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Theory X and Theory Y Type Leadership Behavior and its Impact on Organizational Performance: Small Business Owners in the Şişhane Lighting and Chandelier District

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Abstract

Leadership style and organizational performance have been researched extensively. However, the literature has a limited number of studies concerning organizational performance of small and medium businesses, even less research on the impact on organizational performance of Theory X and Theory Y type leadership styles. In addition, minimal access to data on financials for small and medium businesses presents a challenge for this line of research. Regardless, research does show that small and medium business owners/managers are quite accurate when asked about their financials and growth. In this study, we focused on three related questions: 1) Do owners/managers who report increases in turnover for the last five-year period more likely to exhibit Theory Y tendencies? 2) Are owners/managers who report increases in innovations more likely to exhibit Theory Y tendencies? 3) Are owners/managers who report decreases in overall costs more likely to exhibit Theory Y tendencies? The research was conducted in the Şişhane region of Istanbul, Turkey. This region, in particular, houses hundreds of chandelier makers and lighting firms, some of which even date back to the Ottoman Empire. Data was collected via a survey instrument distributed to 200 chandelier makers and lighting firms in the area. Data was analyzed through the SPSS statistical packet program and proposed relations in the model were tested through logistic regression analyses.

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Key Words: Leadership styles; Organizational Performance; Theory X and Theory Y; Small and Medium Businesses; Entrepreneur; Entrepreneurship

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1. Introduction

The goal of any organization is not only to increase profitability, but also to sustain its existence by improving performance. In order to meet the needs of the highly competitive markets, organizations must continually increase performance. Population ecology theory focuses on the natural selection of organizational existence. Conversely, strategic management theory focuses on the strategy and politics of organizational leaders. When we look at the sustainability and performance of organizations from this perspective the leadership style in organizations plays major role.

A review of the literature, dating back seventy years, reveals an exploration of a wide range of management and leadership theories and their impact on organizational performance (e.g. Avolio and Bass, 1990; Bycio, Hackett and Allen, 1995). One of the primary conclusions to emerge from this body of research, particularly over the previous two decades, is that leaders must adjust their strategies to meet the increasing volatility and turbulence of the ever-changing needs of the competitive, globalized business environment (e.g. Fiedler, 1996; Holme and Watt, 2000). If leadership competencies are not evident in those who run the organization, change is unlikely to occur over time to adjust to the changes in the situations and needs of the organization (Mgbere, 2009). Leadership capability and styles are widely considered a critical variable in the success of small and medium businesses, which are more vulnerable to market fluctuations and competition. Sexton and Bowman describe small and medium business owners as a “capable executive, and more” (1985: 129). Furthermore, if the owner is also the manager, the adaptation of the organization to market changes and its sustainable performance depends on leadership style (Langowitz and Allen, 2010).

There is a tendency to believe that small and medium business owners demonstrate more traditional leadership styles. However, research indicates that there are three different styles in small and medium business management environments: Conservative, Indecisive, and Innovative (Miller, et. al, 2003). Miller and his colleagues found that: 1) the Conservative style demonstrates avoidance from risk, bureaucratic and centralized leadership, along with an old-fashion structure and mainly a reduction in market share. 2) the Indecisive style evidences unstructured growth plans, a "shotgun" approach to the market, traditional and motivational leadership style clashes, and unsuccessful projects and plans for growth. 3) the Innovative style, in comparison, exhibits renewal of the organization according to the needs of the new markets, an open and motivational leadership style, and, tracking the needs of the market via innovative projects generating growth in the organization's performance.

The influence of leadership style on organizational performance has been studied broadly. Thomas and Bendoly (2009) argue that many forms of leadership can be (in)effective in many ways, particularly regarding organizational performance. However, research from a leadership and motivational perspective is limited, particularly regarding McGregor's seminal work with Theory X and Theory Y. In this study, we will explore the relationship between Theory X, Theory Y, and organizational performance. We present the following three hypotheses: 1) Owners/managers who report increases in turnover for the last five-year period are more likely to exhibit Theory Y tendencies. 2) Owners/managers who report increases in innovations are more likely to exhibit Theory Y tendencies, and, 3) Owners/managers who report decrease in overall costs are more likely to exhibit Theory Y tendencies.

1.1. Theory X and Theory Y, and Organizational Performance

In order to maintain their existence, small and medium businesses owners must sustain an entrepreneurial spirit. A firm can be defined as entrepreneurial when it undertakes activities to stimulate innovation, encourage proactive behaviors and enhance calculated risk-taking (De Clercq, et al., 2010). Small and medium Businesses are individual entrepreneurs that can flourish by the influence of shared values, trust, and organizational commitment (De Clercq, et al., 2010). Many small and medium business owners also need to be employees of their organizations. Erbil and her colleagues (2004) argue that in order to continue the development of their organizations, many business owners should work as much as, if not more than, the employees.

However, we must be cognitive of the fact that in small and medium businesses operating in highly competitive markets, the motivation of the employee as well as the leader is critical. Leading management theories by authors such as Maslow, Herzberg, and McGregor concentrate their research on human emotional needs. Satisfied emotional needs can lead to improved productivity and organizational performance (e.g., Hersey et al., 1996; Cox et al., 2005; Moore et al., 2006). Covin and Slevin (2002) argue for the facilitation of an entrepreneurial dominant logic within the firm, and discusses how and why this orientation is important to firms seeking high levels of performance in the modern business environment. Furthermore, Covin and Slevin (2002) make the case that specific attitudes might enable managers to have a greater impact on the effectiveness of organizational performance.

McGregor (1960) famously argued that there are two types of managers: Theory X and Theory Y. Theory X managers assume that workers are lazy, will avoid responsibility, and prefer to just get by. Theory X assumptions believe that workers must be controlled and threatened with punishment (Allio, 2009). Conversely, McGregor saw Theory Y managers as those that hold assumptions that workers care about the organization, will seek responsibility, and exercise self-control. Bobic and Davis (2003) found that most of the population has the ability to be innovative and creative. This finding supports the argument that Theory Y assumptions contribute positively toward more participative decision-making, ultimately benefitting the organization (Russ, 2011).

Peterson (2007) and others, such as Kopelman et al. (2008) emphasize that it may be more practical for managers to be flexible and develop trust in their employees. This was recently tested by Jenab and Staub (2012), where they found that most managers in their study appeared to have characteristics associated with Theory Y managers. In contrast, there is a body of literature, such as Thomas and Bostrom (2008), Rodrigues (2007), and Sager (2008), that takes the position that Theory X still remains a necessary approach to management, contributes to positive influences in organizations, and may still dominate in certain industries or geographical areas. However, in most cases this approach is considered outdated and inconsistent with today's business needs for continuous improvement of organizational performance.

Organizational performance is the competency of an organization to transform the resources within the firm in an efficient and effective manner to achieve organizational goals (Daft, 1997). The most common metrics used to measure organizational performance are profitability and growth. However, measuring these variables in small and medium businesses can be challenging. The data gathered can be objective (actual amount) or subjective (perception). Given the competitive nature and market dynamic of small and medium businesses, and the difficulty of gaining access to past financial data from many of them, most research in this area has relied on a survey-based approach to measure performance. In most cases, the performance of the firm is measured by the perception of the owner or manager providing responses to the survey (Justin, et al., 2010). Chandler and Hanks (1993) have reported that owner or manager responses on financial data were highly correlated with the actual data.

In this study, we employed the survey approach, asking owners/managers to evaluate organizational performance based on their individual perceptions.

2. Methodology

2.1. Research Goal

The aim of this study is to find evidence whether leadership styles of the owners/managers of SMEs regarding Theory X and Theory Y have positive impact on organizational performance. Three hypotheses were developed and tested by a field survey using questionnaires was conducted. These hypotheses were as follows:

H1: Owners/managers who report increase in the last five-year turnover will present more Theory Y behavior.

H2: Owners/managers who report making innovations will present more Theory Y behavior.

H3: Owners/managers who report decrease in overall costs will present more Theory Y behavior.

2.2. Sampling and data collection

The sampling of the research consists of chandelier makers and lighting firms in the Şişhane region of Istanbul, Turkey. The survey was administered to the firms' owners and managers. The survey is in Turkish language and is divided into two parts. The first part contains 11 items regarding age groups, owner-manager status, number of employees, tenure, annual turnover rate, 5-year-turnover rate, innovation over a 5-year-period, exploitative and explorative innovations, and finally decrease in expenses. However, current study utilized six of those items (age groups, ownership-manager, 5-year-turnover rate, innovation over a 5-year-period, and decrease in expenses). The second part is made of the Theory X and Theory Y behavior scale (Kopelman, Protzas, and Falk, 2008).

Out of 200 surveys, 115 were returned. Two of the surveys had to be eliminated due to missing information. 113 remained (56,5 % response rate) and were analysed afterwards. Data were analysed using the Microsoft Excel and SPSS 17 for Windows software packages. Descriptive statistics were calculated and the statistical significance of prepositions was tested through logistic regression analyses. The survey yielded a Cronbach alpha coefficient of 0.74.

2.3. Analyses and Results

Table 1 and Table 2 show demographic backgrounds of the owners and managers. The distribution of age groups according to their leadership styles are presented in Table 1.

Table 1. Age Groups and Leadership Styles

| | | Leadership Styles | | | | |
|-----------|-------|--------------------|------|-------|--------------|--------|
| | | X-Y | X | Y | Total | |
| Age Group | 20-30 | Count | 2 | 10 | 19 | 31 |
| | | % within Age Group | 6,5% | 32,3% | 61,3% | 100,0% |

| | | | | | |
|-------|--------------------|------|-------|--------------|--------|
| 31-40 | Count | 2 | 18 | 10 | 30 |
| | % within Age Group | 6,7% | 60,0% | 33,3% | 100,0% |
| 41-50 | Count | 2 | 18 | 16 | 36 |
| | % within Age Group | 5,6% | 50,0% | 44,4% | 100,0% |
| 51-60 | Count | 0 | 4 | 10 | 14 |
| | % within Age Group | ,0% | 28,6% | 71,4% | 100,0% |
| 61-70 | Count | 0 | 1 | 1 | 2 |
| | % within Age Group | ,0% | 50,0% | 50,0% | 100,0% |
| Total | Count | 6 | 51 | 56 | 113 |
| | % within Age Group | 5,3% | 45,1% | 49,6% | 100,0% |

Although dominant leadership style varies among the age groups (Table 1), in general, 49,6% of the whole sampling reveals Theory Y leadership behavior according to the survey results. The elder age group (51-60) shows the highest (71,4%) Theory Y behavior and followed by the youngest age group (20-30) (61,3%), mid-aged groups respectively (41-50 and 31-40; 44,4% and 33,3%). Unexpectedly, a third indecisive group protruded indicating both Theory X and Theory Y behavior, though very small in number (n=6; 5,3%).

The difference between leadership styles of owners/managers reveals interesting results (Table 2). Both the owners (50%) and the managers (48,3%) display Theory Y behavior regardless of age. Again here, 4,8% (n=4) of the owners and 6,9% (n=2) of the managers in general seem indecisive.

Table 2. Leadership Styles of Owners/Managers

| | | Leadership Styles | | | | |
|---------------|------------------------|------------------------|-------|-------|--------------|--------|
| | | X-Y | X | Y | Total | |
| Owner/Manager | Owner | Count | 4 | 38 | 42 | 84 |
| | | % within Owner/Manager | 4,8% | 45,2% | 50,0% | 100,0% |
| | Manager | Count | 2 | 13 | 14 | 29 |
| | | % within Owner/Manager | 6,9% | 44,8% | 48,3% | 100,0% |
| Total | Count | 6 | 51 | 56 | 113 | |
| | % within Owner/Manager | 5,3% | 45,1% | 49,6% | 100,0% | |

According to Burns and Burns (2008:p.569) when the dependent variable is dichotomous and the independent variables are categorical, or a mix of continuous and categorical logistic regression is necessary. All the dependent variables regarding organizational performance were dichotomous and so were the independent variables. Eventually, logistic regression analysis seems to fit.

Table 3. Logistic Regression Analysis

| Predictor Variables | B | S.E. | Wald | df | Sig. | Exp(B) | 95,0% C.I. for EXP(B) | | | |
|--|--------------------------------------|--------|----------|--------|------|---------|-----------------------|-------|-------|-------|
| | | | | | | | Prediction Accur. | Lower | Upper | |
| Model 1 DV Increase in Turnover | Leadership Styles X-Y (x- y=0) | NA | NA | 3,993 | 2 | ,136 | NA | | | |
| | Leadership Styles X (x=1) | -19,93 | 16408,71 | ,000 | 1 | ,999 | ,000 | 71,2% | ,000 | . |
| | Leadership Styel Y (y=2) | ,87 | ,44 | 3,993 | 1 | ,046* | 2,39 | | 1,02 | 5,61 |
| | Constant | -1,28 | ,33 | 15,282 | 1 | ,000*** | ,279 | | | |
| Model 2 DV Innovation | Leadership Styles X-Y (x- y=0) | NA | NA | ,742 | 2 | ,690 | NA | | | |
| | Leadership Styles X (x=1) | -18,33 | 16408,71 | ,000 | 1 | ,999 | ,000 | 92,9% | ,000 | . |
| | Leadership Styel Y (y=2) | ,65 | ,76 | ,742 | 1 | ,389 | 1,92 | | ,435 | 8,48 |
| | Constant | -2,87 | ,59 | 23,414 | 1 | ,000*** | ,057 | | | |
| Model 3 DV Decrease Costs | Leadership Styles X-Y (x- y=0) | NA | NA | 2,545 | 2 | ,280 | NA | | | |
| | Leadership Styles X (x=1) | 1,39 | 1,13 | 1,528 | 1 | ,216 | 4,03 | 61,9% | ,442 | 36,78 |
| | Leadership Styel Y (y=2) | ,48 | ,40 | 1,424 | 1 | ,233 | 1,61 | | ,74 | 3,54 |
| | Constant | ,26 | ,27 | ,640 | 1 | ,424 | 1,24 | | | |

* $p < .05$. ** $p < .01$

Note: NA=not applicable

Significance levels for the independent variables were computed using the Wald statistic. Table 3 displays all three models and their relationship between the predictor variables in terms of leadership

styles (Theory X, Theory Y, and Indecisive Group) and the outcome variables (increase in turnover, making innovations and decreasing costs). For the first model only Theory Y leadership style seem to be effective on increasing turnover regardless of being owner or manager (Wald chi square = 3.993, $p < 0.046$ with $df = 1$). The first predictor variable, indecisive group yielded no effect probably due to the very small sample size. The omnibus test indicated an overall significant model ($X^2(2) = 8.329$, $p < 0.016$). The Cox and Snell R^2 and the Nagelkerke R^2 values were 0.072 and 0.103 respectively. Logistic regression is a statistical procedure that is also used to predict (and classify) the accuracy; in this instance, the overall prediction accuracy of the first model was 71.2%. The remaining models which predict the impact of leadership styles (Theory X, Theory Y, and Indecisive Group) on making innovations as well as decreasing costs generate no significant results.

Although not targeted at first, digging in the leadership styles of owners and managers provided interesting result (Table 4). Particularly, being a Theory Y owner appear to make a significant impact on the increasing of the turnover of the firm (Wald chi square = 4.132, $p < 0.042$ with $df = 1$). In terms of organizational performance, by increasing the turnover, owners are more successful than the managers (Wald chi square = 5.271, $p < 0.022$ with $df = 1$).

Table 4. Logistic Regression Analysis with Owner/manager as moderator

| Predictor Variables | B | S.E. | Wald | df | Sig. | Exp(B) | 95,0% C.I. for EXP(B) | | |
|-------------------------------|----------|----------|-------|-----------------------------|-------|--------|-----------------------|-------|-----------------|
| | | | | | | | Accur. | Lower | Upper |
| Model 4 | | | | | | | | | |
| Leadership Styles X-Y (x-y=0) | NA | NA | 4,132 | 2 | ,127 | NA | | | |
| DV Increase in Turnover | | | | | | | | | |
| Leadership Styles X (x=1) | -20,05 | 16008,45 | ,000 | 1 | ,999 | ,00 | 73,9% | ,00 | . |
| Leadership Style Y (y=2) | ,91 | ,45 | 4,132 | 1 | ,042* | 2,5 | | 1,03 | 6,02 |
| Owner/Manager | -1,10 | ,48 | 5,271 | 1 | ,022* | ,33 | | ,13 | ,85 |
| Constant | -,518 | ,452 | 1,310 | 1 | ,252 | ,60 | | | |
| Tests | | | | | | | | | |
| | χ^2 | df | P | Classification Table | | | | | |
| Likeelihood Ratio | 13,611 | 3 | .003 | Observed | | | Predicted | | Percent Correct |
| Hosmer-Lemeshow | .048 | 3 | .997 | Yes | | No | | | |
| Cox-Shell R2 | .115 | | | Yes | | 5 | | 93,7 | |
| Nagelkerke R2 | .165 | | | No | | 24 | | 25,0 | |
| | | | | Overall | | | | 73,9 | |

* $p < .05$. ** $p < .01$

Note: NA=not applicable

3. Conclusions

There are anecdotal claims stating that Theory Y leadership behavior may have a general positive influence on the organizational performance but so far there has been no empirical evidence directly related to firm's performance criteria. Thus, this study provides evidence whether the leadership styles of the owners/managers of SMEs ensures robust organizational performance. We predicted that the SMEs led by Theory Y owners/managers will do better than the SMEs led by Theory X owners/managers at the selected criteria of organizational performance such as increasing turnover, making innovations and decreasing overall costs. The results of statistical analyses reveal significant evidence only in favor of the 1st hypothesis. Second and the third hypotheses could not be confirmed. Unexpectedly, a third group of leadership style came up but relatively small in size (n=6), which we named them "indecisive group" because they had the same score from both Theory X and Theory Y survey.

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