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WHAT IS SERVED FOR BREAKFAST?[1]

An empirical investigation of organizational culture and corporate real estate strategies

Ilir Nase, Karan Gupta, Monique Arkesteijn

Do corporate real estate strategies vary across different organizational cultures?

Multinational corporations are faced with the need to centralize decision-making regarding their real estate to increase its agility in meeting rapidly changing business needs. In this new scenario of 'acting globally and thinking locally' understanding cultural variations across nations and organizations alike is crucial. Analyzing the link between corporate real estate strategies and organizational culture is essential for delivering value to multinationals.

This report:

- provides the first study investigating variations across organizational cultures and corporate real estate strategies based on well-established operational frameworks in both fields;
- uses data from a survey of 231 CoreNET Global members of various sizes operating across different industries who scored a set of eight corporate real estate strategies and provided an assessment of their own organization's culture;
- develops a categorization of corporate real estate strategies through statistical methods that follows a clear pattern based on the scope of each strategy.

[1] The title is based on the quote "Culture eats strategy for breakfast" often attributed to Peter Drucker and made famous by Mark Field, President at Ford.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Organizational culture plays a pivotal role in shaping business strategies. The past two decades have seen the emergence of real estate as a key strategic resource to firms. This research re-examines the strategic approach to corporate real estate management and uses a survey of CoreNet Global members to investigate how it varies across different organizational cultures.

Background

With real estate continuously topping corporations' accounting agenda a growing consideration for strategic management of corporate properties has been experienced particularly in the last two decades. The importance of corporate real estate strategies in supporting core business has been advocated by the industry and academia alike however, few studies provide in-depth empirical evidence.

From a wider strategic management perspective a major concern for multinationals is striking the balance between culture and strategy. Multinationals' business operations have a well-established global dimension with specific considerations for local idiosyncrasies. Such an environment places particular importance to both organizational and national culture variations. Therefore, understanding the different dimensions of national and organizational culture is crucial to a firm's success. This research advocates that similar considerations should apply to corporate property considering its importance to firms.

Strategic management of corporate real estate

Corporate real estate strategy comprises of a variety of decisions related to procurement and management of property that aim to support the competitive advantage of a firm. The field is characterized by a wide variety of models for strategic fit (alignment) to core business. This research uses one of the few consistently revised and empirically tested operational frameworks based on a set of eight strategies that aim to increase shareholder wealth through revenue or profitability growth (Nourse and Roulac 1993, Lindholm et al. 2006, Gibler and Lindholm 2012). These strategies are listed below.

1. Increasing the value of an organization's real estate assets (RE Value)

2. Promoting marketing, sales and organizational brand (Marketing)
3. Encouraging and supporting employee innovation and creativity (Creativity)
4. Supporting environmental sustainability (Sustainability)
5. Enhancing employee wellbeing and satisfaction (Satisfaction)
6. Increasing employee efficiency and productivity (Productivity)
7. Enabling flexibility (Flexibility)
8. Reducing real estate related costs (RE costs)

Empirical testing of this framework was undertaken with a survey of CoreNet Global members administered in 2010 (Gibler and Lindholm, 2012).

The competing values framework of organizational culture assessment

Organizational culture is a very broad concept with an extremely inclusive scope and for this reason has seen a wide variety of frameworks that provide even a wider variety of dimensions and attributes as a basis for its analysis. This research uses the Competing Values Framework which is based on indicators of effective organizations (Campbell et al. 1974, Cameron and Quinn 1999, 2006) This framework has been chosen for its ease of operation and interpretation, implementation across a wide range of industries and the common attributes shared with the target of the strategies described above.

The competing values framework is based on two general dimensions of organization effectiveness that define four quadrants of distinctive attributes. Each quadrant is labeled with a different cultural type namely Clan, Adhocracy, Market and Hierarchy (Cameron and Quinn 2006).

Clan	Adhocracy
Hierarchy	Market

These quadrants are competing at the diagonal hence the name Competing Values Framework. The empirical analysis of this research uses these two frameworks to analyze data from a survey with CoreNet Global members administered in Spring 2016.

Conclusions

Organizational culture influences strategic management of corporate property.

Strategies that have employees as their main target are prioritized by the Clan and Adhocracy cultures while *Reducing real estate costs* is the main concern among respondents identifying with Market and Hierarchy cultures.

The Adhocracy culture prioritizes creativity, flexibility and other employee related strategies with less consideration for real estate costs. The Hierarchy culture is highly driven by efficiency as indicated by a priority for *Reducing real estate costs* and a lack of consideration for *Increasing employee creativity*.

Overall, *Increasing the value of real estate assets* is the least preferred strategy, consistently ranking bottom across the four culture groupings.

Compared to the 2010 survey there are very little changes in the importance that managers participating in the 2016 survey place to corporate real estate strategies in supporting core business. *Reducing real estate costs ranked* top and *Increasing the value of real estate assets* ranked bottom of the strategy priority list in both surveys.

Among the corporations operating in the 'Banking & Finance' and 'Business consulting' sectors there is a clear dominance of the Market and Hierarchy cultures.

The corporations operating in the 'Manufacturing' and 'Construction' and 'Technology media and telecommunications' sectors do not identify with the Hierarchy culture.

From the respondents operating in the 'Energy and Utilities' no association with the Adhocracy culture was reported.

Large multinationals favor stability and control criteria to promote efficiency and competitive advantage as shown by relatively large organizations associating with Market and Hierarchy cultures.

Companies with relatively large corporate real estate departments associate themselves almost exclusively with the Hierarchy and Market cultures.

Corporate real estate strategies were categorized in two main groupings namely 'Real estate related' and 'Employee-centric and corporate image focused' based on robust statistical evidence.

INTRODUCTION

It is widely acknowledged from most multinational organizations that real estate operational costs are second only to human resource costs. With real estate continuously topping corporations' accounting agenda a growing consideration for strategic management of corporate properties has been experienced particularly in the last two decades. The importance of corporate real estate strategies has been advocated by the industry and academia alike with the latter focusing on strategic fit as seen in the alignment of these strategies to core business. Other research areas that are particularly relevant to multinational corporations at large and CoreNet Global members in particular have received less attention. One such area concerns the interrelationships between organizational culture and real estate strategies.

Multinationals' business operations have a well-established global dimension with specific considerations for local idiosyncrasies. Such an environment places particular importance to both organizational and national culture variations. Therefore, understanding the various dimensions of national and organizational culture is crucial to a firm's success. Previous studies have analyzed general strategic management variations across different cultural dimensions providing well-grounded operational frameworks. Strategic management of corporate real estate however has received no attention regarding its interrelationships with organizational culture. This study bridges this gap by empirically investigating this topic with data from a survey of corporate real estate managers (CoreNet Global members). It is also timely considering recent claims of real estate management coming of age as a sub-discipline within strategic management.

This report is structured as follows. The first chapter provides a background to the research on corporate real estate strategies and organizational culture. The second chapter provides the operational framework of the study by analyzing the adopted frameworks in each of the constituent domains. The third chapter answers the question 'What are the interrelationships between organizational culture and corporate real estate strategies?'. Here, a brief comparison is made with the previous survey administered by CoreNet Global in 2010. Subsequently, the attention is particularly drawn to the analysis of strategy and culture. Organizational culture variations across other attributes namely industry sector, organization size, CRE department size and national culture are additionally analyzed. Finally, a categorization of real estate strategies based on statistical methods and consistent patterns across organizational cultures is provided. Chapter four draws conclusions from the empirical findings. A technical appendix that describes the methodology, data and statistical analysis is provided separately.

1 BACKGROUND TO THE STUDY

Cultural dimensions have been extensively reported to influence strategic management of firms. As there is no single or correct definition of culture a variety of cultural dimensions have been analyzed by empirical studies. An important distinction has been made particularly with regard to national culture and organizational culture (Hofstede 1991). The latter has been officially introduced as a term in the late 1970s (Pettigrew 1979) on distinct anthropologic foundations. Subsequently, a significant body of work has been produced by academia on organizational culture and business strategies. The focus of this body of knowledge has been general strategic management and recent consolidation of knowledge in corporate real estate strategies in support of core business calls for research on this field.

Strategic management of corporate real estate

Through a recognition that real estate plays a supportive yet crucially strategic role for a firm's core business, corporate real estate management research has particularly focused on this strategic fit. A substantial body of academic research has investigated the alignment of these strategies to core business aiming at 'designing conceptual models of alignment'.

A relatively limited body work has pursued the strategic management theory lines on competitive advantage and resource-based view of firms to postulate that corporate real estate resources have the potential to create and sustain competitive advantage in a similar fashion to financial and human resources. The lack of empirical evidence on this topic constitutes the main drawback of these studies. A typical exception is the work of Gibler and Lindholm (2012) who analyze data from a survey with CoreNet Global members. The survey used a revised operational framework which builds upon the first articulated set of corporate real estate strategies by Nourse and Roulac (1993). This research employs the corporate real estate strategy operational framework (see Chapter 2) used in the previous CoreNet Global survey for obvious practical reasons.

Culture as strategic resource

As management is 'getting things done through other people', understanding the background and consequently culture of these people is paramount to the competitive advantage of the firm (Hofstede 1991). This research does not particularly focus on the definition of culture however, acknowledges the clear distinction between national and organizational cultures and focuses on the latter.

A wide variety of industry examples from large multinational merger and acquisitions that show how organizational culture differences were addressed to ensure business continuity and even innovation are analyzed in the academic literature. Additional examples include organizational culture changes in order to achieve competitive advantage. They all indicate the importance of organizational culture and how it can be strategically used by firms.

In the field of strategic management of corporate property research on the influence of cultural variations is characterized by a broad conceptualization of culture and a narrow focus on workplace strategy (eg. CBRE 2014). This study uses the Competing Values Framework of organizational culture assessment and focuses on previously tested corporate real estate strategies to analyze patterns of association and establish interrelationships among the two concepts. The following chapter describes these operational frameworks.

2 OPERATIONAL FRAMEWORK

This research uses two well-established frameworks in each of the constituent fields to analyze their interrelationships.

For the assessment of organizational culture the competing values framework is used. It was originally conceptualized by Campbell et al. 1974, further developed by Quinn and Rohrbaugh (1983) and operationalized in the Organizational Culture Assessment Instrument (OCAI) by Cameron and Quinn (1999, 2006). This research uses the six pillars and the four types of organizational culture assessment with a modified version of the OCAI.

To analyze the strategic management of corporate real estate (CRE), a set of CRE strategies is used initially proposed by Nourse and Roulac (1993), further developed by Lindholm et al. (2006) and employed after revision in a survey of CoreNet Global members by Gibler and Lindholm (2012). This framework categorizes strategies into two groupings with the same common goal of maximizing an organization's shareholder wealth.

Cultural assessment through the competing values framework

Organizational culture is a very broad concept with an extremely inclusive scope and for this reason has seen a wide variety of frameworks that provide even a wider variety of dimensions and attributes as a basis for its analysis (Cameron and Quinn 2006). One such framework that has been widely implemented in different industries focuses on competing values that originate from analysis on indicators of effective organizations (Campbell et al. 1974). An initial list of thirty-nine indicators was reduced to two major dimensions through continuous empirical research. One dimension differentiates effectiveness criteria focusing on stability, order and control form those that focus on flexibility discretion and dynamism. The other dimension distinguishes criteria that focus on external orientation, differentiation and rivalry from those that focus on internal orientation, integration and unity (Cameron and Quinn 2006).

These two dimensions form four quadrants, each representing a distinct set of attributes of organizational effectiveness. These quadrants depict four organizational culture types namely *Clan*, *Adhocracy*, *Market* and *Hierarchy* which form one of the two key pillars of this research. A detailed description of these organizational cultures and their attributes is given in Figure 1.

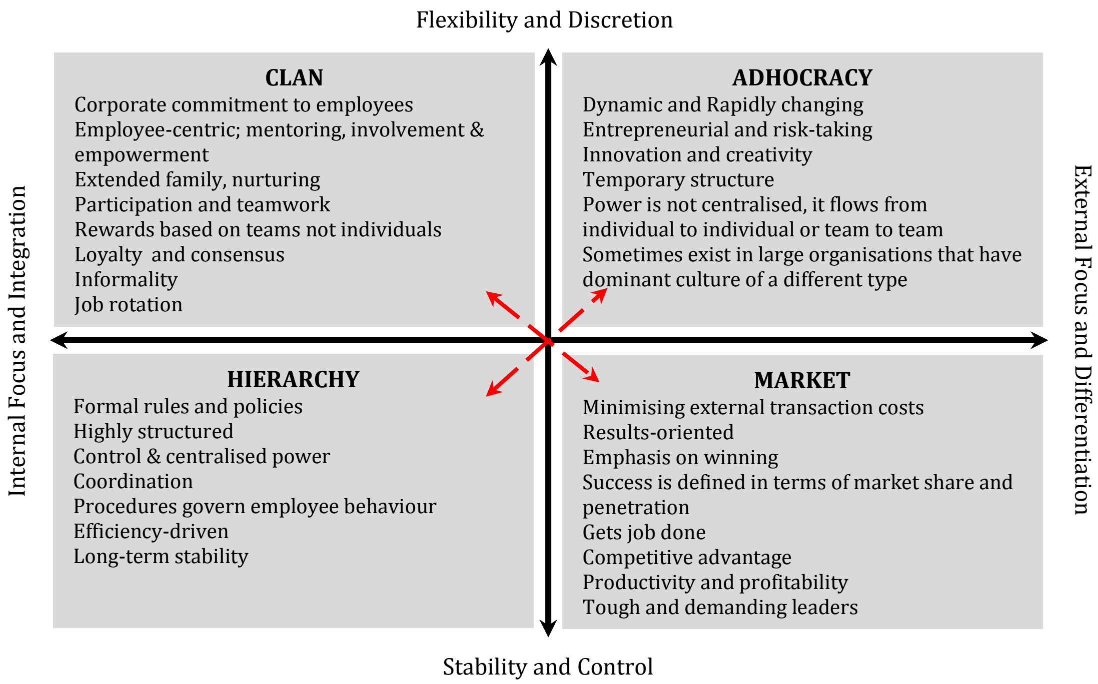

Figure1: The competing values framework and key attributes of each culture (after Cameron and Quinn 2006)

Based on the dimensions defining each quadrant and the attributes they entail the framework produces organizational culture types that are competing on the diagonal (Figure 1). More explicitly, the Clan culture (upper left quadrant) emphasizes values with an organic and internal focus while the Market culture (lower right quadrant) emphasizes values with external and control focus. The Adhocracy culture (upper right quadrant) emphasizes values with an external and organic focus while the Hierarchy culture (lower left quadrant) emphasizes values with an internal and control focus.

The assessment of organizational culture in this research is undertaken with a set of six questions adapted to the features of this study from the OCAI framework. It categorizes the organization’s dominant culture based on the congruence of the responses across the six questions (see Technical Appendix for more details).

Corporate real estate strategies for revenue and profitability growth

Strategic management of CRE has received growing attention during the past two decades particularly because of the importance that real estate has in supporting corporations’ core business and the high costs associated with its operation. Corporate real estate strategy comprises of a variety of decisions related to procurement and management of property that aim to support the competitive advantage of a firm. The concept is relatively broad resulting in a large number of frameworks encompassing a wide variety of strategies for analyzing decision-making, similarly to the organizational culture dimensions.

The first framework in this field consisted of eight alternative strategies from which firms could chose to use their real estate to support core business (Nourse and Roulac 1993). Hence, in selecting effective real estate strategies the key factor for corporations is strategic fit or the alignment of these strategies to the core business ones. The following frameworks have particularly focused on the alignment issue with relatively little empirical evidence. This study utilizes the framework of CRE strategies for maximization of shareholders wealth through profitability and revenue growth developed by Gibler and Lindholm (2012). The framework is selected particularly because it has been empirically tested with a survey of CoreNet members in 2010 which ensures continuity of concepts and allows for (partial) comparison of the two survey results.

The framework consists of eight corporate real estate strategies with the final aim of supporting the core business of a corporation as measured through the maximization of its shareholders’ wealth (Figure 2).

Real estate strategy	Core business performance indicator
1. Increasing the value of an organization’s real estate assets *2. Promoting marketing, sales and organizational brand* *3. Encouraging and supporting employee innovation and creativity* *4. Supporting environmental sustainability* *5. Enhancing employee wellbeing and satisfaction,*	Revenue growth
6. Increasing employee efficiency and productivity *7. Enabling flexibility* *8. Reducing real estate related costs*	Profitability growth

Figure2: Corporate real estate strategies for revenue and profitability growth (after Gibler and Lindholm 2012)

The first five are classified as strategies that contribute to shareholder wealth maximization through revenue growth whereas the last three fulfil their aim of wealth maximization through profitability growth. This study employs the same set of strategies to analyze their interrelationships with the organizational culture types explained earlier.

3 WHAT ARE THE INTERRELATIONSHIPS BETWEEN ORGANIZATIONAL CULTURE AND CORPORATE REAL ESTATE STRATEGIES?

An initial comparison is made between the results of the 'Strategy and Culture' survey and the survey administered with the CoreNet Global members in 2010 with regard to strategy rankings based on order of importance in supporting core business. For the purpose, figures reported in Gibler and Linhdolm (2012) are used. It can be concluded that very little has changed in the past six years regarding consideration about importance of corporate real estate strategies. Top three and the least important strategies remain unchanged while there is very little change in the ranking of the other four strategies (Table 1). The most important strategy is still considered *Reducing real estate related costs* while *Increasing the value of the organization's real estate assets* receives least consideration.

Table1: Comparison of two CoreNet Global member surveys with regard to perceived importance of CREM Strategies in supporting core business

	2016 Survey			**2010 Survey[c]**			Rank
CREM Strategy	GMvalue	Rank	*N*[b]	GMvalue	Rank	*N*	Change
Reducing real estate related costs	2.38	1	229	2.22	1	213	=
Increasing employee efficiency and productivity	2.52	2	231	2.98	2	191	=
Enabling flexibility	2.61	3	227	3.30	3	194	=
Enhancing employee well-being and satisfaction	2.69	4	230	3.86	5	185	+1
Encouraging and supporting employee innovation & creativity	2.87	5	231	3.80	4	179	-1
Promoting marketing, sales and organizational brand	2.98	6	230	4.41	7	201	+1
Supporting environmental sustainability	3.22	7	231	4.02	6	203	-1
Increasing the value of the organization's real estate assets	3.77	8	231	4.51	8	179	=

[a] GM: Geometric mean (average) of individual respondent scores;
[b] *N*: Number of respondents;
[c] Figures from Table 5 in Gibler and Lindholm (2012, p.43);

Corporate real estate strategies across different organizational cultures

The survey analysis showed some clear differences in the importance of corporate real estate strategies across the organizational culture groupings. These differences are intrinsically linked to the underlying competing values among the cultures. Particularly the effectiveness criteria emphasizing flexibility and discretion as opposed to those that focus on stability and control (the vertical axis defining the four quadrants) provide a clear dividing line in strategy preference (Figure 3).

Strategies that have employees as their core target rank consistently high and with relatively low mean differences among the Clan and Adhocracy cultures (showing a difference between first and second ranked strategies of 3% and 13% respectively). Generally, these employee-centric organizational cultures show relatively low consideration for real estate related strategies and strategies that focus on *Supporting environmental sustainability* and *Promoting organizational brand* (consistently ranked bottom half from both groupings).

Reducing real estate costs appears to be the single most influential real estate strategy in corporations grouped under the Hierarchy and Market cultures. It is ranked first in both culture groupings with high difference in mean values from the second ranked strategy (42% and 28% respectively). There is a clear lack of consideration for the strategy *Reducing real estate costs* among the Clan and Adhocracy cultural groupings (ranked seventh and sixth respectively).

The No (cultural) Dominance grouping appears to provide good benchmarking for the widely acknowledged organizational cultures. No particular trend is observable based on cultural values described earlier and differences in mean values appear to be relatively low compared to the other groupings (overall 48% mean value increase from the first to the last ranked strategy).

CLAN

CREM Strategy	GM value	Rank
Increasing employee efficiency and productivity	2.20	1
Enhancing employee well-being and satisfaction	2.26	2
Encouraging and supporting employee innovation and creativity	2.35	3
Enabling flexibility	2.40	4
Supporting environmental sustainability	2.70	5
Promoting marketing, sales and organizational brand	2.70	6
Reducing real estate related costs	2.93	7
Increasing the value of the organization's real estate assets	3.62	8

ADHOCRACY

CREM Strategy	GM value	Rank
Encouraging and supporting employee innovation and creativity	1.66	1
Enabling flexibility	1.87	2
Enhancing employee well-being and satisfaction	1.89	3
Increasing employee efficiency and productivity	2.04	4
Promoting marketing, sales and organizational brand	2.25	5
Reducing real estate related costs	2.66	6
Supporting environmental sustainability	3.09	7
Increasing the value of the organization's real estate assets	3.55	8

HIERARCHY

CREM Strategy	GM value	Rank
Reducing real estate related costs	2.23	1
Increasing employee efficiency and productivity	3.16	2
Enabling flexibility	3.33	3
Supporting environmental sustainability	3.42	4
Enhancing employee well-being and satisfaction	3.75	5
Promoting marketing, sales and organizational brand	3.92	6
Increasing the value of the organization's real estate assets	4.21	7
Encouraging and supporting employee innovation and creativity	4.25	8

MARKET

CREM Strategy	GM value	Rank
Reducing real estate related costs	2.01	1
Increasing employee efficiency and productivity	2.58	2
Promoting marketing, sales and organizational brand	2.68	3
Enabling flexibility	2.89	4
Enhancing employee well-being and satisfaction	2.96	5
Encouraging and supporting employee innovation and creativity	3.06	6
Supporting environmental sustainability	3.57	7
Increasing the value of the organization's real estate assets	3.90	8

NO DOMINANCE

CREM Strategy	GM value	Rank
Enabling flexibility	2.41	1
Reducing real estate related costs	2.50	2
Enhancing employee well-being and satisfaction	2.56	3
Increasing employee efficiency and productivity	2.62	4
Encouraging and supporting employee innovation and creativity	3.12	5
Supporting environmental sustainability	3.16	6
Increasing the value of the organization's real estate assets	3.54	7
Promoting marketing, sales and organizational brand	3.57	8

Figure3: Strategy ranking across different organizational cultures

Organizational culture seems to inform the type of real estate strategies adopted by corporations. This is clearly evident when attributes of each cultural grouping are considered in combination with the focus of the strategies, particularly for the cultures with competing values (Figure 1). The diagonally contradicting quadrants in the framework comprise the competing pairs of Adhocracy-Hierarchy for power relations and efficiency driven strategies and Clan-Market for employee focus and results-based approaches.

The most striking finding is the difference in ranking of the pair Adhocracy-Hierarchy for strategies reducing *Real estate cost* (5 ranks) and *Encouraging and supporting employee innovation and creativity* (7 ranks) (Table 2). The fact that the latter strategy is ranked lower by respondents in the Hierarchy culture than the overall least preferred one (*Increasing the value of the organization's real estate assets*) indicates the clear focus of this grouping in centralizing power, governing and controlling employee behavior. On the other hand, respondents in the Adhocracy grouping clearly show preference for strategies that support innovation, creativity and flexibility (very low relative mean values) which are attributes widely associated with this type of organizational culture.

Table 2: Rank order differences of strategy importance among competing cultures

CREM Strategy	Adhocracy-Hierarchy	Clan-Market
Reducing real estate related costs	**5**	**6**
Increasing employee efficiency and productivity	2	1
Enabling flexibility	1	0
Enhancing employee well-being and satisfaction	2	3
Encouraging and supporting employee innovation and creativity	**7**	**3**
Promoting marketing, sales and organizational brand	1	3
Supporting environmental sustainability	3	2
Increasing the value of the organization's real estate assets	1	0

By and large, the survey results indicate clear differences in the importance that corporate real estate managers associating themselves with different organizational culture groupings give to CREM Strategies in supporting core business.

The most important difference is between cultures that favor discretion and flexibility and prioritize strategies that can be categorized as employee-centric; and cultures that favor stability and control and prefer strategies focusing on cost reduction, efficiency and productivity.

The Competing Values Framework appears to be well suited for explaining differences between multinationals for prioritizing among various corporate real estate strategies that support core business. This can be attributed to the clear differences in the focus of these strategies that are appropriately explained by the framework.

Organizational culture variations across industry sectors

Survey respondents were asked to provide the industry sector in which their organizations operate in order to analyze any patterns of association with culture. The key sectors coming from the respondents are namely Banking and finance, Business consulting, Manufacturing, Construction (including real estate development), Technology media and telecommunications, and Energy and utilities. The sectors for which there were too few responses and were also answered as 'Other' were all grouped under this category. The composition (% of total) of survey respondents by industry sector is given in Figure 4.

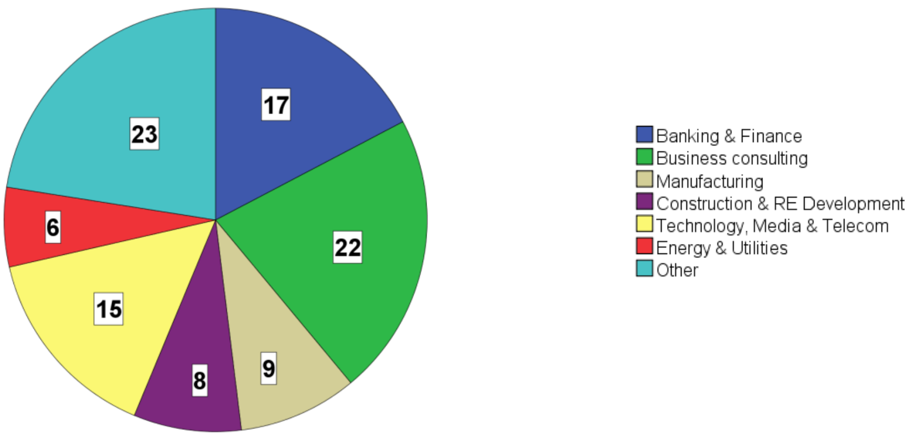

Figure 4: Division of survey respondents by industry sector

The survey revealed clear patterns of association between organizational culture and industry sector in which multinationals operate.

The most prominent outcome relates to a clear dominance of the Market and Hierarchy cultures in the 'Banking & Finance' and 'Business consulting' sectors. One third of respondents operating in these two sectors identified themselves with the Market and another 23% with the Hierarchy cultures.

Only 2.5% of the respondents operating in the 'Manufacturing' and 'Construction' (including real estate development) sectors identified their organizational culture as Hierarchy. The rest of the respondents was divided equally among the four remaining groupings Clan 25%, Adhocracy 22.5%, Market 25% and No dominance 25%.

Corporations with manufacturing as core business identify themselves mainly with the clan and market cultures with very little representation in the Adhocracy culture and no representation at all in the Hierarchy grouping. (Figure 5).

The low representation of the Hierarchy culture is additionally evident in the 'Technology media and telecommunications' sector where only 8.5% of the respondents operating in this sector identified their corporation's culture with this grouping. Another 8.5% showed No (cultural) Dominance while 34% classified as Market, 26% as Adhocracy and 23% as Clan type of organizational culture.

From the respondents operating in the 'Energy and Utilities' sector additional evidence on the competing values among Adhocracy and Hierarchy culture groupings is provided. Within this sector over 57% of respondents identified their organization's culture as Hierarchy while there were no respondents in the Adhocracy grouping. The remaining respondents were equally divided (14.3%) into the other three groupings.

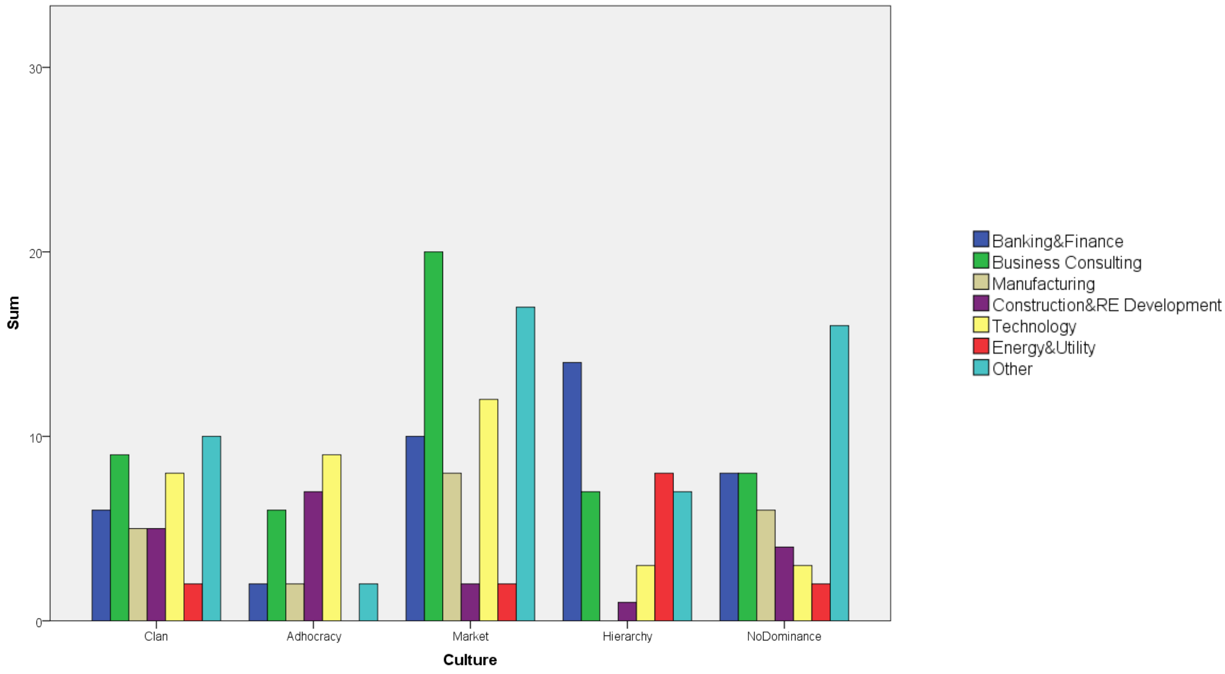

Figure 5: Industry sector of multinationals within each cultural grouping

Organization size, CRE department size, national culture and organizational culture variations

The survey analyzes organizational culture variations across other influential factors namely organization size, CRE department size and national culture differences. Overall, the division of respondents in cultural groupings was as follows; Clan 19.5%, Adhocracy 12%, Market 31%, Hierarchy 17% and No Dominance 20.5%.

With regard to organizational size five categories are investigated ranging from small organizations (less than 1,000 employees) to very large multinationals (more than 100,000 employees). Additionally, a 'Do not know' option was provided (Figure 6).

Relatively large organizations seem to be associated with Market and Hierarchy cultures. Of the respondents reporting organization size of more than 10,000 employees 32% associated with the former and 24.5% with the latter organizational culture grouping. In contrast only 5% associated with Adhocracy and another 14.5% with Clan cultures.

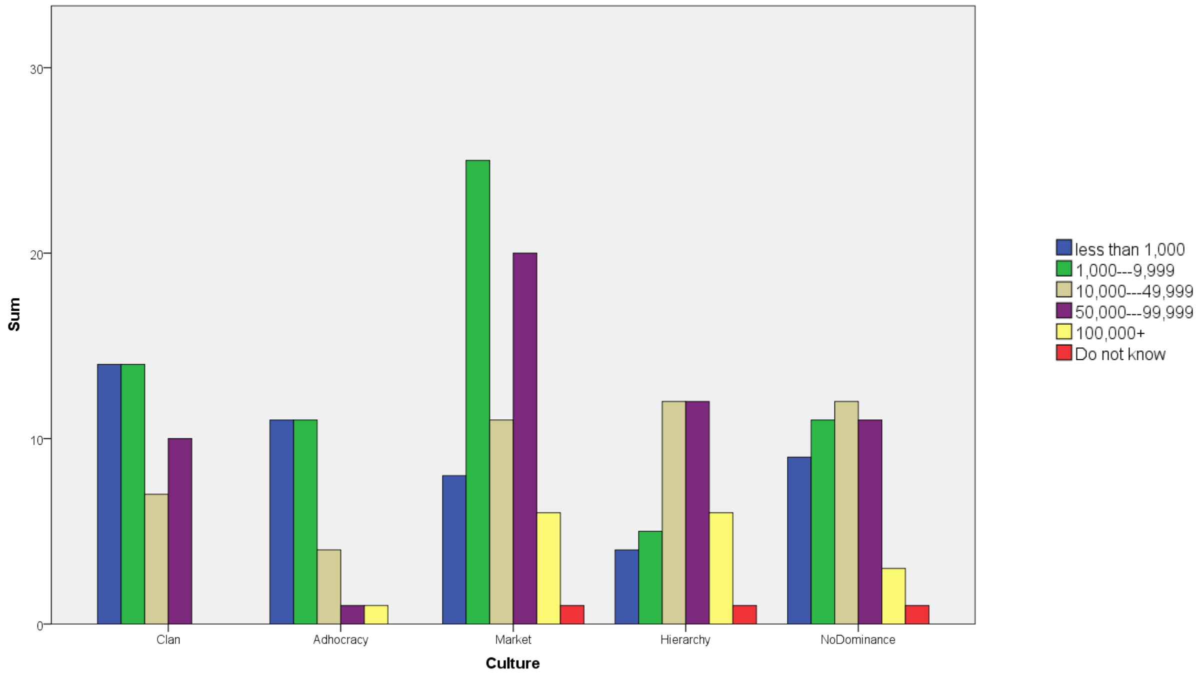

Figure 6: Company size variations across organizational culture groupings

Relatively small organizations (those reporting less than 10,000 employees) seem to be associated with the Clan culture (25%) in addition to the Market one (29%). Of these respondents 19% associated with Adhocracy culture compared to only 9% who associated with the Hierarchy grouping.

Additionally, only 3% of companies with more than 50,000 employees is associated with the Adhocracy culture, probably reinforcing the claim made earlier that 'sometimes (this culture) exist in large organizations that have dominant culture of a different type' (Figure 1).

Size of the Corporate Real Estate department was particularly included in the survey to investigate whether differences across cultures were seen between small (and probably centralized) CRE departments and large (and probably decentralized) ones. Generally, respondents reported relatively small CRE departments in their organizations; 65% consisted of 30 or less employees (Table 3 and Figure 7).

Table 3: Database composition according to CRE department size

Size of CRE department	Percentage[a]
0-10	42
11-30	23
31-50	03
51-70	04
71+	16
unsure	12

[a] with 231 respondents

Large CRE departments associate themselves with the Hierarchy (35%) and Market (38%) Cultures. Only 3% of respondents in this category associated with the Clan grouping while there were no respondents associated with the Adhocracy culture. For small departments organizational culture variations followed similar patterns to the overall division of respondents reported above.

An interesting outcome is the fact that while only 1% of the respondents did not know the size of their organization 12% were unsure about the size of their CRE department. Considering that all responses from non-end users and non-service providers were *a priori* removed from the analysis this is a surprising statistic.

Based on national culture the survey responses were divided into USA and non USA due to the large dominance of USA-based participating organizations which constituted 68% of the whole. No particular differences in organizational culture variations were observed in these two groupings.

In addition, 88% of the respondents belonged to the Anglo type of national culture based on the reported country of organization's origin. Considering the large size differences no further comparisons were carried out for these factors.

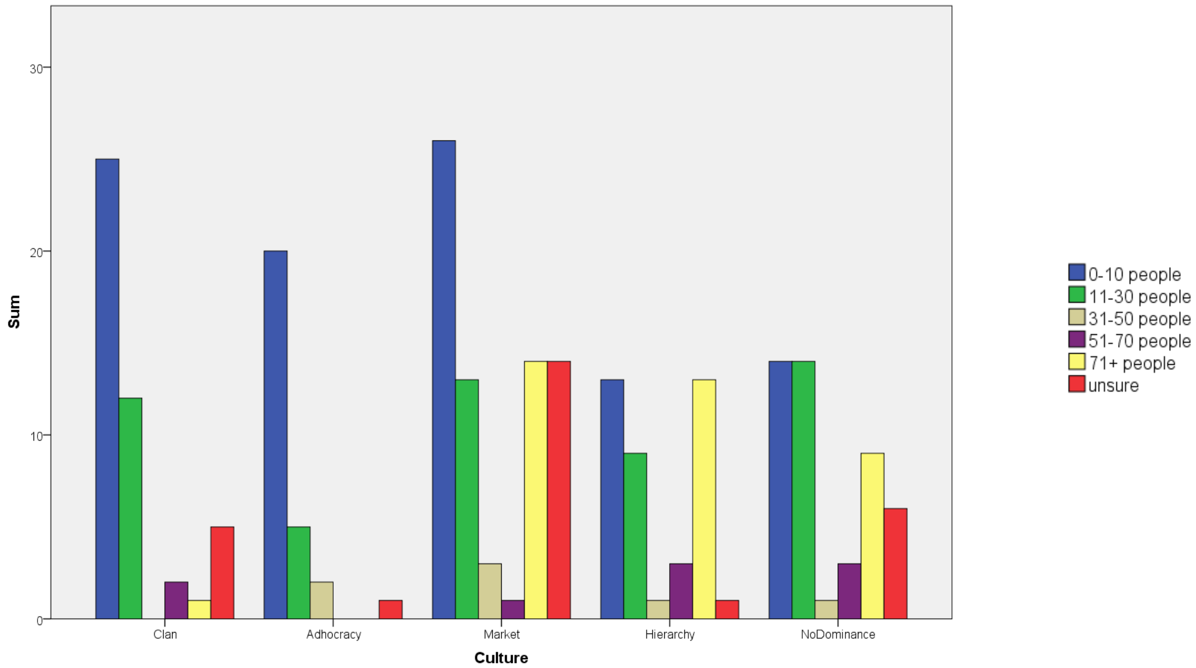

Figure 7: CRE department size variations across organizational culture groupings

Only 11% of the respondents reported differences between country of origin of the firm and the location of their headquarters. This variable was treated as a proxy for organizations that at some point in time have faced national culture differences. Considering the small portion of this grouping within the whole, no conclusive results could be drawn.

Corporate real estate strategy categorization

Following the clear patterns of strategy importance across different organizational culture groupings a statistical (principal component) analysis is undertaken to empirically investigate how the strategies categorize (see Technical Appendix for more detail). This analysis is exclusively based on statistical measures (correlation of respondent scores for each strategy) and aims to quantitatively test any associative patterns among the eight strategies under investigation avoiding any *a priori* assumptions.

The results indicate two clearly distinguishable groupings of corporate real estate strategies (Figure 8). The first grouping comprises of the strategies *Promoting marketing, sales and organizational brand* (Marketing), *Encouraging and supporting employee innovation and creativity* (Creativity), *Supporting environmental sustainability* (Sustainability), *Enhancing employee wellbeing and satisfaction* (Satisfaction), *Increasing employee efficiency and productivity* (Productivity) *and Enabling flexibility* (Flexibility) in one component. The other grouping consists of the strategies *Increasing the value of an organization's real estate assets* (RE value) *and Reducing real estate related costs* (RE costs).

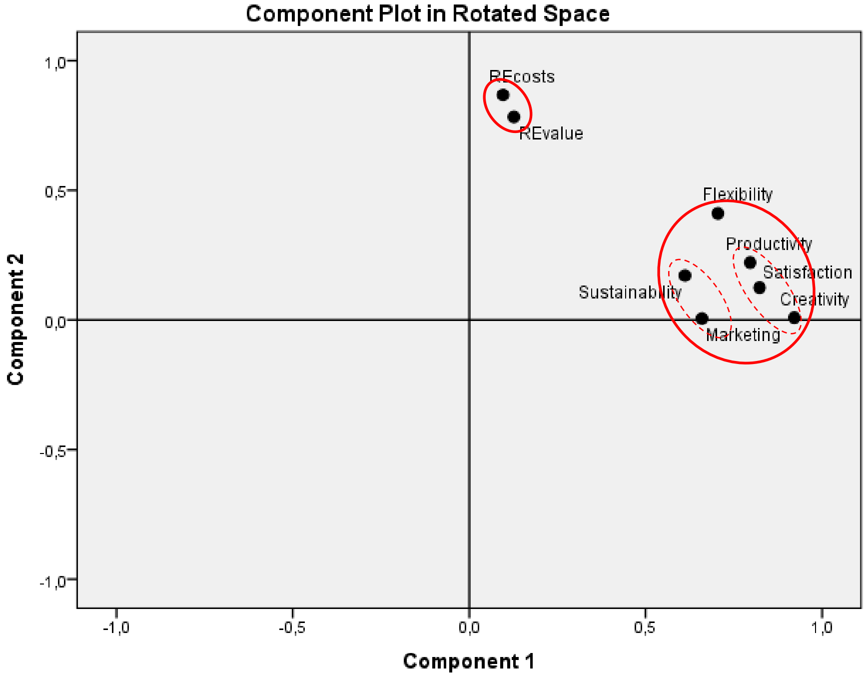

Figure 8: Scope-based grouping of CRE strategies[2]

This is a clear scope-based categorization whereby the second grouping is the 'Real estate related strategies' and the first one consists of 'all other' strategies which are further defined based on the object of the strategy as 'Employee-centric and Corporate image'. Within this grouping there is further scope for categorization based on the patterns observed across different cultures as 'Employee-centric', 'Corporate image focused' and 'Flexibility' strategies (dashed lines Figure 8). However, it should be pointed out that the statistical analysis did not support this further groupings.

4 CONCLUSIONS

This study provides the first empirical evidence to date on the interrelationships between corporate real estate strategies and organizational culture. The results suggest clear patterns of association between preferred strategies and cultural groupings based on the attributes of each culture.

[2] The quadrants in this figure do not relate by any means to the four organizational culture quadrants in Figure 1. The quadrants in Figure 8 are purely defined by the strength/value and direction/sign of correlations among strategies.

Organizational culture effectiveness criteria emphasizing flexibility and discretion as opposed to those that focus on stability and control provide a clear dividing line in strategy preference of survey respondents. Strategies that have employees as their core target are prioritized by the Clan and Adhocracy cultures while *Reducing real estate costs* was the main concern among respondents identifying with Market and Hierarchy cultures.

The diagonally competing quadrants in organizational culture show clearly different priorities in corporate real estate strategies. The Adhocracy-Hierarchy pair are diametrically different in their strategy focus. The former prioritizes creativity, flexibility and other employee related strategies and tends to overlook real estate costs. The latter is highly driven by efficiency as indicated by a priority for *Reducing real estate costs* and a lack of consideration for *Increasing employee creativity*.

Overall, *Increasing the value of real estate assets* was the least preferred strategy, consistently ranking bottom across the four culture groupings. Compared to the previous survey of 2010 there were very little changes in the importance that managers place to corporate real estate strategies in supporting core business. *Reducing real estate costs ranked* top and *Increasing the value of real estate assets* ranked bottom of the strategy priority list.

Among the corporations operating in the 'Banking & Finance' and 'Business consulting' sectors there is a clear dominance of the Market and Hierarchy cultures. The corporations operating in the 'Manufacturing' and 'Construction' and 'Technology media and telecommunications' sectors do not identify with the Hierarchy culture. From the respondents operating in the 'Energy and Utilities' no association with the Adhocracy culture was reported.

Relatively large organizations are associated with Market and Hierarchy cultures. Additionally, companies with relatively large corporate real estate departments associate themselves almost exclusively with the Hierarchy and Market cultures. This indicates that large multinationals favor stability and control criteria to promote efficiency and competitive advantage.

Corporate real estate strategies were categorized in two main groupings namely 'Real estate related' and 'Employee-centric and corporate image focused' based on robust statistical evidence.

The results of this study can be used by CoreNet Global members and industry at large to improve their understanding of the link between corporate real estate strategy and organizational culture. This in turn will enable corporations to deploy business supporting property strategies more effectively. Key to the success of this approach is a more in-depth assessment of multinationals' own organizational culture.

ABOUT US

- **CoreNet Global** is a non-profit association, headquartered in Atlanta, Georgia (US), representing almost 10,000 executives in 50 countries with strategic responsibility for the real estate assets of large corporations. The organization's mission is to advance the practice of corporate real estate through professional development opportunities, publications, research, conferences, designations and networking in 47 local chapters globally.
- **Delft University of Technology**, also known as TU Delft, is the largest and oldest Dutch public technological university, located in Delft, Netherlands. With eight faculties and numerous research institutes, it hosts over 19,000 students (undergraduate and postgraduate), more than 3,300 scientists, and more than 2,200 support and management staff. TU Delft collaborates with a large number of other educational and research institutes within the Netherlands and abroad and has a reputation for high-quality teaching and research.

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