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The Value of Value Sets

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Abstract

The world over classrooms in business schools are being taught that corporate values can impact performance. The argument is typically that culture matter more than strategy plans and culture can be influenced and indeed changed by a shared corporate value set. While the claim seems intuitively and anecdotally true surprisingly little hard evidence has been produced either for or against. This study attempts to rectify this. The study claims that for corporate values to matter they must at least align, and potentially alter, employee decision-making hence their concept of optimality and rational behavior. This paper attempt to test such a claim. This is done via unique and privileged access to top-level managers in a Fortune 250 company. This company is special in having very well-defined, long-running values that are in opposition to a narrowly defined homo-economics rationality. These values and their precise intonation and implementation can be traced to unique events and periods in the company history. The managers partaking in this study were present at these events and periods, and represent a very unique and curated group of test subjects. The managers were subjected to multilevel experiments involving vignettes and games. Their results were compared to their actual knowledge of the content of the company corporate values. The results were tested against hypotheses on expected rational behavior and a control group consisting of similar level managers from other companies. This study makes a unique contribution to the

effects of investment in shared company values, and to whether agent rationality can be fundamentally changed by committed organizational efforts.

Introduction

Firms are legal devices to grow shareholder investments via production of goods or services. Managers are employed to oversee the allocation of shareholder investment in capital goods and motivation of employees. As such managers should constantly be both proactively seeking cost efficient ways to grow shareholder returns, while at the same time being diligent of not squandering cash on purposes not serving this aim. In the last couple of decades, company values have become a household management tool to align company purpose with individual decision-making. Fueled no doubt by strategy classes teaching eager students that culture eats strategy for breakfast, a saying often accredited to Drucker although it is doubtful if he ever said such a thing. While the idea of shared values being a cost effective ways to generate decisions like as those the company would, ceteris paribus, find most rational seems intuitively true, little hard evidence on the individual level exist outside that of anecdotes. Our study claims that for corporate values to matter they must at least align, and potentially alter, employee decision-making toward more optimal and rational behavior in support of firm objectives. This should be evident when compared to a control group that did not get the same ”value-treatment.”

Our paper contributes in three important ways 1) Hard experiment-based evidence for the significance of corporate values in individual manager decision-making 2) This study makes a unique contribution to the effects of investment in shared company values, and to whether agent rationality can be fundamentally changed by committed organizational efforts. 3). This study further shows how insights from business history can be combined with experimental economics to shed further light on issues and move us from *informed opinions* to *scientific facts*.

This paper proceeds as follows; first a short literature review of management research in value sets. We assume the reader is already familiar with standard behavioral economic claims about trust, risk and escalation of commitment. Next, we outline our research design. Moving from this to a description of our sample and its background. Based on this we present our hypotheses and findings. From here we comment on management implications and future research before concluding.

Literature review

Companies as all organizations of people do, both inherit social orders or cultures and create their own. The process of creating their culture is a natural spontaneous order as a result of both daily and structural business decisions[1]. However, culture can both promote and impede certain outcomes, and the precise driver of this outcome revolves around company and employee value alignment[2]. As a result, potentially a more optimal or efficient culture exist, and hence it makes sense for companies to invest in altering the underlying values toward the desired state[3]. As such, individual and group values form a defined management research concept[4], and ideally, values ultimately form an

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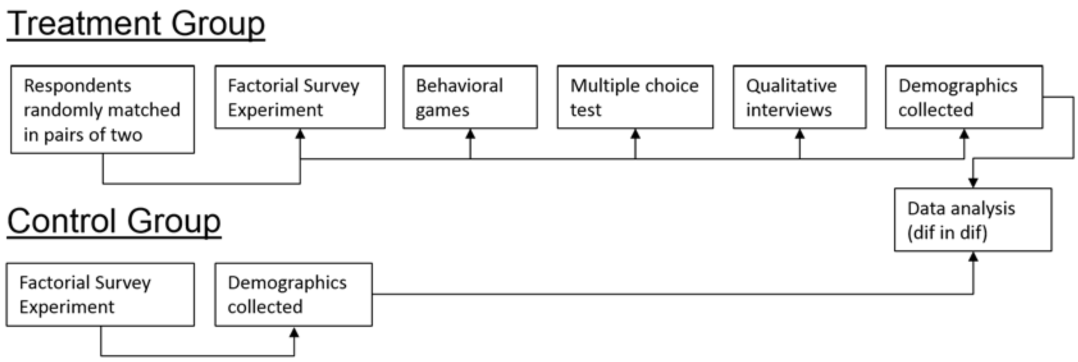
[1] O’Reilley, Chatman & Caldwell, 1991.
[2] Gordon & DiTomaso, 1992.
[3] Brooms & Gahmberg, 1983.
[4] Geertz, 1973; Enz, 1988; Hofstede 1990; Meglino & Ravlin, 1998.

appealing and cost-effective alternative to reward and punishment in management[5]. This chain of reasoning is well established, and some evidence exists[6], however little hard evidence exist for this link at the individual decision level. Especially insights using experimental methods are missing.

Research design

Our research design is a natural experiment with a treatment group and a control group. The treatment group is a highly curated selection of manager from a specific company with a very well defined value implementation process and history. The treatment group is a comparable group of managers from other random companies. To delimit other influences, only Danish nationals were used in both groups.

Figure 1: Research Design



Source: Own design

Figure 1 outlines our research design. First, the treatment group was randomly assigned to groups of two. After this, they were asked to partake in a factorial survey experiment which uses short descriptions of situations or persons (vignettes) that are usually shown to respondents within surveys to elicit their judgments about these scenarios.[7] These serve as a simulated experiment to elicit employee responses to generalized but representative decision scenarios. Scenarios are varied on a predetermined set of factors expected to impact the decision or prioritization. By simultaneously presenting an exhaustive set of combinations of preselected factors, factorial experiments allow for tests of factor main effects and combined effects with high statistical power at relatively small costs.

After this, we subjected the subjects to a variety of games: repeated trust and cooperation games, a compilation of trust games, and a special purpose version of a repeated dollar game. Players took turns to start. The first starter was decided by coin toss. Next step was a multiple choice test. This was to test actual and factual knowledge of the value set. Respondents were given an individual closed book and unprepared multiple choice exam of 10 questions based on the actual wording in and other objective facts about the value set. In the end, the purpose was revealed, and a semi-structured interview concerning the case company, corporate values, and leadership followed. The current study

[5] O'Reilly, 1989; Kreps, 1990.
[6] See for instance Rosenthal & Masarech, 2003; Edwards & Cable, 2009; Jonsen et. al., 2015.
[7] Aquinis & Bradley, 2014.

mainly uses results from Vignettes, Multiple choice test, and Demographics. Behavioral games and Qualitative interviews are utilized supportively.

The Sample

Our sample background is Mærsk. A global integrated transport, logistics, and energy company with multiple brands which is a global leader in container shipping and ports. The company owns almost 600 ships, and a Mærsk ship calls a port every 15 min. The company also produces 550.000 barrels of oil a day. This company is special in having very well-defined, long-running values. These values are in some respects in opposition to a narrowly defined homo-economics rationality. Especially around trust, risk aversion and escalation of commitment. The values are constantly observable in the behavior of the founding family in the first 100 years of the company's existence. The precise intonation and implementation can be traced to unique events and periods in the company history.[8] These were especially a letter first distributed September 1994 which contains 28 value sentences. A meeting in the home of the founder in 2003, and a following cascading implementation process over three years. Our respondents all received the letter doing their time in Mærsk, was among the 49 top management at the private meeting, and employed as managers in at least the following three years in Mærsk.[9]

Figure 2: Mærsk Facts

Source: Google

Mærsk provided a list of names of meeting attendees, and we contacted Danish participants asking for their time without stating the purpose so as to avoid framing them, but asking them to confirm the three above requirements. We answered questions which mainly dealt with reassurance of our scientific intent. This paper hence has unique and rare access to a highly curated group of top

[8] Jephson & Morgen, 2014

[9] Of the 49 partaking 32 was Danish (another requirement of our research design). We were able to contact 24 and 16 accepted giving us a participation rate of 50%

management. Some are still employed in Mærsk, a few pensioned, and other now holds top positions (including chairman of boards) in other major European corporations.

Figure 3: Illustration of Historical Foundation of Mærsk Values

Source: Maersk.com

Hypotheses

Given the sustained emphasis in the value set on constant care; the ability to admit and assume responsibility for mistakes without fear of reprisal; the importance of humility; and the duty to both provide and adhere to honest opinions in all matters, we hypothesize a comparatively weaker effect of unreliable signals (sunk costs, project prestige, personal incentives, and potentials for non-punishable opportunism) on the decision to terminate projects (where the literature and control group would lead us to expect a positively significant effect; i.e. a tendency to keep projects alive), and, on the other hand, we expect a prominent effect of more reliable signals (feedback from peers; feedback from the organization), which are not crowded out by signals that induce escalation of commitment and similarly biased behavior.

Findings

We run a probit regression to account for the lack of a fully continuous dependent variable, and we cluster on respondent ID to control for respondent effects. See Table 1 for results.

We confirm our hypotheses that reliable signals crowd out unreliable signals, even when controlling for seniority in the focal firm, years since departure from focal firm, as well as their score on a separate test of verbatim knowledge of the original value set.

Table 1: Probit Results

```
Iteration 0:   log pseudolikelihood = -436.68115
Iteration 1:   log pseudolikelihood = -404.25028
Iteration 2:   log pseudolikelihood = -404.14294
Iteration 3:   log pseudolikelihood =  -404.1429
Iteration 4:   log pseudolikelihood =  -404.1429

Ordered probit regression                       Number of obs     =        256
                                                Wald chi2(9)      =     122.57
                                                Prob > chi2       =     0.0000
Log pseudolikelihood =  -404.1429               Pseudo R2         =     0.0745

                                     (Std. Err. adjusted for 16 clusters in respID)
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Answer	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
Profilering	-.1737563	.1445821	-1.20	0.229	-.4571319	.1096193
Sunk	.2112211	.1768369	1.19	0.232	-.1353729	.5578152
Indications	-.7281552	.1731749	-4.20	0.000	-1.067572	-.3887386
CohesivenessResistance	-.7717346	.2194292	-3.52	0.000	-1.201808	-.3416613
AgencyIncen	.1236748	.1221124	1.01	0.311	-.1156611	.3630108
AgencyOpp	.0238011	.1131475	0.21	0.833	-.1979639	.2455661
Seniority	-.0048562	.010927	-0.44	0.657	-.0262727	.0165602
YearsDepart	.0288519	.0205482	1.40	0.160	-.0114219	.0691257
ValueKnowledgeEdited	.0821405	.0892874	0.92	0.358	-.0928597	.2571407
/cut1	-1.782531	.9796055			-3.702522	.1374605
/cut2	-.3245106	.834974			-1.961029	1.312008
/cut3	.1241881	.7975512			-1.438984	1.68736
/cut4	.2732321	.8180925			-1.3302	1.876664
/cut5	.5373317	.8056121			-1.041639	2.116303
/cut6	1.579008	.8370582			-.0615961	3.219612

Source: Stata

Running the regression as a simpler OLS linear regression does not alter the main effects of the study. See Table 2 for results.

Table 1: OLS Results

Linear regression	
Number of obs	= 256
F(9, 15)	= 14.45
Prob > F	= 0.0000
R-squared	= 0.2579
Root MSE	= 1.6944

(Std. Err. adjusted for 16 clusters in respID)

Answer	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Profilering	-.3767009	.2309273	-1.63	0.124	-.8689109	.115509
Sunk	.2880973	.3119448	0.92	0.370	-.3767974	.952992
Indications	-1.174164	.2567026	-4.57	0.000	-1.721312	-.6270152
CohesivenessResistance	-1.396404	.2751006	-5.08	0.000	-1.982768	-.8100413
AgencyIncen	.2272748	.1972957	1.15	0.267	-.193251	.6478006
AgencyOpp	.0570491	.1822706	0.31	0.759	-.3314514	.4455497
Seniority	-.0121126	.0180659	-0.67	0.513	-.050619	.0263939
YearsDepart	.0553736	.0355462	1.56	0.140	-.0203914	.1311386
ValueKnowledgeEdited	.0958179	.1407869	0.68	0.507	-.2042622	.395898
_cons	4.261103	1.249843	3.41	0.004	1.597125	6.925081

Source: Stata

At the time of writing this version of the paper the control group sample is not complete (same size n). However initial test (n ~100) confirm our conclusions. The remaining paper is writing assuming this trend will be confirmed in the full dataset.

Management Implications

Based on the current state of our research we set forth that all else equal corporate value sets do seem to matter and can present an attractive investment for management in that value sets can transform individual decision makers attitude towards risk, trust, and escalation of commitment, which in turn alters organizational outcomes and performance. This means that value sets can be a potentially cost-efficient alternative or supplement to stick and carrot management.

Future research

The strength of our current work is the highly curated sample. Access to such a sample is very rare in management research. That said the strength is also a possible weakness in that our sample might be too unique. They might already have had the values and self-selected into working for Mærsk. To avoid this concern, and test the strength of next level cascading of the value sets and their longitude we aim to expand to other groups of managers, such as those more junior at the time, an international group, and a group hired in the last five years. We would also like to attempt the same research design in another company.

Currently, we have focused our level of analysis on the corporate level, but microstudies using our research design in divisions or departments would also be interesting. Finally, we do see the general need for more work within the institutional effect via experimental approaches of value sets, such as comparing companies with value set to those without, but without investigating the precise content.

Conclusion

Our study shows that corporate values matter in that they can alter employee decision-making and hence decision makers concept of optimality and rational behavior.

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