influencing the intention of students to adopt e-Books.
Factors Influencing Adoption of E-Books by Students

Introduction

E-Books, which can be defined as the “text in digital form, a book converted into digital form, digital reading material, a book in a computer file format, or an electronic file of words and images” (Rao, 2003), are becoming increasingly popular in the US academia. Over 80% of American students with access to tablets had used e-Books by 2014. More than half of the tablet owners find e-Books easier than reading a printed text. As a result, while sales of printed books continue to decline, the e-Book market is growing rapidly. As of 2014, over 30% of books sold in the US were e-Books.

The fierce competition between Apple’s iBooks, which hold over 25% of the e-Book market share in the US, Amazon’s Kindle, and Barnes and Noble’s Nook, among other e-Book suppliers, continue to grow the consumer demand for e-Books. Widespread proliferations of affordable high-speed Internet connections fuel the adoption of e-Books. In addition, universities, college, and schools across the US increasingly incorporate e-Books as part of a number of innovative teaching-and-learning techniques, including flipped classrooms, where students are given mobile devices or are asked to bring their own devices to access e-Books in the classroom and beyond.

This research studies the factors responsible for the adoption of e-Books by undergraduate students at the University of Tennessee at Knoxville. The study proposes a theoretical model to test the role of individual factors such as perceived ease of use, compatibility, and attitudes, and a contextual factor like subjective norms in shaping the intention of study participants to adopt e-Books.

Literature Review

One’s intention to engage in a particular behavior is shaped by individual as well as contextual factors. Past studies have identified numerous individual factors (e.g., attitude, self-efficacy, etc.) and contextual factors (e.g., social pressure, IT infrastructure, etc.) as key determinants of user intention to adopt IT artifacts (Lai & Ulhas, 2012; Malhotra & Galletta, 2005; Agarwal & Prasad, 2000).

We consider four factors in our model to investigate the adoption of e-Books by students for the following reasons.

1. Perceived ease of use (PEOU) from the technology acceptance model and the decomposed theory of planned behavior has emerged as a predominant determinant of intention to adopt innovative
Factors Influencing Adoption of E-Books by Students

technology (Agarwal & Karahanna, 2000).

2. e-Books, one of the latest innovations in the academia, is a widely used technology by a diverse student population (e.g., students in schools, colleges, and universities) across the US. Hence, it becomes necessary to study the compatibility of e-Books with this diverse student population. According to the Diffusion of Innovation theory, one of the most widely used theoretical frameworks to study the rate of innovation adoption, compatibility is one of the perceived characteristics of an innovation. Thus, we decided to focus on compatibility as one of the factors influencing intention to adopt e-Books.

3. Individual motivation is an important factor to engage in a specific behavior. Ajzen’s Theory of Planned Behavior (TPB) provides a useful framework to understand an individual’s motivation to engage in a particular behavior (Ajzen, 1985, 1991). Attitudes can shape a person’s intention to engage in a particular behavior and are strong predictors of behavior (Eagley, 1992).

4. Subjective norms is one of the constructs of TPB. Subjective norms are “individual’s perception of social normative pressures, or relevant others’ beliefs that he or she should or should not perform such behavior” (Ajzen, 1985). According to TPB, individuals perform the behavior when they believe that significant others think that they should perform the behavior (Ajzen, 1985). A vast amount of research on TPB has supported the link between subjective norms and intentions to engage in a particular behavior (Hurtz & Williams, 2009). Thus attitudes are a proximal cause of behavior and subjective norms are an important predictor influencing intentions to engage in a particular behavior. Hence this research also focuses on subjective norms to study student intention to adopt e-Books.

Perceived Ease of Use

User perception is measured in terms of PEOU (Benbasat & Wang, 2005), which can be defined as the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). Technology acceptance model suggests PEOU to be one of the key determinants of someone’s attitude toward using an IT artifact. PEOU is predicted to influence the perceived ease of use since the easier an IT artifact is to use, the more useful it can be (Davis, 1989). PEOU acts as a
Factors Influencing Adoption of E-Books by Students

risk-reducing factor since the more perceived ease of use the more likely users feel risk free in using a system, which is likely to increase their performance (Jarvenpaa, Tractinsky, & Vitale, 2000).

In addition, studies also find an inverse correlation between PEOU and the complexity of task using a system, i.e. users find tasks performed using a system to be more complex when they have less perceived ease of using the system. Previous studies on technology acceptance have also found a mediating effect of PEOU on perceived usefulness and personal innovativeness regarding technology usage, and external factors including social norms (Igbaria, Zinatelli, Cragg, & Cavaye, 1997). Students’ perceptions of ease of using e-Books when conducting tasks such as leisure reading, fact-checking, or conducting scholarly research, etc. greatly influence their decision to adopt e-Books (Hussong-Christian, Nichols, Bridges, & Lajoie 2013; Martin & Quan-Haase, 2013). Hence, we hypothesize:

H1: Perceived ease of use would be positively related to the intention of students to adopt e-Books.

Compatibility

Compatibility is described as the degree to which an innovation is seen to be compatible with existing values, beliefs, experiences, and needs of adopters (Rogers, 1995). A large number of technology adoption studies have found a positive affiliation between compatibility and attitude to use technology (Agarwal & Prasad, 2000). Lai and Ulhas (2012) discover that compatibility, in addition to perceived usefulness, convenience, and perceived enjoyment significantly influence the rate of e-Book adoption by university students. Hence, we hypothesize:

H2: Compatibility would be positively related to the intention to adopt e-Books.

Attitudes

Attitude refers to a person’s judgment on whether it is good or bad to perform a behavior of interest (Ajzen & Fishbein, 1980). The attitude towards any behavior is an individual predisposition towards the behavior as a function of its expected personal consequences. A person’s attitude toward any object influences their intention to perform certain behavior related to the object, which in turn

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leads to an actual behavior relating to the object. General attitude towards a technology and the belief about benefits from the technology are two dimensions of attitude (Brock & Sulsky, 1994). Attitude in the theory of planned behavior (i.e. attitude towards a behavior) refers to an individual’s positive or negative feelings about performing a target behavior (Ajzen & Fishbein, 1980). Attitudes can shape a person’s intention to engage in a particular behavior. Attitudes can cause people to have positive or negative disposition toward the intention to adopt e-Books (Ajzen, 2001).

Attitude is an important factor influencing the user’s perceived use of technology such as e-Books. For instance, e-Books are ideologically incompatible with users’ perceptions of scholarly texts. In a similar vein, some authors have also argued that e-Books cannot compete with the print books. There is evidence, however, that such attitudes are changing (Martin & Quan-Haase, 2013). Hence, we hypothesize:

**H3**: Attitude toward adopting e-Books would be positively related to the intention to adopt e-Books.

**Subjective Norms**

Subjective Norms can be explained as the social pressure an individual perceives regarding whether the behavior should be performed (Ajzen, 1991). This factor is called as “subjective norm” because it involves normative beliefs. An individual’s perceptions about a particular behavior influenced by the judgment of one’s significant others such as parents, spouse, teachers, friends, and coworkers can be termed as normative beliefs (Ajzen, 1988). Typically subjective norms capture an individual’s assessment of the extent to which others desire the performance or nonperformance of the individual’s specific behavior (Srite & Karahanna, 2006). If the user has no knowledge of the system, then they may seek the opinion of others who do have this knowledge (Taylor & Todd, 1995). When a reputable person finds a technology useful, others might believe that the technology is useful and form an intention to use the technology (Venkatesh & Davis, 2000). Sometimes individuals may not necessarily agree with others but decide to comply with others’ opinion about the technology to start using it (Malhotra & Galletta, 2005). Karahanna et al. (2006) find that subjective norms play a key role
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in the initial adoption of technology, especially when forming the intention of individuals for using the technology. Hence we hypothesize:

\[ H4: \text{Subjective norms toward adopting e-Books would be positively related to the intention to adopt e-Books.} \]

Research Methods

Sample
The sample for this study consisted of 140 undergraduate students in the Southeast United States. The percentage of males was 23% and the percentage of females was 78%. The respondents belonged to different schools and colleges at the University of Tennessee at Knoxville.

Procedures
The data for the study were collected by self-report questionnaires from students. Each participant completed a survey whose purpose was described to them as follows: “This questionnaire asks you to respond to questions regarding e-Books. Participation in this project is voluntary.” The survey was administered in a web-based format individually to most respondents using a Drupal-based site. Respondents were informed their responses were anonymous and that information from the questionnaire would be used for research purposes only. In accordance with standard Institution Review Board (IRB) policies, the questionnaire presented information about who was directing the research, how the researchers could be contacted in case there were any questions about the research, and the phone number and e-mail address of the University IRB to report any concerns about the research (No concerns were reported).

Measures

Perceived Ease of use. The three-item measure for perceive ease of use was scored on a 7-point, Likert type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Items were averaged to form the overall measure, and the scale was scored so that higher scores reflected higher perceived ease of use. An example of an item of perceived ease of use is: “It will be easy to use e-Books.” The internal consistency reliability estimate for this scale was .70.


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Compatibility. The three-item measure for compatibility was scored on a 7-point, Likert type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Items were averaged to form the overall measure, and the scale was scored so that higher scores reflected high level of compatibility. An example of an item of compatibility is: “Use of e-Book will fit with my needs.” The internal consistency reliability estimate for this scale was .91.

Attitudes. The three-item measure for attitudes was specially developed for the survey based on guidelines for constructing items by Ajzen (2001) and was a 7-point, Likert type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). This construct tapped into the affective component of attitudes and captured an individual’s overall favorability toward adopting e-Book. Items were averaged to form the overall measure, and the scale was scored so that higher scores reflected a high degree of positive attitudes toward adopting e-Books. Sample items included: “I would love to use e-book.” The internal consistency reliability estimate for this scale was .93.

Subjective Norms. The three-item measure for subjective norms was specially developed for the survey based on guidelines for constructing items by Ajzen (2001) and was a 7-point, Likert type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Items were averaged to form the overall measure, and the scale was scored so that higher scores reflected high level of subjective norms toward the intention to adopt e-Books. An example of an item of subjective norms is: “People who are important to me would think that I should use e-Book.” The internal consistency reliability estimate for this scale was .92.

Intention. The three-item measure for intention was scored on a 7-point, Likert type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Items were averaged to form the overall measure, and the scale was scored so that higher scores reflected high level of intention to adopt e-Book. An example of an item of intention is: “I intend to use e-Books.” The internal consistency reliability estimate for this scale was .96.
Factors Influencing Adoption of E-Books by Students

Analyses

Descriptive Statistics

Table 1 provides the means and standard deviations for the variables in our model.

Table 1: Means and Standard Deviations of the Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PerceivedEaseofUse</td>
<td>5.01</td>
<td>.86</td>
</tr>
<tr>
<td>Compatibility</td>
<td>4.60</td>
<td>1.31</td>
</tr>
<tr>
<td>Attitudes</td>
<td>4.83</td>
<td>1.42</td>
</tr>
<tr>
<td>SubjectiveNorms</td>
<td>4.58</td>
<td>1.30</td>
</tr>
<tr>
<td>Intention</td>
<td>4.78</td>
<td>1.73</td>
</tr>
</tbody>
</table>

Results and Discussion

Multiple regression analysis was used to test the model of e-Book adoption. The regression results indicate that 81.4% of variance ($R^2 = .81$, $p < .01$) in the intention to adopt e-Books was explained by the predictors in our model. All the hypotheses were supported for the model. The relation between perceived ease of use and intentions to adopt e-books ($\beta = .15$, $p \leq .05$) and compatibility and intentions to adopt e-Books was significant ($\beta = .35$, $p \leq .05$). The relation between attitudes and the intention to adopt e-Books was significant ($\beta = .28$, $p \leq .01$). Also, the relation between subjective norms and intentions to adopt e-books was significant ($\beta = .27$, $p \leq .05$).

Practical Implications

The results supporting the proposed hypotheses suggest that undergraduate students perceive e-Books to be easy to use and find e-Books compatible with their digital skills and information needs. The results also suggest that attitudes are an important predictor influencing student intention to adopt e-Books. Hence, developing positive attitudes regarding the use of e-Books plays a key role in increasing the widespread adoption of e-Books by students. Positive attitudes can be developed by...
Factors Influencing Adoption of E-Books by Students

helping students realize the value and advantage of e-Books. The advantages offered by e-Books such as ease of access anytime anywhere adds to the attractiveness of e-Books. The intention of study participants to use e-Books is also likely to be shaped by social norms including the opinion of faculty and fellow classmates regarding e-Books. Hence, positive encouragement by students’ significant others such as family members, professors, and friends, would influence the devices (smartphones vs. tabs) used by students to access e-Books. Study findings are of value to academic institutions, libraries, and digital publishers to better understand the factors influencing the adoption of e-Books by students and design appropriate business strategies to accelerate the rate of adoption of e-Books by students.

Limitations

Even though the current research has several theoretical and practical implications, there are a number of limitations to this study that must be mentioned. First, the research study focused on a limited number of respondents in southeastern United States. Caution should be taken in generalizing the findings to other populations and settings. Generalizability can be extended by validating the model on a wider and more diverse sample such as in different areas of the US, other countries, or with different cultures. Second, data collected in the present study was cross-sectional in nature. As such, inferences about causality cannot be made about the relations in the data. In addition, because the rate of engagement in development activities is likely to vary over time; longitudinal data might be needed to make richer associations between the factors investigated in this study.

Conclusion & Future Scope

The present study found the significance of three individual factors (i.e. perceived ease of use, compatibility, attitudes) and a contextual factor (i.e. subjective norms) in shaping the intention of students to use e-Books. The findings and practical implications of this research are encouraging for the e-Book market and point out several fruitful directions for future research. For instance, in the future, authors plan to study the role of self-efficacy, technological resources available to students, and perceived behavioral control in influencing the adoption of e-Books by students.
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References


Factors Influencing Adoption of E-Books by Students

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Electronic Reverse Auctions: A Post-Adoption Perspective

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Abstract

We investigate the conditions that promote the post-adoption of electronic reverse auctions. Based on an analysis of data collected from a survey of electronic procurement innovations at 166 buyer firms, we examine the levels of post-adoption by organizations. Using a Guttman scale, we find that many organizations use reverse auctions on a limited basis.
Introduction
Managers throughout the supply chain are expected to continuously reduce costs and improve product quality. With the increasing number of “world-class” competitors both domestically and abroad, it is crucial that they also be involved in the management of the network of all upstream firms that provide inputs, and the network of downstream firms responsible for delivery and after-market service of the product to the end customer. As companies strive to increase customer value by improving performance while simultaneously reducing costs, many companies are turning their attention to the procurement process (Monczka, et al 2001), which interfaces an organization with its suppliers.
Researchers have proposed that post adoption of IT innovation in organizations be studied (Cooper and Zmud 1990) due to the limitations of only studying adoption decisions. As organizations modify their workflow and processes to assimilate IT innovations, it is likely that different patterns of post-adoption will develop. The primary purpose of this research is to explore the post-adoption practices of organizations use electronic reverse auctions.

Literature Review
Online reverse auctions allow buyers to exchange information with sellers and solicit and accept bids from multiple sellers in a Web-based electronic marketplace while electronic catalog management systems refer to the generation, maintenance, and presentation of Web-based product data associated with a transaction. This purchasing tool creates a forum in which many suppliers compete against one another in real-time, dynamic open bidding. The typical result is a substantial reduction in prices and the time it takes to negotiate prices (Emiliani and Stec 2002). Many Fortune 1000 companies are experimenting with this new purchasing technique, while others are making it a regular part of their purchasing practice (Richards 2000).
The post-adoption of electronic reverse auctions was operationalized using Guttman scales, as has been the case in past studies employing an assimilation stage (Fichman and Kemerer; Fichman 2001). Seven stages are defined for the technology. These are: (1) awareness, (2) interest, (3) evaluation/trial,
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(4) commitment, (5) limited deployment, (6) partial deployment, and (7) general deployment. Respondents were asked to skip this question if they were not aware of the EPI.

Table 1 presents the Guttman scale used to measure the post-adoption of electronic reverse auctions. Organizations were classified according to the highest stage achieved at the time the survey was administered.

One hundred and eighty surveys were returned. Fourteen were not usable, leaving a total of 166 usable surveys. The sample included 87 direct good surveys and 79 good indirect surveys. The direct good survey response rate was 15.6% and the indirect good survey response rate was 14%, for an average response rate of 14.8%. 134 of the surveys were received by mail and 32 were received online.

Respondents of the survey were members of Institute of Supply Management, a well-known and highly recognized national organization. Senior purchasing executives, purchasing managers and material managers were considered to be most suitable subjects for this study. A good cross section of purchasing professionals responded to the survey. About 33% of the returned questionnaires were from the executive level (President, Vice President, and Director). About 45% of the returned surveys came from Purchasing and Material Managers.

Table 1: Guttman Scale for Electronic Reverse Auctions

<table>
<thead>
<tr>
<th>Stage</th>
<th>Criteria to Enter Stage</th>
<th>Survey Items to Use to Classify Assimilation Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Aware</td>
<td>Key decision makers are aware of electronic reverse auctions.</td>
<td>Is informant familiar with reverse auction technologies?</td>
</tr>
<tr>
<td>2. Interest</td>
<td>The organization is committed to actively learn more about electronic reverse auctions.</td>
<td>Is informant aware of plans to use reverse auction technologies within the next 12 months?</td>
</tr>
<tr>
<td>3. Evaluation/Trial</td>
<td>The organization has acquired specific innovation-related products and has initiated evaluation or trial.</td>
<td>Has the location acquired any reverse auction technologies? Is the location evaluating or trialing any reverse auction technologies?</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>4. Commitment</th>
<th>The organization has committed to use electronic reverse auctions in a significant way for one or more products or suppliers.</th>
<th>Are any specific reverse auction technologies planned, in progress, implemented or cancelled?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Limited Deployment</td>
<td>The organization has established a program of regular but limited use of electronic reverse auctions for part of their procurement process.</td>
<td>Organization uses reverse auction technologies for between 5% to less than 25% of its purchases.</td>
</tr>
<tr>
<td>6. Partial Deployment</td>
<td>The organization has established a program of regular but limited use of electronic reverse auctions.</td>
<td>Organization uses reverse auction technologies for between 25 and 50% of its purchases.</td>
</tr>
<tr>
<td>7. General Deployment</td>
<td>The organization has reached a state where electronic reverse auctions are used on a substantial fraction of purchases.</td>
<td>Organization uses reverse auction technologies for more than 50% of its purchases.</td>
</tr>
</tbody>
</table>

Respondents were asked the number of reverse auctions their organization had conducted. Almost 85% of the responding organizations indicated that they have had less than five auctions with most having conducted zero auctions (113 of the 133 organizations). Only 9.5% of the organizations responding indicated that they have had more than 25 auctions over this period. One organization had conducted about 3000 reverse auctions; a second one has conducted about 475.

<table>
<thead>
<tr>
<th>Number of Auctions Conducted</th>
<th>Number of firms</th>
<th>Percent of Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5</td>
<td>133</td>
<td>83.6</td>
</tr>
<tr>
<td>5-25</td>
<td>11</td>
<td>7.0</td>
</tr>
<tr>
<td>26-50</td>
<td>9</td>
<td>5.6</td>
</tr>
<tr>
<td>More than 50</td>
<td>6</td>
<td>3.8</td>
</tr>
<tr>
<td>Total</td>
<td>159</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2: Reverse Auctions
Table 3 indicates that the mean value for Electronic Reverse Auctions Assimilation. The mean value for reverse auctions is about one less than the mean value for the remaining innovations. The mean for reverse auctions (mean = 2.33) indicating that firms in this study are, on average, at the evaluation/trial stage of using the three innovations while still being at the interest stage of using reverse auctions. More firms indicated that they are aware of them and use them in limited capacity.

### Table 3: Stage of Assimilation of Electronic Procurement Innovations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measure</th>
<th>Operationalization</th>
<th>Distribution of Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverse auction</td>
<td>Assimilation</td>
<td>Guttman scale with seven levels: 1-aware, 2-interested, 3-evaluation/trial, 4-commitment, 5-limited deployment, 6-partial deployment, 7-general deployment</td>
<td>Stage # of firms</td>
</tr>
<tr>
<td>Assimilation</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
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<td></td>
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<td>4</td>
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<td></td>
<td></td>
<td></td>
<td>5</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean = 2.33; SD= 1.86</td>
</tr>
</tbody>
</table>

### Conclusion

Our study examined the stages that organizations were in using electronic reverse auctions. Using a Guttman scale, the data shows that although there are benefits of using this technology, it has limited deployment in organizations as many use it for commodity items and less with strategic goods.

### References:


There is currently a large body of research relating entrepreneurship (E), innovation (I) and aggregate economic growth (G). However, there are multiple perspectives on how these three variables are connected within this literature. As a first-step to identifying which (if any) of these possible mechanisms is in play, this study combines data from the World Bank, the Global Entrepreneurship Monitor (GEM) and the Global Innovation Index (GII). We present the preliminary results from this analysis, and comment on how our findings affect the structure of entrepreneurship and innovation policies in developing and high-income countries.

Keywords. Entrepreneurship, innovation, economic growth

*JEL codes.* E1, L26, O31
Entrepreneurship, Innovation and Growth Intertwined

There is currently a large body of research relating entrepreneurship (E), innovation (I) and aggregate economic growth (G). However, there are multiple perspectives on how these three variables are connected within this literature. Three particular perspectives dominate:

Relationship #1: $I \rightarrow E \rightarrow G$. People are inherently curious and strive to push the limits of invention. This drive leads to the creation of new and better products and services, increasing the quantity and value of aggregate output and leading to economic growth. Sometimes, innovation is done by people who are not currently represented by a formal firm. These people become entrepreneurs and craft firms to produce and market their products. In this relationship, entrepreneurship is a by-product of inventiveness and a means for transforming certain innovations into growth. This is one of the most popular implied relationships and might be labeled as a *Kirznerian* view after Israel Kirzner (1979) whose interpretation of the entrepreneur was someone who identifies opportunities in the economy and pursues them (see Marcotte 2014). It appears in the work of Acs and Varga (2005), Sternberg and Wennekers (2005), Wong, Ho and Autio (2005), Audretsch (2007), Stam (2008), Block and Wagner (2010), Bampoky et al. (2013).

Relationship #2: $E \rightarrow I \rightarrow G$. An entrepreneur can keep the lion’s share of production, making it a more lucrative job choice than being someone else’s employee. In the pursuit of entrepreneurial opportunity, some people are driven to create new products and services.¹ When discovered, the production and sale of these goods and services contribute to economic growth. In this relationship, innovation is a means to an end, the “end” being self-employment. This relationship is often labeled as *Schumpeterian*, as it is based on the ideas of Joseph Schumpeter (1934) (see Marcotte 2014). This relationship is highlighted in Acs et al. (2006), Stam (2008), Glinskiene and Petuškinė (2011), Szirmai, Naudë and Goedhuys (2011), Anokhin and Wincent (2012), Berthold and Gründler (2012), and in Amaghouss and Ibou (2013).

Relationship #3: Negative $G \rightarrow E, I$?. When the economy performs poorly, the likelihood of unemployment increases. Self-employment becomes an attractive alternative. The interest in entrepreneurship may induce some to innovate new products while others pursue ventures in existing markets (the effect on innovation may or may not be minor). Entrepreneurs like these are “necessity-driven”; workers who would have been employed by established firms if economic performance was higher. This relationship is also a popular research area and is implied in Acs and Varga (2005), Aubry, Bonnet and Renou-Maissant (2013) for France, Block and Wagner (2010) for Germany, and in Zali et al. (2013).

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¹ Another way to be an entrepreneur is to “imitate” – to bring a developed good/service to a location where selling it could produce profits. Many new firms take this option.
Entrepreneurship, Innovation and Growth Intertwined

There is, however, a fourth possible relationship that seems plausible:

Relationship #4: \( G \rightarrow I \rightarrow E \) or \( G \rightarrow E \rightarrow I \). Economic growth produces financial resources that can be invested in research and product discovery. When those not engaged by an established firm have participated in this process, they create their own firm to produce and market their product. Entrepreneurship is then a result from a healthier investment process. Alternatively, economic growth produces a lower-risk market environment. Buyers in the economy have more income to spend. The rewards to entrepreneurship start to outweigh the risks, spurring the desire to create new firms. Would-be entrepreneurs need a product to sell, and some look towards innovation. Innovation is thus a way for new sellers in the economy to take advantage of good market conditions. Either of these relationships seems plausible, but the literature investigating them is scant.

As a first-step to identifying which (if any) of these possible mechanisms is in play, this study com-bines data from the World Bank, the Global Entrepreneurship Monitor (GEM) and the Global Innovation Index (GII). Using a simple two-stage least squares (2SLS) approach, the coefficients in a system of equations are identified to evaluate the different potential mechanisms. We present the preliminary results from this analysis, and comment on how our findings affect the structure of entrepreneurship and innovation policies in developing and high-income countries.

References


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Socially Responsible Investment (SRI) as emergent risk prevention and means to imbue trust in the post-2008/2009 World Financial Crisis economy

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Abstract
Globalization and socio-economic changes heralded attention to Financial Social Responsibility. In the aftermath of the 2008/09 World Financial downturn, the interest in understanding social responsibility in the interplay of financial markets and the real economy reached unprecedented momentum. Financial Social Responsibility bridges the finance and society through Socially Responsible Investing (SRI) of screenings, shareholder advocacy, community investing, and social venture capital. SRI perpetuated in the eye of the 2008/09 World Financial Crisis. Innovatively scrutinizing financial social responsibility as an en vogue topic of interest helps portraying SRI as a panacea to avoid emergent risks – risks that emerge in complex interactive systems by collective outcomes of individual decision making fallibility over time. Future research may capture SRI as a real-world relevant means to averting emergent risks within a globalized economy and bestow market actors with trust in the post 2008/09 World Financial Crisis global economy.

Key words: Emergent Risk, Financial Markets-Real Economy Interaction, Financial Social Responsibility, Socially Responsible Investment, Socio-Economics, SRI-Stakeholder, 2008/09 World Financial Crisis


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1. Theoretical background

1.1 Introduction

Globalization, political changes and societal trends, but in particular the current world economy, have leveraged the societal demand for social responsibility in market systems and regain trust in the economy (Summers in speech, April 2012; The Economist, July 7, 2012). Our time has been referred to as the “Age of Responsibility” in US president Barack Obama’s 2009 inauguration speech (Washington Post, January 21, 2009). In the wake of the 2008 financial crisis, President Obama called for a new spirit of responsibility that serves the greater goals of society. Former World Bank President Robert Zoellick describes the “new era of responsibility” as featuring “changed attitudes and co-operative policies” that promote responsible corporate conduct and socially conscientious investments to imbue trust in the global economy (Financial Times, January 25, 2009).

The 2008/09 World Financial Crisis climaxed the call for responsibility in financial markets. The announcement of the recapitalization of the banking system in October 2008 created a demand for social responsibility in a newly defined economic order. Financial market regulations and consumer protection agencies set out to re-establish trust in the corporate and finance world. In July 2010, the US Congress approved a sweeping expansion of federal financial regulation in response to the 2008 “the financial excesses” that caused the “worst recession since the Great Depression” (The New York Times, July 15, 2010). The 2,300-page legislative catalog of repairs and additions to the financial regulatory system in the wake of the “most important Wall Street reform legislation in 75 years” implements social responsibility in financial markets and protects from human ethical decision making failures imposing systemic risks (Gangl, Kastlunger, Kirchler & Voracek, 2012; Summers, CNBC news, July 21, 2010).

For academia, the 2008/09 World Financial Crisis clearly underlines how classical finance and economic theories do not truly capture human cognition in economic markets (Soros, in speech, April 2011). An accurate understanding of socio-economic market behavior in the interaction of financial markets and real-world economic outcomes is needed (Duchac, 2008; Hofmann, Hoelzl &
Socially Responsible Investment (SRI) as emergent risk prevention and means to imbue trust in the post-2008/2009 World Financial Crisis economy

Kirchler, 2008). Mainstream economics must be complemented by heterodox insights on socio-psychological notions of fallible market actors and pay attention to harmful contagion effects of their limited decisions (Soros, in speech, April, 2011, The Economist, July 7th, 2012). Ways must be found to lower emergent risks stemming from financial social irresponsibility and solutions to regain trust in economic markets. With the most recent LIBOR/EURIBOR scandal revealing additional risks in the finance world, the attention on how to manage systemic financial market risks and restore trust in the finance world has reached unprecedented momentum (The Economist, July 7th, 2012). In the aftermath of the 2008/09 world financial crisis, debt may reach a level at which capital markets lose confidence, requiring a large increase in interest rates for continued attraction of capital (Milberg, 2013). Reinhart and Rogoff (2011) find that debt levels above 90 percent of GDP are associated with significantly lower rates of economic growth. Above that threshold level, public debt is nearing levels that will be unsustainable in the sense that the government will not be able to meet its debt payments or would have to raise interest rates significantly in order to continue to borrow because of a decline in market confidence. Growth will thus be negatively affected. The economic system may thus instill confidence.

In the eye of the many negative consequences of the 2008/09 world financial downturn, the crisis appears to hold less acknowledged potentials to raise social responsibility in economic markets (Summers, in speech, April 2012). As a window of opportunity to focus on human values in economic market interaction, we can also see the crisis as driver of Financial Social Responsibility and Socially Responsible Investment (SRI) as a means to regain trust in the global economy.

To strategically capture and foster a successful rise of Socially Responsible Investment (SRI) in the aftermath of the 2008/09 world economic downturn, a better understanding of the essential stakeholders’ view on SRI is needed. A thorough investigation of SRI, however, is a formidable task. As a novel concept, SRI is construed by diverse stakeholders, who lack concerted oversight of this complex phenomenon. Given the negative consequences of the 2008/09 World Financial Crisis, the Western world also appears to be challenged by the growing complexity of interactive relationships between individuals and organizations in the age of globalization.
Socially Responsible Investment (SRI) as emergent risk prevention and means to imbue trust in the post-2008/2009 World Financial Crisis economy

As a first step towards resolving societal losses imbued in the complex interconnectedness of global institutional systems and innovatively exploring new opportunities to foster social responsibility within globalized market economies as an emergent risk panacea in times of mistrust in financial markets, the following paper captures how Financial Social Responsibility can stabilize financial and economic markets in the post-2008/09 World Financial Crisis era. With special attention to the 2008/09 World Financial Crisis, investigating SRI as a means to imbue trust in financial markets will help portray crises as opportunities to heighten ethicality in markets (Puaschunder, 2011a).

1.2 Socially Responsible Investment (SRI)

Financial Social Responsibility includes social concerns in financial investments (Schueth, 2003; Soana, 2011). Socially conscientious investors pursue financial goals while catalyzing positive change in screenings, shareholder advocacy, community investing and social venture capital funding (Beltratti, 2003; Livesey, 2002; Matten & Crane, 2005; Mohr, Webb & Harris, 2001; Puaschunder, 2011c). Socially responsible screenings include societal externalities of financial portfolios in qualitative analysis of corporate policies, social practices and environmental impacts (Schueth, 2003). In shareholder advocacy shareholder engage with the corporate management and boards of directors to influence corporate policies and practices (Little, 2008). Shareholder activism coordinates shareholder engagement, in which corporate ownership rights steer corporate social conduct through advocacy and proxy votes (Sparkes & Cowton, 2004). Community investing involves financial set-asides for community development granting access to financial products, housing, employment and minority empowerment (Schueth, 2003). Social venture capital funding helps socially responsible start-ups and social entrepreneurs to foster capital markets’ social impact. Today’s unprecedented SRI diversity can be traced back to Financial Social Responsibility rising during times of crises (Nilsson, 2008).
Socially Responsible Investment (SRI) as emergent risk prevention and means to imbue trust in the post-2008/2009 World Financial Crisis economy

1.2.1 International emergence

In recent decades, SRI grew qualitatively and quantitatively in the Western World due to historical incidents, legislative compulsion and stakeholder pressure (Carroll, 1979; Wolff, 2002). Originally stemming from a small number of specialist ethical investment funds, SRI emerged into an investment philosophy adopted by a growing proportion of Western investment houses and governmental agencies reporting on social, ethical, and environmental corporate aspects (Knoll, 2008; Mohr et al., 2001). Financial social conscientiousness increasingly became an element of fiduciary duty, particularly for long-term investors overseeing international portfolios (Social Investment Forum Report, 2006).

Today the United States (US) features the broadest variety of SRI options and socially responsible performance measurement indices in a landscape of highly dispersed share ownership. Starting with the 1981-enacted American Social Investment Forum as a professional body for individual and institutional SRI constituents, SRI prospered in the wake of corporate social externalities disclosure and shareholder activism on socio-political concerns (Broadhurst, Watson & Marshall, 2003). From 1995 to 2005 the combined assets held in socially screened portfolios have increased more than ten-fold in the US (Williams, 2005). 348 resolutions on social and environmental issues were proposed, of which 177 – over 50 percent – reached a proxy vote in 2005 (Social Investment Forum, 2006). The same year, $2.5 trillion US assets were attributed as socially responsible funds accounting for 20.7 percent of all US investments (Williams, 2005).

Europe has the longest tradition of incorporating social facets in institutional investments (Stavins, Reinhardt & Vietor, 2008; Sutton, 2004). European legal systems emphasize stakeholder participation in corporate governance. Civil laws codify profit-sacrificing corporate behavior for the sake of societal good. European corporate boards often include employee representatives. The European Union institutionalizes SRI in sustainability, social, environmental, and ethical screenings. While the liberal UK permits corporate managers to engage in socially beneficial activities as long as they are in the shareholders’ interests; social democracies – like the German-speaking world – legally
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backs stakeholder interests (Lynch-Fannon, 2007; Stavins et al., 2008). According to Eurosif, SRI funds accounted for up to 18 percent of the market share in 2011.

In the UK, the European SRI leader, Victorian concerns about employment conditions sparked corporate social conduct (Sparkes, 2002). Ethical finance was established by Mercury Provident in 1974 and introduced to retail banking in 1992. In 1997, academics launched a campaign for ethical and environmental pension funds. Since 2000, Sustainable and Responsible Investment policies required all occupational pension funds to formally consider adopting social, ethical, and environmental policies (Sparkes & Cowton, 2004; Williams, 2005). The UK government regulations similarly regulate pension funds to declare the extent to which environmental, social or ethical concerns are taken into consideration in the selection, retention and realization of investments (Sparkes, 2002). Similar regulations have been passed in Germany and are currently being considered by the European Parliament (Steurer, Margula & Martinuzzi, 2008). In the wake of peace and environmental protection movements, SRI was propelled in German-speaking Roman Law countries with the ‘Gemeinschaftsbank’ and ‘Ökobank’ becoming the first SRI traders. Major influences are attributed to Green Parties, the 1991 Renewable Energy Act, information campaigns, and tax exemptions (Williams, 2005).

As of today, a variety of commercial SRI retail, mutual, and pension funds are offered to the public around the world. The establishment of retail funds and the adoption of SRI by major institutional investors matured SRI from a niche segment solution into a more mainstream option (Mathieu, 2000; Rosen, Sandler & Shani, 1991; Sparkes & Cowton, 2004). The rise in SRI goes hand in hand with an upcoming of social and environmental stock exchange rating agencies, SRI impact measurement, social reporting, and environmental certifications (Steurer, 2010). With the SRI market having reached unprecedented momentum, SRI nowadays attributes for a global phenomenon encompassing a wide range of diverse constituents.
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1.2.2 Stakeholders

Bridging the financial world with society, SRI comprises public and private economic (e.g., institutional and private investors), organizational (e.g., labor union representatives, banking executives, fiduciaries) and societal (e.g., representatives of international organizations, NGOs, public policy specialists, media representatives, academics) stakeholders. As information agents, banking executives inform clients about SRI and the benefit of Financial Social Responsibility. The largest segment of screened accounts includes private and institutional portfolios managed by fiduciaries (e.g., private equity executives, fund managers, investment managers), who are opinion leaders with strong potential to advocate for SRI (Nilsson, 2008). Institutional investors range from public pension funds to small nonprofit organizations featuring corporations, state and municipal governments, religious organizations, hospitals and healthcare facilities, college and university endowments, foundations and trade unions driving social and environmental endeavors. Private investors choose SRI for efficiency and long-term competitive advantages coupled with altruistic and personal social responsibility values, need for innovation and self-expression (Cheah, Jamali, Johnson & Sung, 2011; Puaschunder, 2011b).

In globalized financial markets, international organizations harmonize differing SRI practices by defining SRI standards and guiding the Financial Social Responsibility implementation from a global governance perspective (Pua schunder, 2010). The United Nations Global Compact division leads the international administration of Financial Social Responsibility by incepting the Principles for Responsible Investment (PRI) and the ‘Responsible Investment in Emerging Markets Initiative.’ Public policy specialists regulate finance accountability and aid the adoption of socially responsible market evaluation criteria. Non-governmental organizations (NGOs) monitor corporate conduct and shareholder activism as SRI prerequisites (Mohr et al., 2001). Labor union representatives implement social responsibility in financial markets – foremost in the areas of human rights, labor conditions and minority empowerment. SRI was spearheaded by the academic community; especially finance experts, behavioral economists,
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sociologists, and social psychologists. Media representatives select and process information about socially responsible corporate conduct and Financial Social Responsibility.

While preliminary research connects leadership to responsibility (Druyen, 2012), our knowledge of stakeholder-specific SRI notions remains an open, cutting-edge research gap important to be investigated not only due to the economic power and socio-political impetus of Financial Social Responsibility stakeholders, but foremost in the eye of economic crises caused by social irresponsibility and ethical downfalls (Druyen, 2010).

1.2.3 SRI emergence in times of crises

Social and ethical considerations have a long tradition in the wake of humanitarian, social, and environmental deficiencies (Williams, 2005). The first interest in corporate social conduct led ethical investors to fund socially responsible corporations in the beginning of the 20th century (Ahmad, 2008; Sparkes, 2002; The Wall Street Journal, August 21, 2008). With the gradual post-World War II lifting of financial market restrictions, an individualization of financial asset allocations propelled ethical investing (Soros, 2008). Stakeholder pressure in connection with legislative information disclosure reforms and policy compulsion to develop social responsibility drove SRI (Solomon, Solomon & Norton, 2002; Puaschunder, 2011c).

SRI prospered in the wake of shareholder activism, civil rights campaigns and social justice movements. Anti-Vietnam War institutional investors sold napalm-producing corporations’ shares (Biller, 2007). Minority empowerment, consumer rights activism and environmentalism leveraged sensitivity for Financial Social Responsibility (Renneboog, Horst & Zhang, 2007). Since 1969, the Council on Economic Priorities rated corporate social and environmental performances. Starting in the 1970s, financial markets increasingly became attentive to socio-political circumstances. SRI was introduced at a Yale University conference. Subsequently, universities established committees advocating for attention to social, environmental and institutional aspects. The Investor Responsibility Research Center (IRRC) and Interfaith Center on Corporate Responsibility (ICCR) promoted shareholder advocacy and proxy resolutions. In 1971, the first modern SRI mutual fund...
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was created by US Methodist clergy that aimed at divestiture from Vietnam War involved corporations (Broadhurst et al., 2003). The Dreyfus Third Century Fund started avoiding ‘sin stocks’ and improved labor standards in the following year. In 1972, activists criticized Harvard University for owning shares in petroleum corporations. Around the same time, political divestiture was first discussed in the case of the Angolan repressive government (Alperson, Tepper-Marlin, Schorsch & Wil, 1991). By the mid-1970s, a significant number of governments enacted shareholder rights to address corporate activities that caused ‘social injury,’ and many universities established committees to advise trustees on SRI and shareholder rights. The Sullivan Principles fostered equal remuneration and workplace opportunities to empower minorities (Voorhes, 1999). Environmental catastrophes in Chernobyl, Bhopal and the Exxon Valdez oil spill triggered anti-nuclear and environmental concerns in stakeholders. Socially conscientious investors started positive screenings to identify and support corporations that pay attention to human rights, equal opportunities, labor relations, environmental protection, consumer safety and community concerns. In 1981, the American Social Investment Forum was formed as a professional body for individual and institutional SRI constituents (Broadhurst et al., 2003). Political divestiture became prominent to fight the South African Apartheid regime triggering a widespread divestiture trend of socially concerned investors, churches, cities and states (Merriam Webster Dictionary, 2008).

Since the 1990s Financial Social Responsibility increasingly leveraged into a global governance means and was perpetuated by the micro-finance and co-operative banking revolution (Brenner, 2001). Corporate social conduct information and benchmarking of corporate social codes in combination with governmental regulation developed SRI. Institutional investors concurrently influenced corporate conduct and actively demanded corporate governance reforms to act on societal concerns. SRI reached unprecedented diversity, featuring a wide range of stakeholder social engagement and monitoring possibilities of social, ethical and environmental corporate performances (McCann, Solomon & Solomon, 2003; Nilsson, 2008; Rosen et al., 1991; Steurer et al., 2008).

Around the turn of the millennium, the diminishing power of nation states in a globalizing world coupled with political libertarianism placed a greater share of social responsibility onto the...

1.2.4 SRI in the light of the 2008/09 World Financial Crisis

The 2008/09 World Financial Crisis’ impact on economic markets, international financial policies and society is indubitable. Caused by the neglect of social responsibility echoing in global financial markets, the world economy has weakened since August 2008. The crisis caused what Alan Greenspan called a ‘once in a century credit tsunami’ featuring governmental takeovers and corporate bailouts, a lock-up of credit markets and inter-bank lending, a 25 percent drop in financial market indices, bailed-out European countries and a economically-hampered US government (Duchac, 2008). The announcement of the recapitalization of the finance sector in October 2008 halted liberalization trends and perpetuated skepticism and mistrust in unregulated markets (Gangl et al., 2012).

The roots of the crisis were laid down in the late 1990s and in the 2000s as banks increasingly made exotic mortgage loans with low attention to underwriting standards. Banks increasingly sold loans to investment houses that securitized the loans in additional instruments. Single mortgages were allocated across many different bonds simultaneously. In 2002 the US treasury Department allowed the reduction of the size of capital reserves needed to back securities. Banks increased their leverage, borrowing money and using such securities as reserves, which were overrated (Financial Crisis Inquiry Commission, 2011). Highly misleading ratings featured over 90 percent of AAA ratings given to such bonds in 2006 were later downgraded to the level of junk bonds (Ashcraft & Schuermann, 2008). As the economy slowed, the highly leveraged positions of
financial forms became untenable because of a lack of liquid cash to pay back borrowings. Selling into a declining market dropped prices further as more calls for repayment came, which accelerated the downward spiral (McGahey, 2013). The September 2008 bank shook the finance world and the economy at whole. As ripple effects spread and uncertainty grew, lending by banks dried in the eye of uncertainty (Financial Crisis Inquiry Commission, 2011). Credit standstills froze the economy. The collapse of the private credit market led to the financial crisis crossing over into the real economy surrounding governments to act through TARP (Toxic Asset Relief Program) to resuscitate falling demand, output and employment in a traditional Keynesian fashion. Real GDP fell around 6 percent annually and the economy lost 77,9000 jobs in January 2009, 4.7 million in 2009 or 3.5 percent of all jobs accounting for the largest employment losses since 1945 (Barker & Hadi, 2010).

Since the outbreak of the crisis, the societal call for social responsibility in corporate and financial markets has reached unprecedented momentum. The revelation of corporate social misconduct and financial fraud steered consumers and investors to increasingly pay attention to social responsibility within market systems (Roberts, 2010). Media coverage of corporate scandals, fiduciary breaches andastronomic CEO remuneration drove financial social conscientiousness. Stakeholder pressure advocated for information disclosure of corporate activities and governmental assistance of corporate social conduct. Governmental bailouts fueled public claims for financial market regulation to lower future negative consequences of agency default risks. Regained regulatory power was meant to implement social responsibility as a standard of sustainable markets. Public and private leaders as well as academics searched for financial social conscientiousness-enhancing market structures to restore public trust in financial markets in the eye of corporate capital hoarding, liquidity traps and the latest London Inter-bank Offered Rate scandal (The Economist, July 7th, 2012; Tumpel-Gugerell, 2009).

The current widespread acknowledgement of financial social conscientiousness as a vital economic market ingredient and the regulatory renaissance in the finance world are predicted to advance SRI (Duchac, 2008). SRI is an idea whose time has come. Ever since Financial Social Responsibility was fueled by socio-political deficiencies and economic turmoil. Socially responsible
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funds offer crisis-stable market options, as being less volatile and influenced by cyclical changes and whimsical market movements. Especially negative screenings are extremely robust in times of uncertainty – as socially conscientious investors remain loyal to values (McLachlan & Gardner, 2004; Puaschunder, 2011d). Given this track-record of stability during times of societal and economic downturns, SRI nowadays appears as a favorable market strategy for lowering emergent risks.

1.2.5 Emergent risk theory

Globalization led to an intricate set of interactive relationships between individuals, organizations and states (Centeno & Tham, 2012). Deepening nets of interactions challenge human foresight as fastened transactions transmit positive and negative externalities. Perturbations arising from novel interdependencies impose dangers for mankind. Over time and in crowds, one individual responsible decision has no longer limited local effects but global consequences (Centeno & Tham, 2012; Summers & Pritchett, 2012). In webs of unconscious decision making fallibility, responsibility blurring over time can turn to hard-to-foreseeable risks for collectives (Bazerman & Moore, 2008; Centeno & Tham, 2012; Leonhardt, Keller & Pechmann, 2011). With growing globalization and a rising population as well as quickening of transfer speed, emergent risks developed into overlooked large scale systemic problems (Centeno & Tham, 2012; Okamoto, 2009; Summers & Pritchett, 2012).

The currently evolving emergent risk theory captures these insufficiently-described shadows of the invisible hand in the era of globalization (Centeno & Tham, 2012; Miller & Rosenfeld, 2010). Building on behavioral economics research insights about fallible decision making, emergent risk theory sets out to capture economic contagion of mutually dependent market actors. Emergent risk theory depicts how individual decision making fallibility can echo in economic systems and impose systemic risks within markets over time and in crowds. In seeking to understand the leap from the individual decision maker failing to recognize unethical consequences down the road and the mass of
individuals being unaware of the cumulative potentially-disastrous outcomes of their actions; emergent risk theory describes unexpected dangers in the age of globalization.

Emergent risks are potential causes of the 2008/09 World Financial Crisis. In the aftermath of the financial meltdown caused by unforeseeable effects of unethical decision making, the demand for understanding of emergent risks heralds a call for novel economic thinking. As prevailing behavioral economics have shed less attention on collective outcomes of economic choices over time in the pre-2008 Financial Crisis era, new economic thinking must widen the interdisciplinary lens to study emergent risks in economic markets.

2. Future directions for SRI research

As one remedy, Financial Social Responsibility appears as emergent risk prevention and viable means to avert future socially irresponsible financial conduct. SRI trend analyses with attention to socio-economic success factors of Financial Social Responsibility and stakeholder-specific views in the aftermath of the 2008/09 World Financial Crisis could innovatively capture the crisis as a window of opportunity for acknowledging SRI. Through the prism of the interplay of financial markets and the real economy, an overall investigation of the social perception of SRI in the aftermath of the 2008/09 financial downturn could determine in what way the financial crisis has changed the financial community’s view of economic markets’ social responsibility. Currently once-in-a-lifetime-available information on the social representations of financial social conscientiousness in post-crisis markets not only offers a unique historic snapshot of the prevailing economic Zeitgeist but also helps portraying economic downturns’ potentials to fortify ethicality in economic markets. Retrieving information on SRI success factors would allow recommendations on the optimum balance of deregulated market systems and governmental control. Concurrently investigating SRI supply and demand changes implied by the 2008/09 World Financial Crisis could foster our knowledge of the impact of organizational, institutional and political factors on SRI development in times of crisis and allow deriving recommendations how SRI can serve as an emergent risk prevention. Introducing financial social conscientiousness as an emergent risk mitigation within
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globalized economic markets and means to avert future financial crisis could help imbuing public trust in financial markets as a countercyclical means to overcome our current Age of Angst featuring corporate capital hoarding, liquidity traps and mistrust in the finance community steered by the most recent Libor/Euribor scandal (Coen & Roberts, 2012; Puaschunder & Schwarz, 2012). Future research may thus advocates for understanding Financial Social Responsibility as a means to overcome emergent risks in order to improve financial market stability in order to restore trust in the global economy in the aftermath of the 2008/09 World Financial Crisis.

A preliminary literature review revealed a limited scientific investigation of SRI. Most studies focus on describing Financial Social Responsibility forms (Cuesta & Valor, 2007; Little, 2008; Rosen et al., 1991; Williams, 2005). Holistic, empirical SRI studies are rare (Hofmann et al., 2008; Menz, 2010). The current qualitative and quantitative emergence of Financial Social Responsibility options coupled with the engagement of various stakeholders result in differing, novel SRI practices. Recently weakened market economies due to a missing understanding of real-world financial market responsibility underline the importance of a whole-rounded SRI picture to overcome socio-economic losses implied by the various stakeholders’ Financial Social Responsibility notions. Building on state-of-the-art research on the social representations of the economy in times of crisis (e.g., Coen & Roberts, 2012; Gangl et al., 2012), a further in-depth scrutiny of stakeholder-specific perceptions of Financial Social Responsibility would help gain a holistic and stakeholder-specific description of SRI.

Based on a line of research showing people’s doubt in regulatory power after the financial market turmoil of 2008/09 (Gangl et al., 2012), a more stakeholder-specific investigation of Financial Social Responsibility with special attention to SRI success factors to imbue trust in financial markets in the aftermath of the 2008/09 World Financial Crisis should be pursued. Interviewing stakeholders about their opinion on Financial Social Responsibility during economic turmoil with special attention to social representations of SRI as a trust-bestowing means in times of crisis would allow harmonizing SRI standards and avert multi-stakeholder conflicts in understanding Financial Social Responsibility as a market stabilizing means.
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Financial Social Responsibility emerged out of attention to social, environmental and political deficiencies during times of crises. In the past financial social conscientiousness was propelled by a combination of humanitarian and environmental downfalls, stakeholder pressure and constituents’ social demands in combination with legislative coercion and policy compulsion. But what the current aftermath of the 2008/09 World Financial Crisis implies on SRI supply and demand given an unprecedentedly globalized economic financial market, we may explore in future research. As the number and complexity of transactions and interactions makes any kind of conventional analysis of the leap between fallible decision making and institutional ethicality downfalls impossible; SRI’s potential to become a means to overcome emergent risks in the aftermath of the 2008/09 World Financial Crisis and way to imbue trust in financial markets during times of economic upheaval should be investigated by the help of large-scale mapping globalization methods and quantitative databases.

Future theoretical and empirical research may feature qualitative and quantitative methodology in order to rationalize Financial Social Responsibility whilst imbuing ethicality in economic markets. After a stakeholder-specific literature review of Financial Social Responsibility, qualitative research should targets at gaining an in-depth understanding of stakeholder views on Financial Social Responsibility in order to determine SRI success factors with attention to the 2008/09 World Financial Crisis. Quantitative market analyses should aim at capturing SRI supply-demand changes as well as Financial Social Responsibility potentials to avert emergent risks and bestow market actors with trust in post-crisis markets.

Shedding light on stakeholder-specific SRI facets will advance our knowledge on vital ingredients for the functioning of market economies and drivers of trust in the global market economy (Kirchler, 2007; The Economist, July 7th, 2012). The insights gained from qualitative expert interviews should be coupled with quantitative market analyses of the SRI supply and demand changes in the aftermath of the 2008/09 World Financial Crisis. Temporal comparisons of financial social conduct could retrieve information about the ongoing adaptation and adoption of SRI with
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attention to the interplay of public and private contributions in the aftermath of the 2008/09 World Financial Crisis.

Promoting socially conscientious investment as a financial market stabilizing means has manifold implications. Knowledge of stakeholder-specific success factors of financial social responsibility will allow a harmoniously-concerted SRI administration and reduce socio-economic losses due to the complexity of the novel phenomenon. Capturing historically-valuable insights on the societal echo and social representations of the economy during times of crises will at the same time stimulate a vital dialogue among Financial Social Responsibility stakeholders and help social responsibility become more integrated in everyday financial decision making. Building on preliminary findings of the current financial crisis as a driver of attention to ethicality (Gangl et al., 2012; Puaschunder, 2012), outlining the role of SRI as a market risk mitigation will serve to stabilize financial markets. Aiding a rise of financial social conscientiousness will lower emergent risks whilst lifting entire market industries onto a more socially conscientious level (Glac, 2009). Averting the emergent risks of irresponsible financial market conduct will help fostering a positive societal climate of trust in the post 2008/09 World Financial Crisis era (Gangl et al., 2012; Kirchler, 2007). In sum, unraveling financial social conscientiousness may serve the overarching goal of financial market stability and improved economic conditions for this generation and the following.

3. Conclusion and future directions for SRI research

The 2008/09 World Financial Crisis underlined the importance of social responsibility for economic markets. Financial Social Responsibility is implemented in Socially Responsible Investment (SRI), which bridges the finance world with society. In a plethora of emerging SRI options, a structured multi-stakeholder analysis of SRI in the aftermath of the 2008/09 World Financial Crisis is missing. Future research may capture SRI as a real-world relevant means to averting emergent risks within a globalized economy. A nested approach featuring qualitative and quantitative global measurements should aim at gaining information about the interaction of financial markets with the real-world economy. A qualitative analysis of Financial Social Responsibility could retrieve SRI as a means to
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lower emergent risks within institutionalized market systems in order to avert future economic failures. Capturing stakeholder-specific financial social responsibility practices may aim at determining SRI success factors. Mapping globalization market tools and financial market databases could concurrently depict qualitative and quantitative SRI changes in the aftermath of the 2008/09 World Financial Crisis in order to delineate the potential of SRI to avert emergent risks in the aftermath of the 2008/09 financial market downturn. Depicting SRI during this unprecedented time of economic change and regulatory reform holds invaluable historic opportunities to outline a crisis’ potential to ingrain social responsibility and bestow market actors with trust in the global market economy. At the same time, spearheading financial social conscientiousness will aid a successful SRI implementation to avert future economic market downfalls and bestow market actors with trust in the global economy following the greater goal of economic market stability and a sustainable global economy.

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Does Inter-firm Market Orientation matter in international expansion?

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Abstract

The uncertainty in global expansion of retailing firms is intensified by the changing landscape of environment, such as political forces, economic climate and cultural issues, companies have to devise strategies to respond promptly to the diverse needs of customers and become market-oriented. Hence, market orientation is regarded extremely significant when designing marketing strategies. However, the study in market orientation and its impact on international activities of retailing firms has not been fully explored. This paper aims to explore inter-firm market orientation while entering emerging market. Ten face-to-face in depth interviews were conducted with senior and middle managers at Seven-Eleven in Thailand. The evidence of inter-firm market orientation demonstrates by gathering customer information and disseminate information in order to respond to customer’s needs.
Introduction

The uncertainty in global expansion of retailing firms is intensified by the changing landscape of environment, such as political forces, economic climate and cultural issues, (Salmon and Todjman 1989; Treadgold 1998), companies have to devise strategies to respond promptly to the diverse needs of customers and become market-oriented. Hence, market orientation is regarded extremely significant when designing marketing strategies (Deshpande and Farley 1998; Deshpande et al. 1993; Kohli and Jaworski 1990; Narver and Slater 1990). However, the existing academic literatures on retailing firms are largely concentrated on how major retailing companies accomplish in expanding geographically and which strategies they employ while entering overseas markets (Whitehead 1992). The study in market orientation and its impact on international activities of retailing firms has not been fully explored. Therefore, in this study, we seek to explore the following research questions:

1) How does retailer use inter-firm market orientation while entering foreign market, especially in emerging markets?

2) How does networking and relationship building influence the success of international operations of retailers?

Literature Review

Market Orientation

Market orientation was clarified as all activities in relations to attaining information of customers and competitors from the target market, alongside to distributing it throughout the organization to formulate responsive strategies for value creation to customers (Narver and Slater 1990). Market orientation is concerning fulfilling, satisfying and responding to the needs of the market through an enhanced knowledge and intelligence, which include those of intermediate and end customers, competitors and the macro-environment (Lado and Maydeu-Olivares 1998). Market orientation leads to competitive advantage, differentiated position in the market, brand loyalty, higher performance and success subsequently (Lado and Maydeu-Olivares 1998; Jaworski and Kohli 1993). Therefore, market orientation has been regarded as the ‘cornerstone’ of marketing (Kohli and Jaworski 1990; Appiah-Adu 1998).
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Kohli and Jaworski (1990) suggested the three basic steps of market orientation as follows (figure 1):

i) **Intelligence generation** - refers particularly to the collecting of market intelligence. It comprises environmental scanning and research into customers’ needs and trends, the monitoring of government policies and regulations, competition, industry-level developments, or technology.

ii) **Intelligence dissemination** – means to communicate market intelligence to all or relevant departments within the company through various communication means, for example, newsletters, memo, intranet, meeting and discussions.

iii) **Responsiveness** - refers to any actions or strategies developed to respond to the intelligence gathered and dissemination process.

“The Relationship between Market Orientation and Performance

Market orientation has a long-term focus on continuously implementing the three aspects of market orientation (Houston 1986; Kohli and Jaworski 1990). In the long term view, a company can compete with its competitors by continuously finding out and implementing extra value for its customers.

There are several studies that investigate the relationship between market orientation and business performance. They found varying results. Market driven firms achieve better performance (Day 1990; Kohli and Jaworski 1990; Lings 2000) if they recognise the importance of both market orientation and competitive orientation, compared to companies which focus only on one aspect (Day, 1990). Many studies have found that profitability is an outcome of market orientation (Deshpande et al. 1993; Kumar et al. 2011; Narver and Slater 1990; Taghian 2010). Kohli and Jaworski (1990) found that profitability is considered as an outcome of marketing orientation, while Narver and Slater (1990) found that the highest degree of market orientation is related to the highest profitability. In retail industry, Soehadi et al. (2001) found a positive performance among market-orientated retailers. Retailers who want to develop their performance need to monitor their market orientation regularly.
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It has been argued that there is no evidence that market orientation is related to increasing market share (Kohli and Jaworski 1993) but Taghain (2010) present the contradict result and found strong link between market orientation and market share. Kohli and Jaworski (1993) argued that market orientation is efficient only if the benefits gained by the companies outweigh the costs incurred. In some situations, such as dynamic economies, little competition, and stable market preferences, market orientation might not have an effect on business performance. The summary of market orientation studies is found below (Table 1).

“Table 1”

Network
Developing and extending network of relationships is fundamental for a retailer to enter each new market; networks include business partners or suppliers as well as agents in either general or societal level (Elg et al. 2004). This view believes a network as crucial and substantial, intentionally built and managed by the firms’ members; the idea of inter-firm market orientation is, therefore, particularly relevant (Elg 2002). Morgan and Hunt (1994) also explained the positive effect of inter-firm relationships in bringing the firm with diverse competences. Inter-firm market orientation is termed as “the activities that two or more independent companies carry out together to make a network or an individual relationship more sensitive to the demands of the market” (Elg 2002, p. 634). Formal and informal inter-firm market orientation exercises are beneficial to these networks in order to ascertain that latest developments (products and services) correspond with consumer needs (Coviello and Munro 1997).

Relationships with all agents, i.e., customers, suppliers, government and organizations – are therefore constructed through market orientation. Elg and Ghauri (2002) focus on both retail market orientations within organizations and between firms, such as suppliers and competitors. Companies create intelligence by conducting market research to understand what consumers need. Dissemination means communicating that information throughout the organization and between firms by using an information system, and meetings between departments and organizations. Responsiveness means designing an implementation plan, which corresponds to the customers’ needs. Based on the concept of

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inter-firm market orientation, network activities is unquestionably applicable for retailers’ market orientation since retailers depends on suppliers and other business partners in order to respond to consumers’ needs (Elg 2003). As a retailer entering a new market, it is thus helpful to partner with local firms to get access to market data and information and to make good judgments regarding how to adjust to local consumers’ needs. From this perspective, it can be presumed that inter-firm market orientation will contribute to retail firms’ competitiveness and better performance in terms of profitability, market shares, etc. (Siguaw et al. 1999).

Building on Kohli and Jaworski’s three components of market orientation, the inter-firm level is applied and discussed further (table 2)

“Table 2”
The understanding of, adoption of inter-firm market orientation when entering foreign markets, as well as the influence of networking and relationship building with local companies and suppliers are limited among international retailers. This therefore constitutes the raison d’être of this paper: to inform the reader on the strategic and operational role of inter-firm market orientation in market entry strategy for international retailers.

Methodology
Exploratory research intends to observe trends, ideas or hypotheses, rather than prove a hypothesis. Case studies and observation are often used to gather data in exploratory research (Eisenhardt 1989; Ghauri and Grønhaug 2005; Yin 2003). The methodological approach of this paper is based on qualitative research, using case study and in-depth interviews to allow an in depth study of the role of inter-firm market orientation when Western retailers investing in Thailand. Conducting case studies with Seven-Eleven allows us to study the relationships, behavior and operations in the organisational context (Berg 2006). As suggested by Ghauri (2004), we conduct case study in order to investigate and understand the specific circumstances and problems and not for the generalization purpose. The suitability method of conducting this research mainly aims to answer research questions. This research aims analysing the impact of inter-firm market orientation and networking on the firm’s international expansion so the case
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study method would help us to answer “how” and “why” questions (Ghauri and Grønnhaug 2005; Yin 2003; Ghauri and Firth 2009).

The case selection relies on the time, resources, and accessibility of the company and the suitability of the research questions (Yin 2003; Ghauri and Firth 2009). Ten face-to-face semi-structure interviews were conducted with senior and middle managers at Seven-Eleven in Thailand. The growing interest in semi-structured interviews may be explained by the fact that the interviewees’ viewpoints are more likely to be expressed in a relatively openly designed interview situation rather than during a standardized interview or questionnaire (Flick 2002). Due to the rule of anonymity, the author avoids stating the name and specific position of respondents. All interviews were conducted in Thai and fully translated to English. Telephone interviews and emails are used to follow up for additional questions. Interviews allow researchers to cross check data and information with secondary data and reports which have been given. The researchers also have an opportunity to ask more questions to managers in order to reassure that they understand each other correctly (Ghauri 2004). The company data, company written reports, secondary data, store visits and observation are also conducted in this research (Ghauri and Firth 2009; Miles and Huberman 1994). The Seven-Eleven store visits in Bangkok allow the researcher to understand local store operation, local product assortment, and co-development products with supplier.

The interview transcripts were translated and the important data was coded into key concepts/themes (Miles and Huberman 1994, p. 69). The pattern-matching method was used to analyze the data (Yin 2003; Ghauri 2004). “Pattern matching is a situation in which several pieces of information…may be related to some theoretical proposition.” (Berg 2006) The results are expected as well as a valid link between each variable. If the findings are as predicted, conclusions can be drawn about the factors influencing the internationalization of retailers (Yin 2003).

Data Analysis

Seven-Eleven is one of the leading convenience stores in the USA found in Dallas, Texas in 1927. Ito-Yokado who is the Japanese franchisee later took over the Southland Corporation; the US parents company. Since the company began its internationalization by international licensing in 1971, Seven-
Eleven now operates more than 46,800 convenience stores in 16 countries as indicated in table 3 (Seven-Eleven Corporate Website 21/04//2015).

“Table 3”
Seven-Eleven entered the Thai market in 1989 by franchisee CP All. The concept of Seven-Eleven is a convenience store which is located in the urban area. The combinations of the increasing Thai urban lifestyle, purchasing power, and consumer behavior have been identified as the opportunity to open convenience stores in Thailand in 1989. Seven-Eleven has become the leading convenience store in Thailand and succeed to reach 8,127 stores in 2015, which makes Thailand Seven-Eleven’s third largest market after Japan and USA (Seven-Eleven Corporate Website 21/04/2015). The urban and city lifestyle fit with Seven-Eleven’s convenience concepts. The country has strong growth in convenience store and hypermarkets. The customer purchasing behavior has changed from grocery shopping by local mom and pop stores where the price can be negotiated and sometimes they get short term credit, to convenience stores and hypermarkets which are more convenient with a greater product assortment and a higher price. The main target market of Seven-Eleven has been identified as: “We serve all ages from children to elders. The main target market is 25-45 years old as they are the majority of Thai population. We serve the majority of population and response to those needs. We adjust according to target group’s demand.” (Vice President Merchandising)

Network
Seven-Eleven works closely with its suppliers to develop products to match our customers, for example the company helps suppliers adjust packaging to appeal more to customers “We sell in the large volume and enough to be able to develop product together with suppliers.” The company also asks suppliers to adjust the taste of the food and beverage product to suit their customer’s taste as observed: “We know what customer’s like in terms of taste as we see from which products sell well here so we discuss this with our suppliers.”

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Intelligence Generation

Seven-Eleven study consumer behaviour by reviewing the AC Neilson market research report and retail audit to understand customer’s trends and what products sell well. “We study competitor by looking what they sell. We conduct mystery shopping. When we see which products sell well, we work very hard with suppliers to improve its products in order to sell more. For example, green tea is the popular product in Thailand in the past few years. We develop together with supplier to make green tea less sugar because customers are more health conscious.”

The company conduct in house market research every year in order to see the change of customer demand. As Seven-Eleven moves from the convenience store concept to “convenience food store” concept, the company continue conduct market research when expanding into food and ready meal products as explained: “The ready meal is more hygiene but the taste is not as good as fresh food. Our customers eat rice for lunch and we develop the taste of our ready to eat meal. We focus on mainly the taste of food that is why we conduct heavily research includes focus group to taste and give opinion about our food.” Most of market research information has been used to formulate marketing strategy and products selection as highlighted: “We use the information on marketing strategy and product...we have different customers from the office and urban area compare with residential area or petrol station for example. Our different store location serves different customers.” Suppliers can test market about their new products in Seven-Eleven branches as indicated: “Suppliers can test the market by selling at our 100-200 branches in order to do research.”

Intelligence Dissemination

Seven-Eleven disseminate information using several tools. The company has around 1,000 field consultants and each of them responsible for 5 stores each. Communication between consultants is held weekly and systematic as indicated: “The merchandise department has weekly meeting with field consultants to present new products and they will communicate to store every Wednesday to distribute to the branch manager. We will have communication cycle every week which work very well for us. In the different province, we normally conduct video conference.” Seven-Eleven uses reports as a
knowledge sharing tool of each function/ departments. Each department meets quarterly to discuss performance and planning and direction.

Seven-Eleven in Thailand also share information with different countries: “the company in USA organize yearly and we have conference and company visits in Japan to share concepts and the best practice. The best practice is normally share in meetings.” They share the best practices from Japan’s operation as indicated: “we operate “Plan-Do-Check-Act” which works very well in convenience store and retail concept in Thailand. We consistently go through this process such as we plan on shelve and implement on product shelving and then we have to check if it work and sell and act or adjust accordingly. I got this from Japanese style. Japanese do this very well which we need to follow.”

**Responsiveness**

The main focus of Seven-Eleven is to provide convenience to customers. Seven-Eleven allow stores to be open 24 hours. Seven-Eleven focus on fresh food which has short expiry date, 75% of its products are food and beverages and 25% non food products. There are services including bookstores, fax services, bill payments (electricity, gas, telephone bills). Customers can use the service facility by paying small charges.

The company uses local adaptation approach to operate in Thailand. **Products** have been adapted to fit with the local Thai market as mentioned: “They eat hotdog in USA. We can sell hotdog as snack in Thailand but our customers still eat rice as main meals. We are expanding the range of rice dishes products includes ready meal with rice, frozen meal.” Seven-Eleven is differentiating themselves from its competitors; Tesco Lotus-Express and Family Mart; by expanding to convenience food positioning. The company expend the ranges of fresh and ready to eat meals (Appendix 1) including ready to eat rice dishes, ready to eat snacks, frozen rice dishes in order to give variety to customers as highlighted: “We have fresh, ready to eat and dry grocery. We focus on fresh food more and more. Tesco sell mainly dry grocery products. We have our beverage, fresh food, and snack.” Seven-Eleven work with suppliers to create exclusive products to sell exclusively at Seven-Eleven. **“Only at Seven-Eleven”** represents smaller products which suitable for the convenience concept such as soap, small shampoo, razors and other toiletries.
Does Inter-firm Market Orientation matter in international expansion?

The price of Seven-Eleven products is a little bit higher than supermarkets, but the company operates as a convenience offering with extensive coverage in order for easy access by its customers.

Management highlighted store location selection as indicated: “The location in USA usually located at petrol stations and the corner location. We need to adjust this location strategy to Thai market. We located in the mass transportation hub such as bus stops, sky train station, underground station and bus station.” Location is one of the main strategies that Seven Eleven uses to compete, as they open new stores extensively and provide good coverage in prime locations.

Seven-Eleven promotes its brand in television, radio, newspapers, press and media. Suppliers are also assisting the retailer to promote its brand. Seven Eleven normally ask large suppliers to put the logo of Seven-Eleven in their television advertisement to show that these products are available to purchase at Seven-Eleven as explained: “Our supplier plays an important role on promotion because they help us advertise that their products are available at Seven-Eleven. We focus on this television advertisement. We use a little bit of radio and newspaper. We use in store media such as poster.”

The findings have shown that Seven-Eleven adopts inter-firm marketing orientation when operating in Thailand (table 4). The findings reveal that suppliers are main actor to build inter-firm market orientation. The supplier network, as Elg and Cerne (2001) note, shares information and knowledge about their customers and work together to gather customer’s data. The company discusses and shares knowledge of customers, this knowledge includes customer preferences, trends and customer buyer behavior. The information is disseminated through formal and informal communication including weekly meetings, product line meetings, reports and memos. The company also develops the new products with its selective suppliers including Beauty Drinks, Vitamin Water which sells exclusively at Seven-Eleven. The research confirms with Elg (2003)’s study that the company works together with suppliers to respond to those customers’ needs. In this case, they developed the travel size products in order to fit with convenience store format. This case study founded that the evidence of inter-firm market orientation demonstrates that by gathering customer information and disseminate information in order to respond to customer’s needs (Kohli and Jaworski 1990).
Conclusion

This study confirmed that market orientation would assist the company to understand more about the customers and competitors, thus enabling it to adapt to the local market (Kohli and Jaworski 1990). The company could not achieve market orientation alone and use network with its suppliers to generate intelligence, disseminate information and create local product to respond customer’s needs. This study agrees with Ghauri and Holstius (1996) that matching and network relationship could facilitate the company activities to get the right location and to run their retail operations. In these case, the author founds that the crucial network with the right actors, such as suppliers and associations allow the company to access the market and customer information which enhanced their market orientation. This research further confirms that the ability to understand customers, which can be done through market orientation and networking, are the main factors that influence performance in international operations.

From a theoretical perspective, this research re-evaluates Kohli and Jaworski’s (1990) market orientation concept in the context of international business operations and extends the scope of the analysis using case of western firm in Thailand. This research also takes networking/matching concept (Holstius 1991; Ghauri and Holstius 1996) further by applying them to the international retail context. The findings also suggest how foreign market operations can be managed, thereby providing a way to improve our understanding of the internationalization process. This research found that Kohli and Jaworski’s (1990) market orientation concept could apply to the retail industry.

With regard to managerial implications, this research is useful for practitioners and retailers in terms of highlighting the key factors, which could influence the successful international retailing operations. It focuses on the influential factors, thus providing a better understanding of the requirements and conditions necessary for a successful retail foreign operation.

The main challenges faced while conducting this research are the limited time and resources, the difficulty in accessing the company information, and the availability of the respondents. Further studies of different cases in more markets would have been interesting to consider and would have allowed a comparison of the results. Finally, multiple research methods in future research would enhance the credibility of these results.
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Table 1: A Summary of Market Orientation Studies (1)

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Main aspect Conceptual Model</th>
<th>Research Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liao et al. (2011)</td>
<td>The study looks at market orientation academic articles from 1995-2008 and find out the definition, aspects, study trends and key issues of market orientation.</td>
<td>Secondary research by reviewed 153 selected market orientation journal articles which published in 10 leading academic journals.</td>
<td>The 38 articles dedicated to study market orientation and performance linked. 22 studies found that there is a direct impact of marketing orientation to performance. 6 studies focus on moderator of relationships. 10 look at mediating variables. Only 2 studies found no relationship between marketing orientation and performance.</td>
</tr>
<tr>
<td>Kirca (2011)</td>
<td>To investigate the direct and indirect of market orientation to performance of MNE’s subsidiaries in Turkey.</td>
<td>167 questionnaires with managers from 73 MNE’s subsidiaries in Turkey.</td>
<td>Market orientation has direct impact on financial performance and indirect impact via customer retention and customer satisfaction factors.</td>
</tr>
<tr>
<td>Kumar et al. (2011)</td>
<td>To investigate the link of market orientation to performance from year 1997 to 2005.</td>
<td>Three surveys in 1997, 2001 and 2005 with top managers in 261 US companies.</td>
<td>Market orientation has positive impact on business performance including sales and profit in the short term and long term. The environmental factors are moderate the impact of MO to business performance.</td>
</tr>
<tr>
<td>Taghian (2010)</td>
<td>To investigate the link between market orientation, marketing planning and business performance.</td>
<td>Survey with 216 large Australian business firms.</td>
<td>Marketing managers use marketing planning tool to functionalize market orientation strategy in the company. There is strong link between market orientation and market share and financial performance.</td>
</tr>
<tr>
<td>Ghauri, Tarnovskaya and Elg (2008)</td>
<td>To investigate how supplier network can enhance retailer’s marketing driving strategy.</td>
<td>Case study research with 11 interviews with IKEA managers and its 4 suppliers in Poland and Russia.</td>
<td>The marketing driving strategy has been seen as a form of market orientation. The efficient global supplier network of IKEA helps company to achieve company’s market driving approach.</td>
</tr>
<tr>
<td>Panigyrakis</td>
<td>To investigate the</td>
<td>In-depth interview with</td>
<td>Market orientation is significant</td>
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</tbody>
</table>
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<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Main aspect</th>
<th>Research Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liu et al. (2003)</td>
<td>This research focuses on testing the correlation between market orientation and the following: entrepreneurship, learning orientation and better performance in the emerging economy of China</td>
<td>Questionnaire with senior managers in China</td>
<td>The finding is, the more a company becomes market orientated, the more learning oriented it will be. Also, there is positive correlation between market orientation and emphasis on entrepreneurship as well as the ability to achieve better performance.</td>
</tr>
<tr>
<td>Tse et al. (2003)</td>
<td>The research explores whether Narver and Slater’s market orientation could be applied in the Chinese business environment</td>
<td>The methodology used included questionnaires with a sample of 4,000 companies with more than 50 employees based in Hong Kong but having operations both in Hong</td>
<td>The results show that Narver and Slater’s scale can be applied in the Chinese business environment (Tse et al., 2003). The positive correlation between market...</td>
</tr>
</tbody>
</table>

Table 1: A Summary of Market Orientation Studies (2)
Does Inter-firm Market Orientation matter in international expansion?

<table>
<thead>
<tr>
<th>Study</th>
<th>Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soehadi et al. (2001)</td>
<td>Develop four measurement scales, which are customer orientation, competitor orientation, inter-functional integration and profit orientation in order to measure market orientation</td>
<td>Questionnaires with Indonesian retailers and suppliers</td>
</tr>
<tr>
<td></td>
<td>Market orientation appears to consist of four dimensions that can be measured using 15 questionnaires in order to demonstrate validity and reliability. Market orientation also has a positive effect on retail performance as well as supplier partnerships.</td>
<td></td>
</tr>
<tr>
<td>Hooley et al. (2000)</td>
<td>They test Narver and Slater’s market orientation model through fieldwork in Central European countries.</td>
<td>Qualitative research and case study approach, interviews between local research colleagues and senior managers. The second step is to use surveys in Hungary, Poland and Slovenia in various industries such as retailing and electronics</td>
</tr>
<tr>
<td></td>
<td>There is a stronger relationship between market orientation and performance when market turbulence exists. This market turbulence can be expressed in terms of fluctuating growth rate, rising unemployment and high levels of inflation in Central Europe.</td>
<td></td>
</tr>
</tbody>
</table>
Does Inter-firm Market Orientation matter in international expansion?

Table 1: A Summary of Market Orientation Studies (3)

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Main aspect Conceptual Model</th>
<th>Research Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appiah-Adu (1998)</td>
<td>The study of market orientation and performance (sales growth and return on investment) links in developing countries</td>
<td>Questionnaire for Managing Directors of 200 manufacturing and service companies in Ghana</td>
<td>The findings show that market orientation does not directly impact on performance, which are sales growth and return on investment among firms in Ghana. There is an indirect impact on sales growth expressed through a higher level of competition and a more dynamic market.</td>
</tr>
<tr>
<td>Liu and Davies (1997)</td>
<td>Study market orientation of UK retailers</td>
<td>Postal Questionnaire with UK retailers.</td>
<td>Market orientation does not have any direct correlation with commercial performance.</td>
</tr>
<tr>
<td>Kohli and Jaworski (1990); Jaworski and Kohli (1993)</td>
<td>Market orientation is composed of intelligence generation, intelligence dissemination, and responsiveness. The model has antecedents (senior management factors, interdepartmental dynamics, organizational systems). Consequences of market orientation involve customer responses, business performance, and employee responses</td>
<td>Interviews with 62 managers with marketing and non-marketing positions and senior managers in 47 organisations, located in 4 US cities. Jaworski and Kohli (1993) conducted questionnaires in 500 companies and also American marketing associations.</td>
<td>Market orientation impacts on organisational strategy, and employee and customer perception. There is a positive relationship between market orientation and organisational performance; but there is no relation to market share.</td>
</tr>
<tr>
<td>Narver and Slater (1990)</td>
<td>Market orientation is about customer orientation, competitor orientation, and inter-functional coordination, aiming to achieve long-term profit. The model tests the relationship between market orientation and profitability</td>
<td>Conducted 440 questionnaires with 140 strategic business units.</td>
<td>There is a significant positive relationship between market orientation and business profitability, both in terms of commodity and non-commodity businesses.</td>
</tr>
</tbody>
</table>
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Table 2: Inter-firm Market Orientation

<table>
<thead>
<tr>
<th>Market Orientation Components</th>
<th>Implication to Individual Firm</th>
<th>Application to Inter-firms Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence generation</td>
<td>Refers particularly to the collecting of market intelligence. It comprises environmental scanning and research into customers’ needs and trends, the monitoring of government policies and regulations, competition, industry-level developments, or technology.</td>
<td>Develops when a number of firms in a distribution network collaborate, which supplies information and knowledge about their customers. (Elg and Cerne 2001). This may mean retailer sets up specific project groups that include members from both the retailer and important manufacturers. The different parties within these groups work together in gathering and analyzing customers’ data.</td>
</tr>
<tr>
<td>Intelligence dissemination</td>
<td>Means to communicate market intelligence to all or relevant departments within the company through various communication means, for example, newsletters, memo, intranet, meeting and discussions.</td>
<td>The dissemination of customers’ information and data between firms within the network tends to affect performance in the market since each company will have a better knowledge and understanding of what customers want and need. The intelligence distribution may be relatively formalized, such as those in a trade association. Alternatively, firms in a network can create an information system collaboratively by making customers’ data available to all network members.</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Refers to any actions or strategies developed to respond to the intelligence gathered and dissemination process.</td>
<td>Occurs when firms organize their activities together to respond better to the consumers’ needs and wants. This happens when members of a network meet up to plan the marketing activities, to make a decision on how different activities of the value chain are to be carried out and cooperate, or to confer about how to manage problems or customers’ dissatisfaction.</td>
</tr>
</tbody>
</table>
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Table 3: Seven-Eleven International Licensees

<table>
<thead>
<tr>
<th>Territory</th>
<th>First Store Opened</th>
<th>Number of Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada +</td>
<td>1969</td>
<td>494</td>
</tr>
<tr>
<td>Mexico</td>
<td>1971</td>
<td>1,826</td>
</tr>
<tr>
<td>Japan</td>
<td>1974</td>
<td>17,206</td>
</tr>
<tr>
<td>Australia</td>
<td>1977</td>
<td>611</td>
</tr>
<tr>
<td>Sweden</td>
<td>1978</td>
<td>192</td>
</tr>
<tr>
<td>Taiwan</td>
<td>1980</td>
<td>5,040</td>
</tr>
<tr>
<td>Hong Kong/ Macau</td>
<td>1981/2005</td>
<td>966</td>
</tr>
<tr>
<td>Singapore</td>
<td>1983</td>
<td>493</td>
</tr>
<tr>
<td>Philippines</td>
<td>1984</td>
<td>1,282</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1984</td>
<td>1,745</td>
</tr>
<tr>
<td>Norway</td>
<td>1986</td>
<td>156</td>
</tr>
<tr>
<td>South Korea</td>
<td>1989</td>
<td>7,231</td>
</tr>
<tr>
<td>Thailand</td>
<td>1989</td>
<td>8,127</td>
</tr>
<tr>
<td>Guangdong (China)</td>
<td>1992</td>
<td>686</td>
</tr>
<tr>
<td>Denmark</td>
<td>1993</td>
<td>190</td>
</tr>
<tr>
<td>Beijing/ Tianjin</td>
<td>2004/2013</td>
<td>235</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2009</td>
<td>187</td>
</tr>
<tr>
<td>Chengdu (China)</td>
<td>2011</td>
<td>66</td>
</tr>
<tr>
<td>Shanghai</td>
<td>2011</td>
<td>76</td>
</tr>
<tr>
<td>Qingdao (China)</td>
<td>2012</td>
<td>25</td>
</tr>
<tr>
<td>Chongqing (China)</td>
<td>2013</td>
<td>10</td>
</tr>
</tbody>
</table>

+ A Wholly Owned Subsidiary of Seven-Eleven, Inc.
## Table 4: Seven-Eleven Inter-firm Market Orientation

<table>
<thead>
<tr>
<th>Market Orientation Components</th>
<th>Implication to Individual Firm</th>
<th>Application to Inter-firms Network</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intelligence generation</strong></td>
<td>The company collecting of market intelligence by conduct market research such as focus group, food tasting. They also use market research report to analyze consumer’s consumption trends.</td>
<td>Company discuss with suppliers related to knowledge about their customers including customer preferences, customer trend, bestselling products.</td>
</tr>
</tbody>
</table>
| **Intelligence dissemination** | -Seven-Eleven communicates market intelligence to relevant departments within the company through weekly meeting with stores, face to face meetings, product line meetings, internal reports.  
-Seven-Eleven co develops with Beauty Drinks with the largest drink suppliers to respond to customer’s health conscious trend. This beauty drinks (Vitamin water) has been sold exclusively only at Seven Eleven and became one of the best selling products.  
-Seven Eleven discuss with suppliers and launch the small size products to match with convenience concept. The suppliers develop the convenience size products such as toothpaste, mouth freshener spray which sell exclusively at Seven-Eleven. | -The customers’ information has been shared with suppliers on the project based such as customer satisfaction project.  
-Seven-Eleven to discuss and measure product performance. |
| **Responsiveness**            | -Company sells mainly local products. CP has its expertise in food business and be able to repositioning its brand from convenience store concept to convenience food store concept in order to differentiate from its competitors. | -Seven Eleven co develops with Beauty Drinks with the largest drink suppliers to respond to customer’s health conscious trend. This beauty drinks (Vitamin water) has been sold exclusively only at Seven Eleven and became one of the best selling products.  
-Seven Eleven discuss with suppliers and launch the small size products to match with convenience concept. The suppliers develop the convenience size products such as toothpaste, mouth freshener spray which sell exclusively at Seven-Eleven. |
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Figure 1: Antecedents to Market Orientation

Antecedents to Market Orientation

Retail Market Orientation
(Within and between firms)
- Intelligence generation
- Intelligence dissemination

Performance

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Abstract:
Business schools do not collect systematically and regularly metrics to measure the quality of their IB undergraduate programs and compare it to that of their peers, leaving the task of deciding which IB programs are better to media rankings of questionable methodology. We have attempted here to address this gap by suggesting the use of two metrics, namely program depth and breadth, that are collectible annually, enabling benchmarking and continuous improvements. We use a case study of Temple University, Fox School of Business to illustrate the use of this methodology.

Keywords:
International Business education, academic program quality, ranking
international business is a relatively new field as a stand-alone discipline taught in business schools through dedicated courses. With the gradual internationalization of business, so have business programs (terpstra, 1970; thanopoulos & vernon, 1987), but at a slow pace, especially in us business schools. vernon summarized this development: "i get a sense that the world is now demanding and getting some of the attention it ought to have gotten twenty years earlier in the business curriculum" (vernon, 1994, p. 226). especially in the 90's and beyond, business schools have launched entire ib academic programs at the undergraduate (ib major, minor, concentration, track, certificate) and graduate levels (msc, global mba, mba concentration).

the need to expand international business education has been recognized and supported by employers (ball & mccullough, 1993; beamish & calof 1989; nordstrom & kleiner, 1990), governments (e.g. the us federal grants for centers for international business education and research 17 cibers in the usa under the 2015-19 cycle) and business schools (beck, whitley & mcfetridge, 1996; bell, brown & butler, 1991; nehrt, 1987). faculty have also embraced the topic of international business education through the creation of a dedicated academic journal, journal of teaching in international business, and the continuous publication of articles in various outlets on the subject, including the premier journal in the field, journal of international business studies.

however the field of international business and its academic programs suffers the same predicament as general business programs, namely, a lack of objective assessment of academic program quality. as rubin and morgeson (2015) concluded recently that business schools needed a quality rating, "not a media ranking system". no publication or organization offers a systematic benchmarking of ib academic programs based on objective criteria, given that the only existing ranking by us news & world report is based on peer assessment without defining any set of criteria to do so.

this article attempts to address this gap by offering objective metrics to benchmark ib undergraduate programs. this is an important tool for any business school that endeavors to continuously improve its academic programs, by identifying areas of weaknesses. after offering an assessment method usable by any school, we share what the assessment looks like for the alleged top 15 schools in ib according to usnwr, which shows how flawed peer perception-based assessment can be. last, we illustrate the benefits of using our benchmarking method for program improvements using the case of temple university, fox school of business, whose ib major recently underwent a major program overhaul.

Assessing IB Undergraduate Programs in the USA: A State of the Art

Ranking and Benchmarking Sources

see http://www2.ed.gov/programs/iegpscibe/index.html

As of today, only US News & World Report (hereby USNWR) offers an assessment of US undergraduate business programs by disciplines, including International Business. Businessweek used to publish its own listing but eliminated the ranking by discipline in 2013, thereby focusing solely on ranking entire undergraduate business schools. The USNWR ranking of IB in undergraduate business schools is limited to US AACSB-accredited business schools only, and relies entirely on a peer assessment. Every year in March, all AACSB-accredited schools in the USA receive two copies of the USNWR form and are asked to nominate their top 5 peer schools by discipline. After tallying up the votes, USNWR publishes the top 15 ranking in various business disciplines in September. The voters are typically senior school administrators (Deans, Associate/Assistant Deans/Director of undergraduate programs), more rarely Department Chairs or senior faculty in the relevant discipline. USNWR does not ask them how they determine their top 5 in any discipline. Ideally, this may be based on the school's benchmarking of academic programs in these disciplines, but given that there are 517 AACSB-accredited business schools in the USA, each with differing levels of academic quality depending on the considered business discipline, it is highly unlikely that peer assessors are able to conduct such a comprehensive evaluation on an annual basis, if ever. Their perception is most likely influenced by the more visible activities of peer schools, such as faculty scholarship, awards and grants received, as well as marketing/external communication about their academic programs, regardless of actual quality. There is evidence of that in the fact that peer school administrators have nominated as having a top IB undergraduate program some schools that do not have one at all (in the USNWR 2015 ranking, #6 University of Michigan-Ann Arbor, #12 Brigham Young, #13 University of Virginia). This is rather confusing, as the USNWR survey of IB is supposed to be part of the undergraduate business program survey, thus rating schools in terms of undergraduate academic programs on offer in IB, not solely on overall school reputation or faculty scholarship. This has led Rubin and Morgeson (2015) to conclude: "Business schools already have spent decades under the tyranny of a highly deficient evaluation system: the media rankings. Rankings typically reflect very limited information". To be fair, not all media rankings are created equal. For example the Princeton Review does produce an annual ranking of Entrepreneurship undergraduate programs based on tangible metrics, such as the number of students that go into an incubator program at the school, the number of start-ups launched by alumni, etc. Unfortunately, no such ranking system exists for IB undergraduate programs.

In the USA, there is a Consortium for Undergraduate International Business Education (CUIBE), which is an association of 34 US business schools, whose purpose is "providing its members with an opportunity to benchmark their programs against other member schools and facilitate sharing of best practices in international business education". While this intent would make CUIBE the perfect vehicle to come up with a series of objective benchmarking metrics to assess IB programs on a regular basis, the CUIBE consortium has yet to generate such an outcome. CUIBE conducts irregular surveys of its members, focusing on one particular aspect of their IB programs, such as the foreign language requirement. These initiatives do provide a benchmarking opportunity and the sharing of best practices for continuous improvement, making them very valuable for their
members. However, these surveys are piecemeal and not annually conducted. Therefore they do not really provide a viable alternative to the USNWR survey for IB undergraduate programs.

In sum, there is a need for objective metrics that would allow apple-to-apple comparison of IB undergraduate programs in a systematic and objective manner. We discuss next what these metrics might be.

Assessing IB Program Quality

As Rubin and Morgeson (2015) pointed out regarding academic business programs in general, there is no consensus on program quality measurements. They provide a "Program Quality Model" consisting of 9 dimensions, broken down into a total of 21 metrics, showing the wide range of possible options to choose from. They stress that media rankings tend to focus entirely on input and output data (and we might add, sometimes not even that, as the USNWR ranking for IB undergraduate programs is entirely based on peer perceptions). Typical input metrics include the entering Freshman class's GPA and/or SAT average, percentage of minority students and/or faculty, the student-to-faculty ratio. Typical output metrics include faculty scholarship, student graduation rate after four years, graduate placement rate after 3/6 months. Some metrics are factual (e.g. number of faculty on a journal editorial board) while others are perceptual (e.g. student evaluations of their instructors or of their major, employer perception of a school's program).

Rubin and Morgeson (2015) warn that there is no silver bullet, but likely a formula combining multiple metrics to grasp a multifaceted issue, and these metrics have to be carefully chosen based on a business school's mission and vision.

When it comes to IB undergraduate programs specifically, some of the dimensions presented by Rubin and Morgeson for business schools overall remain relevant, such as student-to-faculty ratios or graduate placement. Some dimensions need to be focused on the considered discipline, such as faculty scholarship (journal articles related to IB, membership on editorial boards of IB journals). And some dimensions have to specifically added, such as number of student exchange programs with foreign partner schools, ratio of IB students studying abroad during their undergraduate degree, language proficiency of the IB graduates (Enderwick & Gray, 1992; Grahn & Vanden Bloomen, 1995; Radebaugh & Shields, 1984), a measure of cross-cultural sensitivity/competency (see Black & Mendenhall, 1990 and Johnson, Lenartowicz & Apud, 2006, for general discussions. An example would be the BCIQ instrument) or global mindset.

Bell, Gray & McNaughton (2003) have shared a blueprint for creating and improving quality in an IB program, including surveying employers to understand their needs, and comparing the school with peers along best practices. But all these approaches assume using confidential data that a school can easily collect about itself over time in order to continuously improve. Many of these metrics would be quite difficult to collect about peer schools for benchmarking purposes. Given this challenge, we propose next to use two metrics to measure IB program quality.

Benchmarking IB programs: A Proposal
We propose using two dimensions to measure the quality of IB undergraduate programs, namely program breadth, and program depth. These two dimensions have the advantage of being based on public and objective data, collectible from business schools' websites.

Considering the multidisciplinary nature of international business (Dunning, 1989), it is logical to expect IB programs to go in depth and peel away at the layers that influence the way business is conducted in various countries (Nordstrom & Kleiner, 1990; Wolf & Wright, 2014). Of course business courses covering the technical aspects of international trade and business functions are needed, being successful when engaging in international business requires also geographical knowledge, a language proficiency (Enderwick & Gray, 1992; Grahn & Vanden Bloomen, 1995; Radebaugh & Shields, 1984), and soft skills related to cross-cultural competency (Black & Mendenhall, 1990 and Johnson, Lenartowicz & Apud, 2006). Therefore, all else being equal, an IB program that offers depth of coverage across these various areas is preferable to a shallower program that would focus on a subset of these components.

Given that international business cuts across business disciplines and needs to be conducted differently depending on the region or even country, it is preferable for an IB program to offer breadth of coverage through a wider range of IB electives, rather than a short list. Breadth also allows a program to offer training for various career paths through a combination of relevant IB electives. This is therefore a factor in making graduates more employable.

Methodology

Sample. We conducted our program assessment exercise on the business schools listed in USNWR 2015 ranking as the top 15 IB undergraduate programs in the country. This allows us to draw conclusions as to whether the peer assessment, which is the sole basis of USNWR ranking by discipline, is in line with quantifiable metrics of program quality.

Depth Measure. We measure program depth by sifting through the curriculum requirement of each IB undergraduate program, based on school information collected from its website. As having a program requiring more courses allows for more in-depth training than a shorter program, we give 2 depth points to each program consisting of a major, 1 depth point to each program consisting of a minor or concentration, and 0 depth point when no IB program exists at the school (i.e. students are merely permitted to pick from a variety of IB electives). We gave a depth point for programs requiring more than 16 credits (not counting language training, which is counted separately) and/or offering a choice of IB concentrations within an IB major, reflecting more depth. We gave an extra depth point for programs requiring foreign language proficiency, and another point for programs requiring (as opposed to merely offering) an overseas experience (studying or working). Last, we gave an extra depth point for programs offering geographically or regionally focused courses (e.g. Doing Business in China, Fundamentals of European Business, Emerging Market Strategies).

Breadth Measure. Again based on Internet information from the schools' websites, we gave a breadth point for each IB course offered as an elective. That is, the course must be IB-related, count towards the IB program, not a required IB core course, and be a choice (e.g. if a student must take 2 courses out of a choice of 6 IB electives, then the student has 4 options, and the school gets 4 points).
Results

We faced missing data with only one school, University of South California, for which we were able to tally up a depth score but not a breadth score (no Internet information about their range of IB electives). For all 14 other schools, we were able to gather the information from their websites and produce both scores. The depth scores range from 0 to 7, and the breadth scores range from 4 to 25, thereby showing substantial variance across the top-ranked schools. Figure 1 offers a visual representation of both scores for each school, along with its USNWR 2015 rank in IB, as well as a colored representation of the average SAT level of its incoming Freshmen (for the whole university, not specifically for IB students).

Discussion

Several insights can be drawn from this Figure. First, as pointed out previously, several USNWR top-ranked schools do not have an IB program at all. They have outstanding faculty in the field, and offer IB electives that their students can choose. They obviously scored lowest in depth of the ‘program’. Second, program breadth and depth do not necessarily go hand-in-hand: there is a wide dispersion across both axes, with some schools scoring high on one axis but not the other (e.g. #3 Penn, #8 FIU, #10 SDSU). There are only three schools with high scores on both dimensions (#1 South Carolina, #8 Northeastern, #13 Temple). Third, and most importantly, high program quality scores do not seem to translate into higher rankings for most schools. Michigan (#5), NYU (#2), Berkeley (#6) and Georgetown (#6) rank high but score significantly lower than some schools with lower ranks. This suggests that a substantial amount of the peer assessment is based on other aspects than academic program quality, such as faculty scholarship. Fourth, program quality scores do not seem linked with students' SATs, but there seems to be a stronger link between SATs and USNWR ranks, as most SAT top-tier and second-tier schools rank better than the SAT third-schools (with South Carolina being the only exception). This further hints that USNWR peer assessment may have more to do with a popularity or prestige contest than with actual academic content.

Case study of program enhancement based on benchmarking

In August 2013, the Fox School of Business at Temple University embarked on a curriculum overhaul for its IB major. Globalization is one of the three strategic priorities of the business school, which has launched its IB major more than 20 years ago and is one of the founding members of CUIBE. At the time, Fox's IB major had been...

ranked in the top 15 by USNWR six years in a row, and the school had received three CIBER grants from the federal government (only 34 schools in the nation had been selected).

While the faculty's achievements in IB scholarship and the program recognitions were very substantial, the school was worried that its IB graduates were not being adequately prepared for their professional careers and that placement was an ongoing issue. With that goal in mind, it set out to survey local employers hiring IB graduates to determine gaps in the curriculum, and benchmarked itself against the top 15 USNWR IB programs along the two dimensions we described. At the time of the initial benchmarking exercise, Temple-Fox ranked #9 but scored poorly: with a mid-tier score in depth and a lowest-tier score in breadth. This was evidence that program requirements needed to be strengthened in order to achieve more depth, while at the same time offering more choice to the students (breadth) so that they could select electives in line with their career plans. This is what the school achieved with its new curriculum launched in Fall 2014. In addition to existing foreign language proficiency and study/work abroad requirements, the new features include a choice between six IB professional concentrations (such as international sales, international marketing, international supply chain management, international finance) within the IB major, which offer a wider range of relevant electives, including a newly-created IB Internship course. This has increased both depth and breadth in the program, to the point that in our 2015 benchmarking exercise, Temple-Fox now scores higher than #1 ranked South Carolina.

Both students and employer have expressed satisfaction with the changes made in the curriculum. Their level of professional preparation has been enhanced.

Conclusion

We concur with Rubin and Morgeson (2015) that business schools need a program quality rating system, rather than a media ranking system. Unfortunately, schools do not collect systematically and regularly metrics to measure the quality of their programs and their peers'. We have attempted here to address this gap by suggesting the use of two metrics, namely program depth and breadth, that are collectible annually, enabling benchmarking and continuous improvements.

It is clear that our proposed methodology benefits from practicality (it is based on widely available data on the Internet) but suffers from drawbacks such as relying only on input measures but not output measures (e.g. BCIQ average score, placement rate, employer and student satisfaction rates, average hiring salary). While these measures would be welcome additions, their gathering across a large number of schools would be much more problematic. This is where the unrealized potential of the CUIBE consortium comes in. With 34 members and almost half of them in USNWR top 15, it has the legitimacy and infrastructure to create a more robust set of quality metrics, and collect the data annually from its members. A collective effort is the best option to create a viable alternative to the many flaws of the USNWR rankings.

References


Figure 1: Quality of the Top 15 IB Programs in the USA

Note: Due to missing data, USC-CA is only represented by its depth score (no breadth score)


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Abstract

Drawing on the affective event theory and job demand-control model, this study examined the curvilinear relationship between challenging job demands and employee creative performance, as well as the moderating effect of employee learning orientation. Data were obtained from 216 employees and 47 supervisors of service firms in China. Results showed that employee learning orientation moderated the inverted U-shaped relationships between job demands and creative performance.

Keywords: job demands, learning orientation, creative performance
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Much past research has recognized that some job-related demands are conducive to positive work outcomes (Podsakoff, LePine, & LePine, 2007), yet others can be destructive to individual well-being and performance (Kelly & Karau, 1999; Lazarus, 1991), leading to burnout (Schaufeli & Taris, 2005). Based on this tension between positive and negative outcomes, Cavanough, Boswell, Rochling, Boudreau (2000) described the characteristics of jobs in making a distinction between job demands that can be either challenging or hindering. Challenging job demands, also known as challenge stressors, are defined as factors that potentially promote the personal growth and achievement of the employee (Podsakoff et al., 2007), such as high workloads, time pressure, and responsibility (McCauley, Ruderman, Ohlott, & Marrow, 1994), which can yield rewarding work experiences and higher performance. In contrast, hindrance job demands, also called hindrance stressors, are defined as work circumstances that involve excessive or undesirable constraints that interfere with or inhibit an individual’s ability to achieve valued goals (Cavanough et al., 2000), such as role conflict, role overload, and role ambiguity. In general, challenging job demand (stressors) are related to positive work outcomes while hindrance job demand or stressors is associated with negative work outcomes (Cavanough et al., 2000).

Challenge and hindrance job demands are believed to be differentially associated with employee attitudes and behaviors, such as job satisfaction and commitment (Boswell, Olson-Buchanan, & LePine, 2004; Cavanaugh et al., 2000), intention to leave (Boswell et al., 2004), job search, and task performance (Cavanaugh et al., 2000; LePine, Podsakoff, & LePine, 2005; Rodell & Judge, 2009). Yet these results have shown both positive, and negative relationships (Amabile, Goldfarb, & Brackfield, 1990), as well as curvilinear (Landon & Suedfeld, 1972) ones between specific challenge stressors and certain performance outcomes (Boswell et al., 2004; Byron et al., 2010; Cavanaugh et al., 2000). Affective event theory (AET) (Weiss & Cropanzano, 1996) states that environmental demands generate “affective events” that causes emotional reactions in organizational members which, in turn, determine members’ attitudes and behaviors. AET
provides a useful framework to explain the relationships between challenge job demand and performance.

Empirical evidence and theoretical framework for the relationships between overall challenge job demands and different types of performance are still lacking. Therefore, we aim to clarify this association by considering the effect of challenge job demand on creative performance. Creative performance is defined as “production, conceptualization, or development of novel and useful ideas, processes, or procedures” (Shalley, Gilson, & Blum, 2000: p. 215). Building on the affective events theory (Weiss & Cropanzano, 1996), we purport that challenging job demands could be curvilinearly related to creative performance.

The job demand–control model (Karasek, 1979) provides an important research framework for an individual’s coping mechanism under different conditions. Job demands increase time pressure and stress while job control shows an individual’s control over his task. Individuals vary in their perceptions of and reactions to stressors (e.g., Lazarus & Folkman, 1984) and respond differently to job demand. Individual differences in learning orientation may help to determine if employees can effectively tackle with challenge job demand (Gong, Huang, & Farh, 2009). Seibert, Kraimer and Crant (2001) defined learning orientation as a relatively stable tendency toward taking an active and self-initiated approach to learning activities. The extent to which employees show concern for, and dedicate themselves to developing competencies helps determine if they can successfully translate job demand into performance (Dweck, 2007). We further posit that the effect of challenge job demands on performance depends on individual’s learning orientation (cf. Gong et al., 2009). Drawing on job demand-control model (Karasek, 1979), we attempt to examine the moderating role of learning orientation in the relationship between challenge job demand and employee creative performance.

This study fills an important omission in the literature by investigating both the direct curvilinear and the moderating relationships between job demands and creative performance.
Literature Review and Hypotheses

Challenging Job Demand and Job Performance

Rodell and Judge (2009) maintain that the characteristics of challenging job demands tend to produce a positive motivational effect, that are intellectually stimulating and challenging to creative performance. Affective event theory (AET) (Weiss & Cropanzano, 1996) provides an overarching framework to explain the relationships between challenge job demand and performance. The principles of AET hold that environmental demands generate “affective events” that causes emotional reactions in organizational members which, in turn, determine members’ attitudes and behaviors. AET outlines how affect may be an intervening mechanism between workplace events and workplace behavior. Challenging job demands tend to generate positive emotions, which could be further translated to performance outcomes (Rodell & Judge, 2009). Lazarus (1991) argued that positive emotions are reactions to encounters that indicate achievement and progress toward a valued outcome. These positive emotions in turn engage employees in an approaching behavioral tendency, that is, becoming more involved with the tasks at hand and coming up with more novel ideas (Li et al., 2014). Positive affect also leads to greater cognitive flexibility and facilitates creative problem solving across a broad range of settings (Amabile, Barsade, Mueller & Staw, 2005; Ashby & Isen, 1999). Therefore, the challenging job demand tends to be positively related creative output. Complex and demanding jobs, characterized by high levels of autonomy and challenge, are expected to promote higher levels of intrinsic motivation and creative outcomes (Shalley et al. 2004; Zhou & Shalley, 2003). Study by Amabile and Gryskiewicz (1989) demonstrated a significant relationship between challenging work and creativity.

Challenging Job Demands that Hamper Job Performance

Although challenging job demands could enhance creative performance, there may be negative consequences of this positive type of stress irrespective of its potential gains (Scheck, Kinicki &
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Davy, 1995). When job demands grow beyond one’s capacity to cope, it triggers negative emotion and cognition, which ultimately translates into coping in the form of emotional and physical withdrawal from work. Lazarus and Folkman (1984) argued that job demands that exceed an individual’s resources are responsible for the experience of psychological stress. Rodell and Judge (2009) suggested that challenging job demands include a certain level of uncertainty, representing a potential threat. Risks often exist that deadlines be missed or job scope extends beyond one’s capacity. Perrewe and Ganster (1989) found that excessive work pressure exceeding the individual’s capacity results in frustration, tension, stress and dissatisfaction with work. Basically, overly challenging job demands such as time pressure and workload could increase strain, emotional exhaustion, anxiety, and depression (Boswell et al., 2004; LePine et al., 2005). Similarly, AET also suggests that negative affect and emotions brought by a high level of job demands tend to reduce creative performance. Emotional and cognitive effort involved in coping processes results in fatigue and exhaustion (Cooper, Dewe, & O'Driscoll, 2001; Lazarus & Folkman, 1984), which in turn detracts from creative performance. Although challenging job demands link to positive outcomes, there is evidence of increased strain at high levels of job scope, complexity, and the like, leading to negative outcomes (De Jong & Schaufeli, 1998). We therefore assume a curvilinear relationship or inverted U in the current study. That is, individuals will be most creative at moderate levels of activation (Gardner, 1990).

Prior studies have shown a curvilinear relation between challenge-related job demand (e.g., job complexity, scope) and strain (De Jong & Schaufeli, 1998). Studies have suggested that working under high pressure of time and excessive workload hinders creativity (Amabile et al, 1996; Mueller, et al 2001; Zhou & Shalley, 2003). Baer and Oldham (2006) found a curvilinear relationship between experienced time pressure and creativity. A meta-analysis conducted by Byron et al., (2010) also found stress stimuli have an inverted U-shaped relationship with creative performance. Given that cognitive, emotional, and behavioral engagement are important
processes underlying creativity (Drazin, Glynn, & Kazanjian, 1999), moderate levels of challenge job demand are likely to be associated with creative performance. Thus, the present study examines the possibility that both high and low levels of challenge job demand restrain creativity, whereas intermediate levels enhance it, resulting in a curvilinear inverted U-shape function.

Hypothesis 1: There will be an inverted U shaped relation between challenge job demand and employee creative performance, such that creative performance is greatest at moderate (intermediate) levels of challenging job demands.

The Moderating Effect of Learning Orientation

The relationship between challenging job demands and performance depends on the presence of certain personal characteristics. Learning orientation is one of the salient individual differences that influence the relationship between challenge job demand and job performance. Learning orientation is defined as a relatively stable tendency toward taking an active and self-initiated approach to learning activities (Seibert, Kraimer, & Crant, 2001). It reflects the degree to which an employee attaches importance to developing new skills, enjoying learning, showing curiosity for new ways of solving problems, and preferring challenging tasks. Individuals with high learning orientation have a stronger propensity to be continuously on the lookout for new knowledge (WandeWalle, Brown, Cron, & Slocum, 1999). Tendency to learn is an important control mechanism to cope with job related stress (Karasek, 1979).

The job demand-control model (Karasek, 1979) provides a useful framework for explaining the moderating effect of learning orientation. The model includes two elements, i.e., job demand and job control. Job demand is defined as work load, operationalized mainly in terms of time pressure and role conflict (Karasek, 1985). Job control, or job decision latitude, refers to an individual’s potential control over his tasks (Karasek, 1979). According to this model, job demand alone could easily cast a negative impact on individual well-being, but
individual ability to control task intervenes to buffer against the negative impact and lead to improved psychological wellbeing as well as work outcomes (Van Der Doef & Maes, 1999).

Learning orientation is closely related to one’s ability to exercise control over tasks. Research has found a connection between learning orientation and creative self-efficacy which can lead to increased creative performance (Tierney & Farmer, 2011). When learning orientation is high, employees are more likely to respond to the challenges encountered at workplace with an approaching behavioral tendency. The reasons are two-fold. First, from a cognitive perspective, people high on learning orientation tend to have more resources to cope with challenges. Learning orientation represents a tendency to acquire new knowledge and skills to enhance one’s capability to deal with growing challenge stressors before the stressors become too demanding (Seibert et al, 2001). Demerouti, Bakker, Nachreiner, and Schaufeli (2001) recognize job-related knowledge as a form of resources, which prevents burnout and disengagement. The propensity to acquire new knowledge and subsequently integrate the acquired knowledge into the existing knowledge set could increase employees’ ability to deal with problems and uncertain situations (LePine et al., 2005). Learning orientation provides cognitive resources for creativity. Research has found that learning behaviors, such as seeking or giving feedback, making changes or improvements, and obtaining or providing expertise, are central to engaging in creative performance (Zhou & George, 2001). Second, from an emotional perspective, individuals high on learning orientation are more likely to experience the joy of taking challenges. Gong et al. (2009) found that employees with strong learning orientation are more likely to feel capable of engaging in creative tasks and eventually show more creativity at work. Learning oriented individuals are more willing to acquire new skills to enhance their competences and try different ways of solving problems.

Contrary, when learning orientation is low, the motivational effect of challenging jobs tend to be greatly undermined because of insufficient control or resources to cope with the demands. Employees who are low in learning orientation usually fail to identify learning opportunities, and to acquire knowledge. According to job demand-control model (Karasek,
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1979), the intrinsic motivation from demanding jobs work best when job control is high. Therefore, when facing increasing challenge job demand, employees with low learning orientation tend to withdrawal from work and will lack the motivation to finish the tasks, let alone generate creative ideas. As a result, challenging job demands, despite its motivating nature, are less likely to be transferred into creative performance outcomes for employees with low learning orientation.

_Hypothesis 2: Employee learning orientation will moderate the inverted U-shaped relationships between challenging job demands and creative performance, such that a curvilinear effect will occur for employees with high learning orientation, but not for those with low learning orientation._

Method

**Sample and Procedures**

Data for this study were obtained from subordinate - supervisor dyads drawn from several service firms in Southern China. We assured respondents of confidentiality and voluntary participation in the study. The subordinates provided information on their job demand and learning orientation. Forty-seven supervisors rated the creative performances of their immediate subordinates. A total of 216 completed matched questionnaires were returned, with an effective response rate of 90%. Fifty-one percent of respondents were male and attained an average of 15.26 years (s.d. = 1.74) of education. Respondents reported a mean age of 30.90 years (s.d. = 8.52), and a mean organizational tenure of 4.81 years (s.d. = 4.57). Their dyadic tenure with supervisors is 3.35 years (s.d. = 2.77). Seventy-two percent of the supervisors were male, reported an average of 36.77 years of age (s.d. = 6.98), an organizational tenure of 7.74 years (s.d. = 4.27), and an average educational attainment of 16.04 (s.d. = 1.33) years. Eighty-five percent is married.
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Measures
The questionnaires were administered in Chinese but were originally constructed in English. To ensure equivalence of the measures in the Chinese and English language versions, a standard translation and back-translation procedure was performed (Brislin, 1980).

Challenge job demand. We used a 6-item scale developed by Cavanaugh, Boswell, Roehling, and Boudreau (2000) to measure challenge job demand. A sample item is “The number of projects and or assignments I have.” $\alpha = .81$.

Learning orientation. Employees completed VandeWalle’s (1997) 5-item measure of learning orientation. A sample item is, “I often look for opportunities to develop new skills and knowledge.” $\alpha = .84$.

Creative performance. We used the 13-item creativity scale developed by Zhou and George (2001). The sample item is “This subordinate suggests new ways to achieve goals and objectives”. Supervisors assessed subordinates’ creativity on a seven-point scale from "not at all characteristic" to "very characteristic". $\alpha = .95$.

Control variables. Based on previous literature (e.g. George & Zhou, 2001; Zhang & Bartol, 2010), the demographic variables of gender, age, education and tenure with supervisor which have been found to be significantly related to creativity, were employed as controls. Gender was coded 0 for Male and 1 for Female. A single, open-ended item was used to separately measure age at last birthday, years of formal education, and number of years worked with the organization.

Data Analysis
Because individual respondents were nested within groups (under the same supervisor within a group), we followed the procedure recommended by Lam, Huang, and Snape (2007) and De Stobbeleir, Ashford, and Buyens (2011) and conducted two series of analyses. First, we tested our model using multilevel modeling (HLM 7.0) to control for the effects of different supervisors. Second, we tested moderated curvilinear relationship using hierarchical regression analysis. Hierarchical regression analysis yielded results close to those of the HLM analyses.
HLM analysis fails to bootstrap samples and offer simple slope test. Thus, only the results of hierarchical regression analysis were reported.

Results
Table 1 shows the descriptive statistics and zero-order correlations in the study. Challenge job demand is significantly correlated with learning orientation. Table 2 depicts the result of the regression analysis. There was no significant, negative quadratic relationship between challenge job demand and creative performance (b = -.09, s.e. = .08, ns). Hypothesis 1 was not supported. Learning orientation significantly interacted with the challenge job demand curve for creative performance (b= -.25, s.e. = .10, p < .05; ΔR² = .02, p < .05), providing support for Hypothesis 2. The bootstrapping (10,000 samples) results of curvilinear effect (β= -.24, s.e. = .10, p = .01) further confirmed the regression test, with a 95% bias-corrected CI (-.43, -.05) for high learning orientation, whereas the effect for low learning orientation was .12 (p = .35), with a 95% bias-corrected CI (-.13, .36).

Figure 1 provides an illustration of how learning orientation moderates the curvilinear relationship between challenge job demand and creativity. Consistent with our hypothesis, the inverted-U effect is most pronounced for individuals with strong learning orientation. In contrast, individuals with weak learning orientation remained constant at both low and high levels of challenge job demand.

Discussion
Our findings support that challenge job demand can both facilitate and hinder creative performance, with an inverted U-shaped relationship. The curvilinear relationship was only significant for individual with strong learning orientation. This paper contributes to theoretical and empirical evidence on job demands research by showing that the motivating effect of the challenge job demand might not work unless
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individuals have high learning orientation. The overtaxing aspects of challenging jobs can exhaust employee energy for low learning oriented individuals. Some challenge stressors, such as job responsibility, might bear more relevance with motivational processes and more likely to interact with learning orientation. It indicates that the job demand-control model has explaining power on employee creative performance and psychological wellbeing. This is different from past research which only showed the effect of challenge stressors on withdrawal behaviors, OCB, and task performance in separate studies, without systematically incorporating them into the theoretical model. The present study advances the literature by testing both the direct curvilinear and the moderating relationships between job demands and creative performance. This study fills the gap in the stressor-performance model by including creativity as an outcome. Our findings also offer some practical implications. How to design a job properly is always a challenge for HR specialists across industries. The results of the study reveal that simply increasing challenging job demands is not an answer to boosting creative performance. Different from our initial assumption, individual creative performance did not, in our study, correspond well with the changes of challenge stressors if learning orientation is out of the picture. The current study suggests that job enrichment through adjusting challenging job demand at the workplace to boost performance should be executed with caution. To develop a competitive workforce with high creativity, a fundamental issue might rest on employee learning orientation other than the job stressors. HR specialists should put more focus on nurturing learning oriented employees and fostering a learning environment. Job assignment is more meaningful if employees are willing to initiate learning activities to cope with difficulties and challenges.

Limitations and Future Research
In the current study, we only examined the effect of challenge but not hindrance job demand on the performance. These two kinds of stressors always coexist in reality, and they would very likely interact with each other to influence individual behaviors. Future studies are advised to further assess the interacting effects of the two kinds of stressors on performance, so as to facilitate better control mechanisms to avoid detrimental psychological outcomes such as
burnout and depression. Along the similar line, researchers can explore the relationship between job demand and other proactive behaviors, such as helping behavior or voice behavior at workplace. While we believe that learning orientation serves a meaningful intervening mechanism to challenge job demand-creativity/performance relationship, there are other personal coping mechanisms, such as self-monitoring, that deserves further examination. Future research could also include measures of both job demands and stress levels, investigating the process by which demands influence reported stress levels, why employees vary in their perceptions, and how these factors influence work outcomes.

Conclusion
Our findings suggest that individual learning orientation negatively interacts with different levels of job demand to influence employee creativity. While the study extends the existing model by including contextual and personal factors, it also highlights the importance of learning at the workplace, and continues to add to knowledge to the current literature. Knowledge gained from such research might be useful in designing training programs that not only promote learning performance, but also employee well-being thus adding to the emerging empirical evidence on fostering creativity.
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The Role of Learning Orientation on Job Demands - Creativity Relationship

Table 1
Descriptive Statistics and Zero-Order Correlations in the Study

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>51% male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age</td>
<td>30.90</td>
<td>8.52</td>
<td>-24**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Education</td>
<td>15.26</td>
<td>1.73</td>
<td>-.04</td>
<td>-.26**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Tenure</td>
<td>4.81</td>
<td>4.57</td>
<td>-.07</td>
<td>.56**</td>
<td>-.14*</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5. Challenge job demand</td>
<td>3.65</td>
<td>0.71</td>
<td>-.12</td>
<td>-.06</td>
<td>-.01</td>
<td>-.18**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Learning orientation</td>
<td>3.95</td>
<td>0.71</td>
<td>-.04</td>
<td>-.10</td>
<td>0.08</td>
<td>-.10</td>
<td>0.34**</td>
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</tr>
<tr>
<td>7. Creative performance</td>
<td>3.43</td>
<td>0.80</td>
<td>-.15*</td>
<td>.21**</td>
<td>0.13</td>
<td>0.23**</td>
<td>0.10</td>
<td>0.09</td>
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</table>

N = 216

* p < .05, ** p < .01
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Table 2
Results of Hierarchical Regression Analyses

Creative performance

<table>
<thead>
<tr>
<th>Steps</th>
<th>Variables</th>
<th>b</th>
<th>se (entry)</th>
<th>b</th>
<th>se (final)</th>
<th>ΔR²</th>
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<tbody>
<tr>
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<td>-.16</td>
<td>(.11)</td>
<td>-.16</td>
<td>(.11)</td>
<td>.11***</td>
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<tr>
<td></td>
<td>age</td>
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<td>(.01)</td>
<td>.01</td>
<td>(.01)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>education</td>
<td>.09**</td>
<td>(.03)</td>
<td>.08**</td>
<td>(.03)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tenure</td>
<td>.03*</td>
<td>(.01)</td>
<td>.03*</td>
<td>(.01)</td>
<td></td>
</tr>
<tr>
<td>Step 2: challenge job demand</td>
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<td>(.07)</td>
<td>.16</td>
<td>(.09)</td>
<td>.12*</td>
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<tr>
<td>Step 3: CJD²</td>
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<td>-.06</td>
<td>(.08)</td>
<td>.01</td>
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<tr>
<td>Step 4: learning orientation</td>
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<td>(.08)</td>
<td>.25*</td>
<td>(.10)</td>
<td>.01</td>
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<tr>
<td>Step 5: CJD * LO</td>
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<td>-.11</td>
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<td>.00</td>
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<td>Step 6: CJD² * LO</td>
<td>CJD² * LO</td>
<td>-.25*</td>
<td>(.10)</td>
<td>-.25*</td>
<td>(.10)</td>
<td>.02*</td>
</tr>
</tbody>
</table>

* p < .05, ** p < .01, *** p < .001

CJD = challenge job demand, LO = learning orientation

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Figure 1: Moderating effect of learning orientation on the curvilinear effect of challenge job demand on employee creative performance
Trust and Reciprocity Drive Social Common Goods Contribution Norms

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Abstract

In the emergent field of tax psychology, the focus on regulating tax evasion recently shifted towards searching for situational cues that elicit common goals compliance. Trust and reciprocity are argued to steer a socially-favorable environment that supports social tax ethics norms. Experiments, in which 256 participants played an economic trust game followed by a common goods game, found evidence for trust and reciprocity leading to individuals contributing to common goals. The more trust and reciprocity was practiced and experienced, the more common goals were supported – leveraging trust and reciprocity as interesting tax compliance antecedents. The results have widespread implications for governmental-citizen relations. Policy makers and public servants are advised to establish a service-oriented customer atmosphere with citizens breeding trust and reciprocity in order to reach common societal goals.

Keywords: Common goods game, Common goals compliance, Reciprocity, Tax ethics, Trust, Trust game, Tax Psychology
Theory

Taxation is codified in all major societies and practiced as a hallmark of democracy. Aimed at providing public goods and redistributing assets, taxation improve societal welfare and fairness. Tax compliance is a universal phenomenon derived from cooperation for the sake of improving the social compound. Taxpayers voluntarily decide to what extent to pay or avoid tax that limit the personal freedom. In a social dilemma, individual interests are in conflict with collective goals. From a mathematical and economic perspective, the optimal strategy of rational individuals would be to not cooperate. Short-term the single civilian tax contribution does not make a significant difference in the overall maintenance of public goods – if only a few taxpayers evade taxes, public goods will not disappear or be reduced. But if a considerable number of taxpayers do not contribute to tax over time, common goods are not guaranteed and ultimately everyone will suffer from suboptimal societal conditions (Dawes, 1980; Stroebe & Frey, 1982).

As common as tax compliance is, however, as robust are findings is tax evasion throughout all times, cultures and races. Already Plato wrote about tax flight and the fifteenth-century Palace of Venice had a hole through which people could inform the Republic about tax evaders (Adams, 1993; Tanzi & Shome, 1994). Ancient Egypt enforced tax laws and resistance to pay for public goods plays a role in the collapse of major world empires (Erard, 1997; Kirchler, 2007). Participants need to be forced to cooperate by control mechanisms and sanctioning of defection. Audits and punishment are common to ensure cooperative behavior – but have shown limitations.

In the long history of tax practice, the phenomenon has surprisingly not received much attention in the research literature. First inquiries not only open wide research gaps but also show difficulties. Citizens are ashamed of tax fraud and undertake efforts to conceal their socially-inacceptable behavior. They are shy to report crimes that governments would fix if being detected (Andreoni, Erard & Feinstein, 1998). Consequently self-reports differ from actually detected tax evasion behavior (Baldry, 1987; Effers, Robben & Hessing, 1991). Problems also emerge from untangling tax evasion from inadvertent non-compliance, taxpayers’ memory lapses and calculation errors (Hessing, Effers & Weigl, 1988; Wilson & Sheffrin, 2005). Inadequate knowledge of tax laws and the complexity of tax reporting
lower the motivation and ability to correctly recall experiences for tax psychology. Various research methods employed in the investigation of taxation add to vastly diverting results.

Tax behavior research has been investigating political perspectives, focusing on tax legislation and the shadow economy. Defection and social dilemmas are studied by various disciplines including mathematics, economics, sociology and psychology. Classic economic models analyze the impact of tax audits, tax rates and income on tax compliance. The emerging tax ethics field considers tax evasion motives and the criminal prosecution and punishment of fraud. Taxpayers are assumed to make strategic decisions and depict tax reports as the result of rational considerations of financial gains and losses. Classic theories neither capture the relationship between taxpayers and resulting fairness considerations, nor the relation between taxpayers and tax collectors. Models based on classic theories also do not shed light on incentives to raise tax compliance.

Contemporary economic research has focused on costs and risks of tax evasion (Tyler & De Cremer, 2006). Coercive means to enhance tax compliance – such as audits and fines – are argued to crowd out tax morale and ultimately result in greater non-compliance (Feld & Frey, 2002; Hasseldine, 1998). Cialdini (1996) stresses the fact that monitoring not only makes people feel observed and controlled but also leads to the impression of not being trusted. As a consequence, intrusive audits and severe punishments undermine voluntary cooperation (Frey, 1992).

Andreoni, Erard and Feinstein (1998) recognize the importance of incorporating morals and social dynamics in economic theory on tax behavior as positive drivers of tax compliance to overcome the ‘burden of taxes’ and associations of losses (Kirchler, 2007). Convincing the public that tax are for the public good appear to require a multidimensional conception of taxes as a dynamic phenomenon (Braithwaite, 2003a).

When analyzing tax behavior, recently behavioral economics insights have gained attention in order to gain an accurate understanding of the social influences on social dilemmas. Behavioral economists widen the lens of incorporating sociological and socio-psychological understandings of tax compliance (Kirchler, 2007). Social dilemmas have been replicated in laboratory settings that capture participants’ decisions to cooperate or defect common pools in order to derive theoretical models on tax compliance (Davis & Holt, 1993; Green, Kahneman & Kunreuther, 1994). Experimental analyses of
Trust and Reciprocity Drive Social Common Goods Contribution Norms

taxpayers’ reporting behavior allow conclusions about tax decision making and tax allocation styles in a controlled environment. Most recently, social nudge theories apply behavioral economics insights to change people’s tax behavior by studying the impact of the situational setting on tax compliance (Braithwaite & Ahmed, 2005; Eichenberger & Frey, 2002; Frey, 1997; Lewis, 1982; Strümpel, 1966, 1969; Torgler, 2002; Vogel, 1974). From the psychological perspective, individuals are altruistic but human interactions play an unexplored role for tax compliance. Apart from governmental control and sanction mechanisms, the social situation may determine cooperation on tax payments (Hanson, 2012; Poppe, 2005). In social dilemma experiments, participants’ cooperation increases if their behavior is publicly known, if they are allowed to communicate with each other and if mutual sympathy is established (Dawes, 1980; Van Lange, Liebrand, Messick & Wilke, 1992).

The antecedents of social tax ethics norms and situational cues to elicit tax compliance are yet unknown. Social norms as a function of an individuals’ perceived expectation that one or more relevant referents would approve of a particular behavior could be drivers of tax morale. On the individual level, norms define internalized standards how to behave. As indicators of the extent to which the individual will be motivated to comply with such beliefs, social norms are potential tax ethics nudges. Internalized norms may determine tax morale (Frey 1997; Mumford, 2001; Schmölders, 1960). Social norms elicit concurring behavior when taxpayers identify with the group to whom the norms are ascribed. If taxpayers believe that non-compliance is a widespread and socially-accepted, then it is more likely that they too will not comply. Taxpayers then internalize the social norms and act accordingly.

Recognition of the importance of societal norms for tax compliance lead the demand for a revision of the relationship between citizens and governmental institutions (Bergman, 2002; Feld & Frey, 2005; Fjeldstad, 2004; Frey, 2004; Kirchgässer, Feld & Savioz, 1999; Pommerehne & Frey, 1992; Torgler, 2005a, 2005b; Tyler, 2001a, b). International comparisons of tax behavior reveal tax norms being related to different stages of institutional development of the government (Alm, Martinez-Vazquez & Schneider, 2004; Alm & Torgler, 2006; Chan, Troutman & O’Bryan, 2000; Gërxhani, 2004; Schneider & Klinglmair, 2004; Torgler, 2003a). Tax morale has been depicted as a useful barometer for judging how the tax system is represented in citizens’ minds. People tend to adhere to a social contract in the relationship with their government. According to this psychological bonding with the community
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and relation to the government, taxpayers feel an obligation and willingness to comply with tax requirements. Governmental actions are believed to ensure tax compliance. In a tit-for-tat strategy, taxpayers’ compliance may depend on public goods provided by the government as well as procedural and distribute justice. Based on the interaction between tax authorities and taxpayers, tax payers perceive themselves as members of a social group, whose social norms to follow.

Research on tax compliance has focused on personal ethics and subjective perceptions of behavioral habits in taxpayers’ reference group. Innovative tax psychology studies refer to social situations breeding tax ethics (Kirchler, 2007). Citizens’ approval of tax politics are hypothesized to depend on fairness notions and cooperation between citizens and the community. Reciprocity appears as an interesting yet unexplored moderator of tax ethics. But also social fairness considerations in a tax reference group may breed taxpayer compliance. Individuals who perceive themselves in a disadvantageous tax situation are more likely to evade taxes, whereas an advantageous situation is related to higher compliance (Spicer & Becker, 1980).

The case of voluntary, self-chosen tax ethics and situational influences on social tax compliance norms have surprisingly been neglected in research. Psychological variables – such as trust and fairness for the formation of social norms have been left out. Trust is believed to decrease egoistic utility maximization leveraging trust and reciprocity as interesting social norms building factors (Kirchler, 2007).

The following paper sets out to investigate if trust and reciprocity drive pro-social tax compliance norms. Finding trust and reciprocity as drivers of tax compliance could help convince taxpayers to pay one’s share aside from a costly and fallible cops-and-robbers approach. A ‘service-and-client’ atmosphere could promote taxpayers as cooperative citizens who are willing to comply if they understand tax laws and perceive their environment as trustworthy and fairly reciprocating. Taxpayers as cooperative citizens would be willing to comply voluntarily following the greater goal to promote taxpayer collaboration and enhance tax morale (Kirchler, Niemirowski & Wearing, 2006).

Adding to heterodox economic theories, insights are gained on the importance of trust and reciprocity for breeding social tax compliance norms. Connecting individual experiences to collective
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common goal outcomes contributes to behavioral law and economics. Behavioral socio-economic theories are spearheaded by elucidating social forces as the core of collective decision making.

Social norms

Taxpayers’ social behavior is determined by social norms – socially shared beliefs how one ought to behave based on informal social sanctions (Fehr, Fischbacher & Gächter, 2002). Social norms are a function of an individual’s perceived expectation that one or more relevant referents would approve a particular behavior and the extent to which the individuals will be motivated to comply with such a referent’s beliefs (Ajzen, 1991).

While social norms are cultural standards reflected in laws and public policies, Spicer and Lundstedt (1976) found social norms to be a more important factor underlying taxpayers’ behavior than governmental sanctions. Taxpayers are motivated by social norms, which influence taxpayers’ behavior and tax compliance (Wenzel, 2005b). Taxpayers who perceive others as behaving according to socially accepted rules and who communicate with others about appropriate behavior will adopt the socially shared norms and behave in accordance to the collectively shared social norms (Schmölders, 1970b). Personal norms of ethicality correlate with cooperation (Torgler, 2003b; Vogel, 1974).

Social norms’ impact is shaped by individuals’ attachment to their reference group (Turner, Hogg, Oakes, Reicher & Wetherell, 1987; Turner & Onorato, 1997; Wenzel, 2004). There is a strong effect of social norm salience on tax compliance in situations of high identification with the reference group (Wenzel, 2005). Interaction exerts the perception of social norms making it more likely to comply. Interaction drives appeal to groups and correspondingly decrease personal self-interest and more concern about outcomes for all (Taylor, 2003). The interaction between tax authorities and taxpayers shapes basic assumptions about common goals and strategies.

The government-citizen relation is important as for motivating people to activate ethical incentives to support group policies. When people identify with their group, individual motives are transformed from the personal to the group level. Individuals feel a sense of personal responsibility and obligation to support group decisions and uphold moral values relevant to the group or society. Self-interest of the group melt for collective goals. Citizens are motivated to pay tax when social norms favor cooperation. To encourage identification with group and society and to activate moral motives, mutual
trust and reciprocity are hypothesized to drive a spontaneous willing to contribute to social common goods.

**Trust**

Regarding the relation between tax authorities and taxpayers, an unprecedented approach is to understand tax compliance aversion as an expression of less confidence in the government. While powerful but not trustworthy authorities enforcing compliance through control and governmental sanctions were argued to breed distrust and individual profit maximization (Frey, 1992), investigating the flipside of the importance and role of trust as a driver of social tax ethicality norms has been neglected.

Trust is a critical factor in understanding the origins of civic compliance. If governmental authorities had to continually explain and justify their actions, the governmental ability to effectively manage public affairs would vanish. Tax authorities’ orientation towards taxpayers and their interaction styles create a climate which determines taxpayers’ trust in authorities resulting in cooperation and voluntary compliance. Without such a climate, taxpayers dissociate from the tax authorities and their goals. Trust is inversely related to resistance and depends mainly on perceptions of governmental treatment (Murphy, 2003).

Torgler (2003b) stressed the importance of trust in the political and legal system to enhance tax compliance (Kramer & Tyler, 1996; Tyler, 2001a). Citizens have been found to claim that tax authorities fail to communicate respect and trust to the taxpayer (Kirchler, 2007). Torgler (2003c) analyzed Canadian data from the World Values Survey and found evidence that trust in government has a systematic positive influence on tax morale (Schwartz & Orleans, 1967). Based on these descriptive results, citizens’ trust in authorities is argued to determine voluntarily tax compliance apart from conventional tax compliance enforcement.

Trust in governmental institutions may build social norms that positively affect tax morale. Trusting citizens may be more willing and compliant to contribute to common goods. In a history of theoretical and descriptive enquiries of the relation of trust and tax compliance, an experimental investigation on the role of trust and reciprocity to enhance common goods compliance on tax allocation preferences is outstanding. After a line of descriptive and cross-cultural investigations on the role of
trust for tax ethics, research could investigate how trust shapes tax compliance as an antecedent of tax ethics norms.

**Reciprocity**

Attitudes toward the government based on experience are believed to shape social tax ethics (Kirchler, 2007). Respectful, polite and dignified treatment of taxpayers was found to enhance voluntary compliance (Kirchler, 2007). If the societal climate is friendly and taxpayers trust authorities, compliance occurs (Bergman, 2002; Feld & Frey, 2005; Frey, 2003). If taxpayers agree with the government activities and fiscal policies, taxpayers are cooperative.

Given the importance of a favorable social environment to develop social tax ethics norms, an investigation of the concrete antecedents of tax morality and the relation of social interactions and tax compliance is demanded. In an innovative attempt, tax compliance could be seen as a product of favorable social experiences with the community and the government. Reciprocity may enhance a sense of moral obligation to be honest and strengthen social norms’ compliance (Gintis, Bowles, Boyd & Fehr, 2003).

Efficient performance of the state and tax authorities also depends on the individuals’ feelings of obligation towards the community (Kramer, 1999). Tax morale and civic duty aggregate citizens’ beliefs and evaluations of other citizens and their behavior. A mutual understanding of taxpayers raises their willingness to cooperate (Cialdini, 1993).

**Fairness**

A climate of cooperation is likely if government policy is accepted and trusted, personal and social norms are favorable to cooperation and tax burden and tax procedures are perceived as fair. When investigating tax systems, fairness and the relative treatment in comparison to others are the most frequently mentioned topics (Antonides & Robben, 1995; Braithwaite, 2003b; Brooks & Doob, 1990; Jackson & Milliron, 1986; Mason & Calvin, 1978; Thorndike & Ventry, 2002). Extensions of neoclassical economic assumptions capture the choice of a taxpayer to evade taxes depending upon the perceived fairness of the tax system (Kirchler, 2007). Willingness to comply with the laws is determined by the perceived fairness. Citizens are motivated to pay tax when taxes are perceived to be fair and just (Schmölders, 1960). Exchange equity considers fair distributions of the results of exchanges between
partners within the social reference group and institutional conditions (Adams, 1965). If taxpayers are treated as equal partners, they are more cooperative. Distribute justice is measured by the individual horizontal fairness of distributed resources and burdens between taxpayers of comparable income groups.

Fairness depends on the object of comparison and taxpayers’ identification with a social reference group. Fairness judgments are not stable but depend on the object of comparison and on taxpayers’ identification with a social group or category to which justice refers (Taylor, 2003). Taxpayers weight their exchange equity with the government and equity of one’s contributions relative to the contributions of other taxpayers as a framework for fairness (Wenzel, 2003). If an individual’s perceived tax burden is heavier than that of comparable others or if taxpayers perceive the exchange with the government as unjust, tax evasion increases.

Justice concerns seem to have an especially strong impact if taxpayers identify with their reference group and national government (Wenzel, 2002). Procedural fairness plays a key role in shaping the legitimacy that citizens grant to government authority. On the individual level, procedural justice refers to the quality of treatment in interactions between taxpayers and authorities (Frey, 2003; Torgler, 2005a). According to social categorization theory and the group value model (Lind & Taylor, 1988), taxpayers are more concerned about fairness and less about personal outcomes and egoistic advantages when they identify strongly with the group to which procedures and distributions apply.

Equity and fair treatment are believed to build trust and lead to the development of a psychological contract and compliance due to binding social norms. Fairness perceptions are related to trust and trustworthiness derived from dignified and respectful treatment (Tyler & Lind, 1992). When authorities are perceived to behave fairly and respectful, greater compliance results (Taylor, 2001). Taxpayers seek procedural justice in terms of neutrality, trustworthiness and reciprocity. At the individual level, fair treatment of individual taxpayers and the culture of interaction based on reciprocity are relevant aspects of fairness and building trust. A relation of voluntary trust and reciprocity may lead to voluntary cooperation. Preliminary findings on fairness are inconsistent as heterogeneous aspects of fairness have been investigated and the operationalization varied. Social exchange is a prerequisite of peoples’ judgments of fairness (Güth & Sausgruber, 2004).
Hypotheses

The empirical part sets out to investigate trust and reciprocity forming social tax compliance norms. The proposed research will test the effect of trust and reciprocity on the willingness to contribute to public goods – with special attention to the role of future-conscientiousness and social responsibility. Trust and reciprocity are hypothesized to breed social common goods contribution norms. The impact of trust rewarding and trust defecting experiences will also be scrutinized for future-oriented and socially responsible public policy preferences.

Methodologically, experiments will employ an economic trust game followed by an economic public good game and a public policy ranking task. Previous economic games’ experiments have mostly examined situations in which subjects cannot track the identity of other players. These settings, however, do not model the full realm of collective decision making. Playing two economic games concurrently with the same subjects will take out the anonymity of economic games and increase the external validity of the results. Innovatively individuals’ history will be taken into consideration as a basis for collective resource allocations. By modeling repeated interactions, past experiences will explain future consequences.

The prospective results will elucidate the role of trust on common good contributions as a prerequisite of institutional policy and government-citizen interaction recommendations to find ways to improve common goals compliance in society.

Method

An experiment tested the relation of trust and reciprocity on common goods allocation preferences in order to draw conclusions about the effect of trust and reciprocity on the formation of social public goods contribution norms. Methodologically, experimental sessions employed an economic trust game followed by an economic public good game. The experiment also related different trust, reciprocity and common goods allocation preferences to future-oriented or socially responsible public policy choices.

Trust is typically measured in an economic trust game, in which one person can trust by giving an amount of money to another, who can in reverse return payments or defect by keeping the received payment. Money transfers are usually incentivized by doubled pay outs for the recipients, who can
choose to respond by returning money. While standard trust games capture the degree of trust in humans, the typical set-up of these economic studies does not shed light on the future consequences of the trusting, rewarding or defecting experience of the players.

The public or common good game is the classic laboratory setting for studying collective action problems. In this game each participant chooses how much to contribute to a common pool that equally returns benefits to all participants. The ideal outcome would occur if everybody contributes the maximum amount, but self-interests suggest saving everything for oneself without any public contributions.

An inbetween-subjects design, in which players persisted from game 1 (trust game) to game 2 (common good game) captured the impact of differing trust and reciprocity experiences – of rewarding and defecting outcomes – on subsequent common goods contributions.

Experiments were staged in a North American university Decision Science Laboratory. Subjects were recruited from a standard recruitment pool. Attendance and completion was remunerated by a basic flat rate of 5 USD for showing up as well as a salary dependent on the trust allocations and the final common goods pool (see instructions in the appendix). Based on the choices made by the participant and a randomly selected partner in the experiment, all participants received up to USD 23 in addition to the show-up amount. All funds were paid in cash immediately after the experiment.

The experiments were employed by personal computers supported by the software z-tree and Qualtrics. After instructions informing about the experiment, an informed consent was presented to be agreed upon prior to participating in the actual experiment. The experiment was introduced as being about choices and decision making. All participants were randomly coupled with another person, with whom they would interact during the entire rest of the experiment. Each person of the duo was assigned a number that represented their identity throughout the experiment. During the laboratory experiment, participants interacted anonymously via computer screens without speaking with each other. All participants played a trust game followed by a common good game conducted by the same participants in order to capture interactions. All subjects had a trusting experience, but naturally some were rewarded for trusting, while others experienced defection of their trust. In the subsequent common good game,
they could pay back their experiences and reward, be agnostic or defect the collective pool contributions.

In the first game, the trust game, both players of the duo received 10 experimental currency units (ECU) that they were told to be able to convert into real money by the exchange rate of 2 ECU=1USD in the end of the experiment. Player 1 had the possibility to transfer none, some or all of the 10 ECU at their choice to player 2. The amount that was chosen to be sent was displayed on the screen of player 2. At player 2’s screen the amount was doubled. For instance, if player 1 sent 5 ECU, player 2 received 5 ECU*2=10 ECU. Player 2 then had the possibility to send none, some or all of their money back to player 1.

The amount that player 2 sent back was displayed on player 1’s screen. The amount player 2 sent was not doubled. For instance, if player 2 sent 5 ECU, player 1 received 5 ECU. Then the game was over. The payoff in this game equaled the initial 10 ECU minus the amount player 1 gave player 2 plus the amount player 1 received from player 2. For instance, if player 1 sent 5 ECU to player 2 and player 2 sent 7 ECU back, then the earning were 10 ECU – 5 ECU + 7 ECU = 12 ECU. 12 ECU correspond to 6 USD, which would be player 1’s earning. Player 2’s payoffs equaled the initial 10 ECU plus the amount received from player 1 doubled minus the amount that player 2 sent to player 1. For instance, if player 1 sent 6 ECU to player 2 and player 2 sent 4 ECU back, then the earnings of player 2 were 10 ECU + 12 ECU – 4 ECU = 18 ECU. 18 ECU corresponded to 9 USD, which would be the earnings of player 2 in this case. The first part of the experiment ended after the decision of player 2. This game was played once.

In game 2 the same player duo that played game 1 was part of game 2. No player was informed about the actual identity of the other. As the second game, a common goods game was played. Both players received 10 ECU from which they had to decide how much to keep for themselves or contribute to a common pool. All participants were informed that the other player also received 10 ECU from which she or he had to decide how much to keep for her/himself or contribute to the same common pool. All contributions of both players of this game were added up in the common pool, which was factored by 1.6 and then split evenly among both players.
Each player got the same share from the second game. Concurrently to the earnings from the common pool, the players also received the units they chose not to contribute. The remuneration depended on the final common goods pool in the following way: 10 ECU minus half the individual contributions to the common pool plus 1.6 multiplied by the sum of all contributions divided by two (see formula in the appendix). For instance, if player 1 decided to contribute 8 ECU and player 2 contributed 7 ECU, the pool would comprise of 8 ECU + 7 ECU = 15 ECU multiplied by 1.6 = 24 ECU. Each player would receive ½ of the common goods pool thus 24 ECU/2 = 6 USD plus the amount not contributed to the pool from the initial 10 ECU. The game was then over.

At different stages of the experiment, two sets of public policies that were rated based on the level of future-orientation and social responsibility represented were presented to the players supported by Qualtrics. Each participant saw two ranking tasks. The ranking task 1 featured 32 public policies in the domain culture, economics, education, foreign aid and infrastructure. The ranking task 2 comprised of 32 public policies on environmental sustainability.

The public policies were derived from a public policy spectrum that was based on contemporary public policy literature for academics and practitioners comprising of fictitious 36 public policies. All public policies were rated by 120 raters recruited online and at two European universities. During May 2011, an email was sent to international public policy specialists requesting help with rating public policies as a pre-test. Shortly thereafter, a survey was staged at laboratory computer rooms of a European university at the university laboratory computers. University students were approached on campus to participate in a survey to rate public policies on the two dimensions ‘time of policy impact’ and ‘social responsibility.’ The electronic survey comprised of an excel-spreadsheet that was presented either by email as attachment or on personal computers in front of the subjects at the European university computer rooms. The spreadsheet asked participants to ‘Please rate each public policy initiative by the time of the main impact of the policy unfolding on a scale ranging from -5 (The most immediate impact) to +5 (The most distant impact).’ A concept definition described ‘Distant’ referring to temporal distance. The questionnaire stated ‘Per policy mark only one respective box with x like in the example in the following’ and an example was given. Scale options ranged from ‘the most immediate impact,’ ‘very soon impact,’ ‘quite soon impact,’ ‘soon impact,’ ‘somewhat soon impact,’
Trust and Reciprocity Drive Social Common Goods Contribution Norms

‘just a bit distant impact,’ ‘somewhat distant impact,’ ‘distant impact,’ ‘quite distant impact,’ ‘very distant impact,’ and ‘the most distant impact.’

Regarding individual profit maximization versus social responsibility, respondents were asked to ‘Please rate each public policy initiative on a scale ranging from -5 = The most individual profit maximizing to +5 = The most socially responsible.’ Scale options ranged from the most individual profit maximizing, ‘very much individual profit maximizing,’ ‘much individual profit maximizing,’ ‘individual profit maximizing,’ ‘somewhat individual profit maximizing,’ ‘evenly individual profit maximizing and socially responsible,’ ‘somewhat socially responsible,’ ‘socially responsible,’ ‘much socially responsible,’ ‘very much socially responsible,’ and ‘the most socially responsible.’ The concepts were defined as ‘Individual profit maximizing’ serves egoistic self-interests. ‘Socially responsible’ refers to social conscientiousness about others’ needs serving society at large.’ The questionnaire stated ‘Per policy mark only one respective box with x like in the example in the following’ and an example was given.

A total of 120 individuals derived from the online survey and recruited at two European universities rated the presented policies on a balanced 11-point scale ranging from -5 to +5 on the two dimension ‘time of policy impact’ and ‘social responsibility.’ The policy rating led to an average evaluation of the 64 policies on the two dimensions ‘time of policy impact’ and ‘egoism vs. social responsibility’ expressed in means and standard deviation for each policy. The policies were selected based on the content represented as well as the polarity of representing a bundle comprising of one policy with impact now and one policy with impact later per dimension. Table 1 summarizes the 32 hypothetical policies chosen for ranking task 1 with the means and standard deviations retrieved from the ratings of the individual policies on the amalgamated individual perception of the ‘time of the policy impact’ as well as the ‘social responsibility.’

INSERT TABLE 1 ABOUT HERE

Table 2 summarizes the 32 hypothetical policies chosen for ranking task 2 with the means and standard deviations retrieved from the ratings of the individual policies on the amalgamated individual perception of the ‘time of the policy impact’ as well as the ‘social responsibility.’

INSERT TABLE 2 ABOUT HERE
All participants were asked to rank order the public policies by importance (see appendix). Importance was defined as willingness to contribute to this cause. The participants were asked to place the – in their opinion – most important public policy initiative on top followed by the next, a bit less important public policy initiative and so on. On the bottom there should be the – in their opinion – least important public policy initiative.

In total, each participant ranked 32 of the policies in task 1 and 32 of the public policies in task 2. Task 1 and task 2 were presented to the participants at different stages of the experiment (see appendix). Of the 246 valid participant answers on ranking task 1, 33 ranked task 1 public policies prior to task 2 and both games, 23 ranked task 1 past task 2 and prior to both games, 24 ranked task 1 past trust game player 1 first move but prior to player 2 receiving player 1 allocations and the subsequent trust and common goods games, 24 players ranked task 1 past trust game player 2 receiving player 1 allocations but prior to trust game 2nd move of player 2 playing back to player 1 and the subsequent common goods game, 24 players ranked task 1 past trust game player 1 receiving player 2 allocations and the subsequent common goods game, 25 players ranked task 1 past the trust game 2nd move player 2 playing back but prior to trust game player 1 receiving player 2 allocations and the subsequent common goods game, 24 players ranked task 1 past the trust game player 1 receiving player 2 allocations but prior to the common goods game, 50 players ranked task 1 after the trust game and the common goods game allocations but prior to the common goods game allocation outcome reporting and 43 players ranked task 1 after the entire trust and common goods games were played.

Of the 244 valid participant answers on ranking task 2, 33 ranked task 2 public policies past task 1 and prior to both games, 24 ranked task 2 prior to task 1 and both games, 23 ranked task 2 past trust game player 1 first move but prior to player 2 receiving player 1 allocations and the subsequent trust and common goods games, 24 players ranked task 2 past trust game player 2 receiving player 1 allocations but prior to trust game 2nd move of player 2 playing back to player 1 and the subsequent common goods game, 24 players ranked task 2 past the trust game 2nd move player 2 playing back but prior to trust game player 1 receiving player 2 allocations and the subsequent common goods game, 25 players ranked task 2 past the trust game player 1 receiving player 2 allocations but prior to the common goods game, 47 players ranked task 2 after the trust game and the common goods game allocations but
prior to the common goods game allocation outcome reporting and 44 players ranked task 2 after the entire trust and common goods games were played.

RESULTS AND DISCUSSION

The results provide insights if trust and reciprocity elicit future common goals compliance as well as unravel the effect of rewarded and defected trust experiences on common good allocations. The average contribution to the common good pool was compared in order to measure the impact of differing trust experiences and reciprocity levels on common goods game contribution preferences.

In 256 players, first player’s trust is significantly positively related to overall common goods contributions ($r_{Pearson}=.370, p<.000$). The stronger player 1 initiated trust, the more likely the player duo was to contribute to common goals.

In 128 player 1 we find that first player’s trust – measured by player 1’s first offer in the trust game – is significantly positively related to player 1 common goods contributions ($r_{Pearson}=.332, p<.000$). The more player 1 trusted, the more likely they were to contribute to common goals.

The reciprocity of 99 player 2 – based on player 2 return of player 1 first move contributions in the trust game – is significantly positively related to 99 player 2 common goods contributions ($r_{Pearson}=.312, p<.002$). The more reciprocity is practiced, the stronger are common goods allocations.

The trust experience of 128 player 2 – based on player 1’s first move contribution in the trust game – is significantly positively related to 128 player 2 common goods contributions ($r_{Pearson}=.332, p<.000$). The stronger people experienced trust in a generous move of a social environment, the more likely they were to contribute to common goals.

The experienced reciprocity of 99 player 1 is significantly positively related to player 1 common goods contributions ($r_{Pearson}=.312, p<.002$). The more reciprocity is experienced, the stronger are common goods allocations.

Regarding the ranking tasks asking experiment participants to rank order policies with differing time of policy impact and social responsibility levels, we find in 75 participants that common goods allocations elicit a more future-oriented public policy choice than reciprocity experiences in ranking task 1 ($t=-1.770, df=73, p<.041$) and in 72 participants ranking task 2 ($t=-1.996, df=70, p<.025$) for all players. For 37 player 2 common goods allocations elicit a more future-oriented public policy choice.
than reciprocity experiences in ranking task 1 (t=-1.727, df=35, p<.047) and in 35 participants ranking task 2 (t=-2.342, df=33, p<.013) for all players.

Reciprocity experiences of 25 participants lead to more socially responsible choices in ranking task 1 than the baseline measurement prior to any economic games of 56 participants (t=-1.849, df=79, p<.034). Reciprocity experiences of 25 participants lead to more socially responsible choices in ranking task 1 than the trust expressed in the trust game first move of player 1 (t=-1.963, df=47, p<.028). Reciprocity experiences of 25 participants lead to more socially responsible choices in ranking task 1 than the reciprocity expressed in the trust game second move of player 2 (t=-1.640, df=47, p<.054) – especially in 12 player 2 (t=-2.084, df=22, p<.025).

In ranking task 1 we find that general trust practiced by player 1 first move in the trust game elicits stronger preference for future oriented public policy choices than practiced reciprocity in trust game player 2 second move playing back to player 1 in 48 participants (t=1.849, df=46, p<.036) and in particular in 12 player 1 (t=2.138, df=22, p<.022).

Ranking task 2 outlines that experienced trust by player 2 receiving initial payment from player 1 elicits a stronger preference for future oriented public policies than the baseline measurement in 81 participants (t=-3.983, df=79, p<.000) – holding for 41 player 1 (t=-2.450, df=39, p<.010) and 40 player 2 (t=-3.104, df=38, p<.017).

In ranking task 2 we find that experienced trust by player 2 receiving initial payment from player 1 elicits a stronger preference for future oriented public policies than experienced reciprocity when player 1 receives player 2 allocations in 49 participants (t=3.135, df=47, p<.002) – holding for 25 player 2 (t=2.941, df=23, p<.004). Experienced trust also raises future oriented public policy choices in 71 participants compared to common goods allocations (t=2.351, df=69, p<.011) and 68 participants compared to common goods game outcome reporting (t=4.159, df=66, p<.000). The effect of experienced trust raising future oriented public policy preferences holds for 25 participants compared to trust game player 1 receiving the second player allocation (t=2.941, df=23, p<.004) and 33 participants trusting compared to common goods game outcome reporting (t=2.377, df=31, p<.012).

Ranking task 2 also outlines reciprocity by trust game player 2 second move playing back implying a stronger preference for future oriented public policies than common goods allocations in 68
participants \( (t=2.574, \text{df}=66, p<.006) \) – and especially player 1 as found in 35 players \( (t=3.369, \text{df}=33, p<.001) \).

Ranking task 2 shows in 92 participants common goods allocations elicit more future oriented public policy choices than common goods game outcome reporting \( (t=2.650, \text{df}=89, p<.005) \) – and especially player 1 as found in 48 players \( (t=3.039, \text{df}=46, p<.002) \).

DISCUSSION

Tax evasion has negative effects on the national budget and suboptimal consequences for the general populace. The post-2008/09 world financial crisis era being characterized by governmental bailouts leverages tax compliance into a pressing issue of concern. In times of overindebtedness tax fraud bearing unfavorable societal costs has reached the need for taxpayers’ compliance to unprecedented necessity.

Understanding the socio-dynamics of tax ethicality follows the greater goal of finding strategies how to steer a pro-social society. Deriving information on circumstances under which decision makers are likely to deviate from rational profit maximization in common goods allocations helps modeling individual tax ethics. Elucidating the role of social forces in economic tax allocation decisions opens ways to steer civic duty based on a cooperative relationship within society. Finding tax ethics nudges provides strategies to elicit taxpayers’ voluntary compliance. Identifying tax ethics triggers is aimed at modeling day-to-day societal decision making. Based on the findings, institutional technocrats are enabled to design social contexts that automatically raise social conscientiousness and help implementing institutional models that motivate citizens to contribute to common goals.

The administration of the tax system is monetarily costly and raise questions how to control the controllers and make taxpayers follow the law. If taxpayers trust the government and tax authorities the tax climate is likely favorable. Taxpayers base their trust on the experiences with tax authorities. Outlining the importance of trust and fairness for collective decision making is an innovative attempt to help policy makers improve tax ethicality in the absence of legal enforcement and governmental control (Ostrom, 2009). Determining trust and reciprocity as the basis of socially favorable tax allocation outcomes helps governmental officials to reach common goals and establish justice. Overall, outlining
the role of trust and reciprocity as means to implement tax compliance fosters the greater goal of ensuring a sustainable and fair society.

The findings of an experiment outline trust and reciprocity experiences driving common goods allocation preferences. In order to derive information on concrete drivers of the mechanism, future oriented and socially responsible decision making was also recorded. The results over two ranking tasks vary leading to the conclusion that common goods allocation preferences may be determined by the interplay of trust and reciprocity. Although we have no clear picture of the interplay of trust, reciprocity and fairness on social tax ethics norms, unraveling ethicality triggers in trust and reciprocity breeding social tax compliance norms in general holds implications for institutional market communication and governmental information campaigns. Connecting trust to common goals compliance holds recommendations for policy technocrats and political decision makers to help citizens adopt societally conscientious solutions. The presented relation of trust, fairness and reciprocity driving social common goods contribution norms offers practical recommendations for tax authorities.

Finding evidence for the importance of the government-citizen relationship for tax compliance implies that tax authorities are advised to treat taxpayers respectfully. Rather than responding to tax non-compliance with intrusive audits and severe punishment, supportive communication and collective interaction inspiring trust and reciprocity promise to encourage tax compliance. Replacing hunters-cops-and-robbers strategies featuring control and sanctions for developing trust and reciprocity in a service-oriented tax ethics approach will help foster tax compliance within future societies.

New cultures of customer relations orientation can create a cooperative tax climate. A cooperative contractual relationship and psychological contract apart from control and punishment should feature respectful client-oriented interactions in order to build trust and improve fiscal conscientiousness (Kirchler, 2007). Tax authorities are advised to consider taxpayers as customers. A new culture of customer relationship orientation appears more promising in enhancing cooperation and voluntary compliance without governmental oversight. In a service and client approach, taxpayers and tax authorities should create a climate of mutual trust and reciprocity based on clear and understandable regulations, transparency of procedures as well as respect and politeness for citizens. Taxpayers are more likely to report honestly if they feel that they are being treated courteously by the tax agency. If tax

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authorities and officers treat taxpayers equally, in a respectful and responsible way, trust in the institution and cooperation increase. Tax authorities should also communicate to enhance a feeling of civic duty. Community responsiveness and citizen communication will raise public good contribution norms as the landmark of national stability and societal wealth.

Regarding future directions, cooperative strategies of self-regulation and education will help gaining tax compliance. Trainings of tax officers and organizational improvement to offer effective advice and problem resolution will foster public relations resulting in enhanced tax compliance. Tax education and support of tax agents as clients will aid taxpayers to understand the necessity of contributing to common goals. Educating tax payers to be cooperative citizens and service client atmospheres will lead to taxpayers’ voluntarily compliance. Trust and reciprocity could also be enabled through positive rewards and raising awareness for social obligations. Fostering relations of trust and reciprocity will establish a psychological contract between governmental officials and citizens. Tax contributions practicing in atmosphere of mutual trust and reciprocity will breed a positive tax morale and voluntary compliance (Feld & Frey, 2002; Frey, 2003; Tyler, 1990). Avenues for future research may consider procedural fairness as additional driver of tax responsibility. Personal identification with friends, occupational groups or the nation could also be investigated as tax compliance moderators.
References


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Appendix
Appendix 0-1: Sample instructions

Instructions:
Thank you for participating in the following study. All your provided information will always be processed and presented in anonymous and aggregated form.

Please listen to me carefully when I read the following information concerning this study.

The purpose of the research is to examine individual and public choices.

The time required for participation is approximately 30 minutes.

There are no anticipated risks associated with participating in this study.

Your participation in this study is confidential and your individual identity will never be directly related to the collected data.

Your participation in this study is completely voluntary, and you may ask questions about it and/or withdraw at any time without penalty. There is no penalty for not participating.

If you have questions about this research, please contact me by email at jpuaschunder@fas.harvard.edu – information you will find in the consent form presented to you on a sheet of paper in front of you.

By signing the informed consent, you will acknowledge that the nature and purpose of this research have been satisfactorily explained to you, and that you agree to become a participant in the study as described by the consent form. Please be informed that you are always free to discontinue participation at any time and if so chosen your withdrawal from the study will remain without any penalty and that the investigator will gladly answer any questions that arise during the course of the research.

You may now read the consent form in front of you.

After the consent form collection and study participant number hand-out.

You may now start the experiment by reading the text on the computer screen in front of you and deciding into two games and two policy choice tasks.

When you are asked to fill in your participation number, please use the number that was given to you on a sheet of paper when the consent form was collected.

Throughout the entire experiment, please let me know if any questions arise.
Material

Table 1 holds the hypothetical 32 public policies of ranking task 1 rated as well as the means and standard deviations of the ratings on the perception of the ‘time of the policy impact’ as well as ‘social responsibility.’

<table>
<thead>
<tr>
<th>Public Policies Ranking Task 1</th>
<th>Time of policy impact</th>
<th>Social responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean_TP</td>
<td>SD_TP</td>
</tr>
<tr>
<td>Addiction recovery</td>
<td>-1.1379</td>
<td>2.1091</td>
</tr>
<tr>
<td>Anti-crime initiatives</td>
<td>-0.9655</td>
<td>2.3726</td>
</tr>
<tr>
<td>Child health care</td>
<td>-1.3448</td>
<td>2.4242</td>
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<td>Consumer protection food control</td>
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<td>Cultural heritage conservation for future generations</td>
<td>2.2069</td>
<td>2.3071</td>
</tr>
<tr>
<td>Culture, arts and sports entertainment</td>
<td>-2</td>
<td>2.2431</td>
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<tr>
<td>Disability integration</td>
<td>-0.8276</td>
<td>2.7222</td>
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<tr>
<td>Economic market stimulus</td>
<td>-0.3103</td>
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<td>Extracurricular youth education</td>
<td>-0.4483</td>
<td>2.6173</td>
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<td>First-aid medical emergency assistance</td>
<td>-3.3448</td>
<td>2.1684</td>
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<td>Foreign aid</td>
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<tr>
<td>Foreign aid child health support</td>
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<td>Future basic research and development</td>
<td>2.3103</td>
<td>1.8122</td>
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<td>Future global governance contribution</td>
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<td>Future international development goals contribution</td>
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<tr>
<td>Future international public partnership set-up</td>
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<td>Future space exploration</td>
<td>3.1379</td>
<td>2.3558</td>
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<tr>
<td>Immediate public transportation repair</td>
<td>-2.8276</td>
<td>2.3082</td>
</tr>
<tr>
<td>Infrastructure development</td>
<td>-0.3448</td>
<td>3.0333</td>
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<td>International organizations’ future goals contribution</td>
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</tr>
<tr>
<td>Long-term foreign aid remittances</td>
<td>2.2069</td>
<td>2.5137</td>
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<tr>
<td>Long-term monetary policy</td>
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<td>2.2334</td>
</tr>
<tr>
<td>Long-term public foreign debt reduction</td>
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<tr>
<td>Low-income support</td>
<td>-2.2414</td>
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<td>Micro-credit for poverty reduction</td>
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<td>2.9689</td>
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<tr>
<td>Minority empowerment</td>
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</tr>
<tr>
<td>Refugee youth protection</td>
<td>-1.5862</td>
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<tr>
<td>Retirement benefits</td>
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<td>Social equality enhancing education reform</td>
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<tr>
<td>Unemployment payment</td>
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<tr>
<td>Youth entertainment</td>
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</table>


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Table 2 holds the hypothetical 32 public policies of ranking task 2 rated as well as the means and standard deviations of the ratings on the perception of the ‘time of the policy impact’ as well as ‘social responsibility.’

<table>
<thead>
<tr>
<th>Public Policies Ranking Task 2</th>
<th>Time of policy impact</th>
<th>Social responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to clean, safe drinking water</td>
<td>Mean_TP: -2.34065934</td>
<td>Mean_SR: 0.93956044</td>
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<tr>
<td>Acid rain reduction</td>
<td>SD_TP: 2.84209924</td>
<td>SD_SR: 3.63457787</td>
</tr>
<tr>
<td>Air quality improvement and noise control</td>
<td>-1.45054945</td>
<td>0.443065934</td>
</tr>
<tr>
<td>Avert natural resources lock-ins for next generation</td>
<td>0.351648352</td>
<td>1.61328642</td>
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<tr>
<td>Child environmental health and safety risks protection</td>
<td>0.52747253</td>
<td>2.97383232</td>
</tr>
<tr>
<td>Clean energy for next generation</td>
<td>0.472527473</td>
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</tr>
<tr>
<td>Climate change aversion for a sustainable mankind</td>
<td>0.604395604</td>
<td>1.747252725</td>
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<tr>
<td>Conservation of natural resources for next generation</td>
<td>0.252747253</td>
<td>2.58994069</td>
</tr>
<tr>
<td>Current toxic substances, chemicals and pesticides control</td>
<td>-1.64831655</td>
<td>0.52747253</td>
</tr>
<tr>
<td>Ecosystem protection for future generations</td>
<td>0.571428571</td>
<td>2.252747253</td>
</tr>
<tr>
<td>Emissions outsourcing</td>
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<tr>
<td>Endangered species, wildlife and marine offspring protection</td>
<td>-0.85714286</td>
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<td>Environmental justice relief of environmental protection burden for minority and low-income population</td>
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<td>Foreign natural disaster recovery</td>
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<td>Green products</td>
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<td>Green recreational areas cleaning</td>
<td>-1.57142857</td>
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<td>Habitat conservation by waste management</td>
<td>-1.40659341</td>
<td>2.58994069</td>
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<td>Immediate energy supply</td>
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<td>Intergenerational equity ensured by future environmental global governance</td>
<td>0.78021978</td>
<td>1.637362637</td>
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<tr>
<td>International agreement on nuclear waste long-term storage</td>
<td>0.39560439</td>
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<tr>
<td>Invest in clean automotive technology enhancement</td>
<td>-1.04395604</td>
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<tr>
<td>Long-term forecasts of pollution impact on the ecosystem</td>
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<td>Long-term ozone layer protection</td>
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<td>Long-term sustainable energy supply</td>
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<td>Long-term toxic chemicals and hazardous substances export</td>
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<td>Nuclear storage maintenance</td>
<td>0.509495085</td>
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<td>Oil spill emergency cleanup</td>
<td>-1.72527473</td>
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<tr>
<td>Rain forest protection</td>
<td>-0.79120879</td>
<td>2.91426369</td>
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<tr>
<td>Reduce next generation’s environmental protection burden</td>
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<td>Secure energy supply by fossil fuels imports</td>
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<td>0.452747253</td>
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<td>Socially responsible investment in alternative energy</td>
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<td>2.873057022</td>
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<tr>
<td>Sustainable infrastructure development</td>
<td>-0.84651385</td>
<td>2.572899096</td>
</tr>
</tbody>
</table>
Game 1:

Thank you for participating in this experiment. All your information given will always be presented in anonymous and aggregated form.

Please read the following instructions carefully. Please do not talk with anyone during the experiment. If you have any questions, do not hesitate to call for us by raising your hand. Aside from this, no communication is allowed during the experiment.

Everyone will receive a fixed amount of USD 5 for participating in the experiment. In addition, you will be able to earn more money in the experiment. Based on the choices made by you and another person, you will receive up to USD 23 in addition to the show-up amount. Everything will be paid to you in cash immediately after the experiment.

The following instruction explains the experiment.

This experiment is about choices and decision making. You were randomly assigned to another person whom you will never meet. You will be interacting with the same person for the entire rest of the experiment. Each person of your duo will be assigned a number that represents his/her identity throughout this experiment.

Player 1:

You have been randomly selected as player 1 and matched with another person in the room. Another participant of the experiment has been randomly assigned to you. She or he takes the role of player 2. Neither of you will ever know the identity of the other.

Both you and your counterpart receive 10 experimental currency units (ECU). After the experiment you will be able to convert all ECU gained into real money by the exchange rate of 2 ECU=1 USD.

You as player 1 have the possibility to transfer none, some or all of your 10 ECU at your choice to player 2. The amount that you choose to send will be displayed on the screen of player 2. At player 2’s screen the amount you sent will be doubled. For instance, if you send 5 ECU, player 2 receives 5 ECU* 2 = 10 ECU. Player 2 then has the possibility to send none, some or all of this money back to you.

The amount that player 2 sends back will be displayed on your screen. The amount player 2 sends will not be doubled. For instance, if player 2 sends 5 ECU, you receive 5 ECU. Then this game is over. Your payoff in this game equals your initial 10 ECU minus the amount you give player 2 plus the amount you receive from player 2. For instance, if you send 5 ECU to player 2 and player 2 sends you 7 ECU back, then your earnings are 10 ECU – 5 ECU + 7 ECU = 12 ECU. 12 ECU correspond to 6 USD, which will be your earning. The first part of the experiment ends after the decision of player 2. This game is played once.

Please make the allocation choice

Please report outcome of game 1
Player 2:

You have been randomly selected as player 2 and matched with another person in the room. Another participant of the experiment has been randomly assigned to you. She or he takes the role of player 1. Neither of you will ever know the identity of the other.

Both you and your counterpart receive 10 experimental currency units (ECU). After the experiment you will be able to convert ECU gained into real money by the exchange rate of 2 ECU=1 USD.

Player 1 has the opportunity to transfer none, some or all of his/her 10 ECU to you. The amount that player 1 may send will be displayed on your screen. At your screen the amount you received will be doubled. For instance, if player 1 sent you 5 ECU, you will see you receive 5 ECU * 2 = 10 ECU.

Please report player 1 allocation to player 2

Please report player 1 allocation to player 2 again

You as player 2 have the possibility to transfer none, some or all of this money to player 1 at your choice. The amount that you send will be displayed on player 1’s screen. At player 1 the amount you sent will not be doubled. For instance, if you send 5 ECU, player 1 receives 5 ECU. Then this game is over. Your payoff for this game equals your initial 10 ECU plus the amount you receive from player 1 doubled minus the amount you sent to player 1. For instance, if player 1 sent you 6 ECU and you send 4 ECU back, then your earnings are 10 ECU + 12 ECU - 4 ECU = 18 ECU. 18 ECU correspond to 9 USD, which will be your earning. The first part of the experiment ends after the decision of player 2. This game is played once.

Please make allocation choice

Please report outcome of game 1

Game 2:

The same player that you just played with will be part of game 2. Neither of you will ever know the identity of the other.

In the following game you receive 10 ECU from which you must decide how much you keep for yourself or contribute to a common pool. The other player also receives 10 ECU from which she or he must decide how much she or he keeps for her/himself or she/he contributes to the same common pool. All contributions of both players of this game will be added up in the common pool, which will be factored by 1.6 and then split evenly among you and the other person. The game is then over.

Each player gets the same share from this game. Concurrently to your earnings from the common pool, you will also receive the units you chose not to contribute. Your remuneration will depend on the final common goods pool in the following way:

\[ \text{10 ECU} - (\text{your contribution to the common pool}) + 1.6 \times (\text{sum of all contributions}) / 2 \]
For instance, if player 1 decides to contribute 8 ECU and player 2 contributes 7 ECU, the pool will comprise of 8 ECU + 7 ECU = 15 ECU multiplied by 1.6 = 24 ECU. Each player will receive 1/2 of the common goods pool thus 24 ECU/2=12 ECU. The individual player receives 12 ECU, which equals to 12 ECU/2 = 6 USD plus the amount not contributed to the pool from the initial 10 ECU.

Please make allocation choice

Please report outcome of game 2
Ranking task 1:

Please rank all the following public policy initiatives by importance. Importance is the willingness to contribute to this cause. Place the in your opinion most important public policy initiative on top followed by the next, a bit less important public policy initiative and so on. On the bottom should be the – in your opinion – least important public policy initiative.

<table>
<thead>
<tr>
<th>Public Policy Initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addiction recovery</td>
</tr>
<tr>
<td>Anti-crime initiatives</td>
</tr>
<tr>
<td>Child health care</td>
</tr>
<tr>
<td>Child support</td>
</tr>
<tr>
<td>Consumer protection food control</td>
</tr>
<tr>
<td>Cultural heritage conservation for future generations</td>
</tr>
<tr>
<td>Culture, arts and sports entertainment</td>
</tr>
<tr>
<td>Disability integration</td>
</tr>
<tr>
<td>Economic market stimulus</td>
</tr>
<tr>
<td>Extracurricular youth education</td>
</tr>
<tr>
<td>First-aid medical emergency assistance</td>
</tr>
<tr>
<td>Foreign aid</td>
</tr>
<tr>
<td>Foreign aid child health support</td>
</tr>
<tr>
<td>Future basic research and development</td>
</tr>
<tr>
<td>Future global governance contribution</td>
</tr>
<tr>
<td>Future international development goals contribution</td>
</tr>
<tr>
<td>Future international public private partnership set-up</td>
</tr>
<tr>
<td>Future space exploration</td>
</tr>
<tr>
<td>Immediate public transportation repair</td>
</tr>
<tr>
<td>Infrastructure development</td>
</tr>
<tr>
<td>International organizations’ future goals contribution</td>
</tr>
<tr>
<td>Long-term foreign aid remittances</td>
</tr>
<tr>
<td>Long-term monetary policy</td>
</tr>
<tr>
<td>Long-term public foreign debt reduction</td>
</tr>
<tr>
<td>Low-income support</td>
</tr>
<tr>
<td>Micro-credit for poverty reduction</td>
</tr>
<tr>
<td>Minority empowerment</td>
</tr>
<tr>
<td>Refugee youth protection</td>
</tr>
<tr>
<td>Retirement benefits</td>
</tr>
<tr>
<td>Social equality enhancing education reform</td>
</tr>
<tr>
<td>Unemployment payment</td>
</tr>
<tr>
<td>Youth entertainment</td>
</tr>
</tbody>
</table>
Ranking task 2:

Please rank again all the following public policy initiatives by importance. Importance is the willingness to contribute to this cause. Place the in your opinion most important public policy initiative on top followed by the next, a bit less important public policy initiative and so on. On the bottom should be the – in your opinion – least important public policy initiative.

<table>
<thead>
<tr>
<th>Access to clean, safe drinking water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid rain reduction</td>
</tr>
<tr>
<td>Air quality improvement and noise control</td>
</tr>
<tr>
<td>Avert natural resources lock-ins for next generation</td>
</tr>
<tr>
<td>Child environmental health and safety risks protection</td>
</tr>
<tr>
<td>Clean energy for next generation</td>
</tr>
<tr>
<td>Climate change aversion for a sustainable mankind</td>
</tr>
<tr>
<td>Conservation of natural resources for next generation</td>
</tr>
<tr>
<td>Current toxic substances, chemicals and pesticides control</td>
</tr>
<tr>
<td>Ecosystem protection for future generations</td>
</tr>
<tr>
<td>Emissions outsourcing</td>
</tr>
<tr>
<td>Endangered species, wildlife and marine offspring protection</td>
</tr>
<tr>
<td>Environmental justice relief of environmental protection burden for minority and low-income population</td>
</tr>
<tr>
<td>Foreign natural disaster recovery</td>
</tr>
<tr>
<td>Green products</td>
</tr>
<tr>
<td>Green recreational areas cleaning</td>
</tr>
<tr>
<td>Habitat conservation by waste management</td>
</tr>
<tr>
<td>Immediate energy supply</td>
</tr>
<tr>
<td>Intergenerational equity ensured by future environmental global governance</td>
</tr>
<tr>
<td>International agreement on nuclear waste long-term storage</td>
</tr>
<tr>
<td>Invest in clean automotive technology enhancement</td>
</tr>
<tr>
<td>Long-term forecasts of pollution impact on the ecosystem</td>
</tr>
<tr>
<td>Long-term ozone layer protection</td>
</tr>
<tr>
<td>Long-term sustainable energy supply</td>
</tr>
<tr>
<td>Long-term toxic chemicals and hazardous substances export</td>
</tr>
<tr>
<td>Nuclear storage maintenance</td>
</tr>
<tr>
<td>Oil spill emergency cleanup</td>
</tr>
<tr>
<td>Rain forest protection</td>
</tr>
<tr>
<td>Reduce next generation’s environmental protection burden</td>
</tr>
<tr>
<td>Secure energy supply by fossil fuels imports</td>
</tr>
<tr>
<td>Socially responsible investment in alternative energy</td>
</tr>
<tr>
<td>Sustainable infrastructure development</td>
</tr>
</tbody>
</table>
1. Please indicate your trust.

<table>
<thead>
<tr>
<th>Trust</th>
<th>Absolutely not</th>
<th>Not</th>
<th>Rather not</th>
<th>Neutral</th>
<th>Much</th>
<th>Very much</th>
<th>Absolutely</th>
</tr>
</thead>
<tbody>
<tr>
<td>In general I trust.</td>
<td>- -</td>
<td>-</td>
<td>-</td>
<td>~</td>
<td>+</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td>I trust in the game played.</td>
<td>- -</td>
<td>-</td>
<td>-</td>
<td>~</td>
<td>+</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td>I trust the person with whom I played.</td>
<td>- -</td>
<td>-</td>
<td>-</td>
<td>~</td>
<td>+</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td>I trust I reach goals by my own personal effort.</td>
<td>- -</td>
<td>-</td>
<td>-</td>
<td>~</td>
<td>+</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td>My life depends on others.</td>
<td>- -</td>
<td>-</td>
<td>-</td>
<td>~</td>
<td>+</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td>Fate determines my life.</td>
<td>- -</td>
<td>-</td>
<td>-</td>
<td>~</td>
<td>+</td>
<td>++</td>
<td>+++</td>
</tr>
</tbody>
</table>

Demographics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Highest education</th>
<th>Number of family members</th>
</tr>
</thead>
<tbody>
<tr>
<td>male</td>
<td></td>
<td>High school</td>
<td>alive</td>
</tr>
<tr>
<td>female</td>
<td></td>
<td>Bachelor</td>
<td>met</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doctor</td>
<td></td>
</tr>
</tbody>
</table>
Professor

<table>
<thead>
<tr>
<th>Family</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>Academia/Teaching</td>
</tr>
<tr>
<td>Partner</td>
<td>Business</td>
</tr>
<tr>
<td>Married</td>
<td>Communication/Media</td>
</tr>
<tr>
<td>Divorced/Separated</td>
<td>Politics/Public Service</td>
</tr>
<tr>
<td>If you have children, how many?</td>
<td>If student, what field?</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
</tr>
</tbody>
</table>

Thank you for your participation!
The Role of Learning Orientation on Job Demands - Creativity Relationship

### Measuring the Effect of Learning Orientation on Job Demands - Creativity Relationship

<table>
<thead>
<tr>
<th>Subject-Number</th>
<th>Groups</th>
<th>Game Sequences</th>
<th>Public Policy Preference Measurement (2 Lists)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-23</td>
<td>48</td>
<td>Baseline</td>
<td>Pre-games</td>
</tr>
<tr>
<td>24-48</td>
<td>48</td>
<td>2nd player</td>
<td>Pre-games</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1st player</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sum 2nd player</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sum 1st player</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Trust game 1st move (player 1 plays)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Trust game player 2 receives player 1 allocation doubled</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Trust game 2nd move player 2 plays back</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Trust game player 1 receives 2nd player allocation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Common goods game allocation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Common goods game outcome</td>
</tr>
</tbody>
</table>

### Measuring the Effect of Learning Orientation on Job Demands - Creativity Relationship

- General trust level
- Experienced trust level
- Reciprocity
- Experienced reciprocity
- Common goods cooperation
- Experienced common goods game cooperation

### Ranking List 1

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Ranking List 2

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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