

THE EFFECT OF ORGANIZATIONAL CULTURE ON IT EMPLOYEES TURNOVER INTENTION IN ISRAEL

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Abstract: *Employee voluntary turnover is very expensive from the point of view of the organization, has significant negative effects on the organization and hence remains a critical issue for organizations. Most of the causes discussed in the literature are classic causes coming from conservative theories such as psychological and sociological organizational behavior etc. Field literature review shows that these general causes affecting voluntary turnover intention could be grouped in the following broad categories: 1) organizational causes, related to: Human Resource Management (HRM), organizational culture, job structure and content, leadership style and internal marketing strategies, policies and practices; 2) extra organizational causes, related to: individual characteristics and labor market aspects. One of the classical causes of voluntary turnover that has been researched but still needing attention is organizational culture. The purpose of this paper is to present a new explanation of the phenomenon of voluntary turnover of IT employees in the IT sector in Israel, i.e. from the corporate culture perspective. It focuses on the correlations between organizational culture and voluntary turnover intention among IT employees in Hi-Tech companies in Israel. This correlation was researched in an extensive empirical study among two population groups: IT employees and IT managers and by means of mixed methods research (combination of quantitative and qualitative research). The findings show that only one type of organizational culture influences voluntary turnover intention: Type C Marketing culture, which focuses on results and objectives. It is also shown that this type of organizational culture has a positive effect on voluntary turnover intention among IT employees in Hi-Tech companies in Israel. This finding has to be adopted by IT organizations and management who have to develop a way to prevent voluntary turnover among IT employees and have to develop an organizational culture or policy to retain this expensive IT human resource in Hi-Tech companies.*

Key Words: Voluntary turnover intention, Turnover Intentions, IT sector employees in Israel, Corporate culture, Organizational culture, Management by objectives, Internal marketing (IM)

JEL Classification System: J2 , M13, M14 M31, M15, O14

Introduction

Employee voluntary turnover remains a critical issue for management because of its negative implications for organizations. Yet little research has been carried out regarding the reasons for employees' voluntarily leaving the IT sector. Thus, researchers' ability to explain and predict employees' voluntary turnover remains limited. In light of this, the questions that arises is why employees voluntarily leave their jobs in the IT sector?

In a previous study (Kessler-Ladelsky and Catana, 2013) the following organizational causes of turnover intention were found: Human Resource Management related, organizational culture, job related, leadership and internal marketing related. This article will focus on one of the organizational causes of voluntary turnover, i.e. the effect of

organizational culture on voluntary turnover intention among IT employees in in Hi-Tech companies in Israel.

Literature Review and Hypothesis

Organizational culture is posed in the literature as a many-sided abstraction with several dimensions which have varying degrees and direction of impact on employees' behavior (e.g., Sheridan, 1992; Song, Tsui et al, 2009). Kym and Park (1992) proposed that turnover can be explained as a misfit between the corporate culture and that of IT department (Ibid).

Researches about organizational culture perceptions and voluntary labor turnover are uncommon. Positive perceptions of organizational culture correlate to longer length of employment, (Madaus et al., 2008). Organizational culture was found to have an affect on organizational behavior and may be proposed as a potential moderator of voluntary turnover. Tziner et al., 2012, in their study hypothesized the moderating effects of the dimensions of organizational culture on the relationship between Organizational Citizenship Behavior (OCB) and turnover intentions. In another study organizational culture dimensions only partially met the initial requirement for a variable to be defined as moderator, where the variable was linearly uncorrelated to the predictor variable and was also uncorrelated to the criterion variable (Ibid and in Zedeck, 1971; Keppel and Zedeck, 1989). In addition results from a sample of 102 employees showed solid support for the interactive effects of the dimensions of organizational culture and OCB in relation to turnover intentions (Cohen and Zaidi, 2002; Tang and Wang, 2005). In addition, there is evidence that perceptions of organizational politics, which can be highly salient aspects of organizational culture, were positively related to turnover intentions (Chang et al., 2009). In earlier studies researchers concluded that organizational culture affected organizational behavior and was partly responsible for turnover intentions (Carmeli, 2005). Based upon the above literature findings, the following hypothesis is formulated:

H1: It will be found that organizational culture has different effects on employees' voluntary turnover intentions. (This is beyond the variables of gender, age, origin, marital status, education, wage).

Components of organizational culture are not uniform. Therefore, the relationship of each of them with the variable voluntary turnover intention was examined, as follows:

- H1.1 Organizational culture from Type A - Clan Culture will reduce voluntary turnover intention.
- H1.2 Organizational culture from Type B – Adhocracy will raise voluntary turnover intention.
- H1.3 Organizational culture from Type C – Marketing will raise voluntary turnover intention.
- H1.4 Organizational culture from Type D – Hierarchy will reduce voluntary turnover intention.

Methodology

The article is a part of the author's doctoral work in progress which examines the causes and conditions of voluntary turnover among IT employees in the IT sector in Israel. The research was mix method research and carried out among IT employees and IT managers. *This article will refer to the IT employees quantitative research only.*

Research Population

IT employees in Hi-Tech companies in Israel, who have worked in this sector for at least three years prior to the study (programmers, developers, computer engineers, information systems engineers, software engineers, mobile and telecom developers, R&D developers, electronics and hardware engineers, software testers, and IT practical engineers/technicians and so forth).

The population of interest belongs to 500 Hi-Tech companies in Israel with more than 50 employees (no startup companies) and some global companies (like Microsoft).

Research Procedure

A pilot questionnaire was developed for the employees' population. An employee questionnaire (completing time 25-45 minutes) was administered to 30 randomly selected IT employees. The distribution of the population (including Skewness and Kurtosis indices) and reliability indices showed that the sample of IT employees had a normal distribution and supported parameters tests.

Data Collection

IT employees: 350 questionnaires were submitted, as follows:

- 50 to employees working in IT companies (access to them was by mail, at the company's address). The response rate was 90%.
- 100 to IT employees known through personal connections and networking. The response rate (via mail) was 25%
- 200 questionnaires delivered to students in computer science, business administration with specialization in computers, software engineering, and computer engineering / science in the second or third year of undergraduate studies and postgraduate levels, already working as IT employees in development roles in Hi-Tech companies (delivered in the classes and by email). 50% of the questionnaires were completed and returned.

It has to be mentioned that it was decided to use students in the sample due to the difficulty and delay in obtaining approval to deliver questionnaires from Israeli IT companies (domestic and international). Using part of the working day to fill in the questionnaire involved high transaction costs (high hourly salary of this type of worker) at the employer's expenses.

170 completed questionnaires were returned in two stages: November 2012 to December 2013 and February 2013 to July 2013.

Data Analysis

Hypotheses testing for fitting to normal distribution were done with the Kolmogorov - Smirnov test. Skewness and Kurtosis indices were found to be smaller than $+3/-3$. Hence it was concluded that the dependent variable was normally and symmetrically distributed and therefore parametric tests were conducted (GLM Univariate linear regressions). In comparison to the workers' sample results, in the managers' sample it was found that almost all the answers were not normally distributed and thus non-parametric statistics was carried out in order to test the hypotheses (Mann Whitney test that compares the distributions and results between groups). The empirical data was processed for both samples with SPSS 21 and for the IT employees only in AMOS 21 (structural equations models, SEM) as well.

With regard to the structural equations (SEM) the research model was partially supported by regression and correlation tests which were done by SPSS on the IT employee sample. The validation of the theoretical model and the relationship between all the variables were tested by structural equations - SEM and by AMOS 21 on the IT employee sample, only.

Thus, from all hypotheses reinforced in SPSS, the SEM model was built, with the variables normally distributed.

Measures

The Dependent Variable

Voluntary turnover intention Questionnaire (Based on Price, 2001)

Three items of four (Q11.1-Q11.4) in the voluntary turnover intention questionnaire (Q11.4 was dropped after pilot) were used for measuring voluntary turnover intention (from Price, 2001). An example is, "I would like to quit my job at [Company]". The scale moved from 1 - "strongly disagree" to 5 - "strongly agree".

The internal consistency for this scale (after pilot) in Timmerman et al.'s study (2003) was 0.85. The internal consistency in the current study of the 3 item scale was 0.8.

Two additional items were added to the above mentioned ones to measure the employee intention to voluntarily leave the organization: Q27 "I intend to remain in my profession but leave the organization at or before the end of this year" (Alfa Cronbach coefficient for inter item reliability was 0.93) (Nunnally, 1978) and Q26 "What are the chances that you will remain in the profession but leave the organization at or before the end of the year?" (5-point scale: 1=no chances; 5 =100% chance; Alfa Cronbach coefficient for inter item reliability was 0.83 (Nunnally, 1978).

Item Q26 was deleted after the reliability test. Without the deleted item the scale showed the same reliability. Namely if one of the items was deleted, the Alfa Cronbach coefficient would rise from 0.1 to 0.6. This points to the fact that these two items have the same meaning. That is why one of them was deleted. Between the remaining items, reliability testing was carried out and the internal consistency value was 0.9. The mean of the items was calculated and the new variable was called *Voluntary Turnover*.

The Independent Variable

Organizational Culture – was measured by questions adopted from:

Organizational Culture Questionnaire (Based on Cameron and Quinn 1999). They developed an organizational culture frame that was based on a theoretical model which was labeled the "Competing Values Framework." This framework relates to the question whether a company has a dominant internal or external focus and whether it aspires for suppleness and individuality or stability and control. The frame is also based on six organizational culture dimensions and four dominant culture sorts (i.e., clan, adhocracy, market, and hierarchy). Additionally the frame authors created an "Organizational Culture Assessment Instrument (OCAI)" which is used to recognize the organizational culture profile based on the core values, postulations, interpretations, and approaches that characterize companies (Cameron and Quinn, 1999).

Thus, the quantitative survey instrument used in the study was the Organizational Culture Assessment Instrument (OCAI) and specifically "assesses six key dimensions of organizational culture: dominant characteristics, organizational leadership, management of employees, organizational glue, strategic emphases, and the organization's criteria of success" (Cameron and Quinn, 1999:19). Cameron and Quinn (1999) state: "The instrument is in the form of a questionnaire that requires individuals to respond to six items. Although there are a variety of ways to assess organizational culture, this instrument has been found to be both useful and accurate in diagnosing important aspects of an organization's underlying culture. It has been used in more than a thousand organizations and it has been found to predict organizational performance. Its intent is to help identify the organization's current culture (Cameron and Quinn, 1999:19, 23)." The same instrument helps identify the culture organization members think should be developed to match the future demands of the environment and the challenges to be faced by the company (Ibid: 18). The OCAI has six categories in which each respondent

has to divide 100 points between four sub-items/styles for each that represent the four competing values cultures, as follows:

- Type A style indicates a Clan culture
- Type B style indicates an Adhocracy culture
- Type C style indicates a Market culture
- Type D style indicates a Hierarchy culture

Table 1- Category and Style: Cameron and Quinn (1999)

	Category	Style
1.	Dominant organizational characteristics	A: Personal, like a family B: Entrepreneurial, risk taking C: Competitive, achievement oriented D: Controlled and structured
2.	Leadership style	A: Mentoring, facilitating, nurturing B: Entrepreneurial, innovative, risk taking C: No-nonsense, aggressive, results oriented D: Coordinating, organizing, efficiency oriented
3.	Management of employees	A: Teamwork, consensus, and participation B: Individual risk taking, innovation, freedom and uniqueness C: Competitiveness and achievement D: Security, conformity, predictability
4.	Organizational glue	A: Loyalty and mutual trust B: Commitment to innovation, development C: Emphasis on achievement and goal accomplishment d: Formal rules and policies
5.	Strategic emphasis	A: Human development, high trust, openness B: Acquisition of resources, creating new challenges C: Competitive actions and winning D: Permanence and stability
6.	Criteria for success	A: Development of human resources, teamwork, concern for people B: Unique and new products and services C: Winning in the marketplace, outpacing the competition D: Dependable, efficient, low cost

Source: Cameron and Quinn, 1999

OCAI - Reliability

The Comparison Reliability Coefficients according to the culture type are presented in the table below:

Table 2: Comparison Reliability Coefficients (Cameron & Quinn, 1999)

	The culture Type according to Camron and Quinn (1999)	Reliability Comparison Coefficients*
1.	Clan	.82
2.	Adhocracy	.83
3.	Market	.67
4.	Hierarchy	.78

Source: Cameron and Quinn, 1999

Lawrence and Quinn (2003) showed that in the later research of Cameron & Quinn the distribution of the reliability coefficients vary. However the average of the coefficients it is always above 0.7 (Ibid).

In this research each of the IT employee respondents completed the OCAI once. The OCAI was scored as the respondents currently perceive the culture of the organization. This was because this research examined the organizational culture as it was at that point in time and how the respondents would like to see the organization's culture five years into the future was not relevant. For this reason, the second OCAI was not required to be completed and scored. The questionnaire was perceived a little complicated to fill. In light of this it seemed that if only one questionnaire was relevant to the research and if it was possible to split the questionnaires and deliver only one questionnaire then this would facilitate the completion of the questionnaires by the respondents.

In this research the reliability of the instrument was tested. To assess the reliability of the scales used in the questionnaire, a coefficient of internal consistency was calculated for current situations using Cronbach's Alpha methodology (Santos, 1999). The reliability of the scale (after pilot) in this research was: For Type A- clan culture type: ($\alpha = .0.8$); For Type B – adhocracy culture ($\alpha = 0.7$); For Type C- market culture ($\alpha = .0.8$); For Type D – hierarchy culture ($\alpha = .0.7$). This was similar to the research carried out by Camron & Quinn, 1999, 2000. In order to compute the mean of all the index reliability tests were done on every index. The Alpha Cronbach that was received was 0.8. The accepted reliability testing is about a group of items and not for all the culture indices. Accordingly the mean of the sub groups were done as follows: Clan culture mean was done while after it Type A culture was called TypeA_clan_cul. Type B which is Adhocracy culture was called after doing mean TypeB_adhoc_cul. Type C which is Market culture was called after doing mean TypeC_Market_cul and TypeD which is Hierarchy culture was called after doing mean Type_D_Hiera_Cul.

Findings and Discussion

The proposed hypothesis of this study was:

It would be found that organizational culture effects an employee's voluntary turnover intentions differently . (That is beyond the variables of gender, age, origin, marital status, education, wage).

Components of organizational culture are not uniform. Therefore the relationship of each of them with the variable voluntary turnover intention was examined.

SPSS Findings

For the hypothesis examination Univariate Glm regression was done. That is because there was an independent categorical variable. In the first stage the regression was run with the organizational culture variable but without the demographic intervention variables. This variable was built from four sub variables (which are culture types) that are Type A - ClanType B-Adhoc ,Type-C Market ,Type D- Hiera .It was found that there was

no relation between them, therefore they were initially entered into the model simultaneously as independent variables. without the demographic controlled variables. Before entering the demographic controlled variables, only the sub culture variable Type-C Market was found significant ($B=0.019$, $P=0.020$). This points to a stable model. In the second stage after the intervention variables were entered into the regression and were controlled the correlation of Type-C Market strengthened ($B=0.02$, $P=0.018$). However in Bootstrap that was done the significance that was found was $P=0.05$ in comparison to what it had been ($P=0.02$). Namely, the intervention variables slightly moderated the relationship between organizational culture Type-C Market and voluntary turnover but still the variable organizational culture Type_C Market had a significant effect on decreasing of turnover intention. This was not found in other types of organizational culture. The hypothesis was partially confirmed among IT employees in the Hi-Tech sector in Israel in practice

SEM Findings and Comparison Of SEM findings to the SPSS Findings

In hypothesis testing with SEM (Structural Equation Model) by Amos on the IT employees it was also found (as in Spss) that the variable organizational culture from Type-C Market increased voluntary turnover intention ($B=-0.24$, $P<0.001$). That is through the latent variable internal causes of voluntary turnover that was found to decrease voluntary turnover intention ($B=-0.90$, $p<0.001$). This is similar to the findings in the hypothesis testing undertaken in SPSS with regard to the IT employees.

In addition it was found in the SEM model that the variable having the most significant effect on voluntary turnover intention was organizational focus on values ($B=0.51$, $P<0.001$), while the second was IM (internal marketing) ($B=0.41$, $P<0.001$). The third variable with the most significant effect on voluntary turnover intention was organizational culture – Type-C Market ($B=-0.24$, $P<0.001$). The fourth variable having the most significant effect on voluntary turnover intention and explaining of it was need fulfillment ($B=0.15$, $P<0.001$)

Namely, The hypothesis was partially supported among the IT employees also in SEM analysis. However this finding was supported both in the SPSS and in SEM (by Amos).

The Correlation to the Literature

The employees sample findings supported the literature according to which organizational culture is viewed as a multifaceted abstraction with several dimensions which have varying degrees and directions of impact on employees' behavior (e.g., Sheridan, 1992; Song et al., 2009). Kym and Park (1992) proposed that turnover can be explained as a misfit between the corporate culture and that of the IT department (Ibid). In addition, there is evidence that perceptions of organizational politics, which can be highly salient aspects of organizational culture, are positively related to turnover intentions (Chang et al., 2009). Additionally in earlier studies researchers concluded that organizational culture affects organizational behavior and is partly responsible for turnover intentions (Carmeli, 2005).

The research result supported the literature. In the research it was found that only one type of organizational culture effects voluntary turnover intention and that is organizational culture Type-C Market. It was found that this type of culture which focuses on results and objectives positively affects voluntary turnover intention namely increased IT employees' voluntary turnover intention.

Conclusion

The research findings offer specific answers to the hypothesis presented above:

The findings lead to the conclusion that the reason for IT voluntary turnover intention is mainly at the organizational level.

The results support partially the literature in which, as was mentioned, researchers concluded that organizational culture is partly responsible for turnover intentions (for e.g. Carmeli, 2005). Partially in the sense that not all organizational culture types were found to affect voluntary turnover. In this research, it was found that organizational culture Type-C Market correlated significantly relate with the hypothesis and its effect on turnover intention.

The findings that organizational culture Type-C Market increase voluntary turnover is innovative and does not appear in the literature so far. This means that setting goals as a means through which employees are encouraged to achieve corporate objectives does not assist in preventing the voluntary turnover of development employees (IT employees) and of the best IT employees in development but increases their turnover intentions.

Turnover can be explained as a misfit between corporate culture and that of its IT department (Kym and Park, 1992). The research shows that culture which is result focused and usually accompanied by measurement of goal achievement does not fit with IT employees in Hi-Tech companies and leads to voluntary turnover among them.

Hence, if Hi-Tech Companies want an organizational culture that focuses on results it has to develop simultaneously another policy that will retain its IT employees.

One of the main results which emerged from the extensive PHD research indicated that internal marketing (IM) reduced voluntary turnover intention [Coefficient by Spss among IT employees ($B=-0.258$, $P=0.0001/P<0.001$) and among managers (Mean=5.18, $P=0.000$). Coefficient By SEM ($B=0.41$, $P<0.001$) that is through the latent variable internal causes to voluntary turnover that decrease voluntary turnover intention ($B=-0.90$, $P<0.001$)]. Thus, it may be that the assimilation or integration of a policy of internal marketing parallel to the assimilation of Type_C Marketing Culture or management by objective style will prevent the development of voluntary turnover intentions among IT human capital and assist in the retention of these employees. This study recommends the continuation of this topic for future research.

This research limitation is that it was carried out with a sample of 170 IT employees only and this may create problems with external validation. The reasons for such a limited sample is the lengthy approval processes required in Hi-Tech companies for distribution and completion of questionnaires because of the cost to the company. As the wage costs of IT employees are high this can be expensive for the company. To overcome this limitation, the hypotheses and model were tested on 140 IT managers in IT companies (and in this case, too, it took time to get permission to administer questionnaires and was only achieved with the assistance of the Israeli Research Unit of the Ministry of Economy).

Beyond this limitation, the findings offer new theoretical and practical insights into the causes of IT voluntary turnover intention and IT human capital retention for researchers, Human Resources and organizational development managers and consultants. They light that fact that from one hand organizations achieve by Type_C Marketing employees' meeting in objective but on the other hand further inspection leads to voluntary turnover and as a result, to many negative consequences, particularly economic, for the organization. For this reason, it is recommended to implement, in parallel, a policy in the organization to deal with and prevent voluntary turnover intention, which might be internal marketing.

Future study, In light of the results that are described above, it is important to conduct future research that examines whether organizational culture is a moderator variable of voluntary turnover. Namely if internal marketing decreases voluntary turnover intention and if the organization or the IT department adopt an internal marketing policy in

comparison to the fact that he is not. That is also within the larger IT population in Israel as well as overseas Hi-Tech companies. This would make it possible to compare results and generalize the findings internationally so that prevention policy mechanisms may be developed.

Finally, it is believed that organizational problems are internal, not external and therefore, implementation of Type_C_Culture (focus on results culture) must be accompanied by mechanisms or policies that create the opportunity to harness employees' commitment, and increase staff retention.

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