Thesis Competition 2012 Summaries

Editor
Dimitris Assimakopoulos

Foreword from the President

EDAMBA, the **European Doctoral Programmes Association in Management and Business Administration** has the mission to promote and facilitate cooperation within the association by providing and managing a network to exchange information, to exchange PhD candidates and to promote research cooperation. In many ways, EDAMBA helps the participating schools to increase the quality of their PhD programmes, as well as to create an environment of excellence with a European perspective, all the while pursuing diversity. It has proved to be a forum of discussion to schools that have a long tradition of doctoral education but also to those who have started this new experience. The ultimate goal is to have the EDAMBA network reach as far and wide as possible, while at the same time maintaining the integrity of the various programmes within the network.

Currently EDAMBA has more than 60 doctoral programmes as members of the Association. It is governed by the General Assembly, which elects each year an Executive Committee.

The main current activities of the Association are the Annual Meetings, the Research Summer Academy, the Consortium on Doctoral Supervision, the Thesis Competition.

The Annual meetings have become during the years the main platform for discussing common problems and issues, discussing impressive changes in the doctoral landscape and promoting research. The Summer Academy operating since1992 with its international dimension has been the privileged forum for dialogue on research paradigms and methodologies while building a strong scholarly network. The Winter Academy launched in 2008 aims at developing competent supervisors for addressing the shortage of qualified faculty in Business and Management studies in the European Universities and Business Schools. As of January 2012, the Winter Academy has been replaced by a workshop on the importance of supervision in doctoral education, the 'EDAMBA-EIASM Consortium on Doctoral Supervision and the New Global Research Landscape', a joint initiative between EIASM and EDAMBA.

The Thesis Competition was first launched in 2003. It aims at distinguishing high-quality doctoral dissertations which have significantly contributed to new knowledge in the areas of business studies and management.

With this EDAMBA Journal, we hope to contribute to the dissemination of distinguished doctoral dissertations in Europe.

Pierre Batteau
EDAMBA President

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EDAMBA acknowledges the expertise, time and effort in the important review process of the 2012 EDAMBA Thesis Competition

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The Missing Link?: Testing the Role of Employee Wellbeing in Mediating the Relationship between the Work Environment and Voluntary Labour Turnover

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Abstract

The relationship between the work environment, employee wellbeing and voluntary labour turnover is examined at both the individual and workplace levels. The first is investigated using the meta-analysis structural equations modelling (MASEM) technique, and the second using the nationally-representative British Workplace Employment Relations Survey of 2004 (WERS2004). The results show that the work environment has a strong and direct impact on employee wellbeing, and that its impact on voluntary turnover is fully mediated by employee wellbeing. The results differ significantly for men and women, especially in relation to the availability of family support, and in the private and public sectors.

Introduction

Employee wellbeing is not just a health issue (Diener *et al.*, 2003). There is a growing perception that higher employee wellbeing is also in the best interests of their organizations (Black, 2008; Waddel and Burton, 2006). Employee satisfaction with their work and workplace may affect citizenship at work, turnover rates, customer loyalty, profitability and performance (Harter *et al.*, 2002). However, few studies have formally linked wellbeing to these organizational level outcomes.

Two strands of research can be observed in studies of employee wellbeing: (1) a stress perspective, and (2) a positive feelings perspective. Proponents of the stress perspective (French et al., 1982) argue that when work demands exceed resources, employees experience an undesirable state (anxiety or stress) that hinders their performance. Those adopting the positive feelings perspective (Warr, 1999) argue that when work demands match resources, employees experience positive emotional states (satisfaction, commitment, contentment) that accentuate their performance. Both approaches are examined in this study.

The work environment can play an important role in promoting wellbeing since employees spend a significant portion of their lives at work. However, work environments and wellbeing have been largely ignored in studies of voluntary turnover in Britain. Much research has adopted an economic perspective, with a focus on the relationship of training, technology, wages, financial participation and turnover (Brown et al, 2009; Conyon, 1998; Cosh and Hughes, 1997; Dalton and Klaauw, 1999; Jones et al, 2009; Martin, 2003; Sen Gupta, 2005; Wilson et al, 1990). Another strand of research focuses primarily on the relationship between HRM practices and performance (Guest et al, 2000; Guest et al, 2003; Ramsay et al, 2000), where turnover rates are examined as one of the many objective performance indicators. These studies have typically ignored the employee link in the policy-outcome relationship, despite increasing recognition that employees' affective attitudes and behaviours are coloured by perceptions of their organizational experience (Koehler et al, 1976; Schneider, 1990), irrespective of whether these perceptions are accurate or not (Koehler et al, 1976).

This study differs from previous research in many ways. First, it brings together previous research on various aspects of work environment perceptions, wellbeing and voluntary turnover using meta-analysis, and using these results, performs a test of the proposed indirect impact of work environment perceptions on turnover via wellbeing using structural equation modelling (the MASEM technique). Second, using WERS2004, it investigates whether employees' shared perceptions of their work environments affect

their wellbeing and turnover behaviour. Third, family-friendly characteristics are included in the analyses with other, more traditional, aspects of the work environment (work demands, autonomy, social support). Fourth, work environment perceptions are compared across gender and sector. Finally, two different research designs are employed that have only rarely been used by researchers in this area. These are: (1) MASEM for appraising evidence and guiding human resource policy and practice, and (2) a cross sectional study of a nationally-representative sample of 22451 employees from 2295 workplaces in Britain.

The research model is based on the integration of Social Exchange Theory (Settoon et al., 1996), Job Demands-Control-Support Theory (Karasek, 1979; Karasek and Theorell, 1990), and Social Information Processing Theory (Salancik and Pfeffer, 1978). Methodologically, the study consists of two empirical studies examining the impact of perceived work environment characteristics on wellbeing and voluntary turnover at the individual and workplace levels respectively.

Individual Level Analysis

The meta-analysis involves the inclusion of a larger set of work environment characteristics than has previously been investigated in the literature on voluntary turnover (Griffeth *et al.*, 2000), job satisfaction (Kinicki *et al.*, 2002) and organization commitment (Mathieu and Zajac, 1990). It thereby attempts to synthesise substantial, but not strongly linked literatures, not only allowing studies to yield greater explanatory power, but also permitting the drawing of much stronger practical implications. Significantly, it examines the question of whether wellbeing indicators (job satisfaction and organisation commitment) mediate the relationship between perceived work environment characteristics (work demands, autonomy, trust, participation, communication, supervisor support, flexible work arrangements, availability of family support policies) and turnover, an issue of considerable practical importance. To achieve these objectives, Viswesvaran and Ones' (1995) two-step methodology is used by combining meta-analytic methods with structural equation modelling (SEM), yielding a further (methodological) development of the extant literature.

Method

Hunter and Schimdt's (1990) three-step procedure was adopted for the collection of relevant literature. The first step involved scanning the electronic databases *EBSCO*, *ABI/inform*, *Emerald*, *Elsevier, PsycInfo*, *PsychLit*, and *ASSIA* for empirical studies

published since 1995. The time restriction was made to assemble more recent studies on the relationships between the variables of interest than Griffeth *et al.*'s (2000) turnover meta-analysis. The second step involved a manual search of journals that regularly publish studies on job satisfaction, organization commitment, anxiety and turnover. Finally, the reference lists of several review articles on the same topic were searched for appropriate additional studies.

To be included, a study had to report zero-order correlations with the relevant variables. An analysis was conducted for variables for which there were at least two correlations from independent samples. It did not include studies that reported only regression coefficients, as the unique contribution of the relevant variables cannot be estimated. This was the case for most studies of anxiety. Hence, anxiety was dropped from further analysis and the meta-analysis was limited to only two indicators of wellbeing - job satisfaction and organizational commitment. Furthermore, in an attempt to include a large sample of studies in the analysis, for cases where zero-order correlations were not reported, emails were sent to the authors concerned to obtain these correlations. In total, 111 research papers were identified, providing usable data for 132 independent samples.

Analysis

Hedges and Olkin's (1985) meta-analysis procedure was adopted to estimate a pooled correlation matrix from the sample of existing studies. In addition, confidence intervals were computed for each estimated correlation. Furthermore, a test for heterogeneity was performed by using three test statistics: Q statistic (Hedges and Olkin, 1985), I^2 (Higgins *et al.*, 2003), and τ^2 statistic (Hedges and Vevea, 1998). A significant Q statistic indicated the presence of heterogeneity; I^2 values of 25%, 50% and 75% indicated low, moderate and high heterogeneity (Leandro, 2005); and τ^2 not equal to zero indicated heterogeneity. The fail-safe N method was used to assess publication bias (Schmidt *et al*., 1985). All analyses were conducted using the 'Comprehensive Meta-Analysis' software developed by Borenstein *et al.,* (2005).

A two-step structural equation modelling (SEM) procedure was used to test the hypothesized indirect effects. In the first step, factor analysis was used to test the measurement model for the different dimensions of each construct. Once an adequate fit had been established for the measurement model, the hypotheses were tested using path analysis techniques.

Results

The results for inter-correlations among work environment characteristics indicated that there are moderate ($0.3 \leq r < 0.5$) to strong (0.5 and above) inter-correlations between eight work environment characteristics (e.g. Cohen, 1977). This correlation structure suggests the validity of work environment characteristics (WEC) as a construct.

The correlations between work environment characteristics - wellbeing and turnover - suggest that both job satisfaction ($0.19 < r < 0.44$, $p<0.05$) and organization commitment ($0.21 < r < 0.48$, $p<0.05$) are significantly and positively related to all the of work environment characteristics except 'excessive work demands', which is negatively correlated with both job satisfaction ($r = -0.31$, $p<0.05$) and organization commitment ($r = -0.28$, $p<0.05$). To assess the relationship between work environment characteristics and turnover, of the eight work environment characteristics, studies were available only for autonomy ($r = -0.082$, $p<0.05$), flexibility ($r = -0.08$, $p<0.05$), participation ($r = -0.11$, $p<0.05$), communication ($r = -0.11$, $p<0.05$), and supervisor support ($r = -0.11$, $p<0.05$). These results show the paucity of research on the relationship between work environment characteristics and turnover. Overall, it is clear that individuals' perceptions of their work environment have a significant impact on their wellbeing and turnover.

The correlations between wellbeing and turnover suggest that both job satisfaction ($r = -0.18$, $p<0.05$) and organization commitment ($r = -0.19$, $p<0.05$) are significantly related to turnover. Similar to the findings of Griffeth *et al*. (2000), organisation commitment is a better predictor of turnover than job satisfaction.

Most of the relationships derived from the meta-analysis indicated the presence of heterogeneity (Significant Q, $I^2 > 50\%$, $\tau^2 > 0$). Thus, the random effects estimator was estimated for all effect sizes.

The meta-analysis results revealed three important findings. First, the number of studies on the link between work environment characteristics and job satisfaction ($5 < k < 22$) and organization commitment ($4 < k < 22$) were much larger than the number of studies on the link between work environment characteristics and turnover ($1 < k < 3$). Second, the effect sizes for the hypothesized relationships between work environment characteristics were larger for job satisfaction ($0.19 < r < 0.44$) and organizational commitment ($0.21 < r < 0.48$) compared to turnover ($-0.08 < r < -0.11$). Third, the effect sizes for the hypothesized relationships between turnover and wellbeing ($-0.18 < r < -0.19$) were larger compared to the relationship between work environment characteristics and turnover ($-0.08 < r < -0.11$).

Thus perceived work environment characteristics are more consistently related to wellbeing than turnover. Additionally, wellbeing indicators are more consistently related to turnover behaviour than work environment characteristics. However, these results do not confirm that the relationship of work environment characteristics and turnover is mediated by employee wellbeing. To examine this hypothesis, SEM analysis was used.

Since studies examining the relationship of excessive work demands, trust, and family support with turnover could not be found, these correlations could not be computed. Following Viswesvaran and Ones (1995), these variables were dropped from the proposed analysis.

To specify the model, each of the remaining five work environment characteristics (flexibility, autonomy, communication, participation, and supervisor support) were loaded onto a single latent construct, namely work environment characteristics (WEC). WEC was then allowed to correlate with each of the other two constructs (wellbeing and turnover) in the model. Employee wellbeing was specified as a latent construct. Job satisfaction and organizational commitment loaded onto 'employee wellbeing', while turnover was specified as a single item construct.

To test the proposed mediation hypothesis, the direct link between WEC and turnover was first estimated (Figure 1). In the second step, wellbeing was included as a mediator (Figure 2).

Figure 1: Structural model linking work environment characteristics and turnover
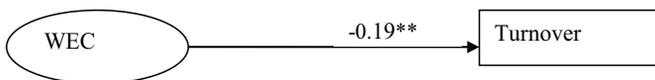
Note: χ^2 (df) = 262.84* (9), CFI = 0.84, GFI = 0.94.

The results show that the path coefficient for the direct effect of WEC on turnover becomes insignificant when 'wellbeing' is added as a mediator. However, WEC has a significant positive relation with wellbeing and, in turn, wellbeing has a significant negative relation with turnover. Thus, the proposed mediation hypothesis is strongly supported. It can therefore be concluded that wellbeing fully mediates the perceived work environment characteristics-turnover relationship.

Figure 2: Structural model for the mediated link of wellbeing between work environment characteristics and turnover
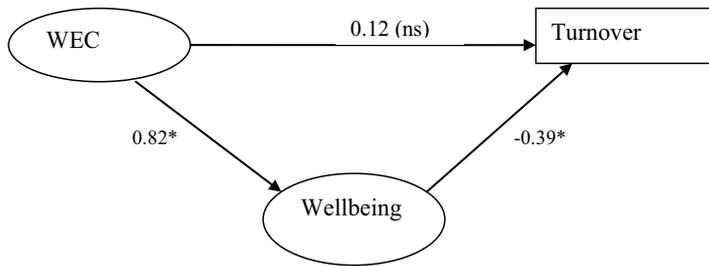
Note: χ^2 *(df)*= 321.44* (18), CFI = 0.90, GFI = 0.95.

Increased *job control*, *managerial support*, and *the availability of family support* are seen as effective strategies to improve *job satisfaction* and *organizational commitment*, and reduce the level of *anxiety* among employees. The results hold for both male and female samples. The direct relationship between *the availability of family support* and *organizational commitment* was stronger for women. The indirect impact of *the availability of family support* on *job satisfaction* through *anxiety* was stronger than the direct impact. The present study has also found that *excessive work demands* are positively associated with *job satisfaction*, *organizational commitment* and *anxiety*. However, *excessive work demands* have an indirect negative impact on both *job satisfaction* and *organizational commitment* through *anxiety* in both the male and female samples.

Workplace Level Analysis

In the second study, hypotheses were formulated that investigated the relationship between employees' shared perceptions of their work environments, wellbeing and voluntary employee turnover. People spend a great deal of their time working with others in social groups, and employee behaviour is a collective behaviour. These individuals not only have previously-acquired characteristics in common (education, job skills, etc.) but also engage in a range of social interactions (Forsyth, 2009). Through these interactions, they develop similar responses to their work situations (Schneider, 1975). Their actions, thoughts, feelings and experiences are determined in part by others in the same workplace (Newcomb, 1943). Thus, if group membership has an influence on the members' response to the work situations, then the effects of group membership must be seriously considered. Furthermore, if wellbeing is dependent on the salient information from other group members on work environment characteristics, then management can develop

strategies to influence information regarding work environment characteristics to increase satisfaction and commitment and reduce anxiety, which in turn can reduce turnover.

The concept of measuring individuals' shared perceptions is similar to that of organizational climate. Climate scholars have explored climates at workplace level, which are represented by the aggregated individual perceptions of workplace practices (James and Jones, 1974). Rather than focusing on individual interpretations of work situations, organizational climates imply collective meanings that people attach to particular characteristics of the workplace. Consequently, workplaces tend to have various climates each for the specific element of the work setting, for example, service climate (Schneider, 1980; Schneider *et al.*, 1998), safety climate (Zohar, 1980), climate for fairness (Simons and Roberson, 2003), and ethical climate (Victor and Cullen, 1988). As climates are, by definition, characterised by shared perceptions of organizational policies, practices, and procedures (Field and Abelson, 1982; James and James, 1989; James *et al.*, 1984), organizations may also have climates for excessive work demands, autonomy, managerial support and the availability of family support.

Such climates are explored in this study. An attempt is made to link work environments to objective workplace outcomes. More specifically, a relationship is built between aggregate work environment perceptions, wellbeing and voluntary employee turnover. It is predicted that the relationship between employees' shared perceptions of their work environments and turnover may be mediated by employee wellbeing. It is also predicted that the sector of employment (public and private) moderates the hypothesized link between aggregate work environment perceptions, wellbeing and employee turnover.

Method

The data are from two elements of the nationally-representative British Workplace Employment Relations Survey of 2004 (WERS2004) – the Management Questionnaire (MQ) and Survey of Employees Questionnaire (SEQ). For the MQ, face-to-face interviews were conducted with managers in a total of 2295 workplaces representing a 64 percent response rate. The sample covers both the public and private sectors. For the SEQ, a self-completion questionnaire was used to collect data from 22451 employees, which represented a response rate of 61 percent.

Employee perceptions of their work environment were drawn from the SEQ on a scale consisted of thirty items describing four a priori constructs i.e. *work demands* (3 items, α=0.67), *autonomy* (5 items, α=0.81), *managerial support* (13 items, *α=0.96*), and *available family support* (9 items, α=0.76). *Managerial support* (13 items, *α=0.96*) was

measured through four dimensions: (1) *trust* (4 items), (2) *communication* (4 items), (3) *participation in decision making* (3 items), and (4) *general support* (2 items). Furthermore, *the availability of family support* was measured by two dimensions: (1) *flexible work arrangements* (7 items) and (2) *childcare benefits* (2 items). *Wellbeing* was measured by *job-related anxiety* (3 items, α=0.85), *job satisfaction* (7 items, α=0.83), and *organizational commitment* (3 items, α=0.85) and the measures were drawn from the SEQ. *Gender* is included as a binary variable.

The measure of v*oluntary turnover* was drawn from the MQ, and is measured at the workplace level. The turnover rate is calculated by dividing the number of resignations in the last 12 months by the total number of employees at the end of the period (George and Bettenhausen, 1990; Sen Gupta, 2005). *Sector of employment* was included as a binary variable.

Analysis

To determine if the data followed the proposed factor structure or not, a factor analysis was performed on individual level data on work environment perceptions in Mplus. Fit indices for a four factor solution implied an adequate fit to the data (CFI > 0.95, TLI > 0.90, and RMSEA < 0.08). The results revealed that all four components show strong loadings (0.4 and above), all the items loaded substantially onto their respective factors, and did not load substantially onto the other factors. The results of this analysis support the proposition that the given thirty indicators of workplace environment characteristics can be grouped into four constructs namely: *work demands*, *autonomy*, *managerial support* and *availability of family support*. However, the patterns for subscales in *managerial support* and *the availability of family support* did not emerge. In addition, Confirmatory Factor Analysis was conducted to determine the validity of the hypothesized four factor model. Furthermore, SEM was used to test the hypothesized relationships between individuals' perceptions of their work environment and wellbeing at the individual level.

Next, three statistical techniques were used to determine whether individual level responses can be aggregated to represent workplace level responses – the non-independence (F-test), acceptable group mean reliability (ICC1 ≥ 0.12 and ICC2 ≥ 0.6), and sufficient within-group agreement ($r_{wg(j)}$ ≥ 0.7) (e.g. Bliese, 2000; Castro, 2002; Griffith, 2003; James et al, 1984; Ostroff, 1993;). The results of these tests support that individual employee responses for *work demands* (F=2.507, p<0.01; ICC1=0.11, ICC2=0.61; r_{wg}=0.74), *autonomy* (F=2.457, p<0.01; ICC1=0.12, ICC2=0.60; r_{wg}=0.61),

managerial support (F=3.914, p<0.01; ICC1=0.23, ICC2=0.75; r_{wg}=0.94), *availability of family support* (F=3.252, p<0.01; ICC1=0.36, ICC2=0.69; r_{wg}=0.75), *job satisfaction* (F=2.890, p<0.01; ICC1=0.13, ICC2=0.65; r_{wg}=0.89), *organizational commitment* (F=3.266, p<0.01; ICC1=0.16, ICC2=0.69; r_{wg}=0.79), and *job related anxiety* (F=1.933, p<0.01; ICC1=0.11, ICC2=0.50; r_{wg}=0.75) can be aggregated to the workplace level. Subsequently, data were aggregated to workplace level to represent statistically reliable workplace characteristics. Finally, structural equation path models were created to investigate the hypothesized direct and indirect relationships between work environment perceptions, wellbeing, and turnover at the workplace level.

Results

Many of the findings at the workplace level are similar to those observed at the individual level. *Work environment characteristics* are positively and significantly associated with *job satisfaction* and *organizational commitment* in both the public and private sectors. Family support was positively related to wellbeing, but was only significant for organizational commitment in the private sector. This lack of significance could well reflect the limited range of the variables in question, particularly that proxying family support.

   Excessive work demands are positively associated with *anxiety,* while *managerial support* has a negative association with *anxiety* in both the public and private sectors. The magnitude of the relationship between *excessive work demands* and *anxiety* is larger in the private sector. It is also found that the path from *excessive work demands* to *job satisfaction* is mediated by *anxiety* in both the public and private sectors, and the magnitude is larger in private sector workplaces. This finding is particularly relevant as private sector workplaces are known to have a longer working-hour culture due to performance pressures (Bond et al, 2002).

   There was a significant negative relationship between job satisfaction and turnover for both public and private sector workplaces, and the relationship is stronger in the public sector. The relationship between organizational commitment and turnover was not significant in either the public or private sector.

   Employees' shared experiences of their work environments have the expected (negative) indirect impact on turnover, and since none of the specified direct paths from work environment perceptions to turnover are significant, the conclusion is that work environment perceptions have simply an indirect impact on turnover through job satisfaction in both sectors. This finding strengthens the argument developed in study 1

that work environment perceptions overwhelmingly affect turnover indirectly through their effect on wellbeing.

Conclusions, Limitations and Implications

This study's findings contribute to the literatures on wellbeing and turnover in several ways. First, although the implications of work environments for wellbeing have been explicit in the literature, this has not been empirically tested in a systematic manner.

The present study extends previous research by showing both the direct and indirect relationships between work environment perceptions and turnover. At the workplace level, several relationships are fully mediated by job satisfaction. Specifically, job satisfaction fully mediates the relationship between managerial support and turnover, and autonomy and turnover in both sectors. Thus job satisfaction serves as an important link between work environment perceptions and turnover. The study finds clear differences in these relationships between the sectors, with the work demands/satisfaction relationship being stronger in the private sector, and that for satisfaction and turnover stronger in the public sector.

Moreover, this study is the first empirical study to investigate the impact of the availability of family support in organizations on wellbeing and turnover by developing and testing an individual and workplace model using SEM. The results show that the availability of family support along with work demands, autonomy and managerial support were found to be significantly related to wellbeing at both the individual and, albeit to a lesser extent, workplace levels. The relationship between the availability of family support and both wellbeing and turnover is stronger for women.

For organizational policy, the study implies that increased autonomy, managerial support and family support are important for improving employee wellbeing. These findings highlight the importance of developing organizational interventions, including redesigning jobs, that enhance an employee's ability to control important aspects of their work and working-life. Future research should focus on determining which interventions are most likely to increase such control.

The study offers further grounds for encouraging policy makers and managers to put the availability of family support high on their agendas. Evidence suggests that British workplaces appear to be responding slowly to enhance family-friendly work practices (Budd and Mumford, 2005). The findings of this study strengthen the existing arguments that the unavailability of family support in workplaces limits effective employee participation in the family role, thereby adversely affecting their wellbeing.

Though excessive work demands showed a positive direct impact on job satisfaction and organizational commitment, the results do not imply that management should increase work intensity for employees. The indirect negative effects of excessive work demands on both job satisfaction and organizational commitment through anxiety are much stronger than the direct effects. Thus, policy makers might work with managers and employees to think of ways of benefiting from the challenging work without adversely affecting wellbeing.

One of the key strengths of this study was that the data were collected from a nationally-representative sample, thus allowing more confidence in the generalizability of the findings. Nevertheless, as data were collected at one point in time, we cannot infer causality. In future, longitudinal research that follows the immediate and long-term effects of organizational interventions on the ability of employees to integrate work and family would be a major contribution to the field.

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**How New Product Development Influences Product Safety:
An Empirical Study on Product Safety Strategy, Product Safety Culture,
Concurrent Engineering, NPD Process, and Product Safety Performance in
the Juvenile Product Industry**

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Abstract

*Academic research on NPD has produced little empirical evidence on its implications with
product safety. To fill this gap, a conceptual model - Product Innovation and Product Safety
Model was developed and tested with data collected from 255 respondents and 40 interviews with
managers in the juvenile product industry. The findings reveal that product safety strategy,
product safety culture and NPD process are three cornerstones of product safety. However,
concurrent engineering has no significant effect on product safety. This research supplements the
NPD literature by integrating product safety into NPD and provides actionable insights to
academics, managers and regulators.*

*Key words: NPD, Product Safety Strategy, Product Safety Culture, Concurrent Engineering, NPD
Process, Product Safety Performance, Juvenile Product Industry.*

1. INTRODUCTION

There is a big concern on the declining of product safety in recent years. Hundreds of millions of consumer products are recalled from the market every year due to safety reasons in the United States and Europe. Amongst all products recalled, juvenile goods such as toys, children's articles and equipment account for 40-50% (KID, 2010; EC, 2008, 2011). Not only did the recalls tarnish the reputations of the manufacturers and product brands, they also incurred huge financial losses or led to bankruptcies. White and Pomponi (2003) estimated the cost to manufacturers for every recall at about $8 million, and total recall cost at about $6 billion per year in United States consumer products industry. According to evidence-based research on consumer product recalls, around 70% of product recalls can be traced to shortcomings in product development (White and Pomponi, 2003; Beamish and Bapuji, 2008). These evidences indicate that product development is largely responsible for the unsafe products in the market.

Usually, the responsibility of managing product safety resides in the quality function. A review of the quality definitions reveals that product safety is not explicitly mentioned in all definitions. The most widely used definition for product quality is Garvin's eight dimensions of quality (Garvin, 1987). They are namely performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality. Again, product safety is not explicitly mentioned. Product safety as an independent variable is overlooked in the quality management literature.

In the NPD management literature, little empirical research has focused on product safety. Much has been written on NPD practices and a high quality NPD process has been identified as a key success factor for NPD (Cooper et al., 2004; Cooper and Kleinschmidt, 2007; Griffin, 1997; Montoya-Weiss and Calantone, 1994; Song and Parry, 1996). In the research examining the causal relationship between NPD process and product quality performance, most studies reported a positive relationship between NPD process and product quality (Calantone and Benedetto, 1988; Millson and Wilemon, 2008; Song and Parry, 1997). However, product safety was not included as an independent variable, and product safety management practices and tools were not integrated in these studies.

Concurrent engineering is another well recognized best practice of NPD that has been linked with shortened time to market, reduced cost and improved quality. Many researchers and safety

practitioners suggest that safety professionals should be involved in the design at the earliest possible stage and recommend using concurrent engineering as a mechanism to ensure product safety (Dowlatshahi, 2001; Hodges et al., 1996; Rausand and Utne, 2008; Wang and Ruxton, 1997). In the empirical studies evaluating the causal relationship between concurrent engineering and product quality, inconsistent results have been reported. Some studies reported CE team has a direct effect on product quality (Boyle et al., 2006; Koufterous and Marcoulides, 2006; Koufterous et al., 2002; McDough III, 2000; Rusinko, 1997, 1999; Sethi, 2000; Takikonda and Montoya-Weiss, 2001). However, Clark and Fujimoto (1991) reported that CE used in incremental projects reduced product development cycle time but decreased product quality. Koufterous et al. (2001) did not find significant direct relationship between CE and quality in their research. Again, product safety was not included in the studies.

Traditionally, safety efforts have focused on the technical or engineering aspects of safety (Abbott and Tyler, 1997; Manuele, 2005; Main, 2004; Moller and Hansson, 2008; Wang, Ruxton, 1997). Much of this literature is anecdotal and prescriptive. Only a handful of studies investigated the relationship between product safety culture and product safety (Svenson, 1984; White and Pomponi, 2003; EU, 2008), and product safety culture was not well integrated into the investigation with technical aspects in the safety management literature.

In view of the importance of product safety, it is surprising so little attention has been paid to it in the academic studies. A thorough conceptual understanding of how NPD practices and policies affect product safety is still largely missing. The purpose of this study is to fill the gap in the literature by analyzing the relationships between product safety strategy, product safety culture, concurrent engineering, NPD process, and product safety performance.

2. CONCEPTUAL MODEL AND HYPOTHESIS DEVELOPMENT

The conceptual model for this research is developed based on literature review and the following theoretical models: National Quality Award Frameworks and Cooper-Kleinschmidt's Innovation Diamond.

In last two decades, the emergence of quality award models such as the Malcolm Baldrige National Quality Award framework and the European Foundation for Quality Management (EFQM) Excellence framework has brought a high and universal profile to quality management

practices (Sousa and Voss, 2001). The EFQM excellence model represents a well-recognized model of quality (Slack et al., 1995). The model is based on the premise that excellent results (customer, people, society and key results) are achieved through leadership driving policy and strategy that is delivered through people, partnerships and resources, and processes (EFQM, 2009). In the EFQM model, leadership is described as the driver for improving people management, policy and strategy, and resources; which in turn enhances process management. Besides, process management is the only immediate factor leading to operational performance.

Cooper-Kleinschmidt's Innovation Diamond is a framework derived from a major study into new product performance and key success factors that lead to exceptional performance by Cooper and Kleinschmidt in 1990s. It consists of four driving factors or themes for NPD performance (Cooper and Kleinschmidt, 2007), namely, 1) Product innovation and technology strategy for business; 2) Resources commitment; 3) Idea-to-launch system; 4) People: climate, culture, teams and leadership People. Although the authors did evaluate the causal effect relationship among the factors, it provides good theoretical guide to build the conceptual model in this research.

Product Innovation and Product Safety Model. The EFQM framework and Innovation Diamond reviewed above provide a good theoretical ground for the implications of product safety strategy, product safety culture, concurrent engineering, NPD process, and product safety performance. Based on the literature review and the theoretical models, a conceptual framework is developed to guide this study (see Figure 1). The model consists of five constructs: 1) Product Safety Strategy (PSS), 2) Product Safety Culture in NPD (PSC), 3) Concurrent Engineering (CE), 4) NPD Process (NPP), and 5) Product Safety Performance (PSP). The model proposes that a company's product safety strategy will drive its product safety culture in NPD, the use of concurrent engineering and NPD process; product safety culture will influence the application of concurrent engineering and NPD process; concurrent engineering will affect the execution of NPD process and product safety performance; and NPD process will have a direct effect on product safety performance. Based on the literature review and conceptual model, 8 main hypotheses and 4 contextual related hypotheses were developed and tested, see Table 1.

Figure 1: Product Innovation and Product Safety Model
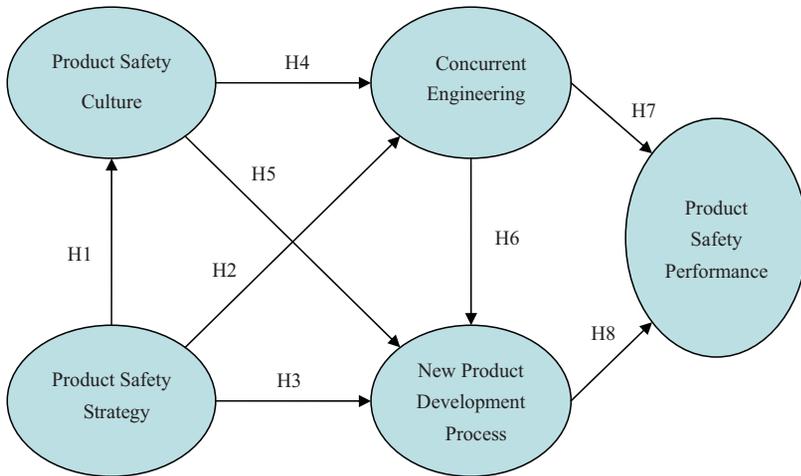
Table 1: Summary of Hypotheses and Results of Hypothesis Testing

No.	Hypothesis	Findings
H1	Product Safety Strategy has a positive effect on the group level Product Safety Culture in NPD.	Supported
H2	*Product Safety Strategy has a positive effect on Concurrent Engineering.*	*Not Supported*
H3	Product Safety Strategy has a positive effect on the NPD Process.	Supported
H4	Group level Product Safety Culture in NPD has a positive effect on Concurrent Engineering	Supported
H5	Group level Product Safety Culture in NPD has a positive effect on NPD Process.	Supported
H6	*Concurrent Engineering has a positive effect on NPD Process.*	*Not Supported*
H7	*Concurrent Engineering has a positive effect on Product Safety Performance.*	*Not Supported*
H8	NPD Process has a positive effect on Product Safety Performance.	Supported
H9	*Manager's perceptions of actual model constructs (PSS, PSC, CE, and NPP) are influenced by organizational contextual factors (firm size, firm origin, target market, R&D intensity).*	*Partially Supported*
H9a	Manager's perceptions of actual model constructs are not affected by firm size.	Supported
H9b	Manager's perceptions of actual model constructs are not affected by firm origin.	Supported
H9c	*Manager's perceptions of actual model constructs are not affected by firm's target market.*	*Not Supported*
H9d	*Manager's perceptions of actual model constructs are not affected by*	*Not*

	firm's R&D intensity.	Supported
H10	Manager's perceptions of ideal model constructs (PSS, PSC, CE, and NPP) are not affected by organizational contextual factors (firm size, firm origin, target marketing, and R&D intensity).	Supported
H10a	Manager's perceptions of ideal model constructs are not affected by firm size.	Supported
H10b	Manager's perceptions of ideal model constructs are not affected by origin of firm.	Supported
H10c	Manager's perceptions of ideal model constructs are not affected by target market.	Supported
H10d	Manager's perceptions of ideal model constructs are not affected by R&D intensity.	Supported
H11	*Firm's R&D intensity will moderate the relationships posited in figure 2, thereby suggesting that the relationships of those firms that have high R&D intensity will be different from those that have low R&D intensity.*	*Not Supported*
H12	The relationship posited in figure 2 will not be moderated by the two administrations of the survey.	Supported

3. RESEARCH METHODOLOGY

As the study is both exploratory and confirmatory in nature, large-scale survey and in-depth interview are deemed as the most appropriate research methodology. The survey data can be applied to evaluate the relationships among the five constructs with SEM. On the other hand, the qualitative findings from in-depth interview, document reviews and observational studies can be used to explain the quantitative results and facilitate triangulation analysis between the quantitative and qualitative results.

3.1 Data Collection

Data were collected with the help of China Toy and Juvenile Products Association (TJPA) and industrialists. The main survey was conducted during two industry-wide conferences organized by TJPA in Beijing and Hangzhou in 2008. The participants for both events were senior managers of quality or product development management. On the other hand, the questionnaires were sent to juvenile product manufacturers worldwide with the help of industrialists who know these firms. On a whole, there were 255 usable responses from 126 firms in the two surveys. Among these firms, 36 were fully owned foreign companies from USA, Europe, Japan, Australia, and New Zealand. 90 firms were either local Chinese companies or joint ventures. The sales revenue for the sample ranged from $0.5 million to $5.9 billion. The total number of employees and NPD

engineers in these companies ranged from 90 to 16,000 and 4 to 350 respectively. All the 126 companies that participated in the survey have product development function. The total sales revenue for these companies in 2008 was around $11 billion, which accounted for about 43.3% of the total revenue of this industry (TJPA website: http://www.toy-cta.org/info/shownewsopen.asp, accessed on Nov 30, 2008).

In-depth interviews with 40 senior managers from 33 firms were conducted by the researcher worldwide between July 2009 to June 2010 to further understand how product safety is managed in these firms. Each interview takes 1 to 1.5 hours and most are tape recorded. Amongst the 40 interviewees, two groups were formed based on the firms' actual performance in the market rated by four industry experts. The criteria used to evaluate the firms' actual performance included each firm's reputation in the industry and its recall history in the market. 19 interviewees from 15 firms that displayed the best performance formed "best performers" group. The remaining 21 interviewees from 18 firms formed "the rest" group. 57% of the interviewees were nationals from mainland China. The remaining 43% of interviewees were from Europe, USA, Australia, Japan, Hong Kong and Taiwan. As for origins of firms, 37% were from Mainland China, 20% from USA, 18% from Europe and 23% from Japan, Australia, Hong Kong and Taiwan. In some cases, the author also had the opportunity to participate in the new product development process as a senior management representative and to access to documents (e.g. standard operating procedures, records) related to NPD, product safety, quality, and customer satisfaction. Triangulation analysis was conducted with different data sources from quantitative results, interview, observation, and document review to validate and countercheck the findings.

3.2 Survey Instrument

The survey instrument used in this study was developed through extensive review of the literature and feedback from practitioners, primarily from published questions. It contains 114 questions and 10 sections. This instrument covers all critical dimensions of product safety management system. I only use data related to the five constructs in the conceptual model for this study. For evaluative measures, respondents were asked to rate the company's current situation (actual) and ideal situation ("should be" in terms of its importance to product safety) using a five-point Likert scale. This structure of the instrument is similar to what Benson et al. (1991) used in their survey

instrument design to investigate the relationship between actual and ideal quality management and organizational contextual factors. An example of the survey question is as follows:

Practices	Current Situation	Should Be (Ideal)
The degree to which top management supports product safety	1 2 3 4 5	1 2 3 4 5
(1= Very Low, 2= Low, 3= Moderate, 4= High, 5= Very High).		

To avoid common method bias, the dependent variables were measured with a different scale. Respondents were required to rate the product safety performance between 1 and 10 (where 1 = strongly dissatisfied, 6 = acceptable, 10 = strongly satisfied) at outgoing product audit (internal product safety performance) and customer end (external product safety performance). A pilot survey was done in June 2008 at 22 juvenile product firms in Jiangsu province, China. Based on the pilot data, some items were removed from the initial survey.

4. HYPOTHESIS TESTING AND RESULTS

Two-step approach to formulate and test the model is applied (Hair et al., 2010) to test hypothesis H1 through H8 (at significance level of 0.05). This means that the measurement model is tested prior to the testing of the structural model (see Figure 2, and Appendix A & B). Principal components exploratory factor analysis with Varimax rotation and confirmatory factory analysis with structural equation modeling were performed by means of SPSS 18 and AMOS 18 software respectively. MANOVA (Multivariate Analysis of Variance) was performed to evaluate hypothesis 9 and 10 whereas multi-group analysis was conducted to test hypothesis 11 and 12. The multi-group analysis procedure applied here reflects the method used by Hair et al. (2010) and Koufteros et al. (2006).

A summary of hypothesis testing is presented in table 1. In terms of qualitative findings, 34 best practices and seven major issues facing the manufacturers were identified. Nvivo 8 software was used to assist data analysis for in-depth interview. The key differences between "best performers" and "the rest" are summarized in table 2.

Figure 2: Product Innovation and Product Safety Model
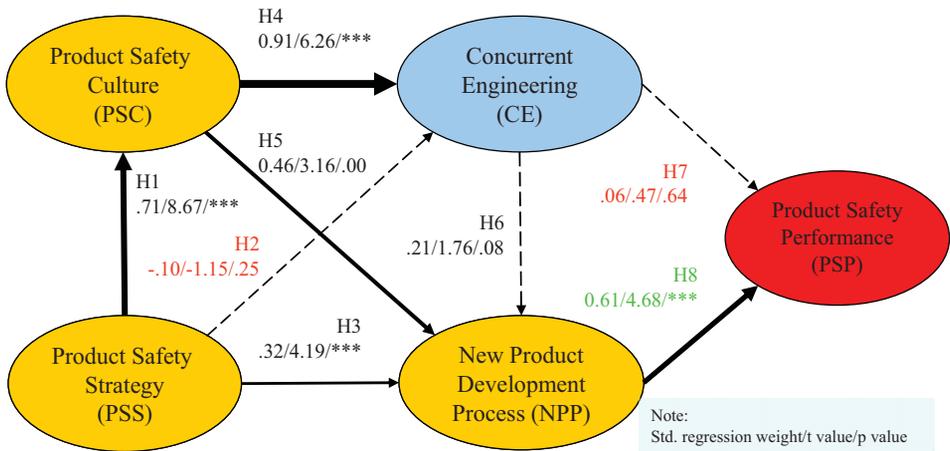
Note: a) the line size represents the strength of the relationship; the dotted line indicates the relationship is not significant at 0.05 level. b) Model fit indices: CMIN/DF = 1.96, CFI = .92, IFI = .92, TLI = .90, RMSEA = 0.06. R square values: Product Safety Culture (0.51), Concurrent Engineering (0.71), New product Process (0.81), Product Safety Performance (0.43).

Table 2: Summary of Key Differences between "Best Performers" and "The Rest"

	Best performers	The rest
PS strategy	- Strong management commitment to PS. - PS is No. 1 priority in tradeoff between PS, cost and schedule. - PS as a core competency. - More resources dedicated to PS.	- Committed to PS but not as strong as that of best performers. - PS may or may not be No.1 priority. - Inadequate resources dedicated to PS.
PS Culture	- Product safety first culture companywide.	- Inconsistent understanding on importance of safety in different departments.
CE	- Most firms use CE.	- Most firms use CE.
NPD Process	- Quality requirements are more stringent than regulatory requirements. - Hazard analysis and product safety review are more robust. - Use more safety management tools such as FMEA. - More thorough and complete evaluation and testing. - Strong quality or product safety teams who have the power to kill the project.	- Most firms just meet regulatory requirements. - Not strong on hazard analysis. - Most don't use safety management tools such as FMEA. - Product testing only according to regulatory requirements. - Quality or product safety team not very strong. - Most firms not involved in establishing regulatory standards. - Not enough PS training.

	- Participating in establishing regulatory standards.
	- Better PS training.

5. CONCLUSIONS AND IMPLICATIONS

Based on the triangulation analysis between the quantitative and qualitative findings, the following conclusions are presented.

First, this research provides a good understanding on the relationships among the five constructs. Unsurprisingly, top management is the main driver of product safety and dominates product safety strategy, which will in turn influence a firm's product safety culture in NPD and NPD process practices that the firm adopts. The product safety culture influences concurrent engineering and NPD process whereas NPD process determines product safety performance. Both product safety strategy and product safety culture have strong indirect effects on product safety. Product safety strategy doesn't affect concurrent engineering and concurrent engineering has no effect on NPD process and product safety performance. Overall, looking at the total effects on product safety, NPD process has more pronounced direct impact on product safety than other factors; concurrent engineering has less impact on product safety than all other variables; although there is no direct effect between product safety strategy, product safety culture and product safety performance, their strong indirect effects cannot be overlooked. In summary, product safety strategy, product safety culture and NPD process are three cornerstones of product safety; Concurrent engineering has no significant relationship with product safety.

The conclusion is consistent with White and Pomponi's (2003) finding that firms with a safety oriented strategy have achieved better product safety performance. It's also in line with the literature that product safety culture will impact product safety performance (Svenson, 1984; White and Pomponi, 2003; European Commission, 2008). On the other hand, the conclusion also supplements the findings from numerous studies that a robust NPD process is a key success factor for NPD (Calantone and Benedetto, 1988; Calantone, Schmidt, and Song, 1996; Cooper et al., 2004; Cooper and Kleinschmidt, 2007; Griffin, 1997; Millson and Wilemon, 2008; Montoya-Weiss and Calantone, 1994; Song and Parry, 1996, 1997).

Contrary to what was predicted, SEM analysis reveals that product safety strategy doesn't affect concurrent engineering and concurrent engineering has no significant effect on NPD

process and product safety performance. We think there are four major reasons for this finding: 1) The conclusion that CE is linked with shortened time to market has been agreed unanimously in the literature. As time to market and product safety are often competing goals, this might help to explain why CE has no effect on product safety; 2) Juvenile products are not very complicated and most of the hazards related to the products have already been captured in the regulatory standards. Safety issues can still be detected during testing before production launch even if product safety engineers are not involved at early stage in the NPD; 3) As CE has been widely used in most firms, it is no longer a differentiator between the best performers and the rest. 4) As some of the interviewees mentioned during the interviews, even if different functions participate in the NPD at the early stages, each function still focuses on its own areas in reality. Hence, it will not have significant impact on product safety. This finding echoes the research results of Clark and Fujimoto (1991) and Koufterous et al. (2001).

Second, the qualitative analysis shows that governments and consumers also play important roles to ensure product safety in this ultra-competitive environment. Although most of the best performers claimed they have more stringent requirements than the regulatory requirements, the goal to improve overall product safety performance in the market remains illusive in the absence of government intervention and consumers' focus on product safety.

Third, manager's perceptions on the five ideal constructs are not influenced by contextual factors. However, their perceptions on the five actual constructs are affected by target market and R&D intensity, but not affected by firm origin and firm size.

Finally, this study reveals a big gap between safety community approach and industry practices to manage product safety. Although the same basic fundamental principles for safety management might apply to all industries, the adaptation and its effectiveness for each industry may be different.

Academic Contributions

Academically, this study has improved our understanding of the impact of NPD on product safety and introduced a solid research framework. Specifically, it contributes to the literature in following ways.

First, this research has introduced a solid research framework for product safety management in NPD which integrates organizational context, NPD practices, and safety management methodologies. The survey instrument and Product Innovation-Product Safety Model can be used as a foundation for further study of product safety in NPD in different industry and different countries.

Second, the extant literature on NPD management did not address how product safety is best achieved as a result of optimized NPD policies and practices. It also did not include product safety management tools in the NPD research. This research supplements the previous NPD management studies by integrating product safety as a dependent variable and incorporating product safety management practices into the NPD process. The Product Innovation and Product Safety Model represents one of the first reported attempts to empirically investigate the implications between the five constructs in a most rigorous fact-based fashion.

Third, the previous product safety literature mainly focuses on the technical aspects and principals of safety management. Majority of the studies are conceptual, prescriptive and anecdotal. Solely focusing on the technical aspect to address product safety issue may not be effective at all as the key factors that drive product safety under the "big picture" might be overlooked. By incorporating product safety in the broad context of organizations and integrating the strategy and culture with the safety management techniques and NPD practices, this research has gained a systematic and holistic view on product safety and provided empirical evidence to support the prescriptions in the safety literature.

Fourth, previous literature on product quality largely overlooked the significance of product safety as an independent dimension, even the most widely-used product quality definition from Garvin (1987) failed to address product safety explicitly. This research provides new insights on this crucial but poorly understood dimension for product quality - product safety.

Fifth, this research advances scientific thinking and understanding of product innovation. Product innovation has always been a very important activity in the industry. However, if product safety is not well considered in the process of product innovation, failure will be unavoidable. By looking into the factors that affect product safety in the innovation process, this research sheds new light on a holistic view of product innovation.

Finally, this study has applied a full span of methodologies possible for academic research to develop and test theories. It shows a good example to build and test theories combining robust methodologies such as structural equation modeling, confirmatory factor analysis, multi-group analysis, in-depth interview, observation study, and triangulation analysis.

Managerial Implications

Managerially, the results of this research provide good implications to various stakeholders. First, manufacturers should focus on the three cornerstones of product safety: establishing a safety-oriented strategy, building a product safety first culture, and implementing a robust NPD process integrated with safety management methodologies. Manufacturers can start by systematically adopting the 34 best practices identified in this study and following the seven steps to improve product safety proposed in this research. On the other hand, managers should pay more attention to the seven issues identified in the in-depth interview and ensure these issues are addressed.

On the other hand, self-regulation doesn't work in today's ultra-competitive business environment. Regulators and policy makers in different countries should consider to make product safety standards mandatory as much as possible and work together to create harmonized state-of-art product safety standards worldwide. Governments should also dedicate more resources on the surveillance of product safety in the market and establish systems to collect product injury data and maintain an integrated database with recalls of unsafe products and relevant injury information which is open to public.

Limitations and Future Research

Due to the nature of the study, several limitations should be considered in interpreting the results of this research. First, cautions need to be taken on the cause-effect relationships reported in the model. A longitudinal study in future will provide better confirmation of the relationships. Second, the data collected are based on self-reported questionnaire from the managers' perceptions. Thus, individual biasness might exist. Finally, this study mainly focuses on the juvenile product industry. The results may not be used to explain the dynamics in other industries.

Further empirical work is needed to replicate and retest the model with new dataset in other industries. Future research can also explore how other dimensions (e.g. complexity of products, manufacturing practices, etc.) moderate the Product Innovation and Product Safety Model.

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Appendix A: Measurement Model

CMIN=570.32 DF=289 P=0.00 CMIN/DF=1.97 CFI=0.91 RMSEA=0.06
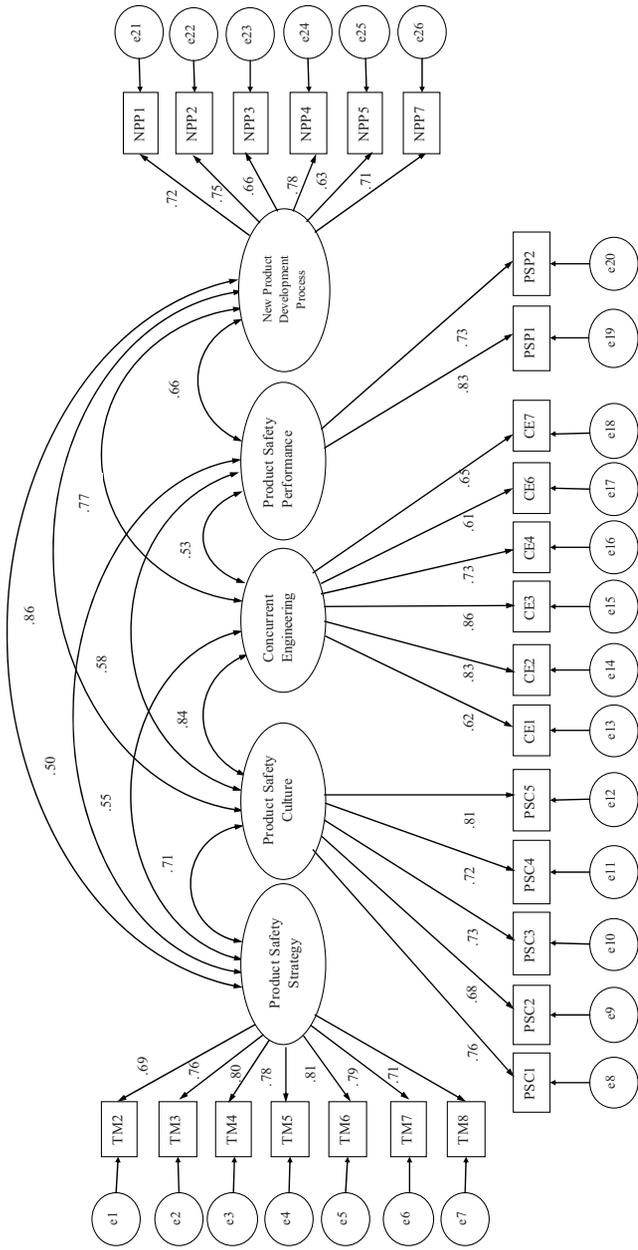
Appendix B: Structural Model

CMIN=570.33 DF=291 P=0.00 CMIN/DF=1.96 CFI=0.92 RMSEA=0.06

H5
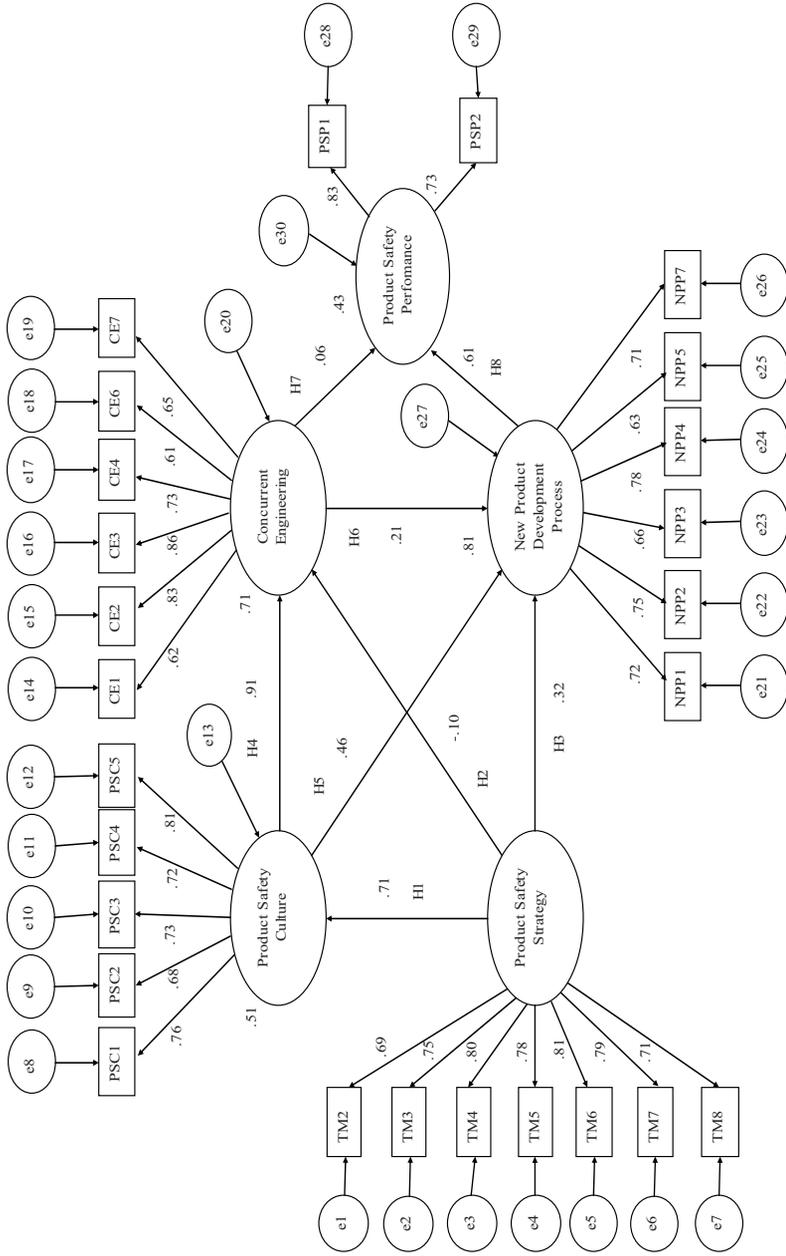
THIRD AWARD

Attraction: A New Driver of Learning and Innovation

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Abstract

Firms must continually innovate and explore new opportunities in order to sustain their long-term competitiveness. This study investigates how external actors provide firms with innovative ideas and solutions and analyzes firms as magnets to which ideas and resources from outside the firm are attracted. Employing a multiple case study design, the paper reveals that a firm's capacity to innovate and explore new opportunities is shaped by its ability to attract ideas and resources from the outside environment. Attraction is identified as a previously unrecognized dynamic capability that can help firms renew the basis of their competitive advantage.

"We want to become a powerful magnet, so that the needles in the haystack find us." --*Steve Jurvetson, Managing Director of California-based venture capital firm, Draper Fisher Jurvetson*

This statement from Steve Jurvetson points to an important but under-recognized response to a well-known challenge that many firms face. In order to be successful at innovation, firms must sometimes reach beyond their immediate (local) contexts and identify valuable ideas and resources that are distributed across diverse settings in their external environments, and the response Jurvetson suggests is to work to ***attract*** ideas and resources from outside the firm. It has long been recognized that firms engage in various types of search activities aimed at identifying new opportunities, ideas, and solutions (Cyert & March 1963, Stuart & Podolny 1996, Greve 2003). While acknowledging the validity of these previous search-based contributions, this thesis advances the proposition that the solution to the challenge of *exploration in learning* (March 1991) and of identifying *non-local ideas and resources* (Rosenkopf & Nerkar 2001) is not necessarily to intensify the firm's own search efforts, but to ensure that the firm is *attractive* to external actors and thereby that the appropriate ideas, opportunities, and resources find the firm, rather than vice versa.

This notion of *attraction* and the idea of conceptualizing firms as *magnets* to which external ideas and resources are attracted constitute the conceptual starting points for this thesis. Despite that attraction, which is defined as the process in which external actors *self-select* to present their ideas to a focal firm, is a mechanism that has the potential to contribute to innovation and exploration in learning, and has been leveraged by firms such as P&G (Huston & Sakkab 2006), it has to date received only limited attention in this context. This thesis addresses this gap and aims to explore and explain attraction as an empirical phenomenon, as well as outlining how attracting externally developed ideas, concepts, and technologies influences firms' potential for learning (March 1991, Levinthal & March 1993), innovation (Ahuja & Lampert 2001, Danneels 2002), and ultimately, their prospects of renewing the basis of their competitive advantage (Burgelman 1991, Teece 2007).

Methodology

In response to the lack of prior work on attraction as a concept and empirical phenomenon, the study employs an inductive approach and proceeds in step-wise manner by combining a pilot study based on case studies of four American and Japanese companies (Apple, P&G, Draper Fisher Jurvetson, and Yamaha) and a subsequent main study consisting of in-depth case studies of automotive safety system producer Autoliv, milking equipment manufacturer DeLaval, and

telecom equipment manufacturer Ericsson, which was based on 40 first-hand interviews with managers of the three case companies and 30 interviews with external innovators from the environment around the case companies (See Table 1). This dual focus reflected that the fact that was not sufficient to study the three case companies in isolation, since the attraction that they exert rests ultimately in the eyes of the beholder, i.e., the potential providers of ideas and technologies. Hence, the three case companies constituted the *focal points of the study* in the sense that it was focused on the inflow of product ideas and technologies that they attracted from the external environment and the interaction that they had with the providers of the external ideas and technologies.

Insert Table 1 about here

The choice of a case study method based on interviews was dictated by the need for *close access* to managers, since first-hand information gleaned from the people directly involved in attraction processes would enable accurate descriptions and an understanding for how attracting externally developed ideas and technologies contributes to shaping different sets of opportunities and solutions for firms. In order to provide as complete a description of the phenomenon as possible, the case studies were conducted at three levels: (i) the industry level, (ii) the firm level, and (iii) the micro-level of the individual attraction process. The logic behind this embedded design, which is advocated by Pettigrew (1992) is as follows. First, the industry-level analysis provides an understanding for the outer context, in terms of the economic and competitive environment in which the firms are located and hence in which the attraction processes take place. Second, the firm-level analysis was used to create a general understanding for the inner contexts of the case companies in terms of how innovation and strategy development are conducted, and a specific understanding for how these processes are influenced by the attraction of external ideas and technologies. Third, the micro-level study of individual attraction processes was intended to provide detailed information about the processes through which external impulses influence the case companies. The micro-level study was conducted by selecting an innovation process in each case company where an externally developed idea or invention had been instrumental in developing a new product or service. These innovation processes were studied in-depth through interviews with both the external actor which had approached the case company with the idea and the managers in the case companies which had been involved in the evaluation of the impulse and the further development of it. Throughout the process, the respondents were given the opportunity to review the case descriptions, which allowed them to identify factual errors

and clarify other aspects. In accordance with the advice of Eisenhardt (1989), the data analysis was conducted as a step-wise process, moving from within-case analysis via cross-case analysis to discussion and conclusions.

Findings

The effects of attraction

The case analyses reveal that the case companies attract continuous inflows of externally developed ideas and technologies as external innovators approach them to "pitch" their ideas and thereby interest them in different types of co-operations regarding the development of new products, technologies, and strategies. The external innovators are often smaller entrepreneurial companies in related industries, but may also be academic institutions that seek to commercialize their scientific findings or larger companies from other industries that see opportunities to leverage their existing technologies in a different industry. A number of such external ideas were ultimately developed into novel products within the case companies. A notable example of this is that the development by car safety company Autoliv of the world's first car seat with anti-whiplash protection was initiated by an external inventor who unsolicited approached Autoliv with a prototype for such a product along with a set of patents. Within the case companies, attraction is generally considered to be an important vitalizing force, as the external ideas and technologies that the companies attract are not shaped by the same limitations, in the form of existing technologies and ingrained ways of thinking, to which internally produced innovations are subject (see Table 1). An R&D manager at DeLaval argued that:

> "It frees up creative resources that have not yet become subject to the limitations and restrictions of the company's internal innovation system."

Attracting external ideas and inventions is particularly valued in these companies because it can strengthen innovation efforts in product areas and technological domains that are *not* covered by their internal core competencies. Whereas external impulses rarely help firms to improve their existing core products, they frequently contribute to *extending the scope* of the firms' product portfolios by informing them about ideas for *new types of products*. Likewise, the attraction of external impulses rarely contributes to deepening firms' knowledge in their core technologies; rather, it can broaden a firm's technological base by providing it with novel technologies that lie *outside of its own core technologies* (cf. Katila & Ahuja 2002).

In addition to the direct effects of attraction that accrue from external ideas or technologies that are adopted and developed into new products by the case companies, such as with the anti-

whiplash car seat, the case analyses show that all of the case companies benefit to some extent from attracting external impulses, even in those instances where the ideas are not adopted and transformed into commercial products. Specifically, the study suggests that attractive firms can benefit from by aggregating and synthesizing the information that is inherent in the attracted ideas even if none of the attracted ideas in itself is worth pursuing. A telecom entrepreneur noted that:

> "The large companies consolidate the picture and drive innovation on a larger scale. Because so many entrepreneurs come to pitch ideas, the companies get the opportunity to put together all the small puzzle pieces and see the bigger picture and how it all fits together."

In other words, attractive firms get an overview of its competitive environment that is not as readily available to less attractive firms, which in turn tends to place them in a favorable position to sense and identify changes in their industry, which ultimately can be translated into a heightened ability to discern and act on emerging opportunities and threats.

Determinants of attraction – "What makes a company attractive among external innovators?"
The findings further reveal that resources that are *valuable, unique, and fungible* in the sense that they: (i) can provide services that are of value to external actors, ii) cannot be easily replicated, and iii) can be redeployed beyond their existing uses, are shown to be associated with high attraction. Typical examples are DeLaval's worldwide distribution network and Autoliv's long-term relationships with the major car makers, without which it is difficult to get new products accepted in their respective industries. In addition, auxiliary factors such as *high visibility*, *high receptiveness to external impulses*, *high trustworthiness*, and *a high degree of openness and transparency* with respect to the firm's resources and future intentions are also shown to contribute to making companies attractive (see Table 2). Notably, the study shows that whereas some firms such as P&G and Draper Fisher Jurvetson, which were investigated in the pilot study, deliberately seek to strengthen their attraction, it may also emerge spontaneously as a *byproduct* of a firm's regular operations, its operational resources and capabilities, and its successes in the marketplace.

Analysis: Search vs. Attraction

In the thesis, a process whereby a firm actively looks for something is defined as a search process, whereas the process through which a firm becomes exposed to ideas and innovations as the result of an external actor approaching it is defined as an attraction process. The fundamental difference between attraction and search is that a firm's own search is based on its internal cognitions, capabilities, and routines, whereas the pool of ideas, technologies, and opportunities

that a firm attracts is based on external actors' cognitions, capabilities, technologies, and routines. An additional difference is that search is based on the focal firm's own *goals and objectives*, whereas attraction is based on the goals and objectives of external actors, which has the implication that search requires an element of motivation on the part of the focal firm, whereas attraction does not, in the sense that a firm may attract external impulses even when it is passive and has no motivation to search for new ideas or inventions. These differences imply that the pools of ideas and inventions that firms attract are not limited by the same factors that impose restrictions upon internally initiated search processes, in terms of rigid knowledge structures (Barr et al., 1992), path dependent technologies (Patel & Pavitt, 1997), and established routines and practices (Nelson & Winter, 1982; Miller, 1994). Instead, each idea or invention that a firm attracts is subject to the idiosyncratic biases and limitations of that particular impulse provider (cf. Jeppesen & Lakhani, 2010). This means that whereas search is associated with the identification of new opportunities from a relatively *homogenous vantage point inside the firm*, attraction, on the other hand, is associated with the recognition of opportunities from *multiple vantage points*. As such, the case analyses demonstrate that there tends to be greater diversity and variation in the pool of ideas, inventions, and opportunities that firms attract compared to those that they identify or create through their own search. This means that firms that are attractive to external innovators tend to get *access to a larger and more diverse pool of ideas and technologies to innovate around* compared to firms that have to rely only on their own search, which in turn, tends to put them in favorable position to engage in *broad exploration* of new opportunities. Further, this implies that attraction can contribute to alleviating some of the problems associated with so called *local search biases*, i.e. the excessive inclination of firms to look for new information and solutions in the proximity of their existing geographical, technological, and cognitive contexts (Cyert & March 1993, Nelson & Winter 1982, Stuart & Podolny 1996).

The differences between attraction and search are also reflected in the fact that they are subject to different weaknesses and limitations. Unlike, the risk for myopia and path dependency that characterizes a firm's own search, the main problem associated with the attraction-based input is a common *lack of relevance and compatibility*. Because the impulses that firms attract have emerged outside the focal firm, the actors behind the impulses may lack an understanding of the specific conditions under which the focal firm operates, and as such, the proposed impulse and the recipient firm are not compatible. As a consequence, the case findings demonstrate that attraction is a more unreliable and variable process than search, in the sense that the proportion of ideas and inventions that get implemented typically is lower than for the ideas and inventions

that result from the firm's own search processes, even though the external ideas often have greater potential because they contain a significant degree of novelty for the recipient firm.

Discussion and Contribution

These findings have implications for multiple streams of literature including research on: (i) organizational search, (ii) dynamic capabilities, and (iii) strategy creation.

Organizational search

Cyert & March's (1963) behavioral theory of organizational search has had a profound impact on subsequent search theories and the generally received understanding of organizational behavior. Based on its assumptions about the *local*, *problemistic* and *satisficing* nature of firms' search it is relatively restrictive and pessimistic with respect to its predictions about the likelihood that firms, especially previously successful firms, will identify new and more optimal solutions outside of their local contexts. However, the findings of the current study call these predictions into question and suggest that the underlying assumptions are not as restrictive as has previously been thought. Significantly, this study shows that even with the underlying assumptions of satisficing and biased (local) search kept intact, firms are more likely to be equipped to identify optimal solutions (more often) than extant theory would predict.

With respect to the prediction that firms stop searching once they have found a satisfactory solution and that they therefore overlook more optimal solutions that may be available, this study suggests that whereas the first part of the prediction is correct, the second part is not necessarily valid. This study shows that a firm can be exposed to more optimal solutions even if the company itself has no motivation to search for better alternatives if there are other actors that are motivated to engage in search and are attracted to the company. Theoretically, this means that the assumptions of satisficing and motivational search are not as restrictive as existing theory predicts because the motivation of a focal firm to engage in search typically is independent of the motivations that compel other actors around that firm to approach it with novel solutions.

With respect to the second prediction that firms often are limited to solutions drawn from their local contexts because of biases in their search processes, the findings of the study suggest that even if these search processes are as biased and local as the theory states, firms are typically not as restricted as has been previously assumed, because they can, if they are sufficiently attractive among external innovators, benefit not only from their own search but also from the search of other actors. Specifically, the study shows that the search processes of different actors are biased in different ways, and further, that they tend to be asymmetrical in the sense that if two actors

may be able to benefit from combining their resources, the actors are typically not equally likely to identify the combinatorial opportunity. This means that firms, thanks to other actors' search, often are exposed to solutions that they would not have identified through their own search.

In sum, this discussion shows that taking attraction and other actors' search into account moderates some of the predictions of Cyert & March's (1963) theory of organizational search by making them less restrictive with respect to firms' potential for innovation and the identification of more optimal solutions. Specifically, this study shows that firms, thanks to the attraction that they exert and other actors' search, can become exposed to new and better solutions even when they have already found satisfactory solutions, and further, that firms are not limited to the solutions that lie within the scope of their own (local) search.

Dynamic capabilities

Recently research focused on exploration and strategic renewal has revolved around dynamic capabilities (Helfat et al. 2007, Eisenhardt and Martin 2000, Winter, 2003). While dynamic capabilities may comprise a significant source of exploration the findings of this study suggest that initiatives by external actors who seek to commercialize their ideas and inventions in cooperation with the firm may be of equal or more importance. The implication of this shift in perspective is that a firm, in order to sustain and renew its competitive advantage, is dependent not only upon its internal dynamic capabilities, but also upon how it is perceived by external innovators in its environment in terms of being a preferred partners by offering an attractive route to the commercialization of new ideas within the industry. This implies that even if a firm that has invested heavily in developing dynamic capabilities it runs the risk of failing if the external community of innovators loses faith in its ability to manage upcoming changes and to dominate the market in the future, since external innovators will then tend to place their bets elsewhere, and the firm will no longer be exposed to valuable new ideas and inventions that emerge outside of the firm.

In addition, the ability to deliberately strengthen a firm's attractiveness among external innovators and thereby stimulate the inflow external ideas and inventions can be understood as a previously unrecognized dynamic capability. Among the case companies P&G, Draper Fisher Jurvetson, and Ericsson Multimedia, exhibited systematic activities aimed at attracting external ideas and inventions and intended to contribute to renewing the firms' product portfolios and upgrading their underlying resources and capabilities. These activities include increasing the firms' visibility among external innovators and revealing aspects of their resources, innovation projects and future strategic intentions. The purposeful and patterned nature of the activities, along with the dynamic intent of the activities, suggest that the capacity to stimulate the inflow

of externally developed ideas and inventions by strengthening the attraction that the firm exerts on external innovators qualifies as a previously overlooked dynamic capability.

Strategy creation and renewal

The findings show that attracting externally developed ideas and inventions not only stimulates product-level innovation within the frames of the recipient firm's existing corporate strategy, but also at times can trigger *changes in firms' corporate strategies* by stimulating the development of completely new product areas. This suggests that the findings of this study may have certain implications for the literature about strategic renewal and the creation of new strategies in established firms (Burgelman 1983, 1991, Regnér 2003). With respect to strategy creation in established firms, one influential theory holds that the motor of strategic change is the ecology of strategic initiatives that emerge within firms as the result of opportunities that are identified by managers at multiple levels (Burgelman 1983, Lovas & Ghoshal 2000). The current study suggests an extension to this theory that is illustrated graphically in Figure 1. The study shows that in addition to the internal ecology of strategic initiatives that emerge within firms based on opportunities that *internal* managers identify, there is an external ecology of strategic initiatives based on opportunities that are identified by external actors, but which are directed at the focal firm. In other words, while previous research shows that a multitude of internal actors are involved in the strategy creation process in large firms the current study extends this line of research by showing that strategic initiatives arise not only within firms, but also in the environment around them (Regnér 2003, Mantere 2005). This challenges the long-held assumption that a firm's potential for growth and strategic change is limited by the opportunities that internal managers can identify (Penrose 1959), as the study shows that firms are not limited to the opportunities that can be identified by personnel within the organization, since firms frequently "get help" from external actors who have identified opportunities that involve the focal firm.

Insert Figure 1 about here

Concluding remarks and managerial implications

What is it that makes a firm skilled at innovating and exploring new opportunities, and ultimately successful at renewing the basis of its competitive advantage? The current study offers an answer to this question that diverges from the explanations that have been advanced in the extant literature. This study finds that a firm's capacity to learn, innovate and identify new opportunities is determined not only by its own internal capabilities with respect to innovation

and opportunity recognition, but also by how the firm is perceived by external actors in its environment, as this determines what new product ideas and technologies it attracts from the external environment. The study shows that the impulses that firms attract from the outside constitute an important source of raw material around which they innovate and from where they select their future products, technologies, and strategies. As such, this study offers a novel perspective as it redirects the locus of explanation from the focal firm's internal capabilities to the perceptions, opportunity recognition, and capabilities of external innovators in the environment around the focal firm.

In addition to the theoretical implication of this shift in perspective, the findings of this study also carry a set of managerial implications. Based on the findings and arguments laid out in the previous sections, it is recommended here that in order to support their innovation and strategy creation, firms should work to stimulate inflows of externally developed ideas and inventions. This involves building a reputation of being *trustworthy* and *receptive to external ideas*, as well as *broadcasting innovation projects and strategies* so that external actors can easily understand how their ideas and inventions might fit into the firm's innovation projects and strategies.

In essence, the benefits associated with attraction are succinctly captured by a manager at DeLaval, who states that:

> "We have the advantage in that every crazy guy in the industry comes to us first when they have a new idea."

TABLE 1

Descriptions of the Case Companies

Company	Industry	Turnover Million USD	Employees	Number of interviews	Transcribed interview pages	Average interview duration
Autoliv	Automotive safety systems	6 473	34 000	16	135	70 min
DeLaval	Milking equipment	1 400	4 700	13	148	90 min
Ericsson	Telecom equipment	29 847	78 740	40	322	75 min

TABLE 2
Cross-case Analysis

	DeLaval	Autoliv	Ericsson Multimedia
General description	"It can be individual inventors; it can be academic institutions. Another, more typical case is that a company has developed an interesting product which would fit into our product portfolio, which leads to contacts and different degrees of cooperation." (Hans Holmgren, Director Research & Innovation DeLaval)	"We get a lot of proposals. Many people think about how traffic accidents can be prevented and a lot of inventors and entrepreneurs have ideas about this. To industrialize your ideas is however difficult and then they come to us at some stage. It may be that they merely have an idea, or that they have a patent, or that they have come even further." (Jan Olsson, VP Research, Autoliv)	"We actively go out and search for products, technologies, and partnerships, but in addition to that, we constantly get 'courted' by others. People call all the time with ideas and suggestions for cooperation [...] There are different models for how we handle this –, in the past, we have acquired companies and sometimes we distribute their products or develop shared go-to-market strategies." (Jörgen Odgaard, Director Ericsson Developer Connection)
The effects of attraction	"It is extremely important because it frees up creative resources that have not yet become subject to the limitations and restrictions of the company's internal innovation system." (Hans Holmgren, Director Research & Innovation DeLaval)	"The ideas that come from the outside are more diverse. There are plenty of ideas that lie outside of what we normally do, but which still find their way to us." (Jan Olsson, VP Research, Autoliv)	"Because so many entrepreneurs come and pitch ideas, the companies get the opportunity to put together all the small puzzle pieces and see the bigger picture and how it all fits together." (Niklas Sjöberg, CEO Mozoomi)
Approach to attraction	Passive "We don't go out with a message on our website where we invite people to come to us with ideas." (Hans Holmgren, Director of R&I DeLaval)	Passive "No, we don't do that - there is no general notice that we are trying to come up with inventions within a particular area." (Jan Olsson, VP Research, Autoliv)	Active "This is one of the areas where Ericsson really tries to attract innovation to the company and its technology. We share our software with external developers and we want external companies to do something with it and then come back to Ericsson so that we can bring these new applications to our customers." (Jörgen Odgaard, Director Ericsson Developer Connection)

TABLE 3
Determinants of Attraction

Determinant	Definition	Quote
Visibility	Being known and visible increases the probability that a given firm will be approached by external innovators who seek to present it with their ideas and inventions.	"I believe visibility is the key. Attraction requires a certain amount of visibility before it kicks in. Last year, our acquisitions got a lot of attention in the media, and immediately you could see an increase in the number of pitches we received.." (Peter Gregefors, Director of Strategic Business Investments, Ericsson Multimedia)
Openness	Disclosing information about its resource base and innovation projects increases the chances that external innovators will identify combinatorial opportunities that involve the firm, which in turn increases the likelihood that they will approach it to present it with their ideas and inventions.	"If [the larger companies in the industry] would open up a bit, they would have a much better chance of finding a creative solution. Not knowing what they are doing is a disadvantage. If we knew that, we would be able to help them much more, and understand where we could fit in." (Karl Bohman, CEO Mondozer)
Valuable, unique, and fungible resources	Resources that are unique in the sense that they cannot easily be substituted and that are fungible in the sense that they can be put into novel uses triggers a large inflow of external ideas and inventions.	"It's the resources, the recognition, the brand, and the confidence that you get just by saying that you are from Ericsson." (Karl Bohman, CEO Mondozer)
Perceived receptiveness	If external innovators perceive that there is a high probability that that their ideas or inventions will be adopted by the recipient firm they are more inclined to approach it.	"It often depends on whether you perceive the firm to be open to this kind of contact." (Christina Sundman, CEO Challenger Mobile)
Perceived trustworthiness	If external innovators perceive that there is a low risk that their ideas or inventions will be stolen by the recipient firm they are more inclined to approach it.	"When something is really happening and someone outside of the company feels that that they have something good, then it's important that they feel that they have been treated fairly in the past, because otherwise they won't come back." (Jörgen Odgaard, Director Ericsson Developer Connection)

Figure 1. Adaptation and extensions of "Model of the interaction of Strategic Behavior, Corporate Context, and the Concept of Strategy" in Burgelman (1983)
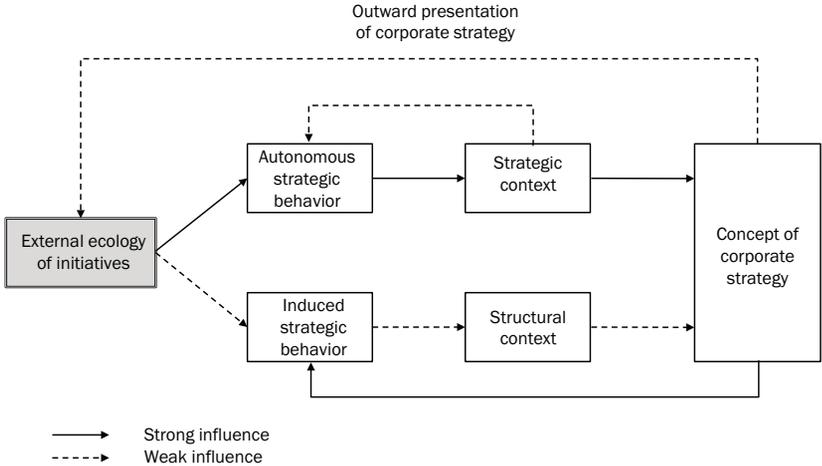
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Oil Nationalisation and Managerial Disclosure: The Case of Anglo- Iranian Oil Company, 1933-1951

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Abstract

This thesis aims to contribute towards the understanding of the Anglo-Iranian Oil Company (AIOC, now BP) practices in Iran and thereby providing a clear picture of how nationalisation evolved on May 1951 and how it was perceived by the stock market. Contrasts are drawn between the management's public view of the crisis and the actual events as documented in the literature and financial records. The study shows that the AIOC failed to fulfil its Corporate Social Responsibility (CSR) obligations towards the Iranian employees. The study also highlights that the AIOC management succeeded in maintaining the investors' confidence during nationalisation.

Introduction

The Anglo-Iranian Oil Company (AIOC, now British Petroleum) oil concession in Iran had never been free of controversy. Generally, there was a clash between the AIOC's claim to be a well managed company playing a progressive and developmental role in Iran and the Iranians' view of the company as a rapacious exploitative representative of British imperialism. Whether or not the AIOC contributed towards the Iranian economy, the parties to the dispute were so far apart that no compromise settlement would have been considered as agreeable by both sides. The AIOC failed to close off opportunities for economic nationalists in such a way that the dispute between the AIOC and Iranian government negotiations culminated in the assassination of one Prime Minister in March 1951 and the subsequent ratification of nationalisation of AIOC's Iranian assets by the Shah on 1st May 1951.

Nationalisation brought into sharp focus issues affecting key AIOC stakeholder groups, including Iranian employees, Iranian government and UK investors which became the subject of claim and counter-claim from the AIOC board and Iranian nationalist opinion. As a consequence of these disputed claims, a propaganda battle became a crucial ingredient of the crisis, not least because a key objective of the AIOC management was to maintain investor

confidence in the face of a major threat to its asset base but also reflecting the AIOC's ability to defend itself from the claims made by the Iranian government about discrimination against Iranians and unfairness in the sharing of proceeds, and. As a result, in considering the above effects, by using AIOC as a case study, contrasts are drawn between the AIOC's management's public view of the crisis and the actual events as documented in the literature, official papers, and financial records. In these respects, consideration is also given to how AIOC's management attempted to influence the lobbying process and news agenda to counter the accusations of the Iranian nationalists.

1.1   Research Problem and Research Questions

It is essential to understand the political and social attitude of the AIOC towards the Iranian Government and Iranian employees to understand how the politics of the company culminated in the nationalisation of 1951. Iranian accusations were numerous so this research seeks to examine the evidence of British imperialism in Iran through anti-Iranian discrimination and inequality in profit allocation in favour of the British. Meanwhile, this research aims to investigate the role of Sir William M. Fraser (1888-1970), the AIOC's chairman (1941-1956) in maintaining the shareholders' confidence during the nationalisation crisis. Thus, this research has identified the following research questions that involve further investigation.

a) Were Iranian workers treated fairly by the AIOC?
b) Were AIOC profits evenly distributed among the British and the Iranians?
c) How was nationalisation perceived by the stock market? How did Fraser maintain shareholders' confidence and relations with the UK investors?

1.2   Motivation of the study

The study is of significant interest to academics and the business community alike, since historical studies offer an opportunity to consider changes in the levels of disclosures in terms of both quantity and quality through the analysis of reactions to social change and regulation. Since the nationalisation of the AIOC on May 1951, the British had been considering another option which was to remove Musaddiq by force and through covert political action. To this end they received assistance from America. Thus, the motivation for this research is inevitably driven by the need to research the history of the company to provide a considerable body of evidence about British imperialism. In doing so, it will clarify how the AIOC's management attempted to influence the lobbying process and news agenda to counter the

accusations of Iranian nationalists. The incentive for choosing the AIOC lies in the fact that it is one of the largest oil companies in the world and had a unique competitive advantage, being the first mover in developing the oil reserves of the Middle East. The AIOC was politically more sensitive and visible in the public eye and more closely watched by government agencies mainly during its nationalisation and the overthrow of Musaddiq.

1.3 Conceptual framework

In the literature and historiography of the AIOC and other nationalisations, there are some important and contrasting views of strategies for retention of asset control in the face of a nationalisation threat. These can be characterized as (i) political and covert mechanisms, (ii) market based, resource access controls, and (iii) corporate social responsibility (CSR) programmes.

The first area has attracted considerable attention from political and diplomatic historians[1]. Gray et al. define political economy as the "social, political and economic framework within which human life takes place"[2]. Unerman also emphasized that the political economy theory does not assume that business organisations operate within "a harmonious social, economic and political environment and introduces into the analysis structural conflict between different parts of the system"[3]. According to Marsh[4], in the Iranian case, the British government used the AIOC as an instrument of foreign policy[5] addressing wider concerns of fighting communism and advancing the Anglo-American special relationship. The AIOC "was so dominant within the Iranian economy that it was effectively a state within a state and regarded to all intents and purposes as an arm of the

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[1] Different phases and aspects of the dispute have been researched extensively, including Anglo-American relations, British and American foreign policies, international law, covert operations, Iranian nationalism, the development of the Iranian oil industry, and the impact on international oil companies, including the AIOC. For Anglo-American relations see Marsh, "Anglo-American Crude Diplomacy." For American and British foreign policies see Gasiorowski, *US Foreign Policy and the Shah; The Politics of oil;* Stern, *Who won the Oil wars*; Louis, *The British Empire in the Middle East.* For covert operations see Gasiorowski and Bryne, eds. *Mohammad Mosaddeq;* Marsh, "The United States, Iran and Operation Ajax*.";* Roosevelt, *Countercoup.* For the impact on Iran see Bill and Louis, eds. *Musaddiq, Iranian nationalism and oil;* Elm, *Oil, Power, and Principle.* For the company perspective see Bamberg, *The History of the British Petroleum Company.*

[2] Gray et al., *Accounting and Accountability:Changes and challenges in Corporate S*ocial and environmental reporting, 47.

[3] Unerman, *An investigation into the development of accounting for social, environmental and ethical accountability: a century of corporate social disclosures at Shell,* 31.

[4] Marsh, *HMG, AIOC and the Anglo- Iranian Oil Crisis,* 143.

[5] Ferrier has argued the Iranian nationalists were aware of the fact that "AIOC was acting as an agent of the British government in depriving the Iranian government of the revenues to which it was entitled" and the AIOC executives blamed the Treasury in London for being inflexible in royalty and dividend payments to Iran which resulted in the company's nationalisation; see Ferrier, *The Anglo Iranian oil dispute,* 170.

British Admiralty and the British strategic policy"[6]. For other scholars, the AIOC was a spillover of "British imperialism" because British officials believed that British firms should dominate the oil market to protect the home country's uncertain balance of payments[7]. Bill & Louis conclude that "the company was mainly owned by the British government, its power was in the end that of Britain".[8] As White suggests "nationalisation appeared a distinct possibility in a number of Britain's decolonizing territories because many anti-colonial movements taking shape by the 1950s espoused some form of socialism"[9]. Finally, Bostock and Jones argued that virulent Iranian economic nationalism "can't be treated solely as an endogenous factor to British business. Iranian policies were a reaction to the close relations between British business in Iran and the British government"[10]. For the British, the Iranian crisis created a crucial precedent which was "If Musaddiq's view had prevailed then nationalists throughout the world might abrogate British concessions"[11].

The second strand of literature uses market control explanations to interpret nationalisation events. For Kobrin, and others, the oil companies' control of key parts of the value chain after nationalisation, in particular refining and distribution capacity, made embargoes an effective mechanism for undermining governments[12] as in the Mexican (1938) and Iranian (1951) cases. Similarly, as suggested by Farge and Wells, market access was a crucial determinant of bargaining power in these and similar cases[13]. According to Bucheli, companies investing in mining or oil are more likely to be targets of political violence and are more vulnerable to nationalist policies than those operating in the manufacturing or service sector due to their vertically integrated structure which affects local polities[14].

The final strand of the literature, associated with CSR and labour relations, constitutes a further, less extensively researched dimension of multi-national activity[15]. CSR addresses the commitment of companies to align their activities with the needs of various stakeholder

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[6] Cited in Marsh, *Anglo-American Crude Diplomacy*, 28.
[7] Marsh has argued that the Abadan oil refinery was the largest in the world and was considered a source of national pride to Britain; Marsh*, The United States, Iran and operation Ajax,* 9; Tignor, *Capitalism and nationalism at the end of Empire*; Bostock and Jones, *British business in Iran, 1860s- 1970s.*
[8] Bill and Louis, *Musaddiq, Iranian nationalism, and oil*, pp. 329-30.
[9] White, *The Business and the politics of decolonization,* 551.
[10] Bostock and Jones, *British business in Iran*, *1860s- 1970s*, 66.
[11] Louis and Robinson, *The Imperialism of Decolonization*, 476.
[12] Kobrin, *Diffusion as an explanation of oil nationalisation* ; see also Vernon, *State- owned Enterprises in Latin American Exports*; and the discussion in Bucheli, *Major Trends in the Historiography of the Latin American Oil Industry*, p.360 for similar Latin American cases.
[13] Farge and Wells, *Bargaining power of multi-nationals and host governments.*
[14] Bucheli, *Multinational corporations*, 436; see also Decker, *Corporate Legitimacy and advertising.* Who argues that manufacturing was also vulnerable, particularly in the 1960s.
[15] AIOC's linkages with the local economy were few and the company was widely disliked; Bostock and Jones, *British business in Iran*, *1860s- 1970s*, 46.

groups and account for their social, environmental and ethical performance. Maurer, in a case study of Mexican oil nationalisation, shows that oil company concessions to an increasingly powerful trade union on health insurance, paid holidays and rising real wages, motivated the Mexican government to nationalize the remains of an uncompetitive declining industry[16]. Elsewhere, CSR programmes aimed to include local populations, in networks of social capital[17]. In Turkey and India, Unilever retained control by increasing the involvement of local employees in the management of the company[18]. In Africa, government requirements that an industry limit the employment of foreigners to a designated number were referred to as "Africanisation"[19]. Similarly, in the Iranian case, the AIOC was pressured to engage in "Iranianisation", essentially the increased employment by AIOC of Iranian workers and a CSR programme aimed at giving Iranian employees increased status and access to the benefits of employment, housing and education[20]. There are disagreements amongst historians about the motivation, extent and success of these policies. In the official corporate history, the AIOC's achievements in providing housing, education, social benefits and greater seniority for its Iranian employees are presented as substantial[21]. An alternative view promulgated typically but not exclusively by Iranian historians, was that the AIOC was "an untouchable foreign enclave", "a state within a state" or economic power in its own right whose dominance of Iran resulted in discrimination and political repression,[22] which only paid only lip service to the Iranianisation process, and that its obstinacy fuelled the subsequent political crisis[23].

To examine the robustness of these contrasting views, this research examines how AIOC management used CSR to respond to the challenges outlined in each of these strands of the literature. Using a new conceptualization of CSR, the research identifies managerial strategies with respect to three corresponding interest groups: politicians and diplomats, shareholders, and local employees. This allows managerial attitudes to political, market, and social control to be contrasted with reference to evidence from political negotiations,

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[16] Maurer, *The empire struck back* ; O'Brien, *The Revolutionary Mission,* 301.
[17] Verhoef, *Nationalism, social capital and economic empowerment.*
[18] For an example of how the firm's CSR agenda was more negatively influenced by state policies and local circumstances see Forbes, *Multinational Enterprise, 'Corporate Responsibility' and the Nazi Dictatorship.*; see also Jones, *Multi-national strategies.*
[19] Rood, *Nationalisation and Indigenisation in Africa.*
[20] Bostock and Jones, *British business in Iran, 1860s-1970s.*
[21] Bamberg, *The History of the British Petroleum Company*, pp.361-74; Ferrier, *The History of the British Petroleum Company.*
[22] Keddie, *The Iranian power structure*, 11; Abrahamian, *The 1953 coup in Iran.*
[23] For example, Elm, *Oil, Power, and Principle;* Abrahamian, *Iran Between two revolutions.*

communications with shareholders in annual reports and the attitudes of corporate officials to the Iranian workforce.

The notion of CSR is regarded as a relatively recent phenomenon, and as such is rarely analyzed historically in the business management and ethics literatures. CSR is regarded as something that is imposed on business by society, for example in social contract, legitimacy based models, or as a benign and inclusive redefinition of corporate objectives, as in the stakeholder model, that can be readily accommodated into economic theory derived models of strategy making[24]. CSR has not been generally viewed as a means of corporations exercising social control[25]. This research offers such a standpoint as a new perspective on CSR.

Greenwood provides a useful taxonomy of the moral treatment of stakeholders in terms of *stakeholder agency* the number and breadth of stakeholder groups in whose interest the company acts, and *stakeholder engagement,*[26] defined as the number of processes of communication, dialog and consultation. As Greenwood suggests, it is only cases where both agency and engagement are high that have exercised the CSR literature. Although these variables are to some extent useful for the purposes of testing historical evidence, they do not directly address the issue of managerial motivation, which when faced with significant external threats should be strongly influenced by control. The social capital literature suggests that the purpose of inclusion or exclusion from networks of business activity is social control, particularly through observance of norms[27]. As Coleman argues, social capital develops through social engineering, which replaces earlier forms of control, based on primordial ties, with material-based status incentives.[28] The implication of this view is that CSR, through increasing social provision in a post colonial setting using housing schemes, employment and benefit packages and access to education, provides corporate management with mechanisms to enforce norms and create stakeholder engagement. Viewing CSR in this light allows us to create a taxonomy of control as a series of options available to corporate management. These are set out in Figure 1.

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[24] For Legitimacy theory see Dowling and Pfeffer, *Organisational legitimacy*. For Stakeholder model see Donaldson and Preston, *The stakeholder theory of the modern corporation*, as extensions of corporate strategy Porter and Kramer, *Strategy and Society.*
[25] For some exceptions in the accounting history literature, see for example Neimark, *the Hidden Dimensions of Annual Reports;* Maltby, *Showing a strong front*; Maltby and Tsamenyi, *Narrative accounting disclosure.*
[26] Greenwood, *Stakeholder Engagement*, pp. 321-22.
[27] Portes, *Social Capital*, p.8. For a review of recent applications of social capital in business history contexts, see Laird, *Putting social capital to work.*
[28] Coleman, *The rational reconstruction of society.*

Figure 1: CSR Control Strategies and Stakeholder Management in Multi-national Firms Facing Asset Expropriation Threats

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                          ┌─────────────────────┐
                          │  Managerial Control │
                          └─────────────────────┘
                  ┌───────────────┼───────────────┐
                  ▼               ▼               ▼
            ┌──────────┐    ┌──────────┐    ┌──────────┐
            │ Political │    │  Market  │    │  Social  │
            │  Control │    │  Control │    │  Control │
            └──────────┘    └──────────┘    └──────────┘
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Stakeholders

| Politicians and diplomats | Capital markets Domestic investors | Local employees Local political organizations |

Strategic asset

| Diplomatic, political and military influence | Investor confidence | Skilled and compliant workforce |

Engagement` mechanism

| Diplomatic and private correspondence | Annual report to shareholders | Company policies |

As Figure 1 shows, control may be exercised through three options, each corresponding to the political, market based and social elements discussed earlier. The first, political control is exercised through diplomatic and covert channels. The second is market based control, in which management creates investor confidence through pronouncements about CSR

activities in annual reports and other public domain communications. The third element is social control, as discussed above, which allows corporate management to create social capital through specific CSR programmes. Each element of control therefore implies a different mechanism of communication with a different range of stakeholders (corresponding to stakeholder engagement and agency in Greenwood's framework)[29]. The model predicts significant differences between communications on the same subject depending on the recipient stakeholder group.

1.4 Methodology

A triangulation approach was adopted in this thesis to examine the events leading up to nationalisation and assess the performance of the company during the political crisis. This approach proved to be an appropriate method and convenient for the validation process because the weakness of one approach was complimented by the strength of another. Meanwhile, different qualitative and quantitative data collection methods were adopted to examine the same dimension of a research problem.

The main research methods used in this thesis were the financial analysis of the annual reports, content analysis of the narratives of the chairman statements and event analysis of the stock market data. Financial analyses of the annual reports proved to be useful for illustrating the split of profits between the British government and Iranian government which provided the researcher with the opportunity to measure different relationships and changes occurring among different numbers in the financial statements. Additionally, the analyses highlighted the inequality of treatment of Iran through the demonstration of the amount of taxes paid to both governments. Secondly, computerised content analysis using DICTION software provided a clear picture of the disclosures made by the chairman thus enabling the researcher to evaluate the results and identify disclosure patterns. Thirdly, the event analysis of the stock market data widened the scope of the evidence available for analysis of the AIOC's economic and political impact on Iran thus adding relevant empirical body of evidence. Finally, it is also worth noting that the secondary literature and archival data were invaluable tools because they provided abundant evidence by drawing new insights and assisted the researcher to perform further analysis and go beyond the existing literature.

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[29] Recent evidence from a study of oil company behaviour suggests important differences of engagement of domestic and local stakeholders see Toms and Hasseldine, *Asymmetric Response: Explaining corporate social disclosure*.

1.5 Contribution to knowledge

This research has shown through an investigation of political and diplomatic private correspondence that although the company was ready to make concessions on non-controversial aspects of Iranianisation, it was determined not to compromise on demands that threatened the control of the incumbent British management. By making concessions on certain aspects of Iranianisation such as housing the company could nonetheless use such initiatives to create the impression of progress in negotiations and create confidence amongst investors. Even in public documents however, traditional colonial attitudes were still revealed, in spite of the company's attempts to show that it was responding positively through the medium of the Chairman's statement. Although the company met certain requirements of Iranianisation, for example housing and health care, such developments were subject to control through spatial zoning and reinforcement of hierarchy. The company accordingly maintained and developed a readily available workforce with skills commensurate with specialized activities but which would not give the Iranians the capacity to run the industry independently of the British management. Segregation by skill grade fueled nationalist demands for control of the industry whilst reducing the Iranian capacity to manage the assets post-nationalisation. As the evidence suggests, there are interesting contrasts in the attitude of senior management, reflecting the context and mode of communication. If it is assumed that the private views of Fraser and other AIOC officials correspond more closely to the truth and that public pronouncements were intended to serve some purpose of benefiting the negotiating stance or underpinning stock market confidence, then the above evidence provides some useful insights into the utility of CSR for senior executives. CSR can be used productively to enhance negotiating and bargaining positions whilst promoting social control and norms of behavior, whilst its scope needs to be carefully defined and limited to prevent a more general loss of control. In short, this research provides a clear picture of the AIOC claims of tolerance and supportiveness to the Iranian workers and also deepens our understanding of the relations between the AIOC and the British government.

1.6 Reflections

As the existence of the AIOC depended on power and control, the contrast of the powerful AIOC with weak Iranian government provides interesting evidence about the AIOC's industrial dominance in Iran. To illustrate the role of the 'imperial' company operating

outside the 'formal Empire', this research evaluated the power balance between the AIOC and Iran to study the extent to which the company exploited and manifested Iranian rights during the Twentieth Century through social, economic, political domination and inequality in profit allocation in their own favour.

The empirical illustrations in this thesis represent a brief outline of AIOC operations in Iran during nationalisation, with the purpose of presenting different dimensions of its social and economic impact which have previously been neglected in prior research; namely discrimination against Iranians, unfair profit distribution and AIOC's managing stock market reaction to events with reference to the relationship between AIOC managers and shareholders.

Realised profitability and stock market analysis, the main empirical ingredient of this research, provide the means to examine the Iranian claims against the AIOC counter claims. Accounting profits and share prices sent to investors via the capital markets played a major role in determining the position of AIOC during the nationalisation crisis. The analysis of AIOC profitability and investigation of AIOC stock market reaction provided in this thesis deemed to reflect the powerful position of AIOC in sustaining its situation in the market and in manipulating its accounts taking advantage of the international law. Clearly the AIOC management tried to hide the true nature of the political situation in Iran and defend themselves against the Iranian claims which contributed importantly to the company's financial robustness. AIOC was not vulnerable to the world market because it overcame the negative impact of nationalisation illustrating the failure of local nationalist elites in establishing national control over the AIOC.

Considering Iran's position from a counterfactual point of view, if there had been no AIOC, would the country have been the same? This is difficult to assess and there has been little evidence that the AIOC have had any great appeal to the Iranian employees who were seeking to enjoy a better life in their country. However, the review of evidence in this thesis for anti-Iranian discrimination suggests that the AIOC had a weak case as far as CSR was concerned and the accounting evidence of unfairness in profit allocation strengthened the political case further. Iran had significantly suffered from Britain's exploitation of their oil resources and had gone through perceived unfairness associated with the share of oil wealth. The relation between political power and capital accumulation was reflected in the exploitative relation between the AIOC and Iran where the oil sector was a major aspect in AIOC's capital finance. Clearly, there has long been a consensus about the importance of Iran to the existence of the AIOC and influence on the country's treasure resources but the AIOC

failed to develop political and economic structures in Iran to maintain their dominance and unequal relations with local populations. Inevitably, Fraser played a major role and influenced the lobbying to counter the accusations of the Iranian nationalists[30].

Obviously, the AIOC was master of the environment in which it operated and was involved in matters which extended beyond narrow commercial activities. There was very little to help the Iranian government to control its resources. British actions in Iran reinforced Iranian preconceptions and anti-British sentiment because the Iranians viewed the ownership of national industries by foreign interests as an infringement of their country's sovereignty. The widespread resentment at the colonial treatment of the Iranians by the AIOC and its monopolistic propensity had been a feature of AIOC since originating in Iran and it was not until 1951 when the Iranian government brought a substantial shift in the distribution of oil income to the country's benefit. Through imperialism and manipulation, the AIOC became a deliberate dominant economic player in Iran and was seen as a symbol of British imperialistic presence. The British government and the AIOC did not always come together for a smooth relationship but it is worth noting that both of them gained an economic advantage for their operation in Iran. To sum up, this research has put considerable emphasis on illustrating the reasons for nationalist outbursts; labour discontent and unfairness in income distribution which have set Iran on a divergent decolonising path. It seems that in Iran the politics might be of nationalisation but the invisible empire of oil remained.

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[30] Bamberg highlighted that without "Fraser's fearlessly staunch defence of the company's interests, the company would have been sold out by the western powers for the sake of bringing the dispute to a swift conclusion which might open the door for communist control of Iran"; See Bamberg, *The History of the British Petroleum Company,* 520.

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Modeling of Exogenous and Endogenous Organizational Variables for Successfull Takeover

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Abstract

Respecting the fact that vast number of M&As do not achieve planed synergies and results, model for successful takeover, based on the analysis of exogenous and endogenous organizational variables, was proposed in this doctoral dissertation. Within a framework of endogenous organizational variables the impact of company's management, strategy, structure, corporate culture and size, on takeover success was observed, while in the context of exogenous organizational variables the impact of market for corporate control, industrial concentration, technological intensity and government on takeover success was examined. Validity of the proposed model was tested and confirmed through empirical research.

Introduction

Mergers and acquisitions, as a part of the growth strategy, but also as a research field of numerous scientists and consultants, represent prominent phenomenon of developed capitalist world since the end of 20th century. Growth of the company trough M&A provides access to new markets and resources, and success or failure of M&A is of great importance not only for companies included that in that process, but also for all participants of that process, and for the whole economy. Main goal of this dissertation is to propose model for successful takeover based on the analysis of exogenous and endogenous organizational variables. Successful takeover is defined as takeover in which target company performs better after the takeover than in the period before the takeover. Therefore, the target company performance will be analyzed in the period of three years before and three years after the takeover using questioner and accounting information.

Description of the proposed model

When analyzing mergers and acquisition, whether the focus of analysis is shareholders wealth or target company's performance after the transaction, it is impossible to isolate the impact of the takeover on share price or success of company's performance after the takeover because of the impact numerous variables. In that situation it is necessary to analyze the impact of exogenous and endogenous organizational variables on takeover success.

Model for successful takeover rests on the premise that market for corporate control represents permanent threat to managers which inefficiently manage corporate resources and do not work in order to maximize shareholders' wealth. The basic premise of the market for corporate control is that managers have the right to manage the corporation so long until its market value can be significantly improved by the alternative group of managers with a better business strategy (Manne, 1965; Jensen & Rubak, 1983; Jensen, 1988; Jarrell, Brickley, Netter, 1988; Mitchell & Lehn, 1990; Choi, 1991; Masulis, Wang, Xie, 2007; Tipurić, 2008; Offenberg, 2009.). Taking into consideration that poor effectiveness of target company's management in long run reflects on poor company's performance, *first hypothesis* tests premise that companies with ineffective management and poor performance will be taken over. It is likely that new owners will replace managers who were in charge in the period before the takeover. Management turnover should positively reflect on target's performance since management before the takeover was inefficient and as such led the target company in the situation of the takeover (Blake & Mouton, 1985; Datta, Grant, Rajagoplan, 1991; Datta, 1991; Lind & Stevens, 2004; Massmer, 2006; Able, 2007.). Therefore, in *second hypothesis* proposition is that management turnover, after the takeover, results in better target performance then in the situation when there is no management turnover.

In order for takeover to be successful, after the management turnover in target company, business strategy of the target should also be changed (Porter, 1980; Barney, 1986a; Shelton, 1988; Ramaswamy, 1997; Larsson & Finkelstein, 1999; Tipurić, 1999; Sudarsanam, 2003; Cingula, 2005; Altunbas & Marques, 2008; Kim & Finkelstein, 2009.). The main goal of strategic turnaround is to restore fit between the target company and its environment by changing strategic position of the target. New management will probably change target's business strategy since target's takeover was a consequence of inadequate strategy and inefficient management who ran the company before the takeover. Thus, *third hypothesis* proposes that there has to be radical change in business strategy in target company after the

takeover and that the change in strategy is positively related to better target's performance after the takeover.

Development of fourth hypothesis is based on the premise that structure follows strategy (Chandler, 1962; Marks & Mirvis, 2000; Benner & Tushman, 2003; Karim, 2006; DePamphilis, 2008; Puranam, Singh, Chaudhuri, 2009.). Company's formal structure is a result, among other, of appropriate business strategy. Radical change of company's strategy requires changes in company's structure. In order to successfully implement new strategy in target company after the takeover, model for successful takeover proposes that changes in organizational structure of target company are related to better performance after the takeover.

After the management turnover, and changes in strategy and structure it is very important to change corporate culture in order for takeover to be successful (Safford, 1988; Nahavandi & Malekzadeh, 1988; Atkinson, 1990; Chatterjee, 1992; Cartwright & Cooper, 1993a; Weber, 1996; Larsson & Lubatkin, 2001; Lodorfos & Boateng, 2006; Stahl & Voigt, 2008; Datta, 2010.). With the regard to the fact that corporate culture represents the way of life and work in the company, change in corporate culture which was present in target company during period of poor performance is necessity for better performance after the takeover. Fifth hypothesis is based on the premise that larger change of corporate culture is related to better target company's performance after the takeover.

One of the variables pointed out in the model for successful takeover, and also in the focus of numerous researches in the field of M&A, is company's size (Fuller, Netter, Stagemoller, 2002; Moeller, Schlingemann, Stulz, 2004; Hackbarth & Morellec, 2008; Gorton, Kahl, Rosen, 2009.). It is important for successful takeover that acquirer is bigger than target company because all changes that are expected to happen after the takeover can be faster and more efficiently implemented. The bigger target company, the more complex its organizational structure is and therefore, new management needs longer time period to adjust. Proposition that target company's performance after the takeover is better if acquirer is bigger than target is tested in *sixth hypothesis*.

Superior or inferior profitability as a characteristic of company's competitiveness in the long run is not only result of the formulation and implementation of strategic activities but it also

depends on industrial structure. Therefore, it is very important to analyze industrial concentration and its impact on takeover success (Bain, 1951; Demsetz, 1973; Porter, 1980; Mueller, 1985; Schmalensee & Willig, 1989; Hy & Morris, 1991; Keating, 1991; Lipczynski & Wilson, 2001.). Since numerous changes are expected to occur in target company after the takeover, *seventh hypothesis* is developed based on the assumption that all changes will have stronger effect on target's performance if the concentration ratio of the target company's industry is lower, than in the situation when concentration ratio is high.

Besides industrial concentration, model for successful takeover focuses also on technological intensity (Chakrabarti & Burton, 1983; Granstrand & Sjolander, 1990, Ahuja & Katila, 2001; Hagedoorn & Duysters, 2002; Cassiman, 2005; Lemieux & Banks, 2007; AlAzzawi, 2008; Tsai & Wang, 2008; Agarwal & Helfat, 2009; Kallunki, Pyykko, Laamanen, 2009; Miyazaki, 2009; Graebner, Eisenhardt, Roundy, 2010.). Within *eight hypothesis* proposition that company takeovers are more successful in high-tech industries than in the industries with medium or low technological intensity is tested. Namely, mergers and acquisition in high-tech industries often result with development of new technologies and patents which result in achieving competitive advantage, and also better performance compared to companies form medium and low-tech industries.

Besides industrial concentration and technological intensity, model for successful takeover focuses also on government impact, as exogenous organizational variable, on takeover success (Lu, & Song, 1999; Wang & Han, 2008; Vaara, & Monin, 2010; DePamphilis, 2010.). Ninth hypothesis is based on premise that government interference in takeover process (through the involvement of political structures) as well as frequent changes in legislation framework negatively reflects on target company's performance after the takeover. Figure 1 presents proposed model for successful takeover.

Figure 1. Proposed model for successful takeover
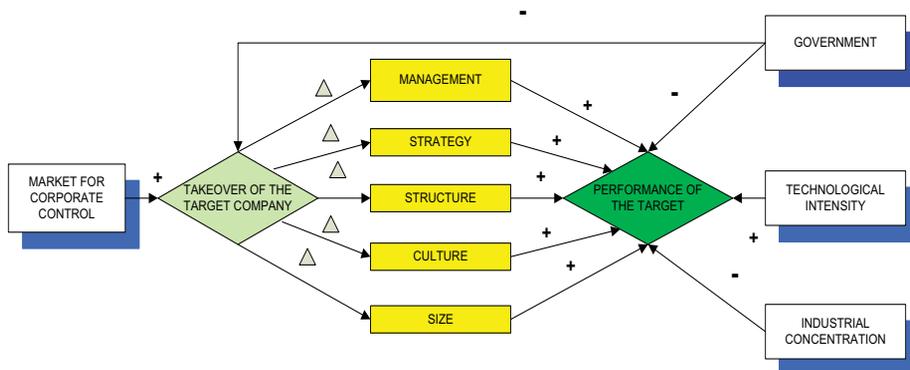
Validity of the proposed model for successful takeover was tested through the process of confirmation of hypotheses. Proposed hypothesis are:

H1: *Companies that have below average profitability in their industry, over a longer period of time, are more likely to become takeover targets when compared to other companies in the industry.*

H2: *Management turnover, after the target takeover, results in better target performance then in the situation when there is no management turnover.*

H3: *Radical change in business strategy after the takeover is related to better target company's performance after the takeover.*

H4: *Changes in organizational structure of the target company are related with better target company's performance after the takeover.*

H5: *Employees' perception about larger change of corporate culture, after the takeover, is related to better target company's performance after the takeover.*

H6: *The lower the relative size ratio of the target company compared to the acquirer, the more successful is target company's performance after the takeover.*

H7: *The lower the concentration ration of the target company's industry, the target company's performance is more successful after the takeover.*

H8: *The higher the technological intensity of the target company's industry, the higher is probability of more successful target company's performance after the takeover.*

H9: *Impact of the government on takeover process is related to worse target performance after the takeover.*

Empirical research

Measuring instrument (questionnaire) for testing the hypotheses of this research consisted of a set of questions that the respondents (board members and company managers) answered and expressed their agreement/disagreement with proposed statements whereat a Likert measurement scale of five degrees was used. Propositions used in different measurement scales are either originally developed for research purposes, or processed and adapted from existing measurement scales that can be found in the relevant scientific literature.

Empirical research was conducted among Croatian companies, which have been taken over. In Bloomberg and Mergermarket databases 233 transactions in the period 1998. - 2010. were recorded. With the detailed investigation of the information library of the Croatian Agency for Supervision of Financial Services another 401 transaction during this period was recorded, which combined with the transactions from Bloomberg and Mergermarket databases comes to a total of 634 transactions. Since this research analyses transactions in non-financial sector, the sample on which the empirical research was conducted comprised of 598 companies. In order to analyze the impact of the market for corporate control on performance of companies that were taken over, it is important that at least three years have passed since takeover. For this reason, the companies that were taken over were analyzed in the period since 1998. - 2006.

In the period of sixty days after the beginning of the primary research 43 completed questionnaires were returned representing a return rate of 7.19%. Considering the sensitivity of the analyzed phenomena and complexity of analysis, the rate of return of questionnaires was acceptable. The complexity of the analysis is reflected in the fact that the study included only companies in which at last three years passed after the acquisition. Additional criteria were related to the fact that the respondent (the president or board member or senior manager) should be included in the acquisition process and familiar with the acquisition activities, and also working in the company that was taken over at least 5 years in order to identify and assess the changes that have occurred after the takeover. Of the total number of received questionnaires 30 companies that performed better after the takeover was identified (69.8%) and 13 that performed poorer after the transaction (30.2%).[1] In the analysis of empirical data

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[1] Financial statements of target companies were used to assess their profitability after the takeover as well as responds from survey participants.

collected in this study large number of statistical techniques was used. Overall data analysis was conducted using statistical software package SPSS 17.0.

An analysis of target's performance after the takeover was also conducted within empirical research. Target's performance was analyzed by comparing selected financial ratios in the year of the target's takeover with three year average of those financial ratios after the takeover.[2] By observing performance of the target company in period of three years after the takeover it is evident that there are 30 companies which had better performance meaning that their financial ratios were better. It has also been indentified that 13 companies had worse performance compared to the financial ratios in the year of takeover. Table 1. presents cumulative average of selected financial ratios in the year of takeover and three year average after the takeover for all companies which had better performance after the takeover.[3]

Table 1. Descriptive statistics of financial ratios for successful companies

	Mean	N	Std. Deviation
EBITDA/SALES u godini T	,091378	30	,1510475
EBITDA/SALES average T+3	12,8414	30	9,60399
EBIT/SALES u godini T	,037718	30	,1114302
EBIT/SALES average T+3	7,2559	30	6,37574
ROS u godini T	,034305	30	,1055786
ROS average T+3	5,3600	30	8,69644
ROA u godini T	,02815	30	,150195
ROA average T+3	5,8171	30	5,93139
ROE u godini T	,03333	30	,375260
ROE average T+3	12,1486	30	12,73062

T-test for dependent samples showed that there is a significant difference between financial ratios in the year of takeover and their three year average after the takeover. With the regard to significant difference it can be concluded that 30 companies that were taken over had better performance three years after the takeover.

Table 2. T-test for successful companies

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[2] Financial ratios used in this research were gathered from Croatia Financial Agency and include: *EBITDA/SALES, EBIT/SALES, ROS, ROA and ROE*.
[3] Year T stands for the year in which company was taken over, and T+3 stands for average of certain financial ration in period of three years after the takeover.

	Paired Differences		t	df	Sig. (2-tailed)
	Mean	Std. Deviation			
EBITDA/SALES u godini T EBITDA/SALES average T+3	-1,2750067E+01	9,4902841	-7,359	29	,000
EBIT/SALES u godini T EBIT/SALES average T+3	-7,2181706E+00	6,3055130	-6,270	29	,000
ROS u godini T ROS average T+3	-5,3256947E+00	8,6454559	-3,374	29	,002
ROA u godini T ROA average T+3	-5,788959E+00	5,850595	-5,420	29	,000
ROE u godini T ROE average T+3	-1,211523E+01	12,586944	-5,272	29	,000

Following table presents cumulative average of selected financial ratios in the year of takeover and three year average after the takeover for all companies which had worse performance after the takeover.

Table 3. Descriptive statistics of financial ratios for unsuccessful companies

	Mean	N	Std. Deviation
EBITDA/SALES - year T	-,130035	13	,1885682
EBITDA/SALES average T+3	-138,7651	13	264,77302
EBIT/SALES - year T	-,171792	13	,3030139
EBIT/SALES average T+3	-176,4259	13	321,41336
ROS - year T	-,083766	13	,2187911
ROS average T+3	-130,7472	13	342,16724
ROA - year T	-4,33077E-02	13	,182896
ROA average T+3	-8,6064	13	13,01658
ROE - year T	,00095	12	,173178
ROE prosjek T+3	-70,7597	12	147,79052

It is evident from the table 3. that 13 companies that were taken over had worse performance three years after the takeover. Three year average of all financial ratios is worse compared to financial ratios in the year of takeover. T-test for dependent samples was used in order to analyze difference between financial ratios.

Table 4. T-test for unsuccessful companies

	Paired Differences		t	df	Sig. (2-tailed)
	Mean	Std. Deviation			
EBITDA/SALES - year T EBITDA/SALES average T+3	138,6350928	264,7359091	1,888	12	,083
EBIT/SALES - year T EBIT/SALES average T+3	176,2541051	321,2236924	1,978	12	,071
ROS - year T ROS average T+3	130,6634133	342,1055596	1,377	12	,194
ROA - year T ROA average T+3	8,563103	13,035904	2,368	12	,036
ROE - year T ROE average T+3	70,760670	147,828590	1,658	11	,125

Results of the T-test did not show significant difference between financial ratios in the year of takeover compared to their three year average after the takeover. With the respect to the fact that there is no significant difference between selected financial ratios it can be concluded that 13 companies had worse performance three years after the takeover because their performance, according to financial ratios, was bad in the year of the takeover.

In order to test the first hypothesis research participants were asked about their company's performance before and after the takeover. The impact of market for corporate control on company's takeover has been proven trough empirical research since majority of analyzed target companies were taken over after their profitability in the period before the takeover was average or below the average compared to competitors. Descriptive statistics showed that 72.09% of the analyzed companies operated with losses, below average or average profitability and become a takeover target, which **confirms the hypothesis H1** (table 5.). Chi-square test showed a statistically significant correlation between profitability before and after the takeover (table 6. and 7.)

Table 5. Analysis of acquired companies according to their profitability before and after the acquisition

Performance of the target before the acquisition		Performance after the acquisition		Total
		Worse	Better	
Losses, below average and average profitability compared to competition	Number of companies	4	27	31
	%	12,9%	87,1%	100,0%
Above average profitability compared to competition	Number of companies	9	3	12
	%	75,0%	25,0%	100,0%
Total	Number of companies	13	30	43
	%	100,0%	100,0%	100,0%

Table 6. Chi-square test

Chi-Square Test	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	18,787[a]	3	,000	,000
Likelihood Ratio	22,455	3	,000	,000
Fisher's Exact Test	17,739			,000

Table 7. Chi-square symmetric measures

Symmetric Measures	Value	Approx. Sig.	Exact Sig.
Phi	,661	,000	,000
Cramer's V	,661	,000	,000
Contingency Coefficient	,551	,000	,000

Additionally, empirical research showed that there is a statistically significant correlation between endogenous organizational variables and successful takeover. Management turnover, changes in strategy, structure and corporate culture in target companies after the takeover impact on better company performance.

Results of the Chi-square test for H2 (table 8. and 9.) suggest that there is significant correlation between management turnover and better target company's performance after the takeover (p = 0,015), and *confirm the hypothesis H2*.

Table 8. Chi-square test for H2

Chi-Square Test	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	6,740[a]	1	,009	,015
Continuity Correction	5,027	1	,025	
Likelihood Ratio	6,575	1	,010	,015
Fisher's Exact Test				,015

Table 9. Chi-square symmetric measures for H2

Symmetric Measures	Value	Approx. Sig.	Exact Sig.
Phi	-,606	,000	,000
Cramer's V	,606	,000	,000
Contingency Coefficient	,519	,000	,000

Significant correlation between radical change of business strategy and target's performance after the takeover, at the significance level lower than 10%, was confirmed (table 10. and 11.) using Chi-square test for H3 (p = 0,083).

Table 10. Chi-square test for H3

Chi-Square Test	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3,009[a]	1	,083	,170	,103
Continuity Correction[b]	1,648	1	,199		
Likelihood Ratio	2,737	1	,098	,170	,103
Fisher's Exact Test				,170	,103

Table 11. Chi-square symmetric measures for H3

Symmetric Measures	Value	Approx. Sig.	Exact Sig.
Phi	-,278	,083	,170
Cramer's V	,278	,083	,170
Contingency Coefficient	,268	,083	,170

It has also been confirmed, using the variance analysis (table 12.), that there is a significant difference (p < 0.001) between mean scores of research participants coming from the companies that had worse (they think that the impact of radical change in business strategy on company performance is week – mean score 1,31) and better (they think that the impact of radical change in business strategy on company performance is very strong – mean score 3,69) performance after the takeover, and therefore *the hypothesis H3 was accepted*.[4]

Table 12. Variance analysis for H3

ANOVA	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	50,929	1	50,929	55,094	,000
Within Groups	36,976	28	,924		
Total	87,905	29			

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[4] Survey participants gave their opinion about the impact of radical change in target's strategy on target's performance after the takeover (1 – no impact, 2 – week impact, 3 – moderate impact, 4 – strong impact, 5 – very strong impact).

Results of the Chi-square test and its symmetric measures for H4 (table 13. and 14.) showed that there is significant correlation (p < 0,001) between changes in organizational structure and target's performance after the takeover. Out of the total number of target companies which changed organizational structure, 87,1% of them had better performance after the takeover, and only 25% of the target companies which did not change the organizational structure had better performance.

Table 13. Chi-square test for H4

Chi-Square Test	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	15,816[a]	1	,000	,000	,000
Continuity Correction[b]	13,009	1	,000		
Likelihood Ratio	15,365	1	,000	,000	,000
Fisher's Exact Test				,000	,000

Table 14. Chi-square symmetric measures for H4

Symmetric Measures	Value	Approx. Sig.	Exact Sig.
Phi	-,606	,000	,000
Cramer's V	,606	,000	,000
Contingency Coefficient	,519	,000	,000

Using variance analysis (table 15.) it has been confirmed that there is significant difference between mean scores of research participants (p = 0,038) regarding changes in organizational structure. Research participants who came from the target companies with worse performance after the takeover (12,9% of total participants) think that there is a weak correlation between changes in organizational structure and company performance, and 87,1% of them (coming from the companies with better performance) that there is moderate impact of changes in organizational structure on target company performance, and therefore *the hypothesis H4 was confirmed.*

Table 15. Variance analysis for H4

ANOVA	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,294	1	2,294	4,676	,038
Within Groups	16,679	29	,491		
Total	18,972	30			

Fifth hypothesis tested the assumption that larger change in corporate culture is related to better target company's performance after the takeover (change was measured using litmus test of consulting company Humming) and the results of the Chi-square test (table 16. and 17.) confirmed that assumption (p < 0,001).

Table 16. Chi-square test for H5

Chi-Square Test	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	33,890	2	,000	,000
Likelihood Ratio	40,192	2	,000	,000
Fisher's Exact Test	33,887			,000

Table 17. Chi-square symmetric measures for H5

Symmetric Measures	Value	Approx. Sig.	Exact Sig.
Phi	,898	,000	,000
Cramer's V	,898	,000	,000
Contingency Coefficient	,668	,000	,000

Variance analysis also showed significant difference between mean scores of survey participants regarding the correlation between larger changes in corporate culture and target company performance so *fifth hypothesis was confirmed*.

Table 18. Variance analysis for H5

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
Change of corporate culture (average)	Between Groups	53,153	1	53,153	80,949	,000
	Within Groups	26,921	41	,657		
	Total	80,074	42			
Perception of survey participants about correlaton between change of corporate culture and performance	Between Groups	18,253	1	18,253	29,466	,000
	Within Groups	22,300	41	,619		
	Total	40,553	42			

Besides, the research confirmed statistically significant correlation between size of the target and bidder company with successful takeover implying that the target should be smaller than acquiring company in order for takeover to be successful. Results of Chi-square test and the corresponding symmetric measures show that there is a significant correlation between the relative size of the target company compared to the bidder and target company's performance after the takeover (p = 0.008), and *sixth hypotheses was confirmed*.

Table 19. Analysis of relative size of target compared to bidder company

Size of the target compared to the bidder		Performance after the takeover		Total
		Worse	Better	
Very small (< 25%)	Number of companies	4	16	20
	%	20,0%	80,0%	100,0%
Small (26% do 49%)	Number of companies	4	10	14
	%	28,6%	71,4%	100,0%
Large (50% do 67%)	Number of companies	0	2	2
	%	,0%	100,0%	100,0%
Very large (68% do 99%)	Number of companies	0	1	1
	%	,0%	100,0%	100,0%
Equal (100%)	Number of companies	5	0	5
	%	100,0%	,0%	100,0%
Total	Number of companies	13	29	42
	%	31,0%	69,0%	100,0%

Table 20. Chi-square test for H6

Chi-Square Test	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	13,658[a]	4	,008	,004
Likelihood Ratio	15,205	4	,004	,004
Fisher's Exact Test	11,758			,006

Table 21. Chi-square symmetric measures for H6

Symmetric Measures	Value	Approx. Sig.	Exact Sig.
Phi	,570	,008	,004
Cramer's V	,570	,008	,004
Contingency Coefficient	,495	,008	,004

Besides, the results of T-tests showed significant difference (p = 0.0345 for one-tailed test) between the mean scores of research participants whose companies operated worse and better after the takeover about the impact of the size of the bidder on their companies' performance after the takeover.

Table 22. Levene's Test for Equality of Variances

	Levene's Test for Equality of Variances		T-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	1,783	,191	-1,875E+00	34	,069
Equal variances not assumed			-2,631E+00	23,048	,015

The impact of exogenous organizational variables on successful takeover has also been tested within empirical research. Chi-square test based on the likelihood ratio showed significant correlation (p = 0,038) between industrial concentration and takeover success, and *seventh hypothesis was confirmed*.

Table 23. Target company's industry concentration and its performance after the takeover

Target company's industry concentration		Performance after the takeover		Total
		Worse	Better	
Unconcetrated	Number of companies	0	8	8
	%	,0%	100,0%	100,0%
Moderately concentrated	Number of companies	9	15	24
	%	37,5%	62,5%	100,0%
Highly concentrated	Number of companies	4	7	11
	%	36,4%	63,6%	100,0%
Total	Number of companies	13	30	43
	%	30,2%	69,8%	100,0%

Table 24. Chi-square test for H7

Chi-Square Test	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	4,264[a]	2	,119	,136
Likelihood Ratio	6,527	2	,038	,072
Fisher's Exact Test	4,422			,122

Table 25. Chi-square symmetric measures for H7

Symmetric Measures	Value	Approx. Sig.	Exact Sig.
Phi	,315	,119	,136
Cramer's V	,315	,119	,136
Contingency Coefficient	,300	,119	,136

It has been concluded that changes occurring in target company, after the takeover, have higher effect on target company performance when industry concentration is lower than in the situation when industry is highly concentrated.

Out of other exogenous organizational variables which have been tested in empirical research it has not been confirmed that higher technological intensity impacts better performance of target company after the takeover because all analyzed target companies which performed better after the takeover came from low technology industries, and therefore *eight hypothesis was rejected*.

Table 26. Target company's technological characteristics and performance after the takeover

Technological characteristics of target company's industry		Performance after the takeover		Total
		Worse	Better	
High-tech industry	Number of companies	13	13	26
	%	50,0%	50,0%	100,0%
Low-tech industry	Number of companies	0	17	17
	%	,0%	100,0%	100,0%
Total	Number of companies	13	30	43
	%	30,2%	69,8%	100,0%

Table 27. Chi-square test for H8

Chi-Square Test	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	12,183	1	,000	,000	,000
Continuity Correction	9,928	1	,002		
Likelihood Ratio	16,659	1	,000	,000	,000
Fisher's Exact Test				,000	,000

Table 28. Chi-square symmetric measures for H8

Symmetric Measures	Value	Approx. Sig.	Exact Sig.
Phi	,532	,000	,000
Cramer's V	,532	,000	,000
Contingency Coefficient	,470	,000	,000

Furthermore, variance analysis indicated that there is no significant difference between mean scores of research participants coming from target companies which had better and worse performance regarding the impact of higher technological intensity on takeover success ($p = 0,515$).

Table 29. Variance analysis for H8

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
High-tech companies	Between Groups	,154	1	,154	,436	,515
	Within Groups	8,462	24	,353		
	Total	8,615	25			

Finally, the results of empirical research indicate that the government interference in takeover process exists, but that government interference does not have negative reflection on target company performance since all companies in which government interference in takeover process was detected performed better after the takeover.

Fisher's Exact Test showed that there is significant correlation between government interference in takeover process and takeover success ($p = 0,028$). In fact, all target companies where government interference was detected had better performance after the takeover, and

research participants think that the impact of government interference on takeover success was weak. Based on the results of statistical tests *ninth hypothesis was rejected*.

Table 30. Chi-square test for H9

Chi-Square Test	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	7,213ª	2	,027	,023
Likelihood Ratio	10,538	2	,005	,015
Fisher's Exact Test	6,654			,028

Table 31. Chi-square symmetric measures for H9

Symmetric Measures	Value	Approx. Sig.	Exact Sig.
Phi	,410	,027	,023
Cramer's V	,410	,027	,023
Contingency Coefficient	,379	,027	,023

Conclusion

Empirical research showed that, out of exogenous organizational variables, market for corporate control, industrial concentration, technological intensity, and in limited degree government impact on takeover success. Impact of endogenous organizational variables which include management turnover, changes in strategy, structure, culture, and impact of company's size is also confirmed through empirical research.

Respecting the fact that vast number of M&A's fail to achieve planed synergies and results, and taking into consideration results of the conducted empirical research it can be concluded that the model for successful takeover, based on analysis of endogenous and exogenous organizational variables, can contribute to the increase of the number of successful takeovers not only in Republic of Croatia, but also in other counties with active M&A arena and especially in the area of Western Balkans. Besides, this research represents significant contribution to new knowledge in the area of management studies and has extreme relevance for consultants and business practitioners.

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Living moments in family meetings:
A process study in the family business context

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Abstract
This thesis represents a novel process-perspective on formal meetings. It addresses the recent turn to organizational-becoming in organization studies by developing a dialogical becoming-perspective based on Bakhtin's work on dialogue. Based on an in-depth, real-time qualitative field-study, the thesis offers a detailed account of the social interplay during formal meetings. The notion of the 'living moment' is developed, offering insights into the once-occurring, unique and momentary transformation that can take place in meetings. This enhanced understanding of the micro-processes of meeting interactions contributes to existing research on organizational becoming as well as offers practical implications in regards to meeting practices.

Summary

Top management meetings, board meetings, budget meetings, strategy retreats and weekly updates – the organizational world is certainly a world of formal meetings where various kinds of meeting practices are often focal points for people related to the organization.

While the classical studies on meetings were instrumental in nature recent studies have drawn more attention to meetings as a social practice. Even so research on formal meetings still tend to depart from rather static, rational and linear assumptions, a so called being perspective of the world (Tsoukas & Chia, 2002). As a consequence meeting participants and the meeting conversations are approached correspondingly. Thus, the emotional, unpredictable and unique elements of meeting conversations get lost because conversations are reduced to some sort of tool or method for information transmission. That is why there is still a lack of studies that address the mundane, micro-processes of meeting activities (Jarzabkowski & Seidl, 2008).

This dissertation contributes to current studies on meetings by drawing on the emerging stream of literature on organizational becoming (Tsoukas & Chia, 2002). This is a stream of

literature that unfolds from process metaphysics – an ontology that sees processes, rather than substances, as the basic forms of the universe. To acknowledge the momentary, novel and inherently open aspects of organizational phenomena is receiving increasing attention in organization and management studies and it is promising in that it directs attention to social processes continuously in the making, something that is often neglected in mainstream organization studies.

Based on the basic assumptions of process metaphysics *the purpose of the thesis is to inquire into the lived experiences of formal meetings from 'within' and explore a processual understanding of this phenomenon*. The thesis is organized in three parts where each part builds on, and contributes to, the current development on organizational becoming as well as research on formal meetings. The first part contributes to organizational becoming literature by developing a distinct perspective on becoming drawing on Bakhtin's (1981; 1986) work on dialogue. The second part continues with a field work illustration where meeting practices are explored from 'within'. Based on an in-depth collaborative field study in two family businesses where the primary methods were participation in meetings and the making of interviews this part responds to the need for more studies of the "microscopic" processes of becoming (Tsoukas & Chia, 2002). The third part closes the dissertation with a discussion about the implications of understanding meetings processually. What emerges as central is the need to understand the here and now moments in meetings. The notion of the 'living moment' is developed as a reminder of the once-occurring, unique and momentary transformation that can take place between people in the present moment. Implications of the study close the dissertation.

Part one: a dialogical becoming perspective

This theoretical framework is organized in two parts where the first part discusses the main differences between a being and a becoming ontology and the second part develops the becoming perspective further by integrating Bakhtin's (1981; 1986) work on dialogue into a dialogical becoming perspective.

In contrast to a being ontology, where organizational entities (such as formal meetings) are portrayed as stable and timeless, the becoming ontology holds transformation as fundamental.

In short, a shift from being to becoming is a shift in focus from 'things made' to 'things in the making'. The becoming perspective in organization studies grew out of the dissatisfaction with the dominant being ontology that underpins much of current organization and management literature (Chia, 1995). However, like Chia (1995), I do not view thinking in terms of 'being' or 'becoming' as an excluding dichotomy. Rather, these notions are interconnected and supplement each other. That is why this theoretical framework is discussed through contrasting a being and a becoming ontology along five dimensions. These dimensions are chosen because they make up fundamental differences in the assumptions underpinning the being and the becoming ontology.

From stable entities to entities as patterns of interactions

This first dimension deals with the problem that arises from the taken-for-granted thinking about the world as consisting of definable and isolated entities such as people, organizations and, in the context of this study, meetings. This entitative view implies thinking about organizational life in a unified way, as if the organization were one thing with one identity, *the* organization. In addition, from this view, the organization is approached as something that is closed and stable, a finalised whole. The being perspective thereby presupposes and claims that entities such as organizations, people or technologies exist independent of each other. Consequently, processes are pictured as interactions taking place within stable entities (Bakken & Hernes, 2006). Understood in this way, entities remain rather intact irrespective of the interactions going on internally because of the stable divide between processes and entities (Hernes & Weik, 2007a). One of the shortcomings of this view, since it assumes that organizations exist ontologically prior to process, is that it makes it impossible to understand the processes of how an entity – for instance a meeting – is incepted.

However, when the being perspective sees processes as something that moves within rather stable frames, the becoming perspective, on the other hand, holds that it is the processes themselves that make up the entity (Hernes, 2008). The becoming perspective thereby denies that meetings can be approached as something detached from the meeting interactions because it rests on the premise that it is the hurly-burly of mundane interaction that makes up the very thing called a meeting.

From detached individuality to relationality

The second dimension deals with the need to turn away from the individual premise so widespread in organization studies and instead step into a relational realm. In their critique of methodological individualism, Chia and MacKay (2007) question the idea that every individual is a discrete, bounded entity. What is problematic with methodological individualism is not primarily the focus on the individual over the collective but the assumption associated that characterises a human being as a "self-contained, self-motivating human agent who acts on its external environment" (Chia & MacKay, 2007:226).

Relationality, by contrast, stands for an entire shift in that it acknowledges relations continuously in the making rather than the individual or the organization as separate entities. Going back to the original double meaning of the word 'individual' as both separated and connected, divided and undivided, implies thinking of the individual as a human agent that acts in a tension between itself and its environment. This is not in terms of self-bounded independence, but in terms of mutable relations where "[i]ndividual and environment become complexly mixed together as a field of dynamic interchanges in which locatable terms lose themselves in a dense interspace of relations" (Cooper, 2005:1690). Therefore, relationality understands human agency and actions as something happening in the space in-between, in entangled trans-individual connections and disconnections.

From the principle of sameness to preparing for difference

As introduced in the discussion about entities as finalized, one of the assumptions of a being ontology is that entities remain partially unchanged over time. According to Durand and Calori (2006), this thinking in continuity is related to what they call 'the sameness principle'. One feature of this principle is the tradition to look for general features of organizational life, such as regularities and recurring behaviour among people and organizations. As they underline, focusing on sameness only has certain backdrops. For instance, a one-sided emphasis on 'sameness' leaves organizations and individuals with a limited repertoire to choose from. Another limitation is that the conception of the other ends up with mimics of me, like another me. In short, the orientation towards sameness limits what is possible to see and apprehend (Durand & Calori, 2006).

One way to overcome this one-sidedness and open up simultaneous multiplicity, which is fundamental for a process understanding, is to acknowledge 'difference' and be sensitive to "the difference that makes a difference" (Bateson, 1972:459). When emphasising also what is

supplementary, different and unique, it becomes possible to better understand how processes of becoming evolve in the tensions between 'the one' and 'the other'. The recognition of difference makes it possible to understand how processes of becoming are not linear, progressive and homogeneous; quite the opposite, they consist of an infinite variety of unique moments in continuous transformation.

From time as mechanical to time as experienced

The emphasis on movement in the becoming perspective brings the notion of time to the fore. An often implicit assumption in organization studies is to approach time in a clockwise, linear manner. This is an understanding of time as something that moves forward in a unidirectional and mechanical way where time is clearly definable, linear and made up of discrete entities such as minutes and seconds (Styhre, 2003). Inherent in this perspective on time is the idea that it is possible to freeze the world in a specific moment in time to investigate exactly what is happening at that very moment. However, from a becoming perspective, where processes are understood as ceaseless, heterogeneous and always in the flow of making, this view of time becomes problematic. Freezing reality is impossible when all there is around is movement and when there is no being in time. A perspective on time without a being implies that the way to get hold of time is through experience. Such an experience-based, non-linear and fluid view of time is what Bergson calls 'durée' (Mullarkey, 1999). Durée is the lived experience of time and therefore not made up of discrete entities but in continuous process of becoming, a perspective on time that emphasises the qualitative, heterogeneous and dynamic dimensions of time (Mullarkey, 1999). To acknowledge 'durée' does not mean that chronological timing is unimportant in organizational life. Many meetings are organised according to a chronological schedule. Still, as Czarniawska (2004b) points out, it is the interplay between lived time and chronological timing that needs to be addressed for a better understanding of organizing processes.

From language as representational to language as performative

Finally, a shift from being to becoming calls for a greater awareness about and a shift in how language in use is conceptualized and understood. For instance, consistent with a being ontology, where organizations are approached as identifiable objects in an externalised world, is the belief that organizational life can be captured and represented through the use of a correct scientific language (Shotter, 2008). This outlook departs from the idea that language in

use is a representational medium of communication, in which a proper linguistic description has the possibility to mirror a 'true' organizational reality. According to Hernes and Weik (2007b:75-76), this view shines through in literature, where "an essentially fluid and complex reality is sliced and curtailed into pieces for analytical convenience, in order to be put together again as the 'total reality'".

From a becoming perspective there is a need to approach language so that it does not reduce the fluidity and complexity in the world of organizations. It is a perspective where language is not limited to a passive medium of information but rather understood as active and life-enriching in itself. 'Language as performative', as I have labelled this view, points towards the insight that words and sentences do not state facts, but rather that utterances in their unfolding do things (Garfinkel, 1967).

When these five dimensions are viewed together it is possible to note how interrelated they are. They cannot be clearly separated and they need each other for a fuller understanding of the becoming perspective. Importantly, they call for research practices that are sensitive to multiplicity and how the tensions between the one and the other are played out. For us to get to grips with how these processes unfold there is also a need for a process perspective that is instructive for understanding the "microscopic" processes of becoming (Tsoukas & Chia, 2002). I will therefore continue to develop such a perspective by drawing on Bakhtin's (1981; 1986) work on dialogue. His work is of great importance since it focuses on how processes of becoming evolve in an unfinalizable dialogic interplay between centripetal and centrifugal forces. It thereby has the possibility of developing a more distinct perspective on becoming as well as putting some more flesh on the bones in terms of understanding processes of becoming as they unfold in meeting interaction.

Bakhtin, dialogue and becoming

Bakhtin's (1984) work has been recognized for his relational and transformational view on communication where one of his basic assumptions is that life by its very nature is dialogic. The basis in his work on dialogue is that when two or more people meet in a conversation something unique is created; a collective life with its own voice that is pointing towards the future in its own, distinctive way (Shotter, 2009). The understanding of what is happening in this moment is an active process where the addresser as well as the addressee is involved. In this process, the meaning of what the speaker just said is jointly shaped by the addresser's

intention together with the response from the listener. To emphasize not only the active stance of the speaker, but also of the listener, distinguish Bakhtin's view on language from the referential-representational individualistic way of looking at language and emphasize his relational view (Shotter, 2008). The break with the representational view on language is important in that it underlines that 'the other' (the listener) is not duplicating the intention offered by speaker. As mentioned above, a dialogic understanding creates something unique; something new that emerges in the relationship between the two in the dialogue (Bakhtin, 1986).

Another characteristic of the Bakhtinian perspective on dialogue is the unfinalizability element of dialogic processes. That originates from the recognition that all utterances are a responsive to what others have said, just like we invite them to respond back (Bakhtin, 1986). Sometimes an utterance is not always followed by an immediate response, but sooner or later: "what is heard and actively understood will find its response in the subsequent speech or behaviour of the listener" (Bakhtin, 1986:68). In this way, conversations are unfinalizable, where "[t]he word in living conversations is directly, blatantly, oriented toward a future answer-word: it provokes an answer, anticipates it and structure itself in the answer's direction. Forming itself in the atmosphere of the already spoken, the work is at the same time determined by that which has not yet been said but which is needed and in fact anticipated by the answering word" (Bakhtin, 1981: 280). In this way, a conversation is a continuously connected process of responding utterances. An utterance can be a word or a sentence; it can be spoken or written. Importantly, it is the basic building-block of any conversation. From a Bakhtinian point of view, utterances are performed in a specific situation, expressed from a specific point of view, addressed to others, and with an inherent intention in it (Jarbi, 2004). However, the meaning of the utterance can never be fixed, because what proceeded, but also the expectations on what will follow the specific utterance will shape its meaning (Bakhtin, 1986).

How can this short introduction to Bakhtin's work on dialogue contribute to the shift from being to becoming ontology in the study of formal meetings? This will now be further elaborated upon along the five dimensions introduced above.

In relation to the first shift called for, *from stable entities to entities as patterns of interactions*, a Bakhtinian reading suggests that organizing activities take place in the ongoing centripetal and centrifugal forces at play. Interestingly, it is in the dialogic meeting between

these forces, not in the sense of a dialectical 'either/or' but rather as an ongoing struggle of 'both/and', that social life is played out. The second dimension suggested a switch *from detached individuality to relationality*. That switch invites us to focus on the 'transindividual'; the 'in-between', for a better understanding of how organizational life takes place. From a dialogic point of view, the focus on the 'in-between' asks us to recognise utterances in their unfolding rather than individual sentences or words, because that is helpful for getting closer to the social and relational character of social life. It also calls for exploring living dialogue in detail while at the same time taking the 'whole' (setting, time-space, speech genre) into consideration. In the third dimension, a turn *from the principle of sameness to preparing for difference* is suggested. To Bakhtin (1986), one of the foundations in dialogism is that speaking subjects are always 'other' to each other, which makes us experience the world differently because we have what he calls 'the gift of otherness'. In dialogic encounters, people offer those differences to each other. The fourth dimension, *from time as mechanical to time as experienced*, invites us to understand time from within the flow of lived experience. This is a key factor for Bakhtin. According to him, people always act from their unique chronotopes: the simultaneous and inseparable time-spaces, which make people experience and make meaning of what is going on in unique ways. Lastly, the turn *from language as representational to language as performative* brings attention to the world-making nature of language. This dimension, obviously, has many connections to Bakhtin's work. His work underlines that dialogue, and thereby the processes of becoming, are unfinalizable and polyphonic, consisting of a multitude of voices simultaneously in action (Bakhtin, 1986). Consequently, the shaping forces in language are multiple and ongoing even though some voices are usually more authoritative and recognized, while others are more marginalised.

One of the implications of the dialogical becoming perspective, and the five dimensions when they are viewed together, is the need to move beyond unproductive dualisms prevalent in organization studies, such as process-structure, micro-macro and stability-change. In relation to stability and change it is possible to notice, from a Bakhtinian point of view, how movements of change and stabilization take place in dialogic encounters between people. Stabilization is thereby a project that is "always ongoing and ever unfinished; and it is always opposed to the essential messiness of the world" (Morson & Emerson, 1990:139). This means that the dialogic processes consist of ongoing, polyphonic and unfinalizable centripetal *and* centrifugal forces that will continuously push the dialogue in various directions driving towards stabilisation and destabilisation. That is why these forces will never reach some kind

of stabilised state, equilibrium or final resolution, but rather be in a continuous process of becoming.

Part two: methods

From the theoretical discussion above this part will continue by focusing on the field study. This study is based on a qualitative, in-depth field-work approach that departs from 'within' the social interplay of the meetings that are studied. Tsoukas and Chia (2002:571) claim it is a need for process researchers to "experience reality directly" by being positioned "at the center of an unfolding phenomenon" in order to better understand processes of becoming. According to them, it is only from there, in the participation of that particular time-space that it is possible to get a glimpse of the salient, constantly changing organizational emergence since that is when you can "bring yourself in touch with reality through intuition; get to know it from within" (Bergson, as quoted in Tsoukas and Chia, 2002:571). The overall principle that has guided me in the field work comes from Shotter's (2008) notion of "witness-thinking", which is a specific way of making a study from 'within'. According to him, "[w]ithness (dialogic)-thinking is a form of reflective interaction that involves coming into living contact with an other's living being, with their utterances, their bodily expressions, their words, their 'works'" (Shotter, 2008:186). Hence, this is a collaborative kind of inquiry that is acknowledging and valuing connections between the researcher and the people in the field.

The field study is carried out in a family business context where the meetings that are studied are so called 'family meetings'. These are formal meetings held among family members that jointly own a business. Family meetings has proved to be one of the most significant governance institutions for family business longevity in that they can help to develop strong family relations and a healthy business. In family meetings, where people are dealing with that which is often most important to them in life, such as their work situation, family relationships and future wealth, the emotionally loaded, complex and intertwined nature of things get to the foreground. Since these are aspects that are often crucial in different organizational context, albeit difficult to uncover, this context is appropriate for enhanced insights about meeting practices.

The field study was conducted in three phases where a combination of methods was employed, such as participating in ten meetings (from three to eight hours long), conducting 41 interviews (from one to four hours long), reading archival material and co-authoring of

texts. Two meetings were video recorded and the others audio recorded. The interviews were also recorded and the material was transcribed in verbatim. The rich data was then analyzed in different phases. I first organized all the material chronologically, thereafter analyzed it according to different key issues addressed in the meetings and third by searching for specific dialogic processes. The final field work account was then organized chronologically meeting by meeting where each meeting focused on different aspects of the utterance chain, such as responsiveness, polyphonic meaning making, dialogic listening, and more. Since this is such a short summary I don't have the possibility to include the field work account here (for that, see Helin, 2011). I will next, instead, focus on the results of the study.

Part three: contributions and implications

Formal meetings have been recognized as significant spheres of activity in contemporary organizations (Huttunen, 2010). Since current studies of formal meetings often departs from a being perspective of the world they are often missing the more processual aspects of how meeting activities unfold over time. Moreover, given that "the action implications of process philosophy remain underdeveloped" (Gergen, 2009:385) and the call for understanding the "microscopic" (Tsoukas & Chia, 2002) processes of becoming there is a need of more detailed and in-depth process studies of formal meetings. This thesis responds to these calls by developing a dialogical becoming framework for understanding formal meetings.

What emerges as central in understanding formal meetings processually is in fact something that at first may seem contradictory; that in order to understand processes and flow there is a need to understand the here and now moment. The logic behind this argument is that it is in this very moment that conversations are unfolding and processes of becoming emerge. I refer to these moments as 'living moments'. 'Living', not because some moments are dead (even though some moments feel more alive than others), but as a reminder of the once-occurring and unique dimensions of a moment in the making. From this standpoint, the living moment is the moment that is most often not recognised, but still important, since it is the moment in between two or more people in a conversation where everything from a dialogic becoming perspective is happening: where people's utterances rub against each other in an unpredictably yet dialogically shaped way, creating a flow of unfinalizable processes of becoming. Thus, the ongoing living moment is the moment of movement.

The need for understanding the living moment is a result from the field study where it became clear that it is *in* conversation that dialogic transformation takes place. The living moment is an ongoing present moment that is on the one hand dialogically shaped by the speech genre at play. This is a shaping that gives a direction on how the processes of becoming unfold. At the same time, the living moment is a once-occurring and unique moment where the yet not told can be uttered. Against this background, one way to understand the practice of having meetings is to emphasise that the creation of a meeting can make room for an interplay of voices in the unfolding of here-and-now living moments. In these living moments a co-creation process can take place between participants as they offer each other their unique gift of otherness and respond to the voice of listening. When this happens, an interplay of stabilizing and changing forces rubbing against each other in the conversations can create something that has never been before, will never take place again and would not have been possible without the others and the otherness around in this moment. That is why the outcome of a living moment is not fully in the hand of a single consciousness.

A further conceptualization of the living moment as well as the implications of this processual understanding for engaging in field work, for writing academic texts, as well as for the practice of having meetings is thoroughly discussed in the thesis. As an illustration, this short summary will be closed with a brief discussion of one of the practical implications.

What does a process understanding of formal meetings mean for the chair or facilitator of the meeting? Based on the study, the role of the facilitator is, primarily, to think of how to make enriching communication possible and create awareness of the transformational power in the living moment, rather than giving specific advice or suggesting solutions for the meeting participants. When acknowledging that it is from within the very conversations themselves that transformation occurs we have to remember what it might do to the dialogical atmosphere if change is 'forced' from the outside. From this viewpoint, allowing for a process of becoming to unfold and relying on the "propensity of things" to realise its future potential can be one way of providing support in the meeting (Chia, 2010:128). From this follows a more hesitant stance towards confrontation, moving instead with the flow of events from within. In this, the facilitator can be of help by making sure everyone is invited to truly and fully participate in the meeting and it can be the role of the facilitator to create an enriching dialogical space where everyone's voice is listened to.

To zoom in and focus on the on-going present moment can be understood as a way of narrowing down in the analysis. At the same time, this study illustrates how zooming in is actually a way of opening up and uncovering new dimensions of the phenomenon under study. For instance, a closer and more in-depth understanding of the living moment makes it possible to recognise that no moments are the same. Moreover, to emphasize the 'livingness' of formal meetings opens up for understanding the unfinalizable 'wholeness' in the living moment and the unique and momentary character of social interaction. In sum, by emphasizing the 'livingness' of meeting practices and how that makes a difference in organization research this thesis gives voice to previously marginalised perspectives that complement existing literature on formal meeting practices and organizational becoming.

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Managing in the "Golden Cage" - An Ethnographic Study of Work, Management and Gender in Parliamentary Administration

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Abstract

This paper offers a summary of my thesis, Managing in the "Golden Cage" – An Ethnographic Study of Work, Management and Gender in Parliamentary Administration. The aim of this summary paper is to first give the reader an overview of the work, illustrate what this is all about, the methods, and why the chosen research design offered the best, or most interesting, results. The main aim of this paper is, however, by laying out the structures, conceptualisations and arguments of the thesis to illustrate why this thesis is significant, unique and why it makes an important and unique contribution towards scholarly efforts of a variety of fields and towards increased understanding of top management in the public sector of a democratic society.

What this work is about?

Parliaments are political institutions, but they are also places where people work; the MPs and the people who are employed there work, albeit in rather different ways. In this research the focus is on those in a Parliament who work there as employees and managers, and thereby, in some senses, run the organisation. Accordingly, this involves seeing the Parliament as a working environment, for MPs and employees, for men and women.

The institution of Parliament is thus here examined by looking at it from a different and new angle. Instead of the usual focus on politicians the focus in this work is on the administration of this institution.

The aim of this work has been, amongst other things, to increase knowledge and offer different perspectives on democracy and democratic institutions. Unpacking the nearly mythical institution into smaller, more digestible, graspable realities should at the very least help to remind the wider society that although nations, to a certain extent, do need national institutions they should not become mystified or seen as larger than life. Institutions should work on behalf of people and thus be accountable to these same people.

The main contribution of this work is to explore and problematise how managing and working is done inside an institution that both largely fulfills the characteristics of a bureaucracy and yet also has added special features that seem to be rather far removed from clear bureaucratic structures. This research offers a new kind of information on working life inside this elite institution. The joys and the struggles of working and managing in this particular public sector organisation are illustrated in this thesis and offer a unique view, a glimpse, into the experiences of managing and working in this House.

How the research came about

This book has its origins in my undergraduate studies in Political Science in the University of Glasgow. I was a second year Politics student (my first degree is joint honours in sociology and Politics) when I became intrigued by Political institutions and the fact that whatever goes on in the administrative sector of them, amongst the people that are employed to work there and are not Politically aligned, does not receive that much attention. I have since discovered that there is a whole branch of research and literature on bureaucracies and government officials in general but I still think that the elite of the government officials, for example, the senior managers working in the Parliaments and Presidential offices around the world, have not been looked at thoroughly enough. Why is this so? Are they looked upon as somehow above the rest of the administrative machinery? Or are they like many other members of elite? Invisible and out of reach for researchers, sheltered within the governing machinery? What does that mean in terms of those working communities and their power within them?

There is an interesting degree of silence about this institution and what happens within it, and that in itself speaks volumes. In this respect the thesis follows the Foucauldian idea that it is very significant "... which type of discourse is authorized, or which form of discretion is required in either case. There is not one but many silences, and they are an integral part of the strategies that underlie and permeate discourses." (Foucault, 1979, p.27). Partly the silences exist because of the difficulty in gaining access to these institutions but what those silences indicate is power. Political elites are not very thoroughly researched and in any society power is often to be found protected and surrounded by a particular 'silence'. Somehow, these institutions have an element of sacredness and to get to the bottom of them, to understand them, and to do research on and in them is a laborious project. One doctor's thesis is not even close enough but it is a beginning.

Whatever the nature of the institution, however highly it is portrayed within the collective minds or in the history of any given nation, anywhere, it is still, at the end of the day just another place where people work, experiencing all the usual problems of any workplace. Much political science has tended to neglect the administrative aspects of Parliaments and other political elite institutions. Some political theorists, for example Rawls (1971), have given weight to the general arrangement of the society's basic institutions as they form part of society's basic structure, the location and source of justice. For Rawls these institutions distribute the main benefits and burdens of all social life, who will have which basic rights, who will have opportunities to get what kind of work, who will receive social recognition etc. Thus the structures they contain and how they are managed do matter. This research is based on the idea that increased knowledge of the administration of political institutions, their inner micro-structures, informal and formal structures and the ways they function as workplaces is beneficial in terms of improving the internal governance of these places. In addition, such knowledge also has wider societal implications. The quality of democracy can be improved by first examining and then perhaps further developing the quality and structures of administration of these elite institutions.

The ethnography: many roles and many things to consider
This thesis is based on qualitative research, specifically ethnography, involving participant observation, interviews and documentary analysis. It focuses on exploring micro-level structures, mainly management structures, working processes and gendered relations within the Finnish Parliamentary administration.

The work was conducted with a range of methods, including questionnaires, interviews and an ethnographical approach. Issues of access to the Parliamentary building and institution were considered separately together with the evaluation exercises I undertook (as an employee) and the management training day I organised for the Parliamentary management, all this is thoroughly documented in the thesis. The results provide valuable insights into the existing state of affairs in the parliamentary administration and, in a number of ways, confirm the findings of earlier work there but also move on to underline the difficulties experienced by those involved, particularly at management levels, as the size of the organisation and the ensuing complexities grow.

A key aspect of this work is its ethnographic nature. As my colleague, office-mate and fellow ethnographer Teemu Tallberg has pointed out many times in our conversations the wonders of the "real life", "the empirical world" when doing ethnography, often leave the researcher humbled and

sometimes even stripped of any plans. I was directly employed by my field and that meant that I had to adopt certain roles and could not decide freely what I was doing there. I was in a way wearing several hats everyday and that did not make my ethical position simple. It was in fact a source of a lot of confusion at the time. Whilst attending events like the opening of the Parliamentary season opera or the official opening of the Parliamentary season coffee at the House of Parliament I realised perhaps more clearly than during regular days in the office that my role there was one of a person sitting on several different chairs at once and as a consequence I was not sitting comfortably on any of them.

The way this research has developed the form and content of the data has, as so often is the case with ethnography, depended entirely on the events in the field. Sweden was initially supposed to be the other case in this research and before Sweden, in the early days of planning Estonian Parliament, The Czech Parliament and Westminster were all considered as potential cases for comparison. Sweden was the latest candidate but in the end with the unfolding of the events there was more than enough data of interest for analysis. My six months in the field in Finland were taxing; the exit process was taking its toll and in the end my research design had to be changed and became different from what was initially planned. The way the exit process went in Finland, as the Finnish press "outed" me, made it obvious that I would not be able to just refer to an anonymous public sector elite organisation. Thus I had to come up with a new way of offering protection to the people in the organisations and to, a degree, to me.

This is when the concept of factionality was considered as one option. For a considerable length of time I contemplated on using this method to better conceal the organisation in question and to be able to use the Swedish data to the maximum but I was never fully happy with it. It is a debatable method and even if I felt I could have defended it in this case it was still initially forced upon me via the difficulties of the access process together with the actions of the field and then the media. It should be relatively obvious already from this that the methodological choices of this thesis have all, apart from the initial decision to do an ethnography, been somewhat accidental, field-dependent.

The general idea of being both in and out of the norm within a society fits this research in many ways. Firstly, as an ethnographer doing participant observation I was by default both an observer and a participant (in changing measures) and thus ended up in a situation where I had to continuously seek internal balance in how I was viewing the people around me. Did I see them as informants or as colleagues or as both and if both then, when and how did the shift in my attitude

occur? Then, secondly, through examining this given society, its different aspects, organisations and development via the lens that is coloured by dialectics I was again simultaneously an insider and outsider, as I too am part of the constant socialisation process, i.e. constantly having to balance my own will in opposition with the 'general will'. Individual understanding of the character of the general will only comes via obstacles and gradual growth of knowledge of the world and how it works. Thirdly, as a feminist researcher I am both an insider and an outsider to start with, trying to make sense of something I am also part of myself and trying to be reflexive and to see and analyse my position and the world around me. Then there is a fourth dimension that comes from my personal background. I was born outside Finland and have lived abroad for a long time, as a child and as a student. I have always felt that I am neither here nor there, always in a way in transit. This then puts me in a position where I am not really an insider in Finland but not really a proper outsider either. All this will have had an effect on this work and will keep on affecting the way I view the world. Thus my position in relation to this research could be seen as a four-fold insider and outsider (Wolf, 1996).

Writing of this thesis, towards the end was an act of regaining control. My role as an ethnographer was and is, amongst other things, to describe and analyse what I experienced during my time "in the field". When going into the field I really (despite of the pre-warnings and my previous experience of working as a researcher) expected to be able to observe and tell a controlled, neat story and then analyse it. This did not happen. The story, the research, the data is at times boring, normal, dramatic, controlled even, and then at other times it is everything but. The only way to do justice to it, however, is to attempt to share this experience of "uncontrollable webs" of media, Politics, administration and evaluations and to conceptualise and analyse it all in a manner that would offer the reader an idea of the way the informal and formal processes and structures and strategies are indeed visible in what at first appears to be nothing but a "mess" of events.

Conceptual framings

The thesis examines the traditional logic of state governance, and considers the different impacts the logics have on the working environment and workplace atmosphere. When examining a Political institution and the working processes within it, power is both a key issue and a key concept. Gender relations and gendering are thus also central in this research in making different power relations visible. The primary focus is specifically on gendered processes and the differing ways that advantage and disadvantage, exploitation and control, action and emotion, meaning and identity are distributed within the administrative offices of the Finnish Parliament. In particular the

meanings and significance of "liking" and "politicking" within the administration are examined. Together these concepts are additional informal processes and structures within formal organisational structures. These processes and structures do not, however, always follow or coincide with the gendered formal structures.

Parliaments are Political institutions but they are also places where people; the MPs and the people employed there work, albeit in different ways. Here the focus is on those in a Parliament who work there as employees and managers and thereby run the organisation. Accordingly, this involves seeing the Finnish Parliament as a working environment, for MPs and employees, for men and women. The aim is thus also to clarify what effects gender has for working in a Finnish Parliament. This will be done by combining organisational and management studies with political science perspectives, together with a gender-sensitive view. There are several different implications that arise when looking at a Parliament as a workplace. One of the key concepts is power and the question of how power is divided within any given Parliament. In order to be able to evaluate the power relations within these institutions one needs to look at their different organisational structures. As an organisation, Parliament has (at least) two differing hierarchies, the Political and the organisational; and then there is the (very likely) possibility that these two hierarchies are further mixed with each other rather than forming two separate clean-cut categories. Within any Parliament there are also two main groups of people in terms of status, salary and position within the hierarchy: employees and MPs. Within these two main groups there are again further subgroups. The former group (the employees) are, however, a fairly stable group and very typically they have been working within a Parliament for an extended period, whereas the other group (MPs) are at least partly fluctuating according to the given Political changes and order. The Political group of MPs also includes a subgroup, the MPs assistants whose position has been a source of a lot of debate in the Finnish parliament. The MPs assistants' contracts are with the administrative office of the Parliament but the assistants are managed separately by each MP and thus they form a distinct group inside the organisation. Thus there is a large group of people in the Political part (further divided into groups i.e. parties, subcommittees and subgroups) that (potentially) changes every four years, and then another large group of people in the political part of Parliament staying put and providing the supporting structure for the MPs, facilitating their work. Within all of these subgroups and subdivisions there are also the divisions to men and women, as well as a specific type of social hierarchy that exists simultaneously with the main formal hierarchies (see figure 1.). This creates an interesting and complex, in many ways unique, setting for a working environment as well as a very complicated web of power relations.

political hierarchy	Political hierarchy
Secretary General	Speaker of the House
Administrative Manager	Deputy Speakers(2)
Managers of different units	MPs
Employees of different ranks	Men/Women
Men/Women	Political staff
Social hierarchy	MPs' assistants
	Social hierarchy

Figure 1.

This research is a story about what happens when one's work is (and it always is, whether it is Politics or politics), by definition, 'tainted' by Politics, politics and personal issues. What kind of workplace, what kind of organisation, would that be? How could it function? What is it like to work in a place that is both highly Politically charged and also has all the trials, tribulations and politics of "normal" organisations? Many parliaments throughout the world probably have many people working there able to answer these questions, perhaps even with some ease. Moreover, within mainstream organisational studies Parliaments, amongst other Political organisations (Rainey, 2003) are highly understudied as organisations or workplaces. The greater part of the work done on organisational studies focuses on the private rather than the public sector. Furthermore, even though there is a large and growing body of literature on the public sector, dealing with managing the public sector such as New Public Management (Polsby, 1984; Dunleavy, 1991; Hood and Jackson, 1991; Osborne and Gaebler, 1992; Dunleavy and Hood, 1994; Stokes and Clegg, 2002) that literature does not usually deal with elite institutions such as Parliaments; instead the focus is more on other public sector bureaucracies, administration, and service delivery.

As an organisation, Parliaments (in any country) are unique in that they produce laws and policies which people are at least expected to obey. Other kinds of organisations produce norms, guidelines and policies, but Parliamentary decisions usually apply to the whole society, at least theoretically. Never the less the workings of this unique type of organisation are of particular interest from many

angles. Even though there has been a large amount of international (and Finnish) research on gender relations and Politics – in terms of women's representation and positions within the governing systems, in the Political parties, public sector administration and policy-making in general, (for example: Barry, Dent, O'Neill, 2003; Mazur, 2002; Chappell and Hill, 2006; Chappell, 2004; Annesley, Gains and Rummery 2007; Arhosalo, 1985; Eduskunta, 1996), this research has generally been more focused on the aspects of gender equality and equality more generally in different parts of the political field and policy making. There has also been a good deal of Finnish research dealing with gender and the different aspects of gender mainstreaming or the lack of it in public sector in the communal and state level (Holli, 2003; Kuusipalo, 1989; Holli and Kantola 2007; Holli, Luhtakallio, Raevaara, 2007; Holli and Saari, 2009), but relatively little attention to women and men as gendered actors inside Parliaments, and even less -according to my knowledge, no research where- Parliaments would have been considered as a gendered, employing organisation. It is necessary to point out here that there are still countries where one can find large areas that are in fact 'ungovernable', for example, parts of Afghanistan.

The role of party Politics, usually at the forefront of any study on Parliaments, is here given minimal attention. Political institutions like Parliaments are often treated as something above the "normal" workings of organisations. But it is perhaps good to note here that even "... members of Parliament are paid employees in a public-sector organization and, as such, are no less accountable and open to scrutiny than those employed in more accessible public service sites, such as education, the NHS, the Post Office and so on" (Whitehead, 1999, p.19).

This open scrutiny is and has been very much a concern of the media, in many countries also in Finland. However, open scrutiny of the other sides of the Parliament apart from the money spent, the administration and civil service has been, until recent years, been more rare. Intense media attention towards the administration is relatively recent in Finland. This could also be seen as reflecting the 'opening up' or at least change, that could be said to have started during the 1980s, in the way the Finnish media has handled the politicians (Virkkunen, 2006; Ervasti, 2004; Aula, 1991) and political culture generally over the recent years (Aslama and Kivikuru, 2002; Alho, 2004).

Main objectives of the thesis

There are two main objectives for analysis: firstly, the analysis of management and structures of the administration; and, secondly, the analysis of the gendered organisational processes, hierarchies and structures of the administrative offices. The main focus inside the Parliament is on the general administration and managing of the 'House'.

Another objective of this kind of approach to a Political institution is to unpack some of the myths around governmental institutions and to look beyond the controversies of Politics by focusing on the organisational structures and functions of these Parliaments. As the adopted approach is also informed by gendered studies of organisations this includes examining the possible gender equality or inequality of the Finnish Parliament as a place of employment.

The main focus is thus on those in Parliaments who work there as employees and managers and thereby in many senses run the organisation. The MPs and their assistants with their rather different status, is considered in the analysis but only on those occasions when something occurred in the field that brought them into view. The MPs are employed in these institutions too but it is not possible or necessary to here deal with the multiplicity of issues regarding Political representation and ideology. It is sufficient to say that the Political environment is taken into consideration and acknowledged to have a multiple level impact on the organisational functions of Parliaments.

Part of the core arguments in this thesis is that one cannot and should not try to split any organisation in neat parts and pretend that those parts have nothing to do with one another but in this work the Political part and "the bridge" between the two parts is left to minimum attention as a thorough analysis would be beyond the scope and point of this work. It would also be likely to divert attention from my main focus, the employees.

The nature of the relationship of these two parts of Parliaments – the Political and non-Political (or political) is not straightforward. It is a very complex web of hierarchical, political, Political, social and tactical positions. In the context of this type of explorative study it is impossible to evaluate in any substantial manner all the aspects of how this relationship works and thus that is left to future research. Questions such as what kind of power relationship do the administration and the Political parts of these institutions really have need to be answered through further research on these institutions.

The research questions and how they fit with the method
The research questions lived and developed alongside with the thesis and changed many times over the years but the two main research questions are:

1. What is it like to be a "non-Political employee" within a Parliament? From the perspective of people employed within administration; managers; women and men.

2. What are the specific character and characteristics of the organisational formal and informal processes and relations within the employed, non- Political, part of the Parliamentary institution?

The questions are wide and this is partly due to institutional ethnographic nature of the research (Smith, 1987). The questions functioned more as a guideline on my way into the ethnography. What then became the ethnographic data of this thesis is tightly linked with these questions but maybe not in quite the same way as in some more orthodox qualitative research projects where the research mainly starts with very specific questions that might also change along the way because of the way the actual research process goes but where the aim is still to answer some specific questions in the final analysis.

This particular study has been done by doing ethnography, more specifically the kind of non-positivist ethnography that means venturing into the unknown. I have not gone in looking for specific answers, rather the aim was to discuss with the field with wide questions, ideas and an open mind (Rhodes et al., 2007; Van Maanen, 1988). One could, however, say that I started my fieldwork with two very broad questions. Whilst doing the research I realised that I am interested in these two questions particularly in relation to three specific groups. At the end of my fieldwork I left the field with a whole new set of questions that are to be answered by the future research.

Key concepts and theoretical considerations

This research starts from an ontological position where the collective is seen as the most important Political and political subject. The fact that my case in question is the Finnish Parliament makes this kind of Hegelian-Marxist ontology even more fitting. The process of Finnish nation formation was very much inspired by the Hegelian theory. Snellman, the founding father of the Finnish state, wrote his doctoral thesis on Hegel (Klinge, 1997). One could argue that Finnish state sector bureaucracy is thus based on these very ideas.

This research does not offer new ways of organising or theorising public sector governance. However, the knowledge acquired by doing this research does speak clearly for a more professional and more organised and centralised managing of these types of organisations. Focusing on facilitating law-making has for a long time been the general approach of these institutions but it does not seem to work so well anymore (if it ever did). This may be due to the sheer growth of numbers of employees within them. What works with approximately 25 people does not work so well with nearly 900.

To the eternal question of what is your contribution, both theoretical and/or practical, or, as one often gets to hear it: now that you have done all this, so what? My answer goes along with Dorothy Smith's views on the significance of the everyday activities and micro level research in that they offer a valuable and important benchmark with which one is perhaps better equipped to investigate or at least review the seeming inevitability of the existing macro-power structures. The societal significance of the micro-level events, however, has been researched and pointed out by many researchers other than Dorothy Smith. There are interesting feminist accounts on the tensions between women's everyday micro-politics and the macro-political goals (Kumar, 1994) as well as on the impacts and influence of micro-politics when it comes to gender, identity and resistance at work (Thomas et al., 2004). The importance and varying impacts of micro-politics have thus been considered from many different angles and this research goes along with the view put forward by Prasad and Prasad, when they point out that micro- political resistance: "... shapes and reshapes employee identity, redefines the nature of work and authority relationships, alters the symbolic order of the workplace and restores some measure of dignity into less respected jobs ..." (Prasad and Prasad, 1998, p. 251).

As I have done research in the very core of political and societal power I find that such knowledge on the everyday and resistance within it that sphere is valuable in itself, because it offers a very different perspective to the dominant perspective on democratic structures of society. Institutional ethnography sees bureaucratic organisations and institutions as places where individual's actions are made accountable in terms of abstract, generalised categories. "The concrete experience of individuals can thus be viewed as a terrain structured by these generalising relations but not wholly swallowed up by them. In this way, the experience of the individual presents itself not merely as "a case", but rather as an entry point into the actual workings of those institutions which produce the generalised and abstract character of contemporary societies" (quote from Grahame, 1998, p. 353; see also Grahame, 1999; Smith, 1987, pp. 157-158; Smith, 1996; Smith, 1998; De Vault and McCoy, 2002).

This thesis also follows the thinking of Rhodes et al. (2007) in the belief that "combining the analytical perspectives of an interpretive approach with the methods of social anthropology gives new insights into the behaviour of government elites" (p. 4). That is the contribution of this research: to offer a new angle into life inside these elite organisations, Parliaments.

Critical examination of the relations between the social sciences and the ruling institutions of the society is not a new project and it has been advocated and called for by many theorists, for instance, Foucault (Foucault, 1978). Foucault has discussed the way the social sciences and the discourses used have emerged as part of the ruling apparatus and as such can be seen as being simply another dimension of ruling and governance. Smith's argument draws on these ideas and she takes them one step further and develops a "critique of sociology's role in processes of ruling through an analysis of how institutions and professional discourses exclude the standpoint of persons living and acting in the everyday world" (Grahame 1998, p. 349; Smith 1987).

The conclusions and main contribution

The most immediate conceptual pairings arising from the data were the general individual will versus collective will, the focus on micro- versus macro-related matters, and the everyday office life versus the more continuous operationalization of the democracy. All these three pairings work simultaneously and have an impact on each other as well, as reproducing each other over and over again, thus continuously opening new dialectical pairings and tensions as time moves on. The general will continues through and materialises in the everyday, indeed the ethnographic. The most important work done in the Parliament is making sure that the collective will of Finnish people is materialising in the decisions made in the House, yet this stress on the collective will is continuously complicated, interrupted and sometimes hindered by the internal organisational lack of attention towards the individual will, or rather the continuously uneasy marriage of the two that is displayed within the formal and informal structures of the House. The dialectics, the tension between these two logics, can also be seen as a common good (in the Aristotelian sense of 'good'). On the one hand, the friction is 'good' as it can provide room for improvement. However, the current balance between the two wills within this institution seems to have potential to be harmful for some individuals, and thus perhaps it would be more beneficial in the long run for the institution and those working there if there was greater attention to the well-being of the individual and individual wills within the more general aim towards the materialisation of the common will. This in turn could, ideally, then lead towards wider and beneficial societal consequences.

A comprehensive appreciation of working in this public sector organisation is mostly beyond the full grasp of most of the existing conceptual frameworks that might otherwise apply, including those around public administration, organisational culture and Political culture. This work, although in a very modest manner, continues in the footsteps of previous research on organisational,

managerial and public sector elites by attempting to illustrate the special character and characteristics of this institution, as well as problematizing the special characteristics and experiences of working and managing within this glorious golden cage.

This research has provided the reader with a thick description (Geertz, 1973) of previously relatively unknown parts of a Political institution, the 'non- Political' departments of the Finnish Parliament. The aim has been to open another black box (Easton, 1965), that is, to venture into, describe and analyse a previously relatively unobserved, yet systemically very important area within the core of the democratic Political system. The research was very much explorative. The next step in research is to look deeper into these kinds of elite organisations within the public sector and investigate what is defined as the bridge between 'Politics' and 'non-Politics'. How long or short is this bridge and more importantly, whether the length of it is indeed (as seems likely based on this work) decided upon over and over again every day? How do the structures change or not accordingly?

The scientific novelty of this work rests specifically in its ethnographic examination of the under-researched area of parliamentary administration and benefits in particular from a multi-disciplinary approach that draws on sociology, political science, ethnography, gender studies and organisation studies. These are all used when the everyday experiences of employees in parliamentary administration, at once an ordinary workplace and a sacred institution that its workers are proud to represent, come alive in the stories of the thesis. The work also takes into account and discusses at some length the sensitivities that accompany ethnographic research whilst seeking to maintain a delicate balance between my position as a researcher and a participant in the research encounters. This is all accomplished through as reflexive account as humanly possible where I am placed on the centre stage and actively engaged in the processes and descriptions of this research.

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Being in Between:
An Ethnographic Study of Opera and Dialogical Identity Construction

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Abstract
Conflicting logics govern practices in creative organizations. This requires 'balancing acts' between artistic and managerial efforts, which are often subjects to struggle. This ethnographic study aims to go beyond the paradoxical organizational context by examining how the organizational members of an opera house construct identities in dialogical meaning-making processes. How is the opera organization constructed by its members? How do they draw on different logics when relating to their organization? And what characterizes the relational processes of organizational identity construction? The thesis aims to answer these questions by providing a detailed description of the everyday life of an opera organization and construction of its identity.

Introduction

Art and Management – A Key Hybrid

When art and creativity is brought into management it brings a critical counter force to the traditional command and control management practices. An increasing number of studies have been conducted to explore the possible connections and valuable insights between art and management. This type of research highlights the complexities of organizational life and goes beyond the rational and functional side of organizations (see e.g., Strati, 1992; Gagliardi, 1996; Humphreys, Brown, and Hatch, 2003; Meisiek, 2004; Atkinson, 2008). The attempts of bringing together art and management are faced with a challenge between inherent conflicting logics, which leads to struggle among the organizational members as they balance between them. Little is known, however, about the members' internal processes involved in the struggles.

Artistic organizations represent such organizational context in which the struggle between conflicting logics is part of their everyday practices. To go beyond either-or thinking on this type of paradoxical organizational context (DeFillippi, Grabher, and Jones, 2007) and to explore 'logic blending' (Glynn and Lounsbury, 2005), the doctoral thesis aims at examining how the organizational members of an opera house construct views on their organization in dialogic meaning-making processes. Opera houses as hybrid organizations provide an interesting context for exploring the processes of organizational identity construction because of the large variety of professional groups, a normative-utilitarian foundation (artistic excellence versus economic utility), and a complex networking production system.

Aim of the Study

The overall aim of the thesis is to examine the *processes* of organizational identity construction in the context of a cultural organization. This means that the focus is not on the outcomes or functions of certain organizational identities, but on the ways in which the organizational members describe and relate to their organization. Based on the view of organizational identities taken in the thesis, the processes do not happen in a vacuum but are influenced by different organizational, political and economic aspects in the field of cultural production.

With this aim in mind, the study seeks to contribute to the discussion on organizational identity construction in cultural organizations in general and in opera organizations in particular. The following questions are considered central for the study: 1) how is the opera organization constructed by the organizational members, 2) how do the members draw on different logics when relating to their organization, and 3) what are the elements that characterize the relational processes of organizational identity construction in an opera organization?

Theoretical Framework

The thesis draws on two theoretical discussions: Firstly, theories on cultural production provide a way to examine the conflictual nature of cultural production. Secondly, theories on organizational identities are presented focusing in particular on the interpretative view on the topic.

In the Field of Cultural Production

The distinction between art and economy has a long history, and the dichotomised thinking seems to continue even in the contemporary economy. For instance, trends in New Public Management (see e.g., McLaughlin et al., 2002) and requests for more efficient modes of production have aroused discussions on the conflicting ground of cultural organizations. In addition, the recent development of a 'culture economy' (e.g., Florida, 2002; du Gay and Pryke, 2002) and cultural industries (e.g., Caves, 2000) has further contributed to the debate. This debate, however, tends to focus more on the macro level analysis of the aesthetization and culturalization of products and services in the contemporary economy (du Gay, 1997) whereas this research aims to examine the internal processes of cultural organizations.

The struggle between the conflicting 'worlds' has been examined, for instance, by Pierre Bourdieu. His concept of the 'field of cultural production' is built around a relational system in which art and its producers do not exist independently of the institutional framework that authorizes, enables, empowers and legitimizes cultural products and productions. Bourdieu's theoretization on cultural production is built on the idea of contradictory logics and ideological values such as artistic excellence and economic utilization. The economic logic of practice can be characterized by market orientation, which sets external constraints and demands (e.g., economic and political) on various forms of cultural production. In contrast, the artistic logic of practice is characterized by the desire

to produce art for art's sake involving both the specific interests of the actors (e.g., stylistic) and more socially oriented aims to produce cultural products. Bourdieu highlights that '*l'art pour l'art*' is not only 'for art', but at the same time it is essentially against economic thinking. Hence, the struggle is not only between two individuals, but rather is inscribed in the broader conflict between orthodoxy and heresy, which constitutes the central dynamics in the field of cultural production. (Bourdieu, 1992, 1993)

Thus, cultural products are created through social relations that enable and maintain the system of cultural production. The relations can be both visible interactions as well as invisible structural relations between the social positions of individuals, groups or institutions. These positions are anchored in the different forms of capitals operating within the field. In the field of cultural production cultural and symbolic capital has traditionally been valued over economic capital, which creates continuous clashes and competition within the field. (Bourdieu, 1992, 1993) Therefore, cultural production is not the site of a coherence-seeking intention but involves processes of permanent conflict. However, this conflict and the struggle between art and economy are seen more as unifying and generative principles of the system instead of an all too negative conception.

Organizational Identities

A traditional conception of organizational identity in which the members distinguish their organization from others and stick to these relatively enduring beliefs has been challenged by more interpretatively inclined researchers. From an interpretative approach organizational identities can be seen in terms of inter-subjective realities constructed through negotiations of *meanings* among the organizational members (Clegg, Rhodes, and Kornberger, 2007). Organizational members may relate multiple meanings to their organization, some of which are shared and some of which are contradictory (Golden-Bible and Rao, 1997; Hatch and Schultz, 2002).

The processes of organizational identity construction involve various relational aspects. Relationality in organizational identity research has traditionally followed Brewer and Gardner's (1996) view in which they distinguish between individual, group and collective/organizational level identities. The relational level of identity focuses on a person's role relationships and in what way the person defines him or herself in terms of the role relationship (Sluss and Ashforth, 2007). However, from the interpretive approach to organizational identity construction relationality has been seen in much wider terms. It does not merely refer to concrete relationships between persons, but to a wider consideration of the various discursive resources the organizational members may refer to while making sense of their organization. This means that the meaning-making processes of the organizational members happen in a dialogue between social actors and institutions, between self and others, between the inside and outside of the organization, or between the past and present (Ybema et al., 2009; see also Beech, 2008). Ybema et al. (2009) argue that identity construction is a "dynamic interplay between internal strivings and external prescriptions, between self-presentation and labelling by others, between achievement and ascription and between regulation and resistance" (p. 301).

Thus, the processes of organizational identity construction can be seen as happening 'in between' the various actors, positions, professional groups, other organizations in the field or between past and present understandings of the organization.

Organizational identities and in particular the *processes* of organizational identity construction provide a useful approach to examine the contradictory logics and the hybrid ground of cultural organizations. Glynn (2000) argues that musicians enact an artistic identity and managers enact an economic identity and conflicts arise when these contradictory identities try to secure their positions. The aim of this thesis is not, however, to identify what kind of identities certain professional or occupational groups claim to possess in the opera production context, but to examine and describe the dialogical processes in which organizational identities are constructed.

Research Methodology

To examine the processes of dialogical identity construction I have applied an ethnographic methodology. Organizational ethnography aims to uncover and describe the ways in which people in particular work settings come to understand, account for, take action, and otherwise manage their day-to-day situations (Van Maanen, 1979). This means that ethnography is strongly connected to fieldwork activity (the 'doing' of ethnography) when the researcher enters an organization, gets to know the people, participates in the daily routines, and develops ongoing relations with the people.

Ethnography can also be seen as an act of sense-making. Ethnography entails a kind of frame of mind or a paradigm, which means learning to 'think culturally' about a society or organization (Bate, 1997). Organizational ethnography is interested in the 'living history' (Malinowski, 1945) of an organization, thinking and behaviour that continue to live on, and shape the present in various rituals, myths, stories, and anecdotes. While being in the field, the ethnographer tries to make sense of the organizational (informal) processes with coexisting (competing) meanings of different actors without avoiding or reducing complexity and tensions.

The study is based on the 15-month fieldwork in the Finnish National Opera during which I observed two different opera productions. In addition, I conducted 43 semi-structured interviews, collected various organizational documents and had several informal discussions with large number of people working in the National Opera. The data generated for the study is described in the following table:

Quality of the empirical material	Quantity and time frame
Participant observations in two opera productions:	**Totally 15 months**
▪ Opera production nr. 1	January 2006 – March 2006
▪ Opera production nr. 2	April 2006 – May 2007
Semi-structured interviews	**Totally 43**
▪ Preliminary interviews with opera directors	8
▪ Interviews in the Finnish National Opera	34

▪ Interview with a local opera producer	1
Field notes and Documents	**Totally app. 4000 pages**
▪ Field notes	800 pages
▪ Ethnographic diary	120
▪ Annual reports of the Finnish National Opera	1978-2008
▪ Production schedules (season/weekly)	January 2006 – April 2007
▪ Personnel magazine of the Finnish National Opera	December 2005 – April 2007
▪ Season programmes	2005-2009
▪ Opera magazine for the National Opera's customers	2005-2009
▪ Newspaper clippings concerning the Finnish National Opera and opera news in general	2004-2009
▪ Other documents (e.g., job descriptions, opera librettos, internal documents)	
▪ Photographs	

Table 1 Summary of the empirical data generated for the thesis.

The analysis method applied in the study can be called a multi-stage inductive approach. I carried out the data analysis in three main stages. First, I started the empirical analysis by a close reading of the texts and identifying parts in which the organizational members describe aspects related to organizational identity construction. This first-order coding (Van Maanen, 1979) aims breaking-down, comparing, and categorizing data. In the second stage I identified descriptions in which the organizational members clearly state views on their organization. I also started to analyze them in more multifaceted ways describing the relations and positions through which these processes were described. The third stage of the data analysis focused on creating second-order themes based on the struggles identified in the previous stage. In this stage I first identified ten different themes that refer to processes of organizational identity construction, which were further categorized into the three types of dialogics.

Results of the Study

The Opera House Triad

The organizational members construct the Finnish National Opera as the 'house', and the house refers to a certain construction combining aspects of an institution, organization and a production process. The institutional aspect of the 'house' can be described as a space of national and cultural heritage, which is generally shared and accepted by the members of the organization. The organizational aspect of the 'house' is constructed as the space for management and administrative practices, whereas the 'production process' is the space for artistic and technical practices. However, everyday practices in the Finnish National Opera and those who carry them out may not be so clear-cut as some of the administrative personnel say that they are merely part of the 'organization', while others view themselves as part of the both. In the same manner the technical personnel view themselves as part of both the 'organization' and the 'production process'.

As an art institution, the Finnish National Opera is responsible for maintaining and developing the opera as an art form. The link between the 'production process' and the 'institution' as a national and cultural heritage was described in particular by the artistic personnel more often than the relation between the 'organization' and the 'institution'. The technical personnel seem then to emphasize the link between the 'production process' and the 'organization'. However, both the artistic and technical personnel describe the 'organization' partly as a place where the visiting artists produce and perform the actual artistic content. In this way the 'organization' refers to a playground, an empty shell that is a space to which outsiders bring creative content. Hence, the place related to the 'organization' is very different from the place related to the opera house as a national and cultural heritage.

Intertwined Logics – From Dualism to Dialogics

In the study the practices involved in the construction of 'production process' seem to be led more by the artistic logic whereas the practices connected to the construction of 'organization' are more clearly governed by the economic logic. However, based on the empirical analysis of the study, the artistic personnel of the Finnish National Opera do not merely draw on the artistic logic and the administrative personnel merely on the economic in constructing organizational identities (cf. Glynn, 2000). Instead there seems to be a constant 'blending of logics' between the two (Glynn and Lounsbury, 2005).

The study also suggests that instead of the two logics of art and economy, there seems to be an additional logic that influences the processes of organizational identity construction. This is called the logic of a national institution. The logic of a national institution in the study refers to the social structures that involve processes of organized and established procedures (Jepperson, 1991) transmitted by various routines, rules and artefacts through symbolic and relational systems (Scott, 2001). The logic of a national institution is not merely constructed inside a physical organization such as the Finnish National Opera, but at the level of a field (DiMaggio, 1991). The logic of a national institution is constructed through the notions of national mission of the Finnish National Opera and the national purpose of the opera houses as developed in the operatic field. The logic of a national institution identified in the study seems to involve all three forms of capital: cultural, economic, and symbolic. The logic of a national institution is constructed as a balancing element, a shared and common ground between the 'organization' and the 'production process'.

Through the construction of 'house' various dialogical struggles between the logics can be examined and understood. In the following table the three dialogics of positions, work practices and management practices are summarized:

Participants	The logic of art	The logic of economy	The logic of national institution	Key struggles
Dialogics of Positions				
Artists (visiting and ensemble), technical and administrative personnel	Positions among artists in relation to the art field Positions between artists and other organizational members in relation to the core (e.g., performing)	Positions of technical and administrative personnel in relation to supporting functions (e.g., marketing)	Positions of the organizational members in relation to multi-skilled professionalism instead of narrow division of labour Positions of ensemble and freelancers	Visiting 'stars' versus ensemble Artists versus other personnel groups Artistic versus administrative supervision Freelancers versus full-time employment
Dialogics of Work Practices				
Artistic, technical and administrative personnel, members of creative teams	Emphasis on opera production process Emphasis on the uniqueness of opera productions Competition for identification with the opera productions	Emphasis on line organization Emphasis on the sameness of the organization	Emphasis on matrix organizational structure Emphasis on uniqueness of the institution in the art field	Practices related to line organization versus opera production process Practices related to music versus other artistic elements Uniqueness versus sameness of work practices
Dialogics of Management Practices				
Top management and the managers of technical and administrative departments	Care for the artistic personnel Emphasis on creativity and artistic working culture Emphasis on the development of opera as an art form	Care for the organizational processes Emphasis on practicalities Emphasis on international cooperation Emphasis on the demand of consumers	Emphasis on accessibility Emphasis on national spirit Emphasis on the long-term development	Public versus private management 'Finnishness' versus Internationalization Artistic versus administrative working cultures Consumer versus expert markets

Table 2 Dialogics of organizational identity construction.

The *dialogics of positions* refer to the processes of organizational identity construction in which the organizational members of the opera house do not only construct positions in relation to each other but also in relation to the art field more broadly. For instance, a struggle concerns the strong star cult present in the operatic field; on the one hand, the artists belonging to the ensemble of the Finnish National Opera relate to visiting 'star' performers with high respect, but on the other hand, the 'star' performers are seen as ruling the opera productions. The visiting prominent artists became a resource for the organizational identity construction when the artists of the FNO's ensemble constructed themselves in relation to the organization by taking a critical stance on the visiting prominent soloists, conductors, directors, or other performers.

During an opera production process the artistic personnel may find the line organization constraining, which can partly be explained by what Delmestri et al. (2005) call horizontal and vertical relations. The artistic personnel are more used to working with the horizontal relations because of their larger interest in symbolic and cultural capitals that define the merits in the field of cultural production. Hence, advancement in the organizational hierarchy may not be the main reason for aiming for the best possible performance. For the technical and administrative personnel the vertical relations may appear more important as the formal organizational hierarchy determines their everyday work practices. This can have an effect on the differences in how the different personnel groups attach meanings to their organization.

Struggles related to the *dialogics of work practices* can be understood, for instance, through the distinction between the core and periphery of the organization (Caves, 2000; Cattani and Ferriani, 2008). The core involves employees in the 'production process' while the 'organization' is considered more as a periphery. In other words, the creative content of opera productions is created in the production processes while the line organization involves more 'ordinary' administrative practices. The technical personnel constructed the 'core' through the physical closeness of their work practices to the stage area while the artistic personnel constructed it through competition for the title of key artistic group ('we are the opera'). The artistic personnel who are involved with the musical practices (soloists, chorus and orchestra members) position themselves in relation to each other but also in relation to people representing other artistic elements of the opera house (design, visual arts, drama, dance). In general, the administrative personnel constructed themselves as not taking part in the production process, but as working instead with the supportive functions.

The *dialogics of management practices* involve identity struggles related to the conflicting demands of managing cultural productions, continuous negotiations between the different working cultures of the artistic and other personnel groups, challenging demands to preserve the national spirit, but at the same time to increase international cooperation, and finally, balancing between the customer-orientation and the demands from the experts in the art field.

Contribution of the Study

Theoretical Implications
In addition to the 'thick' description of the processes of dialogical identity construction in the opera house context four main theoretical implications can be distinguished: 1) Instead of two contradictory logics, organizational members of an opera organization also draw on a third logic: the logic of a national institution, 2) the organizational members of an opera organization attach meanings to their organization through dialogical processes related to the dialogics of positions, organizational practices and management practices, 3) in the processes of dialogical identity construction the organizational members draw on sources that are both facilitating and constraining, and finally, 4) the

mode of relation in the dialogical identity construction seem to be a productive struggle, which can also be considered as a source of renewal.

According to the first theoretical implication, instead of the logics of art and economy, there seems to be an additional logic, the logic of a national institution. This logic brings into the discussion the institutional dimension of cultural organizations, which is central particularly in the opera organization context. In the Finnish National Opera the various aspects related to the 'house' demonstrate the importance of the institutional dimension. The triad of the 'house' – a construction that is formed through the 'institution', 'organization' and 'production process' – are both distinctive and overlapping. The logic of a national institution is often neglected in studies on the internal life of cultural organizations although their role, meaning and missions are usually closely connected to the broader functioning of societies.

The second implication, which refers to the different dialogical processes identified from the empirical material, highlights the processual nature of organizational identities, which are influenced by the specific context in which they take place. The processuality of organizational identity construction can be analyzed in texts, but observational data and a longer involvement with the field have enabled an examination of the dialogical processes from multiple angles and a better understanding of the mode of relations involved in them. However, the processuality of organizational identities does not necessarily mean that the identities are always in flux or fluid. Instead, some of the sources may be more or less stable or even fixed. What is important is the ways they are used in particular situations, which are influenced by the relations and reactions of participants (Parker, 2007; Sveningsson and Alvesson, 2003). Hence, this adds to the knowledge on the ways the organizations in the field of cultural production on the one hand construct their 'being', but which on the other hand is complemented with the construction of 'becoming', which renews and transforms social relations and practices in the organization (Tsoukas and Chia, 2002).

The processes of dialogical identity construction identified in the opera organization also suggest how the organizational members draw on multiple sources that involve both individual and collective level aspects. In the study I have described how the members draw on institutional, organizational, interpersonal and intrapersonal sources, which contributes to a more integrative view of organizational identity construction. These processes have involved various sources such as the physical place of the opera house, nostalgia for the 'old house', the 'Finnishness' of the organization, and elitist notions on opera houses often taken by the media.

Thirdly, the study suggests that in the processes of dialogical identity construction organizational members draw on sources that are both facilitating and constraining. This is linked to the fourth implication, according to which the mode of relation in these processes can be characterizes as a productive struggle, which can be further considered a source of renewal and creativity. The study argues that the hybrid sources for organizational identity construction may not be seen as tensional merely in a negative sense, but can also be approached from a productive and generative perspec-

tive as Bourdieu (1992, 1993) suggests. Productivity in the mode of relation refers to the generative interaction between dialogue and struggle. The processes of dialogical identity construction involve various tensional meaning-making processes among the organizational members. For instance, when the stage directors attached meanings to the Finnish National Opera they drew simultaneously on discursive sources that both facilitated and constrained their work and creative freedom.

Methodological Implications

One of the methodological implications of the study is that it manages to problematize the concept of 'access' by arguing that getting access is a continuous process of negotiating and renegotiating access throughout the fieldwork. Even if the primary negotiation process was long and demanding, I needed to ask for permission to attend new occasions and meetings. The continuous negotiation of access was also related to the processes of building trust with the organizational members. This is something very crucial because if the members cannot trust the researcher, you will not have access to different situations and relations involved in them.

I would also point out that observing people and practices in the field cannot be done totally as an outsider. In the different situations the researcher is inevitably part of the group because the other participants sense the researcher's presence even if he or she would not do or say anything. Hence, I question the traditional distinction between 'participative' and 'non-participative' fieldwork because being a non-participative observer is practically impossible in ethnographic studies.

Managerial Implications

A managerial implication for (arts) managers is the knowledge of how the organizational members construct their organization through the notions of institution, organization and production process. The management of cultural organizations in general and of opera houses in particular could make use of this more explicitly, for instance, by influencing the way 'organization', that is the space of management and administrative practices, is described through professionalism. In addition, as the 'institution', a place for the national and cultural heritage of an opera house, seems to be a shared and generally accepted space of the house, it might provide a useful managerial tool to facilitate cooperation between the members of the 'organization' and the 'production process'. Although the management of an opera house has to balance between all the three aspects of the organization, the heritage, administration and artistic processes, the institutional aspects of the 'house' may be used to argue for different aspects related to organization and production process such as seasonal planning.

The study also provides insights into organizations outside the field of cultural production in terms of notions on fragmented organizational identities. The descriptions in the thesis of the variegated ways in which organizational members may construct versions of organizational identities provide a view on the complexity of organizational identity construction processes. From a functionalist viewpoint, organizational identity can be created, manifested, and transformed, in other words con-

trolled and managed, throughout the organization. However, in contemporary working life people can have very different backgrounds, people make professional career changes, work and private life may become more blurred, and often work tasks require both rational and creative thinking, in particular in knowledge-intensive firms. This means that organizational members interpret the manifested organizational identity differently and in this process they may draw on different hybrids depending on their private, professional and other social relations inside or outside their organization. It is valuable for managers to acknowledge that different versions of the 'official' organizational identity manifested by the top management may be present. In order to manage these different versions of organizational identities, or at least cope with them, management needs to become familiar with the processes involved.

Conclusions

The hybrid sources for organizational identity construction seem to be evident both in cultural organization but also in other types of public and private organizations. For instance, the increased demand for the creative and aesthetic aspects in private companies, public/private management tensions in public sector organizations, and the increasingly interdisciplinary studies in the academia might have an effect on the way organizational members in these contexts relate to their organizations. A 'creative hybrid economy' (Taalas, 2009) in which production and consumption, work and leisure and the private and public sectors are increasingly understood as dynamic forces that will influence organizations and organizing in the future. However, it remains to be seeing whether the tensions provide a similar kind of productive mode of relation as in cultural organizations that are already operating in fundamentally contradictory fields.

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Bibliometric Assessments of Research Output Quality within the HEFCE Framework

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Abstract

In this thesis we propose a robust bibliometric assessment framework for research output quality, showing that research output can be assessed from two dimensions: significance of new insights and effectiveness of sharing based on the new insights. Within this framework, we derive a series of new bibliometric indicators to assess research publication quality in each, and both of the dimensions. Further we utilize a part of the HEFCE framework for journal quality assessment from wider perspectives. Two journal ranking approaches are introduced to serve different stakeholders, and operational research/management science (OR/MS) journals are employed in the empirical studies.

Summary

1. Introduction

Measuring the scientific quality of researchers' work is a difficult but important issue. This question is especially pivotal to individual researchers, as their tenure, promotion and salary in their career life are directly or indirectly affected by their research performance which can be determined from the measurement of research output quality. With regard to research institutes, it is also a critical issue mainly due to funding allocation activity.

Despite the growing importance of research output quality assessment, there is still considerable uncertainty on how to measure research output quality through feasible and reliable approaches. In the past, peer review is employed as one major approach to assess research output quality. This is how research evaluation is held by Research Assessment Exercise (RAE) in UK in previous years. Although this kind of research evaluation can provide a reliable result, the biggest shortcoming refers to the cost and time consumed. In additional peer review approach is also criticized for other issues such as biases among experts, conflict in interest and Halo effect (Cole et al., 1981;

Ernst et al., 1993; Kumar, 2009). Therefore, it is not surprising that there is a heated search for better indicators (mainly quantitative indicators) for measuring research output quality worldwide. This has been especially so in UK since the government published the announcement of adopting metric-based (known as bibliometric method) research evaluation approach in the future (HEFCE, 2009) from 2008.

Bibliometric method, which attempts to study texts and information using content analysis and citation analysis, was firstly applied in the area of information and library science (Prichard, 1969). As early as 1927, Gross (1927) suggested citations to evaluate researchers' work, and then it was widely used to assess the status of academic departments and the quality of books and scientific journals (Garfield, 1972; Nicolaisen, 2002) in many areas. Due to the increasing popularity of citation application in scientific networks, bibliometric method is becoming another common approach for research output quality assessment.

My Ph.D research is about to develop reliable and robust bibliometric indicators for research publication quality assessment, which has been of great importance to the whole operational research society and beyond. We have developed a series of completely new bibliometric metrics to measure research publication and journal quality.

◆ **Theoretical Framework**
Our research framework starts from the definition of ***research*** which was suggested by the Higher Education Funding Council for England (HEFCE), who defined it as "*a process of investigation leading to new insights effectively shared*" (HEFCE, 2009). Based on this definition HEFCE has developed a research excellence framework for 2014 REF. Here we utilize it to develop a framework for developing reliable and robust bibliometric indicators for quality assessment of research publications, for the first time. Apparently, from this definition, we see that research output quality needs to be assessed from two dimensions: significance of new insights and effectiveness of sharing, which show a clear path for developing research output quality indicators.

Our main research is summarized into three parts: In Section 2 we describe our work on literature review - the current literature is so extensive that it is a no trivial task to

present a clear review on the relevant literature, followed by our study on citation behaviors. In Section 3, we summarize our research on developing bibliometric indicators for significance of new insights, where we have intensively investigated feasibility and limitations of utilizing Journal Acceptance Rate (JAR) to reflect significance of new insights. Then we briefly introduce some of the new bibliometric indicators based on JAR. Furthermore we discuss how to combine the measurements of the two dimensions in order to form a more complete assessment of research output quality, and how to apply the combined measurements in real case studies. In Section 4, we state how to extend the similar ideas to journal quality evaluation. Particularly, we show how to measure journal quality from several interesting new perspectives, like usefulness to readers and contribution to knowledge accumulation, by applying a part of the HEFCE framework again. In this thesis, we focus on research outputs, which are research papers published in scientific journals in the business and management area.

2. Literature Review and Citation Behaviors

As mentioned the current literature is so extensive that it is a no trivial task to present a clear review on the relevant literature. To this end we utilize our research framework to classify the vast existing bibliometric indicators into three groups: those mainly reflecting significance of new insights such as publication number and JAR; those mainly reflecting effectiveness of sharing such as the h-index and the g-index, and those combined. It is clear that most of the existing indicators (as based on citation counts) mainly measure effectiveness of sharing. However there is a clear lack of bibliometric measurements for new insights. Since these two dimensions are closely related, there probably exist no quantitative measures purely for either dimension. Similar ideas are applied to classify existing journal ranking approaches.

Through our review, it is found that article impact is becoming a major index of a researcher's scientific influence, and the citation count is widely used as a measure of articles impact. In this sense, it is clear that citation based indicators are widely used to measure effectiveness of sharing.

In order to fully understand what factors affect these citation based indicators, we further carry out investigation on citation behaviours. We accept that the intrinsic

quality of a paper is the main determinant of the number of citations but that intrinsic quality is not possible to measure. Many other factors have been suggested in the literature as drivers of citations (Stahl et al., 1988; Allison and Long, 1990; Long et al., 1998; Alan R. et al., 2000). However, no such work has been detected in operational research and management science (OR/MS) area. In this case, we have collected a sample of nearly 700 papers published in 1990 in six well-known OR/MS journals for investigations of citation drivers. In summary, for individual cases (each paper) in the sample we have collected the following variables: *Citations, Authors, Publications, Rank, Country, Title, Keywords, References, Pages, Methodtype* and *Journals*.

We explored the correlation among each variables and further applied negative binomial model for regression analysis to examine the exact correlation between citations and other significant variables. It is revealed that in terms of the (first) author, only the rank of their institution was significant – the number of authors, the number of papers they had published, and their country were not significant. In terms of the paper itself, the number of references and the length of the paper were strongly significant but the length of the title and the number of keywords was not. Review papers and theoretical papers were cited more highly than case studies, methodological or empirical papers. Finally, one of the biggest influences was that on average citations for papers published in MAN SCI are six times higher than those in JORS.

In additional, we discover two theories through our findings. One would expect that the intrinsic quality positively influence perceived quality, number of citations (initially) and the perceived quality of the publishing journal. As the paper becomes cited there will be a positive loop (known in this context as the Matthews effect (Merton, 1968)) generating more citations. Equally, the number of citations positively influences the perceived quality of the journal through the impact factor. So far this is Theory A. If theory B is correct then there are further influences: the effect of a journal perceived to be of high quality will by itself increase the perceived quality of its papers regardless of their actual quality, and thereby increase the number of citations even more. Moreover, it will increase the number of citations directly as people like to be seen to be citing the top journals. In the case of the journals in this study there may be a further effect as they are primarily American in terms of their

editorial boards, authors, reviewers and citations. Since the US has the greatest number of academics this will also lead to a greater number of citations.

It follows from the research carried out in this study that research publications are citied for many different reasons. Furthermore it is widely agreed that even the un-cited publications play an important role in scientific research. In other words, it suggests that citations alone are not sufficient enough to measure research outputs' quality, and combination with other useful information is required.

3. JAR based Indicators and Combinations

With regard to the significance of new insights, there are only very few bibliometric indicators that can reflect it NOT through citations as to be seen from the reviews. Clearly the significance of new insights can be reflected by citations – how much interests have been generated in the academic community. However they are clearly a consequence of effectively sharing of new insights after all – in history there was much great work that was fully understood only hundred years later. It can also be argued that in some disciplines citations are not that important to reflect new insights as only very few highly trained people are able to access and understand the investigations. Thus citations alone may not be enough to measure the significance of new insights.

To this end we investigate feasibility and limitations of using the journal quality to reflect the significance of the new insights of their publications from a different point of view. However how do we identify and rank high quality journals from thousands of journals? At the first we tried to utilize the journal ranks produced by expert reviews. However as seen in previous researches, the ranks of a journal by experts or combined heavily depend on so many subjective factors such as the expert groups chosen and the regions (e.g. USA or Europe). Thus it is difficult to build a reasonable objective quantitative indicator to reflect significance of new insights, based on those journal rankings.

Based on economic labor value theory, we argue that generally speaking, academic journals of higher quality are frequently associated with heavier workload in their articles, which is in turn positively correlated with the significance of new insights

within the papers. The top journals are expected to have a higher standard on the quality of acceptable publications which requires much more workload to be invested. Furthermore, those manuscripts usually have to be reviewed and modified many times before being finally published in the top journals (which often have higher rejection rates). Therefore, the higher the workload invested in a manuscript, the higher the chance that it contains significant new insights and the higher the probability that a good journal will accept it.

It is clear that JAR reflects the difficulty level or probability of acceptance by a journal for the *submitted* manuscripts, thus, should positively correlate to the average workload inside these manuscripts. We thus first carry out empirical studies on JAR. For instance relationship between the JRR and JIF is graphically plotted below:
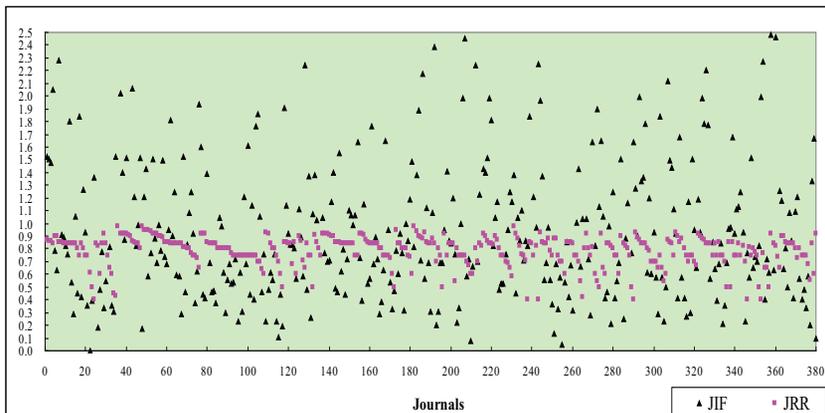
Figure1. Relationship between JRR and JIF

Thus it is clear that citation and JAR reflect different dimensions of publication quality. Furthermore we carry out substantial empirical investigations on what factors can affect JAR. It is found that except journal quality, research subject is the most important factor to be considered.

Based on the above investigation, we attempt to build several JAR based indicators such as Equivalent Publication Number (EPN) and Relative Equivalent Publication Number (PEPN). For example EPN is defined as:

$$\text{EPN}_r = \sum_{i=1}^{N_r} \frac{\text{JAR}_m^j}{\text{JAR}_i} \qquad (1)$$

where JAR_i is the JAR of the journal where the ith paper is published, JAR_m^j is the maximum *JAR* in subject *j* where the target journal belongs to; and N_r is the total publication number of a given researcher *r*.

With some mathematical reasoning, we show that often EPN can reflect significance of new insights. We also show that EPN is not highly correlated with citation counts via empirical investigations.

We carried out a case study for research assessment of research active staff in Kent Business School. This school has paid significant effort to increase its research capability for the last eight years, and increased its ranks in the RAE08 from around 50's into 20's. The Research Committee considers research publication, research impact, research grants, leadership and research students to produce an overall score from 5 top to bottom 1 for each staff to be assessed, among which total research output is the prime factor to decide the score. In our case study the committee rate published in year 2008 is used, which is the most updated one. We computed EPN, REPN, total citations (TC), total publications (N), the h-index and the g-index for research active staff and examine the ranks to interpret the committee's decisions. More precisely we try to see which ranks best match the scores given by the research committee. It seems that overall indicators N, EPN and REPN can well explain the ranks of the research committee, and EPN and REPN sometime can further provide more useful information than the publication number N. We believe should more JRR data become available in the future, and EPN would be more reliable and thus more useful.

However it is clear that JAR reflects the difficulty level or probability of acceptance by a journal **only** for the *submitted* manuscripts. Thus, depending on submission behaviors in the relevant subjects, which are affected by many factors like institutes' promotion policies, it may not be necessarily correlated with the average difficulty level of publishing in the journal for all the researchers in the subjects strongly, which reflects its quality and average workload. For example, it is possible that in some

areas researchers are clearly aware of which journals they should submit their manuscripts to (maybe due to well established standards of the publication criteria). Consequently in these areas journals with high or low quality may all have similar JARs. In such subjects, only the very top journals may have higher rejection rates. To various degrees, there exists a similar phenomenon in many subject areas.

To address this important issue further empirical investigations on JAR's behaviors are carried out, and it is very interesting to find that JAR is often complementary to other information like number of publications and citations, as shown in the following table:

Table 1. Spearman correlations between ABS ranks and JRR(JIF) based ranks in mega-subject groups

Groups	Average JRR Availability			ABS Rank	JIF	JRR
Group 1	52.87%	**ABS Rank**	Correl.	1	0.510**	0.505**
			Sig.		0.000	0.000
			N	117	117	117
Group 2	47.43%	**ABS Rank**	Correl.	1	0.502**	0.295**
			Sig.		0.000	0.002
			N	135	135	135
Group 3	40.58%	**ABS Rank**	Correl.	1	0.219*	0.612**
			Sig.		0.013	0.000
			N	132	132	132

* Correlation is significant at the 0.05 level (2-tailed).

It is clear to see that journal quality (here reflected by ABS ranks) is highly correlated either to JIF or JAR or both. That is to say in reality one has to use both indicators to have reliable and robust quality assessments. With this motivation we utilize EPN to build subsequent new indices to measure excellence of research quality assessment, following the ideas used in the h-index and the g-index. Similarly we can build EPN profile for a researcher or research unit as shown below.

Assume all publications have been arranged in the descending order of their *epn*, and the *x* axis gives the publication number and the *y* axis gives the number of *epn*. The *epn* profile is given below:
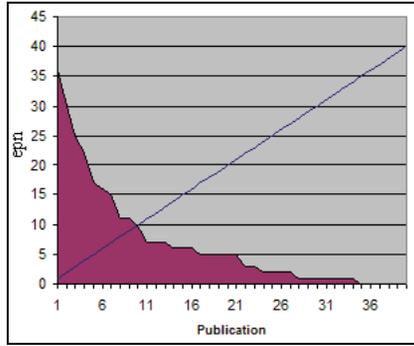
Figure 2. EPN profile of a set of publications

For example the X-index is defined as:

$$X=n*$$

$$\text{where } epn(n)^\gamma \geq n, \text{ and } epn(n+1)^\gamma < n+1 \;, \quad 1 \leq \gamma < 2 \tag{2}$$

where $epn(n)$ is the equivalent publication number of the first n publications, which is the point at which a 45 degree line hits the curve (assuming the axes are on the same scale.

Similarly we define the L-index as follows: Let *EPN(n)* be the total EPN of the first *n* papers (in descending order of *epn(n)*) , then the L-index is defined as

$$L=n*$$

$$\text{where } EPN(n)^\alpha \geq n^2, \text{ and } EPN(n+1)^\alpha < (n+1)^2 \;, \quad 1 \leq \alpha < 2 \tag{3}$$

The reason to use a parameter in the definitions of X-index and L-index is to ensure the magnitude consistent on the two sides. We then further polish these new indicators. One important work is to utilize the wasted citations and EPNs in order to increase discrimination power of the indicators.

We carried out an empirical study using a large data set of RAE08 in OR/MS area, which is the latest research evaluation for UK institutions. Citation and JAR for a total of around 5000 research papers have been collected. The purpose is to take the rank of GPA of RAE08 as a quality reference, and the ranks produced by the new indicators and some widely used indicators for a comparison study. It is found that although they are highly correlated, the ranks produced by the L-index and the X-index generally have the highest correlations with the GPA reference rank. We also carry out similar

comparison for the KBS case. From these case studies we can conclude that the L-index and X-index can indicate research output quality for individual researchers and research units.

◆ **Combination with Citation based Indicators**

Then we combine the above new indicators and the citation based indicators to form more comprehensive quality indices. In this pilot study we tried functional combination approach to combine these indicators. We have tested several possible combinations such as $\sqrt{L}*\sqrt{h}$ and $\sqrt{\log(L)}*\sqrt{\log(g)}$ on both the KBS and RAE08 data sets for micro and macro level analysis. We found all these combinations reasonably indicate overall quality of research publications although they work very well either for the KBS data set or for the RAE date set but not for both. There is of course no particular reason why the two indicators have to be combined in these two forms rather than more complicated formulas, and effective combination forms are often case dependent. Larger scale empirical studies, using parametric or non-parametric regressions, are required to testify what suitable forms are.

The above simple combinations have the essential difficulty that no one knows what precise combination formulation (including the parameters like weights) should be used. Therefore we then use a non-parameter modeling method: Data Envelopment Analysis (DEA), which is able to identify the best-performance frontier rather than the central-tendency. In this method, the indexes can freely select their weights to maximize their performance scores. We adopt this combination approach for RAE08 case to identify their efficiency scores. Based on it, one can produce a rank for those schools for a comparison analysis with the GPA reference rank. However technically it is not straightforward to use standard DEA models here, as input data are required in those models, which are difficult to access in this case. To this end, we have further developed Index DEA models, which do not require explicit input data. From the empirical studies carried out, we conclude that the combined indicators do provide more complete pictures of research quality in real applications.

4. Assessment of Academic Journals

A journal can firstly be viewed as a set of publications. Therefore the measurement of *its quality* can be regarded as the significance of new insights and effectiveness of sharing achieved by all the publications in a journal. We testify this idea using the widely used ABS journal rank. It is well-known that ABS journal rank is not highly correlated to JIF ranks of the journals. We tried five combinations in our ordinal regression analysis. We firstly examined the effect of three indicators: *JIF*, *JRR* and *total articles* alone (Model 1, 2 and 3 respectively). Further we considered combinations of indicators *JIF* and *JRR* (Model 4) and finally three indicators all together (Model 5). It was found that while the Chi-square values were similar, it was the Complementary log-log link function that gave the highest significance level of Chi-square statistics, maximum Pseudo R^2-values and highest correlation between observed journal rate and predicted journal rate, which suggested the highest goodness of fit of the given model, as to be seen in the following table.

Table 2. Pseudo R^2 of five models for all the subjects

Subject	Link function	Pseudo R^2-value in Models					Correlation
		1	2	3	4	5	
All subjects	Complementary log-log	0.32	0.46	0.20	0.62	**0.82**	0.63**

** Correlation is significant at the 0.01 level (2-tailsed).

The above results clearly show that ABS journal rank can be more accurately reflected by using combined bibliometric indicators. In many sub-subject areas, it is found that the models of the combination of the three variables indeed produce better fits than those of the single variables.

Most of the journal rankings are aimed at assessing the journals from the point view of research outputs quality. However an academic journal is something between a set of individual publications and a research unit. On the one hand, it can be seen as a set of publications, and therefore a part of journal excellence is mainly based on their quality. On the other hand, a journal is an organized unit which can organize special issues and focused discussions. Such activities can seriously direct or affect the relevant researchers and the fields. Thus journal quality is multidimensional, and can be judged from various different perspectives such as contributions to the societies, impacts, and usefulness to the readers and so on. Different from a research section or

department, the dimensions like research resourcing and management in the HEFCE's framework are not applicable to a journal.

We believe that it is essential to understand how to measure these dimensions at least separately before we start to integrate them into a comprehensive overall assessment for journal quality. Therefore we propose to produce journal rankings from some different perspectives. In the sake of serving different stakeholders, we are interested in the following two perspectives.

1) **For readers**: usefulness of the journals to the readers.

As shown in the literature review, percentages of uncited publications have been investigated in the areas such as medicine, and are used to measure journal quality, although it seems unclear about what they can exactly measure. On the one hand, a cited paper should be classified as useful to the readers. On the other hand one cannot infer that these uncited papers are useless. We thus believe that the percentages of cited papers can reflect an *under-estimate* of usefulness of the journals, which is a part of journals quality according to the HEFCE's framework.

We carry out some empirical studies for journals in the area of OR/MS, which is a subarea of business and management area, and no similar studies were carried out before. In this empirical study, we selected all journals in this area from Journal Citation Report 2009 (JCR09) as our study sample. Given the time required to accumulate citations, we counted the percentage of cited items after publication within a two-year and five-year window.

The results released that the percentages of cited publications in three two-year windows are quite stable and highly correlated to each other. The average cited percentages significantly increase over the three years. It is interesting to note that a reasonably useful journal (e.g., those percentages of cited papers are above the average of that year) may have a good chance to have an impact factor below the average impact factor of that year. It is also suggested that the percentages of cited publications are consistent in different evaluation windows and highly correlated with journal impact factors of related years for this data set, although they only have lower correlation with JAR as we have seen before.

2) **For knowledge accumulation**: The contribution to knowledge accumulation and sharing in one or more subject areas.

Here we will assume that the citations of one publication can be used to measure its contribution towards knowledge accumulation in one subject area. That is to say if paper *I* receives more citations than paper *II*, we will consider that the former made more contributions towards knowledge accumulation than the latter did. Furthermore here we emphasize the strength of the impact. That is to say, for a given number of total citations, we think the fewer publication number is the more contributions they have made towards knowledge accumulation. However it is clear that either the average citations (JIF) or the total citations of a journal alone cannot adequately reflect the contribution of the journal towards knowledge accumulation. For instance, if journal *A* only published ten highly cited papers (e.g. each cited 50 times for a two-year window) so that its JIF=50, and another journal *B* published 100 papers with the impact factor only 10 for the same period. Although the total citations of the latter is larger than those of former, it is unclear and difficult to argue that the latter makes more contribution to knowledge accumulation, as the significance of the research papers in the former journal could be far greater than those in the latter journal. However if it turns out that in journal *B* there are also 10 papers each cited 50 times, even though its impact factor is only 10, then we should be comfortable to argue that the latter contributes more than the former.

By having a close investigation of a five-year cumulative citation graph of items published in year 2005 for four well-known OR/MS journals, we conclude that we need to examine the distribution of the citations inside a journal rather than just using some crude statistics like JIF.

We firstly investigate the maximum total citations can be achieved in the condition of the same publication number in different intervals. And this is the motivation to introduce the concept of Interval Impact Factor (IIF). However, it is found that the correlation between the rank produced by IIF and that of total publication number is as high as 0.93. Its correlation with the 5yr JIFs' rank is only 0.53. This seems to indicate that the rank depends on the total publications very much. The possible reason seems that it does not place enough emphasis on the highly cited publication

cores. However it is very difficult to adjust the weights to reflect the rational emphasis for the general cases.

Then we examine the minimum publication number in the condition of the same total citations in different intervals. We introduce the concept of Sub-interval Impact Factor (SIF) for a given total citation level S:

$$\text{SIF(S)} = \frac{S}{P_{min}} \qquad (4)$$

where S is the given citation level, and P_{min} is the minimum total publication numbers which can reach the given total citation requirement S. In this approach we use a sum of SIF(s) at some representative subtotal citation levels, as the indicator for the shape of the distribution.

Compared with the results achieved in the previous study, the correlation between the rank via JIFs (total papers) and the new rank produced by SIF is 0.72 (0.74). The top-ranked journals by the new ranks are all very valuable to the OR society from the opinions of our several experts, even though some have relatively lower JIFs. These seem to indicate that the new approach is a reasonable one.

The above studies lead to an interesting observation. It suggests that the chance of being a highly cited paper (that is in the highly cited cores) is higher when it is published in MAN SCI than in EJOR. That is to say if one staff publishes a paper in MAN SCI, and another in EJOR without any further information, the department may consider giving more credit to the former in a promotion or performance assessment. Thus this provides another perspective for journal rankings to sever the employers. However the details will be left for future study.

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