TOP MANAGEMENT TEAM'S CULTURAL DIVERSITY AND FIRM PERFORMANCE: THE MEDIATING ROLE OF AMBIDEXTROUS ORIENTATION

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Abstract

This paper examines the influences of cultural diversity in the top management team (TMT) on organizational performance. The link between the two is investigated through the path dependency model, where firm ambidextrous orientation serves an intervening role. The results of the study suggest that TMT cultural diversity will have a negative influence on firm performance due to the decreasing degree of ambidextrous orientation being a result of TMT diversity. The study is based on the survey filled out by 82 CEO of Danish and Swedish listed corporations. Studies theoretical contribution is expressed in uncovering the mediating role of firm's ambidextrous orientation on the TMT diversity – performance relationship.

Keywords: Ambidexterity, Cultural diversity, Performance, Top Management Team (TMT)

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The demographic characteristics of the top management team (TMT) and its influence on firm performance is by no means a new field of research. Taking inspiration from the seminal article by Hambrick and Mason (1984), a number of authors have investigated the ways in various dimensions of diversity might be reflected in firm performance. This stream of research, however, persistently offers different findings as to whether TMT diversity has positive or negative effects on firm outcomes, thus keeping the field open for new investigations (Canella et al., 2008). This previous research has also put a premium on investigations into the contingencies/mediators of the relationship between TMT diversity and performance (Carpenter, 2002). Apart from mediators such as TMT process (e.g. Lawrence, 1997; Priem et al., 1999; Smith et al., 1994) and contingency such as context (Finkelstein and Hambrcik, 1996; Nielsen and Nielsen, 2012), the literature also suggests that diversity as a construct has to be decomposed since different diversity dimensions are predicted to influence TMT process, behaving differently in specific contexts and influencing performance in different ways (Nielsen and Nielsen, 2012). The choice of contingencies/mediators, however, is not straightforward, and a number of scholars have admitted that it is these intervening (usually TMT process) and moderating (usually context) variables that create divergent research results within the field (Pitcher and Smith, 2001, Umans, 2009). The TMT process variables as well as context variables are usually hard to operationalize and capture with the quantitative techniques predominantly employed in TMT research, while limited qualitative investigation in developing the concepts does not always provide researchers with tools for further investigation. Moreover, researchers are still divided as to which TMT processes are of importance to the link between TMT diversity and performance (e.g. Pfeffer, 1983; Smith et al., 1994).

To address such issues, this study concentrates on one demographic diversity variable – national culture ('culture'), an empirically acknowledged and emerging element of diversity ('cultural diversity') in the TMT of organizations (Elron, 1997; Greve et al., 2009; Heijltjes et al., 2003; Nielsen and Nielsen, 2012). This aspect of diversity has nevertheless received only limited attention in current research (Carpenter et al., 2004; Umans, 2009, Umans and Smith, 2013), while it is claimed that cultural diversity has profound influences on strategic decision making, team dynamics and firm performance (Hambirck et al., 1998; Nilesen and Nielsen, 2012). The paper investigates the influence of TMT cultural diversity on firm performance by looking at the concept of ambidextrous firm orientation as a possible mediator of the relationship.

Ambidextrous orientation is the organizational ability to balance the exploitation of existing competences and the exploration of new opportunities (e.g. Lubatkin et al., 2006; March, 1991); it is argued to be a result of the complexity of TMT interactions (Carmeli and Halevi, 2009; Lubatkin et al., 2006).

Ambidextrous orientation may be viewed in two ways: as the outcome of TMT processes, in reflecting the decisions made by TMT about the use of organizational resources, while at the same time as an organizational outcome in that it concerns actual distribution and use of resources by the organization. By spanning the team (TMT) and organizational levels of analysis, ambidextrous orientation could thus solve the issues associated with selecting and quantifying the TMT processes; as well, it could be a more natural intervening variable between TMT diversity and firm performance, thereby capturing both levels of analysis. This paper contributes to the literature by investigating the isolated diversity characteristic of culture in its influence on firm performance through the mediating role of ambidextrous orientation. The following sections provide a literature review and set of hypotheses, the research method, analysis and discussion of findings.

TMT Cultural Diversity and Performance

While cultural difference among individuals in organizations is a well-researched phenomenon (Hofstede, 1991), only a few researchers have investigated cultural diversity in the TMT and its influence on organizational outcomes (e.g. Elron, 1997; Greve et al., 2009; Gong, 2006; Heijltjes et al., 2003; Nielsen and Nielsen, 2012), while the presence of culturally diverse top management is continuously increasing (Greve et al., 2009; Heijltjes et al., 2003). The findings of these empirical studies have been mixed. TMT cultural diversity is shown to have both positive (Gong, 2006; Nielsen and Nielsen, 2012) and negative (Elron, 1997) effects on organizational outcomes. This also reflects a split in opinion between theoretical and empirical papers in workgroup cultural diversity research, where theoretical studies claim that cultural diversity in groups would lead to creativity and innovative ideas (McLeod and Lobel, 1992), while empirical studies suggest that group cultural diversity would result in decreasing group effectiveness and performance because of the difficulties associated with group processes such as lack of communication, increasing conflict (Jackson et al., 2003) and decrease in social integration (Elron, 1997). Measuring TMT diversity effects on performance without considering contextual or mediating variables such as TMT processes has been suggested as one of the reasons for the mixed results (Umans, 2009). At the same time, when the contextual and process variables are considered, the way they are chosen and measured is not always straightforward; this in turn has not added clarity to the diversity–performance relationship (Pitcher and Smith, 2001). Thus, we further argue for selection of ambidextrous firm orientation as a mediator between the diversity–outcome relationship. Ambidextrous orientation defined as an organizational ability to balance between exploitation of existing competences exploration of new opportunities (March, 1991). We content that by employing this concept we (1) explore the black-box of TMT process, and (2) avoid selection of specific TMT process but rather look at the outcome of the TMT process.

TMT cultural diversity and ambidextrous orientation

The arguments for the relationship between TMT cultural diversity and ambidexterity are drawn primarily from broader TMT demographic diversity research since studies in TMT cultural diversity are rare, especially those investigating mediating variables between that type of diversity and outcomes (e.g. Elron, 1997; Umans, 2008). Heterogeneity in the TMT has been empirically shown to have a negative influence on communication (Smith et al., 1994), collaborative behaviour (Elron, 1997) and process of decision making (Miller et al.,1998). The few studies on cultural diversity have primarily come to similar conclusions (Umans, 2009). For example, Elron (1997) founds that cultural diversity in the TMT leads to decreased social integration among top managers. Moreover, Barsade et al. (2000) have shown that culturally diverse group members have negative experiences in terms of quality and quantity of communication. Hambirck et al. (1998) have also reported that culturally diverse top teams are slower in decision making compared to the culturally homogeneous top teams.

These studies on the influence of group diversity in general and cultural diversity in particular in relation to the group process have relied on three social psychology theories: similarity–attraction, self-categorisation and self-identity (Mannix and Neale, 2005). These theories highlight the issue that dissimilarities among group members are synonymous with difficulty; it is in homogeneous groups that attraction to similar others will lead to cohesion (O'Reilly et al., 1989) and more commitment (Tsui et al., 1992); and it is in diverse groups that negative social processes will arise that result in difficulties in intergroup relations (Mannix and Neale, 2005). TMT cultural differences, being a highly visible demographic characteristic (Pelled et al., 1996), would thus reveal themselves through categorisation of 'Us vs. Them' based on cultural origins, formation of culturally homogeneous (or regionally homogeneous, such as Scandinavian, Mediterranean, Asian) cliques within the TMT, strengthening of one's own cultural identity and concentration on that particular difference rather than on similarity. These 'properties' of culturally diverse teams will in turn lead to decreasing quantity and quality of communication due to team separation along cultural lines, decreasing collaborative behaviour and decreasing ability to make group decisions because of competition-oriented interactions among the cliques within the TMT.

The outcome of these process difficulties has been argued to be associated with the pursuit of either an explorative or exploitative firm orientation (Carmeli and Halevi, 2009; Lubatkin et al., 2006). Explorative orientation implies firm behaviour characterized by variance-increasing activities, search, discovery, experimentation, risk-taking and innovation, whereas exploitation is characterized by variance-decreasing activities, disciplined problem solving, refinement, implementation, efficiency, production and selection (March, 1991). It has been suggested that these capabilities require substantially different strategies, cultures, structures and processes (e.g. Benner and Tushman, 2003).

Exploration is associated with organic structures, loosely coupled systems, path breaking, improvisation, autonomy, chaos and emerging markets and technologies. Exploitation is associated with mechanistic structures, tightly coupled systems, path dependence, routinization, control and bureaucracy, and stable markets and technologies (Ancona et al., 2001). Overemphasizing one or the other leads to various difficulties. While too much exploitation leads to inertia and dynamic conservatism (Benner and Tushman, 2003), too much exploration leads to 'building tomorrow's business at the expense of today's' (Gibson and Birkinshaw, 2004). Thus there is a need for balance between the two, and it is ambidextrous organizations (Duncan, 1976) that are capable of simultaneously exploiting existing competences as well as exploring new opportunities (Duncan, 1976). As discussed previously, culturally diverse teams usually experience process difficulties that might not allow them to become an effective forum 'in which senior executives can openly and freely exchange contradictory knowledge, resolve conflicts, and create a set of shared perceptions that then can be integrated and acted upon' (Lubatkin et al., 2006, p. 652), which is argued to lead to a less ambidextrous orientation. Cultural differences usually lead to formation of subgroups in teams (Pelled et al., 1996), where attention usually shifts to the sub-group membership and interaction within these subgroups rather than co-operation and interaction between the sub-groups which consequently leads to the rejection of the ideas from the other subgroups. Less likely acceptance of ideas from other subgroups thus leads to the reduction of effectiveness of using paradoxical frames to manage strategic contradictions (Li, 2013). Moreover research in heterogeneous groups has shown that focus on subgroup membership prevents consensus one perspective for shared vision (Li, 2013) limiting acceptance of the tensions between strategic contradictions (Li, 2013) which exploration and exploration represent. It is this argued that culturally diverse TMTs facing process difficulties would tend to make unbalanced decisions tending to be either explorative or exploitative. This idea has also been supported by Mannix and Neale (2005), who contend that while demographically homogeneous teams would be more inclined to pursue exploitative orientation, demographically heterogeneous teams would tend towards explorative At the same time, culturally diverse teams might engage in exploitative orientation since their decisions, influenced by turbulence within the team, might become short-termed and path-dependent, in anticipation of TMT composition change; there may also be more control and bureaucracy, due to the need for perceived tighter control in the uncertain team environment.

Thus we argue that TMT cultural diversity experiencing associated process difficulties might overemphasize either explorative or exploitative orientation, and this action would be negatively associated with the firm's pursuit of ambidextrous orientation. We therefore offer this hypothesis:

H1: TMT cultural diversity is negatively associated with the firm's pursuit of ambidextrous orientation.

Ambidextrous orientation and organizational performance

Some researchers contend that firms pursuing both exploration and exploitation simultaneously would sacrifice internal consistency, leading to a decrease in firm performance compared to more focused firms (Wernerfelt and Montgomery, 1988). Most researchers, however, state that a simultaneous pursuit of exploration and exploitation will enhance performance compared to firms emphasizing one at the expense of the other (Tushman and O'Reilly, 1996). Firms emphasizing exploration have problems in estimating their returns a priori, and in some cases these returns take a long time to materialize (Raisch and Birkinshaw, 2008). According to Levinthal and March (1993), 'an organization that engages exclusively in exploration will ordinarily suffer from the fact that it never gains the returns of its knowledge' (p.105). Moreover, firms could become subject to the downward cycle of search, failure and unrewarding change (Raisch and Birkinshaw, 2008). Firms emphasizing exploitation do get expected returns that can also be predicted, but their sustainability is questionable (ibid.). According to Levinthal and March (1993), 'an organization that engages exclusively in exploitation will ordinarily suffer from obsolescence' (p. 105). Pursuit of exploitation may lead to highly specialized competences that could influence short-term performance of the firm; however, in the long run these competences could become core rigidities, which in turn would not allow a speedy response to changes in the firm's environment (Levitt and March, 1988).

While theoretical studies question the positive effects of organizational ambidexterity on organizational performance (e.g. Floyd and Lane,

2000; Tushman and O'Reilly, 1996), the few available empirical studies do not always agree. Some researchers find direct positive links between ambidexterity and performance (Gibson and Birkinshaw, 2004; He and Wong, 2004; Lubatkin et al., 2006), but other studies show a contingent effect (e.g. Lin et al., 2007), while yet others report a negative effect (e.g. Atuahene-Gima, 2005). The current paper bases its arguments for the positive effects on performance on those provided by March (1991), which posit that, in essence, exploration and exploitation present firms with a number of risks that would result in lower performance compared to firms involved in the balancing act between the two, which results in the reduction of the risks involved, thereby leading to superior firm performance. Thus we hypothesize that

H2. The firm's pursuit of ambidextrous orientation is positively associated with firm performance.

METHOD

Sampling strategy and data

The data were collected by means of a questionnaire sent to the CEOs of all 247 Swedish and 179 Danish corporations listed on the Stockholm and Copenhagen stock exchanges respectively in 2010 (total population 426 firms). The survey was sent to these firms for several reasons. Firstly, Sweden and Denmark have the largest number of stock-listed firms (426 in total) compared to the other Scandinavian countries (Norway and Finland). Second, it was assumed that firms in both countries have similar 'pan-Scandinavian' organizational and national cultures that would allow for comparison. Third, the Scandinavian data were chosen because of the large number of internationally recognized and active corporations where the probability of finding culturally diverse top team members was deemed high, and furthermore because of the deemed favourable opinion towards research possessed by CEOs in Scandinavia, which would allow a high response rate within the population chosen.

The Scandinavian context within which this data has been collected requires a short explanation since its specific features might affect the outcome of the study, especially the TMT and its specificities. In Scandinavia in general private firms are usually arranged as a two tire systems. The shareholders choose the board of directors at the annual assembly. The Board of Directors typically consists of external Board members (except for the stuff elected members, family firms also being an exception). Chairman of the Board is often externally recruited person, thus CEO and the Chairman are not the same people (Smith, Smith and Verner, 2006). The Board is usually invested with responsibility of the recruitment of the CEO who in turn is invested with the responsibility to recruit her/his management team. Taking into account that recruitment function is often invested with the CEO, one cannot discount potential effects it might have on the team composition, team process and potentially on firm performance. Yet as our further analysis will show the team represented in the sample are heterogeneous in terms of demography and reported ambidexterity, which might indicate that homo-social reproduction even if present has no very apparent presence in the sample of this study.

The introduction letter and online self-administered questionnaire were sent to the CEO's personal email or to the 'info@___' general email. In the letter, the CEO was asked to answer the questionnaire personally or to forward the email to the member of their executive team with intimate knowledge about the team. Responses to the survey were received from 55 Swedish and 35 Danish firms. After excluding the incomplete surveys, there was a usable response from 82 firms (51 Swedish and 31 Danish, or 21% of the Swedish, 17% of the Danish, and 19% of the total sample). Of these 82 surveys, 65 were answered by the CEO personally while 17 were answered by a member of the TMT, in the majority of instances by the vice-president for human relations.

Participant organizations did not differ from non-participant organizations in terms of number of employees or industry. Firms represented in the final sample had a median of 480 employees and were represented in the manufacturing (40%), service (24%) and financial and IT services (36%) industries. The TMT of the firms averaged 6.5 members (including the CEO) and the teams averaged 1.7 years of serving together on the same team.

Measures

The study used existing multi-item scales that were verified through various analyses.

TMT cultural diversity. The survey asked the CEO or responding member of the TMT to indicate the nationality and native language of each member of the TMT. While the first characteristic has been used as a proxy for cultural diversity in the majority of the European-based studies (Elron, 1997), the latter has been commonly used to assess ethnicity of group members (Marimuthu, 2008). There is almost no difference between the two measures, so we used only national diversity for the cultural diversity scale.

In line with previous studies on diversity and the operationalisation of categorical variables (Bantel and Jackson, 1989; Hambrick et al., 1996), we used Blau's (1977) index (where P is a proportion of group members in a category and i is the number of different categories represented in the TMT) to assess heterogeneity. For homogeneity of culture in the top team, the index was calculated as $(1-\sum Pi2)$.

Ambidextrous orientation. The measure of ambidextrous orientation was adopted from the study by Gibson and Birkenshaw (2004), where the concept

is represented by multiplicative interaction between exploration and exploitation, based on the assumption that these two capacities are nonsubstitutable and interdependent. The explorative and exploitative orientations used to compute ambidextrous orientation were adopted from the study by Lubatkin et al. (2006). The measures of exploration and exploitation consisted of six items for each orientation (12 items in total). The 12 items measuring explorative and exploitative orientation were subjected to principal component analysis using Oblimin rotation with Kaiser normalization, which in line with Lubatkin et al. (2006) revealed a two-factor structure; however, in our data set, two items intended to measure explorative orientations were assigned to the exploitative factor, while one measure of exploitative orientation had a weak primary loading of 0.45. After removing these items and repeating the analysis on nine items, where five items represented exploitative orientation and four represented exploitative orientation, the two-factor structure remained. This accounted for 69% of the variance (which is slightly higher then the 63% of variance shown in the original 12-item scale) with primary loadings for all questions exceeding 0.62 and no cross-loadings detected. Adequate reliabilities were achieved for both exploration (=.84) and exploitation (=.88). Thus, these results suggest discriminate validity of the two measures.

Perceived organizational performance. The measure of perceived organizational performance was based on the original measure by Delaney and Huseld (1996), who used an eight-point measure of perceived organizational and market performance. Perceived performance was used rather than actual performance since respondents were anonymous. While the shortcomings of this measure in line with Lubatkin et al. (2006) are acknowledged, it is argued that CEOs are knowledgeable informants, especially in regard to firm performance. Moreover, prior studies (Dess and Robinson, 1984; Robinson and Pearce, 1988) show that CEOs' reporting of performance significantly correlates with some objective firm performance measures. In the present study, respondents were asked to assess their firm's organizational performance in relation to its main competitors, and the questions assessed were related to economic performance, service development, and human resources. The overall measure of perceived organizational performance had a reliability of = .87.

Control variables. Controls were applied for TMT size, organizational size, country and industry. TMT gender, tenure and age diversities were used as control variables.

TMT size was measured by the number of individuals on the organization's TMT, as reported by the CEO. TMT size has previously been shown to have an effect on processes within teams as well as to be correlated with the demographic composition of TMT (Lubatkin et al., 2006; Simsek et al., 2005)

Organizational size was measured as the number of employees in the organization and was controlled for because it often denotes economics of scale, allowing larger firms to have an advantage over smaller-sized organizations (Carmeli, 2008); moreover, organizational size was associated with difficulty in processing information and inertia (e.g. Tushman and Romanelli, 1985).

Industry and *country* were used to control for environmental influences and specific country conditions. *Industry* was associated with industry-specific organizational variables such as organizational culture, resource conditions and performance. Due to the spread of industries represented in the sample and the small number observed within some industries, three industry clusters were created representing broadly defined manufacturing, service and financial/IT industries. We controlled for *country* (Denmark/Sweden) since even though we assumed 'pan-Scandinavian' unity, one cannot discount some cultural specificities that may be attributed to Sweden and Denmark. Corporations with primary listing on the Stockholm Stock Exchange were coded as 1 while firms with primary listing on the Copenhagen Stock Exchange were coded as 0.

Apart from traditional and data-specific control variables, other TMT diversity dimensions were controlled for: namely, *TMT gender, age and tenure diversities*. According to Pelled (1996) these three dimensions of demographic diversity together with TMT cultural diversity are the demographic characteristics that are of highest visibility. It is argued that the visibility of these dimensions triggers the categorization of individuals within groups (Pelled, 1996) and it is of importance in the interaction between the individuals within groups (Newcomb, 1956). Thus, it can be assumed that TMT gender, age and tenure diversity could possibly be reflected in the allocation of resources observed through ambidextrous orientation of the firm. TMT gender diversity has been measured with the help of the Blau index (1977) while TMT age and tenure diversity have been measured as standard deviation of the executives' ages and their tenure on TMT.

Finally, we also controlled for *respondent (CEO or other)* to check if the position of the respondent in the TMT could be associated with the answers provided.

RESULTS AND ANALYSIS

The analysis of the data was conducted via Pearson correlation tests and hierarchical linear regressions. Table 1 provides the means, standard deviation and correlations of the study variables.

Table 1. Means, Standard deviation (SD) and Correlations

	Mean	SD	1	2	3	4	5	6	7
1. TMT cultural diversity	.19	.20							
2. Ambidexterious orientation	26.13	9.42	-.09						
3. Firm performance	5.28	.85	-.08	.68***					
4. TMT size	6.46	2.51	.25*	.13	.03				
5. Firm size	3476.95	8519.08	.33**	.29**	.18	.29**			
6. TMT gender diversity	.19	.18	-.01	-.108	.02	.22*	.08		
7. TMT age diversity	6.78	2.57	.11	-.10	-.14	.01	-.06	.07	
8. TMT tenure diversity	3.90	2.77	-.07	-.11	-.19	-.07	.06	-.16	.26*
Note: N=82; TMT = top management team									
* p < .05									
** p < .01									
*** p < .001									

A number of highly significant correlations are evident in the correlation matrix. After checking the tolerance values as well as observing that bivariate correlations do not exceed the recommended cut-off value of 0.7 (Pallant, 2007), we conducted a regression analysis.

We further tested the study's hypotheses by conducting a regression analysis retaining the independent variables as well as the control variable. In each regression model, the control variables were entered first, followed by the independent variable; the control variables of industry, country and respondent (CEO or not) were excluded from the analysis if they were non-significant and did not change the significance of the other independent variables; however, we retained the diversity variables since TMT gender and tenure diversity have been shown to have a weekly significant p<.1 negative correlation with ambidextrous orientation).

All models were tested for multi-collinearity; tolerance values in all models varied between 0.833 and 0.919, indicating that all models pass the test for multi-collinearity.

Table 2 reports the tests of Hypothesis 1.

Table 2. Hierarchical regression results for the relationship between TMT cultural diversity and ambidextrous orientation

		Model 1 β (t)	
		Ambidextrous orientation	
	Constant[a]	29.031	(7.283***)
Step 1	TMT size	.454	(-1.043)
	Organizational size	.000	(3.018**)
	R^2	.085	
	F for R^2	3.607*	
Step 2	TMT gender diversity	-10.143	(1.768)
	TMT age diversity	-.089	(-.218)
	TMT tenure diversity	-.647	(-1.657)
	ΔR^2	.043	
	F for ΔR^2	1.246	
Step 3	TMT cultural diversity	-9.035	(-2.184*)
	ΔR^2	.053	
	F for ΔR^2	4.771*	
	Overall R^2	.181	
	Overall F for R^2	2.724*	
Note: N=82; TMT = top management team			
a. Unstandardized coefficient			
* p < .05			
** p < .01			
*** p < .001			

The results of Model 1 in Table 2 provide support for Hypothesis 1, which posited that TMT cultural diversity is negatively associated with the firm's pursuit of ambidextrous orientation (β= -9.035, p<.05).

Table 3 reports the tests of Hypothesis 2.

Table 3. Hierarchical regression results for the relationship between ambidextrous orientation and organizational performance

		Model 2 β (t)	
		Organizational performance	
	Constant[a]	3.776	(13.948***)
Step 1	TMT size	-.02	(-.679)
	Organizational size	-.000	(-.001)
	R^2	0.033	
	F for R^2	1.334	
Step 2	Ambidextrous orientation	.063	(7.999***)
	ΔR^2	.436	
	F for ΔR^2	63.992***	
	Overall R^2	.469	
	Overall F for R^2	22.941***	
Note: N=82; TMT = top management team			
a. Unstandardized coefficient			
* p < .05			
** p < .01			
*** p < .001			

The results of Model 2 in Table 3 provide support for Hypothesis 2, which posited a positive relationship between the ambidextrous orientation of the firm and organizational performance (β= .063, p<.001).

In line with Baron and Kenny (1986), we performed a further test of our mediation model by entering the control variables, TMT cultural diversity and ambidextrous orientation (the mediator), as independent variables into the regression with organizational performance being the dependent variable. The regression Model 3 in Table 4 shows that TMT cultural diversity becomes insignificant and has no effect on performance, which thus according to Baron and Kenny is an indication of 'perfect mediation' (1986, p.1177).

Table 4. Hierarchical regression results for the mediating effect of Ambidextrous orientation on the relationship between TMT cultural diversity and Organizational performance

		Model 3 β (t)	
		Organisational Performance	
	Constant[a]	4.018	(11.526***)
Step 1	TMT size	-.041	(-1.377)
	Organizational size	.000	(.133)
	R^2	.017	
	F for R^2	1.860	
Step 2	TMT gender diversity	.413	(1.038)
	TMT age diversity	-.019	(-.661)
	TMT tenure diversity	-.027	(-1.007)
	ΔR^2	.049	
	F for ΔR^2	1.342	
Step 3	TMT cultural diversity	.128	(.327)
	ΔR^2	.017	
	F for ΔR^2	1.436	
Step 4	Ambidextrous orientation	.062	(7.891***)
	ΔR^2	.411	
	F for ΔR^2	62.274***	
	Overall R^2	.518	
	Overall F for R^2	11.223***	
Note: N=82; TMT = top management team			

a. Unstandardized coefficient			
* p < .05			
** p < .01			
*** p < .001			

In summary, both of our hypotheses were supported: Hypothess 1 stating that TMT cultural diversity is negatively associated with the firm's pursuit of ambidextrous orientation and *Hypotheses 2* stating positive relationship between the ambidextrous orientation of the firm and organizational performance. We also found that ambidextrous orientation of the firm mediates the relationship between TMT cultural diversity and firm performance.

DISCUSSION

This study inquired into the relationship between TMT cultural diversity and organizational performance. Studies on TMT in general have reported mixed results on the influence of TMT demographic diversity on firm performance, suggesting that the link between TMT demography and performance is not as straightforward as some authors have argued (Hambrick and Mason, 1984; Pfeffer, 1983,) and could benefit from the investigation of critical influences of intervening variables on that relationship. Simultaneously the study of mediating or/and moderating variables such as TMT process or/and context have not shown an expected clarity of outcomes, as argued by Pitcher and Smith (2001) because of possible issues associated with the selection of process and context variables as well as their operationalization, or, as Pfeffer (1983) has claimed, because of the complexity of the processes and their measurability. The present study has tried to address these issues by exploring the mediating role of ambidextrous orientation of the firm in the relationship between TMT cultural diversity and firm performance. It has been argued that ambidextrous orientation can be viewed as both the outcome of TMT processes, in reflecting the decisions made by TMT concerning the use of organizational resources, at the same time ambidextrous orientation is an organizational outcome in that it concerns actual distribution and use of resources by the organization. Spanning the team (TMT) and organizational levels of analysis, ambidextrous orientation could thus solve the issues associated with selecting TMT processes and their quantification; as well, it could be a more natural intervening variable between TMT diversity and firm performance capturing both levels of analysis.

The result of the study suggest that TMT cultural diversity has a negative influence on firm performance through decreasing the level of ambidextrous orientation of the firm. We can draw this conclusion based on the path dependency since we have shown that TMT cultural diversity will have a negative influence on firm's ambidextrous orientation (H1) and that increasing firm's ambidextrous orientation has a positive effect on firm performance (H2). The theoretical contribution of this study lies in uncovering the contingency upon which TMT cultural diversity is related to firm performance. The study provides an indication where and how the creativity and innovative capacity of TMT associated with cultural diversity disappears to, and why firms with culturally diverse teams might experience decreasing performance. At the same time, the negative outcomes of this study should be viewed with caution, taking into consideration that a recent study by Nielsen and Nielsen (2012) has indicated that, under specific contextual conditions (which have been less debated in their contextual clarity and measures then TMT process variables), culturally diverse TMTs might provide firm with superior performance. Moreover, a number of researchers have proposed that moderating variables such as TMT common vision (Katzenbach, 1997; Ensley, et al., 2003), organizational culture (Dwyer et al., 2003; Ely and Thomas, 2001; Mannix and Neale, 2005; Williams and O'Reilly, 1998), and international experience (Umans, 2008) could explain why certain firms employ culturally diverse TMTs and reap the benefits of that diversity. Future research, therefore, might inquire further into the mediating role of ambidextrous orientation by adding the environment- and firm-specific contextual factors that might explain why firms employ international managers.

References

1. Ancona DG, Goodman P S, Lawrence BS, and Tushman ML (2001) Time: A new research lens. *Academy of Management Review* 26: 645−663.
2. Atuahene-Gima K (2005) Resolving the capability–rigidity paradox in new productinnovation. *Journal of Marketing* 69: 61–83.
3. Bantel KA and Jackson SE (1989) Top management and innovations in banking: does the composition of the top team make a difference? *Strategic Management Journal* 10: 107–24.
4. Baron RM and Kenny DA (1986) The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology* 51: 1173–1182.
5. Barsade SG, Ward AJ, Turner JDF and Sonnenfeld JA (2000) To your heart's content: a model of affective diversity in top management teams. *Administrative Science Quarterly* 45: 802–836.
6. Benner MJ and Tushman ML (2003) Exploitation, exploration, and process management: the productivity dilemma revisited. *Academy of Management Review* 28: 238−256.

7. Blau PM (1977) *Inequality and Heterogeneity: A Primitive Theory of Social Structure*. NY: The Free Press.
8. Cannella AA, Park J and Lee H (2008) Top management team functional background diversity and firm performance: examining the roles of team member co-location and environmental uncertainty. *Academy of Management Journal* 51(4): 197–237.
9. Carmeli A (2008) Top management team behavioral integration and the performance of service organizations. *Group & Organization Management* 33(6): 712−735.
10. Carmeli A and Halevi MY (2009) How top management team behavioral integration and behavioural complexity enable organizational ambidexterity: The moderating role of contextual ambidexterity. *The Leadership Quarterly* 20: 207–218.
11. Carpenter MA (2002) The implication of strategy and social context for the relationship between top management team heterogeneity and firm performance. *Strategic Management Journa*l 23: 275–284.
12. Carpenter MA, Geletkanycz MA and Sanders WG (2004) Upper echelons research revisited: antecedents, elements, and consequences of top management team composition. *Journal of Management* 30: 747–778.
13. Dess GG and Robinson RB (1984) Measuring organization performance in the absence of objective measures: the case of the privately-held firm and the conglomerate business unit. *Strategic Management Journal* 5: 265–273.
14. Duncan RB (1976) The ambidextrous organization: designing dual structures for innovation. In: Kilmann RH, Pondy LR and Slecin D (eds.) *The Management of Organization*. New York: North-Holland, 167−188.
15. Dwyer S, Richard OC and Chadwick K (2003) Gender diversity in management and firm performance: the influence of growth orientation and organizational culture. *Journal of Business Research* 56: 1009–1019.
16. Elron E (1997) Top management teams within multinational corporations: effects of cultural heterogeneity. *Leadership Quarterly* 8(4): 393–412.
17. Ely RJ and Thomas DA (2001) Cultural diversity at work: the effects of diversity perspectives on work group processes and outcomes. *Administrative Science Quarterly* 46: 229–273.
18. Ensley MD, Pearson A and Pearce CL (2003) Top management team process, shared leadership, and new venture performance: a theoretical model and research agenda. *Human Resource Management Review* 13: 329–346.
19. Finkelstein S and Hambrick DC (1996) *Strategic Leadership: Top Executives and Their Effects on Organizations*. Minneapolis, MN: West.
20. Floyd S and Lane P (2000) Strategizing throughout the organization: managing role conflict in strategic renewal. *Academy of Management Review* 25: 154–177.
21. Gibson CB and Birkinshaw J (2004) The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal* 47: 209−226.
22. Gong Y (2006) The impact of subsidiary top management team national diversity on subsidiary performance: knowledge and legitimacy perspectives. *Management International Review* 46: 771–789.
23. Greve P, Nielsen S and Ruigrok W (2009) Transcending borders with international top management teams: a study of European financial multinational corporations. *European Management Journal* 27: 213–224.
24. Hambrick DC and Mason PA (1984) Upper echelons: the organization as a reflection of its top managers. *Academy of Management Review* 9(2): 193–206.
25. Hambrick D, Cho T and Chen M. (1996) The influence of top management team heterogeneity on firms' competitive moves. *Administrative Science Quarterly* 41: 659–684.
26. Hambrick DC, Davidson SC, Snell SA and Snow CC (1998) When groups consist of multiple nationalities: towards a new understanding of the implications. *Organization Studies* 19(2): 181–205.
27. He Z and Wong P-K (2004) Exploration and exploitation: an empirical test of the ambidextrous hypothesis. *Organization Science* 15: 481–496.
28. Heijltjes M, Olie R and Glunk U (2003) Internationalization of top management teams in Europe. *European Management Journal* 21: 89–97.
29. Hofstede G (1991) *Cultures and Organizations: Software of the Mind.* New York: McGraw-Hill.
30. Jackson SE, Joshi A and Erhardt NL (2003) Recent research on team and organizational diversity: SWOT analysis and implications. *Journal of Management* 29(6): 801–830.
31. Katzenbach JR (1997) The myth of the top management team. *Harvard Business Review* 75: 83–93.
32. Lawrence BM (1997) The black box of organisational demography. *Organisation Science* 8: 1–22.
33. Levinthal DA and March JG (1993) The myopia of learning. *Strategic Management Journal* 14: 95–112.
34. Levitt B and March J (1988) Organizational learning. *Annual Review of Sociology* 14:319–340.
35. Li, C. R. (2013). How Top Management Team Diversity Fosters Organizational Ambidexterity: The Role of Social Capital among Top Executives. *Journal of Organizational Change Management*, 26(5), 7-7.
36. Lubatkin MH, Simsek Z, Ling Y and Veiga JF (2006) Ambidexterity and performance in small- to medium-sized firms: the pivotal role of TMT behavioral integration. *Journal of Management* 32(5): 646−672.
37. Mannix E and Neale MA (2005) What differences make a difference? *Psychological Science in the Public Interest* 2: 31–55.
38. March JG (1991) Exploration and exploitation in organizational learning. *Organization Science* 2: 71–87.
39. Marimuthu M (2008) Ethnic diversity on boards of directors and its implications on firm financial performance. *Journal of International Social Research* 1: 431–445.
40. McLeod P and Lobel S (1992) The effects of ethnic diversity on idea generation in small groups. Paper presented at the annual meeting of the Academy of Management, Las Vegas.
41. Miller CC, Burke LM and Glick WH (1998) Cognitive diversity among upper-echelon executives: implications for strategic decision processes. *Strategic Management Journal*, 19: 39–58.
42. Nielsen BB and Nielsen S (in press). Top management team national diversity and firm

performance: a multilevel study. *Strategic Management Journal.*
43. Newcomb TM (1956) The predication of interpersonal attraction. *American Psychologist* 11(4): 575–586.
44. O'Reilly CA III, Caldwell D and Barnett W (1989) Work group demography, social integration, and turnover. *Administrative Science Quarterly* 34: 21–37.
45. Pallant J (2007) *SPSS Survival Manual* (3rd edition). London, UK: Open Univ. Press.
46. Pfeffer J (1983) Organisational demography. In: Cummings LL and Staw BM (Eds.) *Research in Organisational Behavior* 5. Greenwich, Connecticut: JAI Press, 299–357.
47. Pelled LH (1996) Demographic diversity, conflict, and work group outcomes: an intervening process theory. *Organisation Science* 7: 615–631.
48. Pelled LH, Eisenhardt KM and Xin KR (1999). Exploring the black box: an analysis of work group diversity, conflict, and performance. *Administrative Science Quarterly* 44: 1–28.
49. Pitcher P and Smith A (2001) Top management team heterogeneity: personality, power, and proxies. *Organization Science* 12: 1–18.
50. Priem RL, Lyon DW and Dess GG (1999) Inherent limitations of demographic proxies in top management team heterogeneity research. *Journal of Management* 25: 935–954.
51. Raisch S and Birkinshaw JM (2008) Organizational ambidexterity: antecedents, outcomes, and moderators. *Journal of Management* 34(3): 375–409.
52. Robinson, R.B., and Pearce, J.A. 1988. Planned patterns of strategic behaviour and their relationship to business-unit performance. *Strategic Management Journal* 9: 43–60.
53. Simsek K, Veiga JF, Lubatkin M and Dino R (2005) Modeling the multilevel determinants of top management team behavioral integration. *Academy of Management Journal* 48: 69−84.
54. Smith KG, Smith KA, Olian JD, Sims HPJr, O'Bannon DP and Scully JA (1994) Top management team demography and process: the role of social integration and communication. *Administrative Science Quarterly* 39: 412–438.
55. Smith, N., Smith, V., & Verner, M. (2006). Do women in top management affect firm performance? A panel study of 2,500 Danish firms. *International Journal of Productivity and Performance Management*, *55*(7): 569-593.
56. Tsui A, Egan T and O'Reilly C (1992) Being different: relational demography and organizational attachment. *Administrative Science Quarterly* 37: 549–579.
57. Tushman ML and O'Reilly CA (1996) Ambidextrous organizations: managing evolutionary and revolutionary change. *California Management Review* 38: 8−30.
58. Tushman ML and Romanelli E (1985). Organizational evolution: a metamorphosis model of convergence and reorientation. In: Cummings LL and Staw BM (eds.), *Research in Organizational Behavior*. Greenwich, CT: JAI Press, 171–222.
59. Umans T (2008) Ethnic identity, power and communication in top management teams. *Baltic Journal of Management* 3: 159–173.
60. Umans T (2009) Research angles on cultural diversity in top management teams. *Problems and Perspectives in Management* 7(1): 208–223.
61. Umans, T and Smith, E (2013). Isolated islands in the upper apex of organisations: in search of interaction between the board of directors and the top management team. *Corporate Ownership & Control*, 10(2): 80-90.
62. Wernerfelt B and Montgomery CA (1988) Tobin's q and the importance of focus in firm performance. *American. Economic Review* 78: 246–250.
63. Williams KY and O'Reilly CA III (1998) Demography and diversity in organizations. In: Cummings LL and Staw BM (eds.) *Research in Organizational Behavior*, vol. 20. Greenwich CT: JAI Press, 77–140.