

Levers Behind the Scene: The Importance of the Individual and Organizational Awareness for the Organizational Success in the Midst of Digital Transformation

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In this paper, we have asked what qualities individuals and organizations need for the success in the midst of large scale system transformation. Digital transformation is an example of such large-scale system change. First, we have reviewed the empirical research on digital transformation and job redesign in order to explore qualities employees need to thrive in the digitally transformed job settings. Second, we have studied soft system regularities in order to tap into organizational-level qualities that allow for the successful large-scale system transformation. Based on these reviews, we have come up with the proposition that greater attention should be paid to the quality of the individual and collective awareness (defined as the capacity of expanded, inclusive attention). We have proposed that virtues in action and individual strengths (VIA-IS) to serve as a possible indicator of the quality of the individual awareness. Next, we have proposed that organizational presencing/absencing can serve as the possible indicator of the quality of organizational level awareness. Exploring the relationship between the individual awareness (indicated by VIA-IS) and organizational awareness (indicated by absencing/presencing) and organizational effectiveness revealed a set of compelling results: (1) The quality of personal level awareness (indicated by VIA-IS framework) varies significantly across different organizational positions, whereby middle managers hold the highest levels of individual awareness; and (2) presencing is positively associated with organizational performance, while absencing holds negative relationship. These findings reveal that quality of awareness (either at the individual and/or collective level) may be a promising line of organizational research with a decent predictive power in many organizational domains.

Keywords: universal virtues and strengths, presencing, absencing, individual and collective awareness, organizational effectiveness

Introduction

Digital society encompasses a digital transformation of businesses, global expansion of e-commerce, transformation of banking, health care, educations and the way the democracy is practiced. This is a large-scale system change (OECD, 2015; 2016; 2017; Autor, 2015; Deming, 2017; Berger & Frey, 2016). In digital society robots, artificial intelligence and people will be sharing workspaces (Fernández-Aráoz, 2015; Bauwens, 2012),

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hence the need for digital acumen of employees is obvious, but how we should humans adjust to prosper joyfully in the AI and robotized organizational settings and economic-social arrangements.

We are talking about the multi-level large-scale system transformation that will affect the well-being of all. Will this large-scale system change lead to a better quality of living (vs. worsen) of living, which is an important question that is addressed in this paper? Big-system transformations are based on deeper system dynamics that—in order to create a well-being for all—requires the expanded (eco) awareness of all relevant stakeholders within the system (Senge, Scharmer, Jaworski, & Flowers, 2005; Scharmer, 2007).

In this paper, we propose that the directionality of the effects of any large-scale system change, and specifically digital transformation, most likely correlates with the quality of awareness. Thus, we ask several questions: What are indicators of the quality of the individual awareness? What are the indicators of the quality of the organizational (collective) awareness? How important are these two levels of awareness for the effectiveness of the business in the midst of large scale digital transformation?

Therefore, we study the impact of large scale digital transformation on workplace re-design with an attempt to detect desired qualities of employees. Next, we study the regularities of the soft (human) system transformation in order to come up with desired qualities of organizations resilient to the unknowns brought by the large scale digital transformation. After discovering the desired qualities of employees and organizations, we ask what the general underpinnings below these qualities are and what the possible indicators of them are.

This paper contributes to the awareness-based organizational scholarship (Schuyler, Baugher, Jironet, & Lid-Falkman, 2014; Scharmer, 2007; Scharmer & Kaufer, 2013) that is building upon the concepts of organizational mindfulness (Langer, 1989), organizational sense-making (Weick, 2001), organizational images (Dutton, Dukerich, & Harquail, 1994), organizational identity (Albert & Whetten, 1985), organizational learning (Senge, 1991), and action inquiry (Torbert, 2004).

The paper is structured in six parts. The second chapter researches demands of the digitally transformed workspaces from the perspective of employees' core qualities and introduces the need for universal values. Third part studies the regularities of large-scale social-system transformations and introduces the role of the collective awareness as the core predictor of effectiveness under such transformative settings. The fourth part presents the empirical study of the virtues in action and individual strengths (VIA-IS) qualities (that serve as the indicator of the quality of the individual awareness) and organizational presencing and absencing (that serve as the indicators of the collective awareness) in relation to the organizational performance. The fifth part is committed to the discussion of result with an outline of implications and limitations of the study. The article ends with short concluding remarks.

Individual Virtues and Strengths: Quality of Individual Awareness

There is a growing stream of applied research on the organizational level digital transformation and qualities of employees in such digitalized organizational settings. Capgemini Consulting and the MIT Sloan School of Management (Capgemini, 2017) research showed that more digitalized companies substantially outperform less digitalized; and that the performance gap is greater for the companies that undergo large-scale digital transformation. Brookings Institute recently studied 545 different occupations in the US from the perspective of digital requirements (Frick, 2017). They have found that 95% of occupations became more digitalized in period 2002-2016; and second, that more digitalized occupations are better remunerated. On the other hand, the OECD's research on the "Future of Work" (Berger & Frey, 2016; OECD, 2016; 2017) showed

that 56% of the adult population does not hold sufficient ICT skills; that millennials are much more ICT proficient than their “parents”; and that the jobs that require more intensive ICT skills also require specific attitude of openness, courage, will to learn etc. (OECD, 2015; Autor, 2015; Deming, 2017).

Kumar, Ribeiro, Carvalho, and Hradilak (2017) have studied the impact of digital change on an average employee from the perspective of universal strengths, specialized strengths, and talent management. Since technology will make interactions between people (employees, customers, and other stakeholders), more implicit, seamless and ultimately more transparent, the universal virtues and strengths (i.e., trust, courage, leadership, bravery, fairness, honesty, kindness, judgment, etc.) will come into the fore front. Next, Kolbjørnsrud, Amico, and Thomas (2016) have studied changes in top management skills in the face of AI workplace transformation. In more than 1,770 interviews with senior managers from 14 countries, the majority of interviewees agreed that the crucial qualities of the effective management in AI supported work environment will be (more than ever before) tacit qualities like judgment, creativity and social skills like networking, coaching, and collaborating. In a similar study on 150 in-depth interviews with the CEOs of the MNCs conducted by the Said Business School and global headhunting agency Heidrick & Struggles, the study came to the similar conclusion (Morris, White, Smets, Moss Cowan, Athanasopoulou, Malloch, & McQuater, 2015). The CEOs operating in the midst of large-scale system transformations must have strong core management competences and also strong resilience.

This line of empirical research on digitally transformed workspaces shows that in addition to the digital proficiency the universal qualities of employees and top management seem to be playing more and more crucial role. Peterson and Seligman (2004) conducted a three-year global research on universal qualities of adults that seem to be values all around the world. They came up with a framework of six Virtues in Actions and with the Inventory of 24 Strengths (therefore the VIA-IS acronym). Strengths represent the following qualities of individuals: creativity, curiosity, judgment, love of learning, perspective, bravery, perseverance, honesty, zest, love, kindness, social intelligence, teamwork, fairness, leadership, forgiveness, humility, prudence, self-regulation, appreciation of beauty and excellence, gratitude, hope, humor, and spirituality. Virtues are higher order constructs that emerge out of groupings of strengths and encompass: wisdom and knowledge, courage, humanity, justice temperance and transcendence.

The reliability and validity of the VIA-IS framework have been widely tested by diverse samples, i.e., students, nurses, psychic patients, people with depression and PTSD, military leaders, “normal“ adults (Niemic, 2013; Brdar & Kashdan, 2010; Macdonald, Bore, & Munro, 2008; Ruch, Proyer, Harzer, Park, Peterson, & Seligman, 2010; Al-Krenawi, Elbedour, Parsons, Onwuegbuzie, Bart, & Ferguson, 2011). Research results revealed that strengths like hope, zest, gratitude, curiosity, and love hold strong positive correlation with life satisfaction (Peterson, Ruch, Beermann, Park, & Seligman, 2007; Niemic, 2013; Ruch et al., 2010; Brdar & Kashdan, 2010; Shimai, Otake, Park, Peterson, & Seligman, 2006); bravery, kindness, and humor are good predictors of physical health and wellness (Park, Peterson, & Seligman, 2004); after controlling for intelligence, perseverance, love, fairness, gratitude, honesty, hope, and perspective are strong predictors of academic achievement (Park & Peterson, 2008; 2009). Next, multiple tests also confirmed that VIA-IS strengths make people more resilient to trauma, shock and major life disturbances (Peterson, Park, Pole, D’Andrea, & Seligman, 2008; Al-Krenawi et al., 2011); hope, zest, and leadership are related with less problems with anxiety and depression (Park & Peterson, 2008); while hope, kindness, social intelligence, self-regulation, and perspective buffer against the negative effects of stress and trauma (Park & Peterson, 2006; 2009).

Though VIA-IS qualities are a good predictor of life satisfaction, they are weak predictor of work satisfaction (Peterson, Stephens, Park, Lee, & Seligman, 2010). Research of 7,348 adults reported in the “Oxford Handbook of the Positive Psychology and Work” showed that managers reported the strongest work satisfaction though on average expressing the puniest VIA-IS qualities relative to people on the other organizational positions (professional, clerical, blue collar, administrative, homemaker). Though this research reported differences of VIA-IS qualities across different organizational positions, it did not tested for significance of these differences across organizational positions. Here we proposed that:

Hypothesis 1: VIA-IS qualities differ significantly across different organizational positions and groups.

VIA-IS strengths present a dimension of an individual that lies deeper than his/her skills and competences. Here we propose that VIA-IS can also present a good proxy for the quality of awareness of the individual. The more expressed are the VIA-IS qualities of the individual, the higher order is his/her awareness. The higher order awareness among decision-makers increases the likelihood of successful adaptation in the midst of large-scale system transformation (Goleman & Senge, 2014). Thus, we would like to see VIA-IS strengths well represented in the organizational groups that hold the greatest decisions-making power like senior and middle management.

Presencing and Absencing: The Quality of Organizational Awareness

Fifteen years ago, Senge et al. (2004) argued that the basic problem of modern society is that organizations have not yet become aware of themselves as living beings. Due to this lack of awareness, they do possess the adequate power for creating the future according to their (collective) liking. Becoming aware of oneself at a collective, organizational level is referred as an organizational awareness. Organizational awareness represents the fourth epistemological layer of the Schein’s iceberg model of the organizational culture (Schein, 1996; Scharmer, 2007).

Senge et al. (2004) and Scharmer (2007; Scharmer & Kaufer, 2013) defined different levels (qualities) of the organizational (collective) awareness ranging from presencing to absencing. Presencing is “being open beyond one’s preconceptions and historical ways of making sense” so that one can “consciously participate in a larger field for change” (Senge et al., 2004, p. 11).

Presencing in a most general sense thus depicts the way people (meaning employees and other stakeholders) operate in the organization. When people operate from a deeper source of awareness characterized by the open mind (shutting down the voice of judgment; operating with curiosity, looking for new explanations, views, understandings), open heart (shutting down the voice of cynicism; operating with compassion, empathy, willingness to emotionally connect with others), and open will (shutting down the voice of fear; operating from courage, taking risks, willingness to letting go and letting come), the organization (collective) is in the presencing mode of being (Scharmer & Kaufer, 2013).

In that mode people become “one being” born out of in-depth collective dialoging, deep listening to each other, inner world of sensations, feeling and impression, as well as to what is wanting to emerge from the field (Scharmer, 2007). When in this mode, they step into un-manifest world of implicate order, world of energy, world of potentials (Bohm, 1980; 1996), world of In-Formation, Akasha (Laszlo, 2004). From there knowing around the highest future possibility that creates best collective benefits for all can be perceived in a way that cannot be accessed from the rational mind. Presencing mode is tightly related with positive large-scale system transformation.

The opposite mode is organizational absencing, which is exhibited when people operate from the closed mind (operating with ignorance, acting from outdated ways of thinking, old habits of thought), closed heart (operating from anger, blaming others, greediness), and closed will (operating from fear, lack of courage, lack of risk-taking). Absencing leads to the increasing alienation from each other (social divide), from the nature (ecological divide) and from one self (spiritual divide), which can lead to final destruction and deconstruction of the organization (Scharmer & Kaufer, 2013).

Thus, presencing and absencing are two distinct modes of organizational awareness and of organizational being. Scharmer and Kaufer (2013) emphasize that these two distinct modes of being are not exclusive and can co-exist within the same organism (organizations) at different time periods. Functioning most of the time from the presencing mode results in an emergent radical innovations (Peschl & Fundneider, 2008; 2013), which are much more likely to succeed in the face of disruption than non-emergent radical innovations, we propose the following relationship:

Hypothesis 2: Companies where employees (and stakeholders along the industry value chain) operate from the presencing mode are on average more collectively satisfied with the organizational performance. Companies where employees (and stakeholders along the industry value chain) operate from the absencing mode are on average less collectively satisfied with the organizational performance.

Research Design and Results

Sample and Procedure

We have studied the individual level awareness (with VIA-IS constructs), organizational level of awareness (with absencing and presencing constructs), and its impact on organizational effectiveness on a sample of Slovenian firms in October and November 2017. This period has been marked by governmentally induced actions to move Slovenia towards digital society (Digitalna Slovenia, October 2017).

Data were gathered by the questionnaire. A stratified random sampling technique was used. The sample consists of 678 correspondents from 57 different companies in Slovenia. Table A1 in the Appendix A presents sample demographics.

Variables and Measures

Organizational position was represented by the position of the employee in the organization: senior management group, middle management group, lower level management group, ordinary front-line group, professional support staff, and other.

VIA-IS qualities encompassed creativity, curiosity, judgment, love of learning, honesty, bravery, persistence, zest, kindness, love, social intelligence, fairness, leadership, teamwork, forgiveness, modesty, and prudence. VIA-IS strengths fall under virtue of transcendence due to feedback of resistance in the pilot testing. They were obtained by the abbreviated self-assessment instrument developed by Peterson and Seligman (2004).

Organizational presencing and organizational absencing were assessed on 1-5 Likert scale across indicators of open/closed mind, open/closed heart, and open/closed will as proposed by Scharmer and Kaufer (2013) and used in the U-Lab community at EdX.

Performance satisfaction was assessed subjectively by “how satisfied are owners, managers, employees, and other relevant stakeholders with the four performance indicators (profit, cost savings, competitive positioning, and growth of the company/revenues) over the last five years”, whereby using the 1-5 Likert scale.

Statistical Analysis

We conducted one-way ANOVA and MANOVA using the IBM SPSS program version 24. A series of MANOVA multivariate tests confirmed that the assumption of independence of variances was not violated. We have conducted a series of one-way ANOVA tests for VIA-IS qualities, organizational absencing and organizational presencing. We have calculated the partial eta squares (η^2) to account for the effect size. The partial η^2 for VIA-strengths were ranging between 10% and 20%; partial η^2 for absencing and presencing were ranging between 15% and 18%.

Results for hypothesis 1. In Table 1, we present the summary of means and standard deviations of each VIA-strength over the six organizational groups.

Table 1

Means and Standard Deviations VIA-IS Qualities Across Different Organizational Positions (OP)

		Senior management	Middle management	Lower management	First line	Professional support	Other	Total
Creativity	N	15	68	99	140	105	252	679
	Mean	4.07	4.38	4.27	4.26	4.05	4.43	4.3
	Std. Dev.	0.7	0.77	0.67	0.77	0.96	0.62	0.75
Curiosity	N	15	68	99	140	105	252	679
	Mean	3.93	4.06	4.03	4.11	4.1	3.93	4.02
	Std. Dev.	0.59	0.73	0.72	0.79	0.82	1.04	0.88
Judgment	N	15	68	99	140	105	252	679
	Mean	3.93	4.24	3.85	4.17	3.91	4.26	4.12
	Std. Dev.	0.7	0.69	0.83	0.74	0.82	0.66	0.75
Love of learning	N	15	68	99	140	105	252	679
	Mean	4.13	4.41	4.15	4.29	4.24	4.43	4.32
	Std. Dev.	0.64	0.65	0.61	0.74	0.69	0.7	0.69
Perspective taking	N	15	68	99	140	105	252	679
	Mean	4.33	4.5	4	4.06	4.1	4.24	4.17
	Std. Dev.	0.62	0.61	0.74	0.76	0.75	1.02	0.86
Honesty	N	15	68	99	140	105	252	679
	Mean	4.47	4.59	4.58	4.4	4.24	4.57	4.49
	Std. Dev.	0.52	0.6	0.5	0.73	0.82	0.62	0.67
Bravery	N	15	68	99	140	105	252	679
	Mean	4.27	4.24	4.06	4.23	3.91	4.24	4.16
	Std. Dev.	0.59	0.69	0.78	1.15	0.98	0.78	0.9
Persistence	N	15	68	99	140	105	252	679
	Mean	4.2	4.27	3.97	4.37	4.05	4.19	4.18
	Std. Dev.	0.78	0.89	0.97	0.76	0.9	0.8	0.85
Zest	N	15	68	99	140	105	252	679
	Mean	3.93	4.44	4.27	4.6	4.24	4.41	4.39
	Std. Dev.	0.7	0.85	0.83	0.6	0.82	0.76	0.77
Kindness	N	15	68	99	140	105	252	679
	Mean	3.6	3.91	3.67	3.66	3.76	3.81	3.76
	Std. Dev.	0.91	1.05	0.69	1.22	0.87	0.73	0.91
Love	N	15	68	99	140	105	252	679
	Mean	3.53	3.97	4.06	4.06	3.91	4.21	4.07
	Std. Dev.	1.46	1.02	0.82	0.83	0.61	0.77	0.83

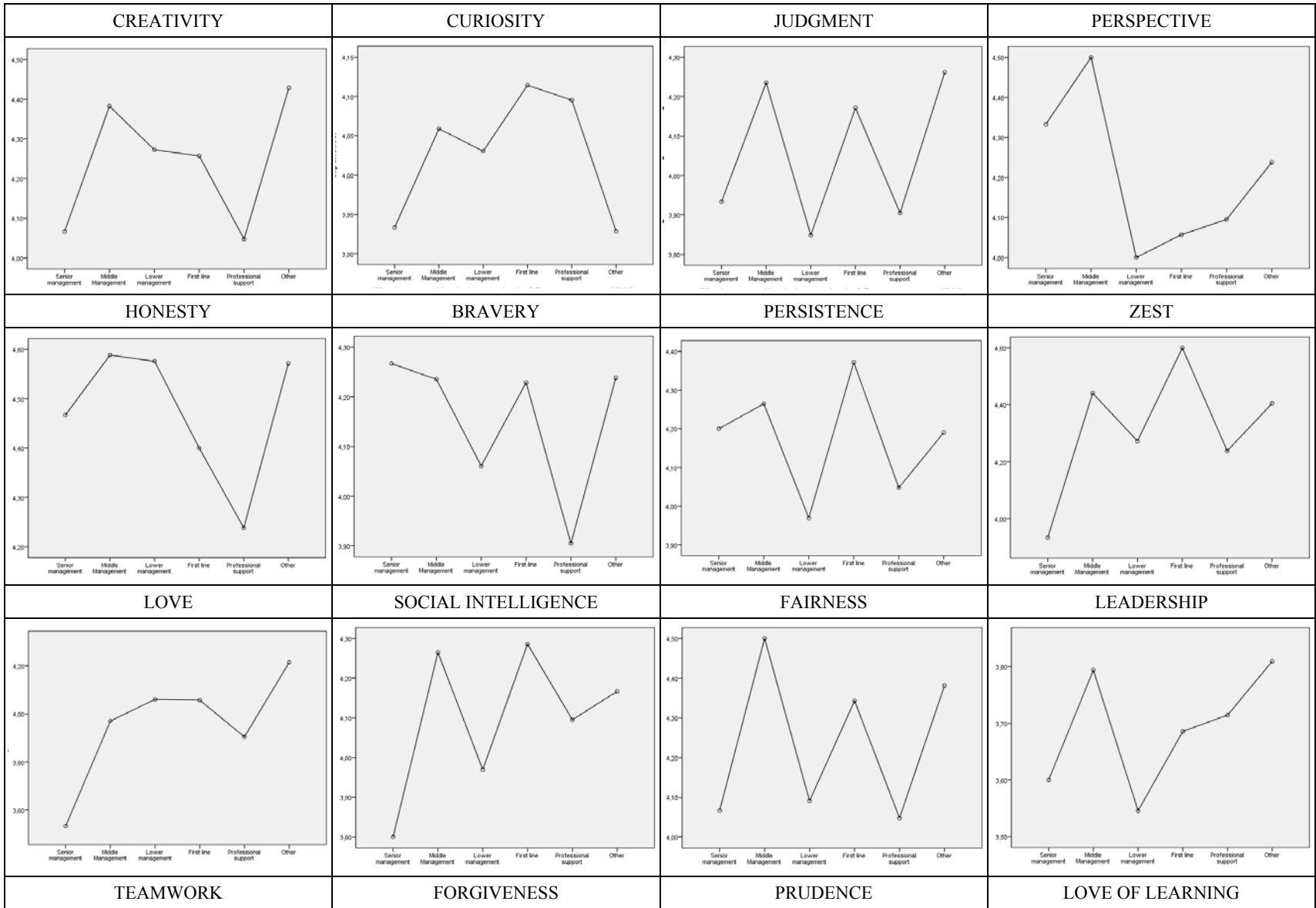
(Table 1 continued)

	N	15	68	99	140	105	252	679
Social intelligence	Mean	3.8	4.27	3.97	4.29	4.1	4.17	4.15
	Std. Dev.	1.42	0.61	0.72	0.74	0.69	0.65	0.71
	N	15	68	99	140	105	252	679
Fairness	Mean	4.07	4.5	4.09	4.34	4.05	4.38	4.28
	Std. Dev.	0.88	0.82	0.87	0.99	0.9	0.69	0.85
	N	15	68	99	140	105	252	679
Leadership	Mean	3.6	3.79	3.55	3.69	3.71	3.81	3.73
	Std. Dev.	0.74	0.97	1.05	0.98	0.94	0.93	0.96
	N	15	68	99	140	105	252	679
Teamwork	Mean	4	4.44	4.3	4.4	4.19	4.38	4.34
	Std. Dev.	0.38	0.74	0.63	0.6	0.8	0.65	0.67
	N	15	68	99	140	105	252	679
Forgiveness	Mean	3.4	3.74	3.82	3.91	3.76	3.93	3.85
	Std. Dev.	0.99	0.96	0.84	0.88	0.75	0.89	0.87
	N	15	68	99	140	105	252	679
Modesty	Mean	3.6	4.21	4.12	4.03	3.95	3.98	4.02
	Std. Dev.	0.83	0.76	0.77	0.88	0.79	1.25	1
	N	15	68	99	140	105	252	679
Prudence	Mean	3	3.68	3.76	3.91	3.81	3.86	3.81
	Std. Dev.	1.36	0.97	0.89	0.88	0.86	0.74	0.86

ANOVA assumption of the homogeneity was met for creativity (Leven's (5.673) = 1.487; $p = 0.195$), curiosity (Leven's (5.673) = 1.311; $p = 0.257$), perspective (Leven's (5.673) = 1.231; $p = 0.293$), persistence (Leven's (5.673) = 1.107; $p = 0.355$), and forgiveness (Leven's (5.673) = 0.867; $p = 0.503$). The Leven's tests are presented in the Table A3 in the Appendix A.

All other VIA-IS qualities were assessed by Welch's statistics (results are presented in Table A4 in the Appendix A). Significant differences were confirmed for creativity ($F(5.673) = 4.585$; $p < 0.001$; partial $\eta^2 = 12.496$), perspective ($F(5.673) = 3.944$; $p = 0.002$; partial $\eta^2 = 14.231$), persistence ($F(5.673) = 3.336$; $p = 0.006$; partial $\eta^2 = 11.894$), judgment (Welsch's $F(5; 114.985) = 6.363$; $p < 0.001$; partial $\eta^2 = 19.084$), love of learning (Welsch's $F(5; 116.661) = 3.521$; $p = 0.01$; partial $\eta^2 = 7.744$), honesty (Welsch's $F(5; 117.525) = 3.968$; $p = 0.002$; partial $\eta^2 = 10.877$); bravery (Welsch's $F(5; 119.149) = 2.538$; $p = 0.032$; partial $\eta^2 = 10.589$); zest (Welsch's $F(5; 115.231) = 5.546$; $p < 0.001$; partial $\eta^2 = 13.347$); love in a sense of close relationships (Welsch's $F(5; 112.957) = 3.735$; $p = 0.004$; partial $\eta^2 = 13.163$); social intelligence (Welsch's $F(5; 113.281) = 2.895$; $p = 0.017$; partial $\eta^2 = 8.934$), and teamwork (Welsch's $F(5; 121.453) = 3.871$; $p = 0.003$; partial $\eta^2 = 5.857$). Overall we can conclude that significant differences in the expression of the VIA-IS qualities exists across different organizational positions. The hypothesis 1 is confirmed.

Further post-hoc exploratory analysis revealed that top management exhibits statistically weakest expression of zest and teamwork out of all groups. Though average scores on all other VIA-IS qualities are very low, they are not significantly different due to the substantial variability within top management group. On the other hand side, middle managers exhibit consistently the highest expressions of all VIA-IS qualities. This is visually depicted in Figure 1, while Table A5 in the Appendix A reports composition of significant subsets across different VIA-IS qualities. This exploratory analysis of variance of individual awareness across organizational groups (indicated by VIA-IS) suggests the highest-order awareness for middle managers; and the greatest variability across levels of awareness for top managers.



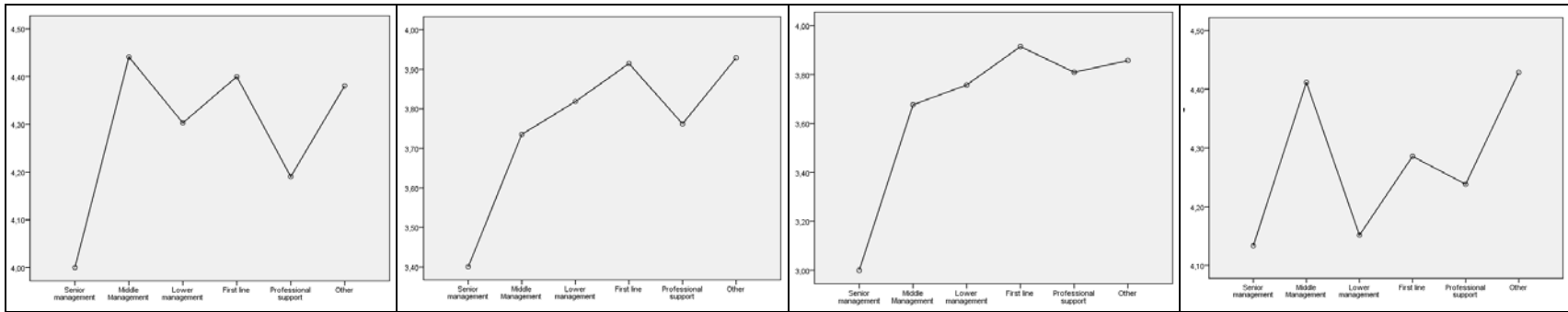


Figure 1. Expressions of different VIA-IS qualities across different organizational positions (OP).

Results for hypothesis 2. In Table 2 we present descriptive statistics of four performance indicators across different levels of organizational absencing and presencing.

Table 2

Descriptive Statistics of Performance Indicators Across Absencing and Presencing

		Absencing			Presencing		
		N	M	SD	N	M	SD
Profit	Never	21	3.43	0.98	15	2.87	1.19
	Rarely	115	3.47	0.93	177	3.33	0.96
	Sometimes	196	3.48	0.83	277	3.30	0.77
	Often	270	3.37	0.86	169	3.54	0.79
	Very often	77	3.05	0.99	41	3.76	1.34
	Total	679	3.39	0.89	679	3.39	0.89
Cost savings	Never	21	3.90	0.70	15	2.73	1.10
	Rarely	115	3.25	0.97	177	2.95	0.97
	Sometimes	196	3.28	0.82	277	3.18	0.66
	Often	270	3.21	0.91	169	3.42	0.97
	Very often	77	2.81	0.95	41	3.90	1.20
	Total	679	3.22	0.91	679	3.22	0.91
Competitiveness positioning	Never	21	4.38	0.74	15	3.40	1.55
	Rarely	115	3.73	1.05	177	3.33	1.09
	Sometimes	196	3.58	0.83	277	3.34	0.92
	Often	270	3.20	1.09	169	3.61	0.99
	Very often	77	3.23	1.07	41	3.95	1.26
	Total	679	3.44	1.03	679	3.44	1.03
The growth of the company/revenues	Never	21	3.86	1.15	15	3.40	1.55
	Rarely	115	3.58	1.07	177	3.01	1.06
	Sometimes	196	3.51	0.93	277	3.23	0.98
	Often	270	3.08	1.14	169	3.48	1.16
	Very often	77	2.88	1.21	41	4.07	1.31
	Total	679	3.29	1.11	679	3.29	1.11

The assumption of homogeneity for performance indicators over different levels organizational absencing was tested with Leven's statistic. Homogeneity assumption was met for profit (Leven's (4; 674) = 2.034; $p = 0.088$), cost savings (Leven's (4; 674) = 0.959; $p = 0.430$), growth (Leven's (4; 674) = 0.248; $p = 0.289$) (Table A6 in the Appendix A) and not for the competitive positioning, where we have thus followed the Welch's ANOVA procedure. Results confirmed the significant difference of at least one of the group for all four performance indicators: profit ($F(4; 674) = 3.658$; $p = 0.006$), cost savings ($F(4; 674) = 7.484$; $p < 0.001$), growth ($F(4; 674) = 12.753$; $p < 0.001$), and competitive positioning (Welch's $F(4; 121.713) = 15.253$; $p < 0.001$). Further, Tukey's HSD post hoc tests for profit, cost savings, and growth and Games-Howell post-hoc test for competitive positioning revealed statistically significant differences across different levels of absencing. In consequence, statistically significant homogeneous subsets were formed across groups (depicted in Table A7 in the Appendix A). These differences are so substantial that can be depicted also visually in Figure 2.

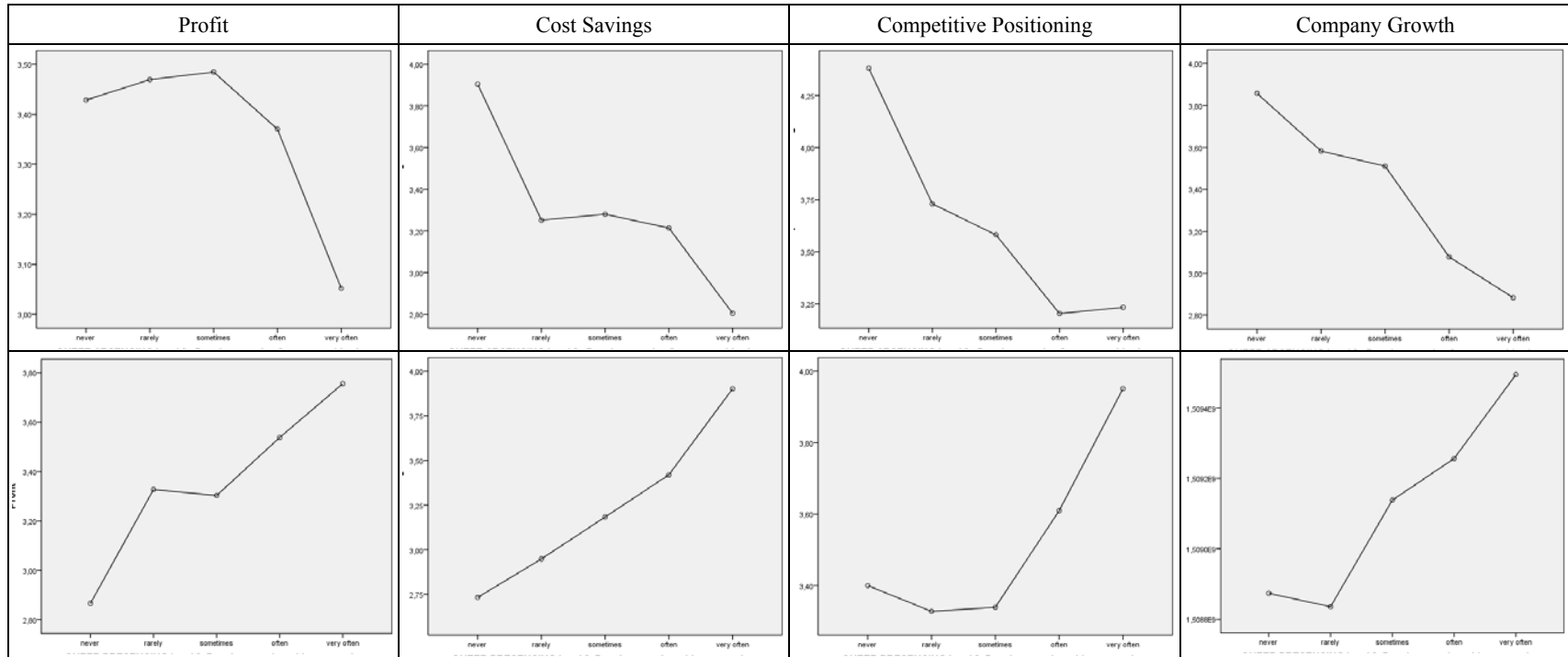


Figure 2. Variation of different performance indicators across organizational absencing/presencing.

Applying same analytical procedure to the presencing, we have found that the homogeneity assumption was not met for neither of performance indicators, therefore we have applied Welch's test, which gave statistically significant differences across performance indicators for all: profit (Welch's $F(4; 78.932) = 3.942$; $p = 0.006$), cost savings (Welch's $F(4; 78.529) = 9.096$; $p < 0.001$), competitive positioning (Welch's $F(4; 79.185) = 4.094$; $p = 0.005$), and growth (Welch's $F(4; 79.371) = 7.791$; $p < 0.001$). Games-Howell post-hoc tests formed a homogeneous subsets summarized visually in Figure 2 (above) and statistically reported in the Table A8 (in the Appendix A).

Overall, these results confirm the hypothesis 2. Companies where employees (and stakeholders along the industry value chain) operate from the presencing mode are on average more satisfied with the organizational performance. Companies where employees (and stakeholders along the industry value chain) operate from the absencing mode are on average less satisfied with the organizational performance.

Discussion, Implications, and Limitations

We have studied the qualities of individuals and organizations needed for successful operations in the midst of large-scale digital transformation. We introduced the awareness as a core focal point of our investigation. On the individual level, we have proposed that the awareness could be studied by the universal virtues and strengths, assuming that expression of VIA-IS qualities (and thus awareness) varies across organizational groups. We have indicated that in order to successfully operate in the midst of large-scale digital transformation, we would like to see the highest order awareness (indicated by VIA-IS strengths) among core decision-makers (managers).

The research findings provide sound support to strong expression of VIA-IS qualities among middle managers, while top managers seem to be weaker and more diverse in terms of VIA-IS qualities. This suggests the higher-order awareness for middle managers than for top managers; and the greater variability of awareness for top managers. In other words, these findings imply a decrease in the quality of awareness when managers move up the organizational ladder. What is going on within the organizations and/or within managers that make them less (willing/capable) to be widely open and aware? Possible explanation can be found in the work of organizational psychiatrist like de Vries (1984; 1993; 1994), Petriglieri and Stern (2012). According to them, higher organizational positions impose more pressure on an individual, which strengthens a subconscious psycho-dynamical force-field operating within and between a leader and his/her organization. These findings also imply that middle management may be a crucial determinant of effectiveness of own organizational change and effectiveness of operations in the midst of large-scale change (Huy, 2001; King, Fowler, & Zeithaml, 2001).

Next, the findings also indicate that the quality of the organizational awareness seems to be an important predictor of large scale digital transformation. Presencing and absencing depict two distinct modes of organizational awareness. The result shoed that: (1) The companies where employees (and other stakeholders along the industry value chain) operate from the presencing mode are on average more satisfied with the organizational performance, though operating in the midst of digital disruption; and (2) the companies where employees (and relevant stakeholders) operate from the absencing mode are on average less satisfied with organizational performance. These two modes of organizational awareness indicate whether organizations can or cannot access the domain of implicate order (Bohm, 1980; Chia, 2003), hold the sufficient power to create best possible future for all (Senge et al., 2004), and bear the capacity to co-create effective large scale system transformation (Scharmer & Kaufer, 2013).

The core contribution of above research is that it clearly reveals the need for study of individual and collective awareness. More specifically: (1) the study of interactions between individual and collective awareness; (2) the study of the transformation processes of the individual and/or collective awareness and the likely impacts on an individual /collective levels; and (3) the study of enabling/disabling conditions for deep level individual and collective learning and transformations.

A key limitation of the study lies in a single-informant approach and a common method bias. Since all variable were inflated by the common method, the comparisons across groups diminish the bias substantially. Next, the study uses simplified measurement instruments instead of the original 240 items instrument, thus making the VIA-IS assessment less reliable. The next major drawback of the study is that actual extent of the organizational (digital) transformation within the organizational setting was not measured, but only implied by the general social context. Last but not least, this study is investigating an experiential constructs which cannot be holistically reliably depicted not even by words, much less by any external measurement instrument.

Conclusion

Awareness depicted here is (any) quality of attention that can be studied on an individual or collective level. Awareness depicted in this paper is wider than mindfulness, which is a specific type of attention (present moment, nonjudgmental, non-attached) (Bishop, Lau, Shapiro, Carlson, Anderson, Carmody, Segal, Abbey, Speca, Velting, & Devins, 2004). We need to bring the quality of awareness of the leaders, employees, and whole organizations more frequently under our observations.

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Appendices A

Table A1

Characteristics of the Sample—Organizational Position, Years of Work Experience, Net Monthly Earnings, Employment Status



Table A2

Multi-variate Analysis of Variance for VIA Traits Across Organizational Positions

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Organizational position	Pillai's Trace	0.34	2.85	85.00	3305.00	0.00	0.07
	Wilks' Lambda	0.70	2.87	85.00	3180.46	0.00	0.07
	Hotelling's Trace	0.37	2.88	85.00	3277.00	0.00	0.07
	Roy's Largest Root	0.13	4.963c	17.00	661.00	0.00	0.11

Table A3

One-Way Analysis of Variance of for VIA Trait Across Organizational Positions for Dependent Variable Where the Assumption of Homogeneity of Variance Was Met

		df	SS	MS	F	p	Partial η^2
Creativity	Between groups	5	12.46	2.49	4.58	0.000	12.496
	Within groups	673	365.84	0.54			
	Total	678	378.30				
Curiosity	Between groups	5	4.17	0.83	1.09	0.365	4.179
	Within groups	673	515.54	0.76			
	Total	678	519.71				
Perspective	Between groups	5	14.20	2.84	3.94	0.002	14.231
	Within groups	673	484.63	0.72			
	Total	678	498.83				

(Table A3 continued)

Persistence	Between groups	5	11.87	2.37	3.34	0.006	11.894
	Within groups	673	478.84	0.71			
	Total	678	490.71				
Forgiveness	Between groups	5	6.97	1.39	1.85	0.100	6.990
	Within groups	673	506.29	0.75			
	Total	678	513.27				

Table A4

Welch's Adjusted F-Test of Analysis of Variance Between Groups

	df1	df2	F	p
Judgment	5	114.99	6.36	0.00
Love of learning	5	116.66	3.52	0.01
Perspective	5	120.40	6.11	0.00
Honesty	5	117.53	3.97	0.00
Bravery	5	119.15	2.54	0.03
Zest	5	115.23	5.55	0.00
Kindness	5	113.91	1.15	0.34
Love	5	112.96	3.74	0.00
Social intelligence	5	113.28	2.90	0.02
Fairness	5	113.68	4.44	0.00
Leadership	5	117.62	1.16	0.33
Teamwork	5	121.45	3.87	0.00
Modesty	5	118.98	2.05	0.08
Prudence	5	112.37	1.88	0.10

Table A5

Homogenous Subsets of Different VIA-IS Qualities

Creativity			
	Organizational position	N	Subset for alpha = 0.05
			1
Tukey HSD ^{a,b}	Professional support	105	4.04
	Senior management	15	4.06
	First line	140	4.25
	Lower management	99	4.27
	Middle management	68	4.38
	Other	252	4.42
	Sig.		

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

Curiosity			
	Organizational position	N	Subset for alpha = 0.05
			1
Tukey HSD ^{a,b}	Other	252	3.92
	Senior management	15	3.93
	Lower management	99	4.03
	Middle management	68	4.05

(Table A5 continued)

Tukey HSD ^{a,b}	Professional support	105	4.09
	First line	140	4.11
	Sig.		0.882

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

Judgment, open-mind				
	Organizational position	N	Subset for alpha = 0.05	
			1	2
Tukey HSD ^{a,b}	Lower management	99	3.84	
	Professional support	105	3.90	3.90
	Senior management	15	3.93	3.93
	First line	140	4.17	4.17
	Middle management	68	4.23	4.23
	Other	252		4.26
	Sig.		0.069	0.118

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

Love of learning			
	Organizational position	N	Subset for alpha = 0.05
			1
Tukey HSD ^{a,b}	Senior management	15	4.13
	Lower management	99	4.15
	Professional support	105	4.23
	First line	140	4.28
	Middle management	68	4.41
	Other	252	4.42
	Sig.		0.229

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

Perspective				
	Organizational position	N	Subset for alpha = 0.05	
			1	2
Tukey HSD ^{a,b}	Lower management	99	4.00	
	First line	140	4.05	4.05
	Professional support	105	4.09	4.09
	Other	252	4.23	4.23
	Senior management	15	4.33	4.33
	Middle management	68		4.50
	Sig.		0.325	0.077

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

(Table A5 continued)

		Honesty	
	Organizational position	N	Subset for alpha = 0.05
			1
Tukey HSD ^{a,b}	Professional support	105	4.23
	First line	140	4.40
	Senior management	15	4.46
	Other	252	4.57
	Lower management	99	4.57
	Middle management	68	4.58
	Sig.		0.068

Means for groups in homogeneous subsets are displayed.
 Uses Harmonic Mean Sample Size = 53.520.

		Bravery	
	Organizational position	N	Subset for alpha = 0.05
			1
Tukey HSD ^{a,b}	Professional support	105	3.90
	Lower management	99	4.06
	First line	140	4.22
	Middle management	68	4.23
	Other	252	4.23
	Senior management	15	4.26
	Sig.		0.288

Means for groups in homogeneous subsets are displayed.
 a. Uses Harmonic Mean Sample Size = 53.520.

		Persistence	
	Organizational position	N	Subset for alpha = 0.05
			1
Tukey HSD ^{a,b}	Lower management	99	3.96
	Professional support	105	4.04
	Other	252	4.19
	Senior management	15	4.20
	Middle management	68	4.26
	First line	140	4.37
	Sig.		0.137

Means for groups in homogeneous subsets are displayed.
 a. Uses Harmonic Mean Sample Size = 53.520.

		Zest	
	Organizational position	N	Subset for alpha = 0.05
			1 2
Tukey HSD ^{a,b}	Senior management	15	3.93
	Professional support	105	4.23 4.23
	Lower management	99	4.27 4.27
	Other	252	4.40
	Middle management	68	4.44
	First line	140	4.60
	Sig.		0.189 0.135

Means for groups in homogeneous subsets are displayed.
 a. Uses Harmonic Mean Sample Size = 53.520.

(Table A5 continued)

Kindness				
	Organizational position	N	Subset for alpha = 0.05	
			1	
Tukey HSD ^{a,b}	Senior management	15	3.60	
	First line	140	3.65	
	Lower management	99	3.66	
	Professional support	105	3.76	
	Other	252	3.80	
	Middle management	68	3.91	
	Sig.			0.479

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

Love				
	Organizational position	N	Subset for alpha = 0.05	
			1	2
Tukey HSD ^{a,b}	Senior management	15	3.53	
	Professional support	105	3.90	3.90
	Middle management	68	3.97	3.97
	First line	140		4.05
	Lower management	99		4.06
	Other	252		4.21
	Sig.			0.064

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

Social intelligence				
	Organizational position	N	Subset for alpha = 0.05	
			1	2
Tukey HSD ^{a,b}	Senior management	15	3.80	
	Lower management	99	3.96	3.96
	Professional support	105	4.09	4.09
	Other	252	4.16	4.16
	Middle management	68		4.26
	First line	140		4.28
	Sig.			0.081

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

Fairness				
	Organizational position	N	Subset for alpha = 0.05	
			1	
Tukey HSD ^{a,b}	Professional support	105	4.04	
	Senior management	15	4.06	
	Lower management	99	4.09	
	First line	140	4.34	
	Other	252	4.38	
	Middle management	68	4.50	
	Sig.			0.059

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

(Table A5 continued)

Leadership			
Organizational position	N	Subset for alpha = 0.05	
		1	
Lower management	99	3.54	
Senior management	15	3.60	
First line	140	3.68	
Professional support	105	3.71	
Middle management	68	3.79	
Other	252	3.80	
Sig.		0.716	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

Teamwork				
Organizational position	N	Subset for alpha = 0.05		
		1	2	
Senior management	15	4.00		
Professional support	105	4.19	4.19	
Lower management	99	4.30	4.30	
Other	252		4.38	
First line	140		4.40	
Middle management	68		4.44	
Sig.		0.178	0.379	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

Forgiveness				
Organizational position	N	Subset for alpha = 0.05		
		1	2	
Senior management	15	3.40		
Middle management	68	3.73	3.73	
Professional support	105	3.76	3.76	
Lower management	99	3.81	3.81	
First line	140		3.91	
Other	252		3.92	
Sig.		0.127	0.859	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

Modesty				
Organizational position	N	Subset for alpha = 0.05		
		1	2	
Senior management	15	3.60		
Professional support	105	3.95	3.95	
Other	252	3.97	3.97	
First line	140	4.02	4.02	
Lower management	99	4.12	4.12	
Middle management	68		4.20	
Sig.		0.076	0.777	

Means for groups in homogeneous subsets are displayed.

Uses Harmonic Mean Sample Size = 53.520.

(Table A5 continued)

		Prudence		
Organizational position		N	Subset for alpha = 0.05	
			1	2
Tukey HSD ^{a,b}	Senior management	15	3.00	
	Middle management	68		3.67
	Lower management	99		3.75
	Professional support	105		3.80
	Other	252		3.85
	First line	140		3.91
		Sig.		1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 53.520.

Table A6

One-Way ANOVA for Performance Variable Across Different Levels of Absencing

		df	Sum of Squares	Mean Square	F	Sig.
Profit	Between groups	4	11.409	2.852	3.658	0.006
	Within groups	674	525.496	0.780		
	Total	678	536.904			
Cost savings	Between groups	4	23.925	5.981	7.484	0.000
	Within groups	674	538.681	0.799		
	Total	678	562.607			
Growth of the company/revenues	Between groups	4	51.013	12.753	10.924	0.000
	Within groups	674	786.831	1.167		
	Total	678	837.844			

Table A7

Homogenous Subsets of Different Degrees of Absencing

Tukey HSD ^{a,b}	Outer absencing	N	Subset for alpha = 0.05			
			1	2	3	
Profit	very often	77	3.05			
	often	270	3.37	3.37		
	never	21	3.42	3.42		
	rarely	115	3.46	3.46		
	sometimes	196		3.48		
		Sig.		0.059	0.949	
	Cost savings	very often	77	2.80		
often		270	3.21	3.21		
rarely		115		3.25		
sometimes		196		3.28		
never		21			3.90	
		Sig.		0.073	0.994	1.00
Competitiveness positioning		often	270	3.20		
	very often	77	3.23			
	sometimes	196	3.58	3.58		
	rarely	115		3.73		
	never	21			4.38	
		Sig.		0.206	0.918	1.00

(Table A7 continued)

			1	2	3
Growth	very often	77	2.88		
	often	270	3.07	3.07	
	sometimes	196		3.51	3.51
	rarely	115		3.58	3.58
	never	21			3.85
	Sig.		0.847	0.064	0.365

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 64.014.

Table A8

Homogenous Subsets of Different Degrees of Presencing

Tukey HSD ^{a,b}	Outer presencing	N	Subset for alpha = 0.05		
			1	2	3
Profit	very often	15	2.86		
	often	277	3.30	3.3032	
	never	177	3.32	3.3277	
	rarely	169		3.5385	
	sometimes	41		3.7561	
	Sig.		0.082	0.092	
Cost savings	very often	177	2.94	2.9492	
	often	277	3.18	3.1841	
	rarely	169		3.4201	3.4201
	sometimes	41			3.9024
	never		0.094	0.071	0.060
	Sig.	177	2.94	2.9492	
Competitiveness positioning	often	15	2.73		
	very often	177	2.94	2.9492	
	sometimes	277	3.18	3.1841	
	rarely	169		3.4201	3.4201
	never	41			3.9024
	Sig.		0.094	0.071	0.060
Growth	very often	177	3.32		
	often	277	3.33		
	sometimes	15	3.40	3.40	
	rarely	169	3.60	3.60	
	never	41		3.95	
	Sig.		0.668	0.069	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 64.014.