Self-Leadership and Professionalism as The Predictors of Entrepreneurial Propensity: The Role of Locus of Control and Learned Resourcefulness as Moderators

Burçak Çağla GARİPAĞAOĞLU[1], Berna GÜLOĞLU[2]

[1] *Assist. Prof., Bahcesehir University,* burcakcagla.garipagaoglu@es.bau.edu.tr,

[1]*ORC-ID: 0000-0003-4618-7846*

[2] *Assoc. Prof., Bahcesehir University,* berna.guloglu@es.bau.edu.tr,

[2]*ORC-ID: 0000-0003-0275-1820*

Geliş Tarihi/Received:	Kabul Tarihi/Accepted:	e-Yayım/e-Printed:
02.06.2021	27.06.2021	30.06.2021

ABSTRACT

The purpose of this study is to examine the structural relationships among the potential antecedents of entrepreneurial propensity (self-leadership and professionalism) and to test the role of locus of control and learned resourcefulness in this relationship. To achieve this end, a survey comprising of Self-Leadership questionnaire, Occupational Professionalism scale, Entrepreneurial Propensity scale, Rosenbaum's Learned Resourcefulness scale and Rotter's Locus of Control scale was undertaken with a sample of two hundred and twenty-nine teachers (160 women, 69 men) working in various public and private schools in Istanbul. The data was analyzed using AMOS 21 and SPSS 19. The results indicated that the proposed model significantly explains 65% of the entrepreneurship. Yet, the learned resourcefulness and locus of control would not moderate the relationship in the proposed model.

Keywords: Self-leadership, professionalism, entrepreneurial propensity, locus of control, learned resourcefulness

1. INTRODUCTION

Entrepreneurs and entrepreneurship play a crucial role in the effort to improve the quality of life in diverse areas (Erkoç & Kert, 2013). While most leaders and policymakers around the world have been promoting entrepreneurship in the name of jobs and economic growth, they has been appreciating its value as a means of building a smart workforce that has more initiative and ingenuity (Ortmans, 2015). Frey (2015) argues that by 2030 over 2 billion jobs will disappear and completely different new skill sets will be prized. All of these imply that today's children should be educated for a world that does not exist yet, a world that is unpredictable and unknown. Teachers should be trained to prepare students for the jobs that do not even exist yet and education should be re-designed to better equip children so that they can be familiar with the dynamics of opportunity recognition, the educational value of failure and the magic of iterative testing and validation that underpins entrepreneurial endeavors and entrepreneurial economies (Ortmans, 2015).

In order to educate new generations for an intensely different definition of work and to better understand the ways of cultivating entrepreneurial minds, it is important to identify the potential antecedents and moderators of entrepreneurship. Therefore, this study was aimed to investigate the moderating effects of locus of control (LOC) and learned resourcefulness on the relationship between self-leadership, professionalism on the one hand, and entrepreneurial propensity on the other among teachers. Since, no previous work reported the moderating effects of locus of control and learned resourcefulness, the entire causal model tested in this study was expected to offer insights to administrators responsible for the development and the delivery teacher education programmes.

2. LITERATURE REVIEW

Entrepreneurial Propensity

In spite of the extensive interest for the subject matter of entrepreneurship from many disciplines like psychology, sociology, business administration, and economics, the concept of entrepreneurship does not yet have an operational definition that everyone agrees on. The earliest research over entrepreneurship came from the field of psychology. Schumpeter (1934) and later McClelland (1967) are credited to be the fathers of the field of entrepreneurship research (cited in Frese & Gielnik, 2014). Later around the years 1980–2005, the focus of entrepreneurship research shifted to take a more economic perspective (Kirchhoff, 1991). Yet, more recently the picture changed again, and the focus of entrepreneurship research shifted again, and scholars acknowledged the importance of psychological perspective because "entrepreneurship is fundamentally personal" (Baum et al. 2007, cited from Frese & Gielnik, 2014). The studies of psychology over entrepreneurship have mostly focused on the factors that play a role in entrepreneurial propensity and entrepreneurship's achievement. The first stream of studies examining a connection between entrepreneurship and personal characteristics proved that the individuals with entrepreneurial qualities are self-controlled, self-confident and competitive people who are motivated mostly by the need for achievement, power distance and willingness for taking risks and facing uncertainty. The second stream of

research focusing on the factors explaining entrepreneurship's achievement on the other hand concluded that motivation of individual and society is one of the most important factors that explains entrepreneurship achievement (Kalkan & Kaygusuz, 2012). Specifically, the second stream of research discovered that when the possibility of achievement gets higher, entrepreneurial propensity rate increases (Baron, 2000).

Self-Leadership

D'Intino, Goldsby, Houghton, and Christopher (2007) proposed that the process of self-leadership is inherent in successful entrepreneurship and can be developed. The goal of increased self-leadership for entrepreneurs is for these individuals to more effectively lead themselves by learning and applying specific behavioral and cognitive strategies to behave and perform in desired ways. Self-leadership consists of specific behavioral and cognitive strategies designed to positively influence personal effectiveness and grouped into three main categories: (1) behavior-focused strategies, (2) natural reward strategies, and (3) constructive thought pattern strategies (Manz & Neck, 2004; Manz & Sims, 2001; Prussia, Anderson & Manz, 1998).

Behavior-Focused Strategies (BFS) are designed to encourage positive, desirable behaviors that lead to successful outcomes, while suppressing negative, undesirable behaviors that lead to unsuccessful outcomes (Manz & Neck, 1999). These strategies include self-observation, self-goal setting, self-reward, self-correcting feedback, and self-cueing. Self-observation involves raising one's awareness of when and why one engages in specific behaviors which in turn lead to the identification of specific behaviors that should be changed, enhanced, or eliminated (Mahoney & Arnkoff, 1979; Manz & Neck, 1999). Self-correcting feedback on the other hand consist of a positively framed and introspective examination of failures and undesirable behaviors leading to the self-correcting behaviors. With accurate information regarding current behavior and performance levels, individuals can also set more effective behavior altering goals for themselves to increase individual performance levels (Manz & Neck, 2004; Manz & Sims, 1980). Self-rewards and self-punishment, on the other hand, can significantly facilitate the accomplishment of self-set goals (Mahoney & Arnkoff, 1979; Manz & Sims, 1980; Manz & Neck, 2004). However, the excessive use of self-punishment involving self-criticism and guilt might be detrimental to performance and should be avoided (Manz & Sims, 2001). Finally, self-cueing can serve as an effective means of encouraging functional behaviors and reducing or eliminating dysfunctional ones (Manz & Neck 2004; Manz & Sims, 2001). Lists, notes, screensavers, and motivational posters are just a few examples of self-cues that can help keep attention and effort focused on goal attainment.

Natural Reward Strategies (NRS) emphasize the enjoyable aspects of a given task or activity. Natural or intrinsic rewards result when incentives are built into the task itself and a person is motivated or rewarded by the task itself (Manz, 1992; Manz & Neck 1999). Naturally rewarding activities tend to foster feelings of increased competence, self-control, and purpose (Manz, 1986; Manz & Neck, 1999). Natural reward strategies include efforts to incorporate more pleasant and enjoyable features into a given task or activity and efforts to change perceptions of an activity by focusing on the task's inherently rewarding aspects (Manz & Neck, 1999).

Constructive Thought Pattern Strategies (CTPS) are designed to facilitate the formation of constructive thought patterns and habitual ways of thinking that can positively impact performance (Manz & Neck, 2004; Neck & Manz, 1992). Constructive thought pattern strategies include identifying the destructive irrational beliefs and assumptions and replacing them with more rational and constructive ones by practicing mental imagery and positive self-talk (Manz & Neck, 2004; Neck & Manz, 1992).

Occupational Professionalism

Occupational professionalism is the extent to which teachers live up to the expectations of performance and conduct that pervade their practice (McMahon & Hoy, 2009). According to Yılmaz and Altınkurt (2014), the four key elements of teacher professionalism are personal development, professional awareness, contribution to organization and emotional labor; and the more teachers consistently manifest these dispositions and behaviors, the more professional they are deemed to be.

Professional Development (PD) follows the need to learn discipline-specific skills required for specialization and continuous development. It entails growing beyond a sufficiency and competence level and becoming 'learning leaders' of the profession and professional community (Murphy & Calway, 2008).

Professional Awareness (PA) follows the need to monitor one's own concordance with educational practitioner norms and self-regulate adherence to these norms. In schools with a high degree of teacher professionalism, teachers demonstrate a high level of commitment, and go beyond minimum expectations to meet the needs of students. They take their work seriously, engage in the teaching process, and respect their colleagues' competence and expertise. They work cooperatively with one another and are enthusiastic about each other's work (Tschannen-Moran, 2009).

Contribution to a Professional Community (CPC), follows the need to coordinate expectations and communicate standards across the professional community for the attainment of the shared goals. It encompasses cultivating productive relationships with the community and gearing up one's own skills for the favor of the whole school and students.

Emotional Labor (EL) at work refers to the efforts to modify and control negative emotions in order to express only the socially acceptable emotions at work (Isenbarger & Zembylas, 2006). It is simply about displaying appropriate emotions at work regardless of how one actually feels even if it requires hiding or faking of felt emotions (Diefendorff, Croyle & Grosserand 2005).

Locus of Control

Locus of Control (LOC) refers to the extent to which individuals believe they can control events affecting them and measures an individual's expectancies for either the need for internal or external control of reinforcement (Rotter, 1966). Individuals having an internal LOC believe events in their life derive primarily from their own actions while people having

an external LOC tend to praise or blame external factors for their achievement or failure. The specific identification of 'powerful others' as a unique dimension of the attribution to external forces makes the locus of control construct particularly useful in cross-cultural entrepreneurship research because of the political differences with respect to personal freedom, the role of the individual in society, and the economical appropriateness and importance of entrepreneurial activity in the focal countries (Kaufmann, Welsh, & Bushmarin, 1995). Several researches have shown that people who have self-leadership skills and entrepreneurial propensity are associated with an internal locus of control (Gartner, 1985; Kalkan & Kaygusuz, 2012; Shapero, 1975; Shaver & Scott, 1991). These studies revealed that individual's high entrepreneurial propensity tend to have higher internal locus of control than the population at large. To the extent that self-leaders and professionals believe that their choices and behaviors can directly shape the environment, they will be more likely to engage in entrepreneurial activities. On the contrary, if there is expectation that choices and behaviors are largely shaped and limited by the market and competition, self-leaders and professionals will be less likely to naturally engage in entrepreneurial activities.

Learned Resourcefulness

Individuals are continuously faced with highly demanding and ever-changing situations that challenge their skills and well-established behavioral repertoires. These challenges produce intense physiological and emotional consequences that have devastating effects on their physical and psychological well-being. Learned resourcefulness described as a repertoire of well-learned behaviors and cognitive skills that persons acquire over many years and use to successfully execute self-control behaviors and to cope effectively with stressful life events (Rosenbaum, 1990). In other words, LR can be viewed as one of the coping resources available for the individual when faced with a stressful situation (Rosenbaum, 1990).

Learned resourcefulness includes four components: a) the use of cognitions and self-instructions to cope with emotional and physiological responses, b) grasp of problem-solving strategies (for instance, planning, problem definition, evaluation alternatives, and anticipation of consequences), c) ability to delay immediate satisfaction of needs for better future outcomes, and d) the beliefs in one's ability to cope effectively with internal processes or stimuli (Rosenbaum, 1990). In other words, a resourceful individual shows competence in self-regulating his/her emotions, feelings, thoughts and actions while performing leadership functions. Although resourcefulness involves self-control procedures to regulate one's emotions, thoughts and actions, at the deepest level, such self-control procedures represent a set of cognitions regarding one's own self that ultimately determines the emotion, thought and behavioral processes. To the extent that self-leaders and professionals who have a repertoire of well-learned behaviors and cognitive skills acquired to cope effectively with stressful life events, will be more likely to engage in entrepreneurial activities.

3. METHODOLOGY

The purpose of this study was not only to examine the structural relationships among the potential antecedents of entrepreneurial propensity or their specific contributions to what extent they account for the entrepreneurial propensity together, but it also tests the role of

locus of control and learned resourcefulness as moderators on the relationship between self-leadership and professionalism as antecedents on the one hand and entrepreneurial propensity as a consequence on the other. To achieve this objective, seven different hypotheses were proposed:

H1: Self-leadership would be positively associated with entrepreneurial propensity.
H2: Professionalism would be positively associated with entrepreneurial propensity.
H3: Internal locus of control would strengthen the relationship between entrepreneurial propensity and self-leadership.
H4: Internal locus of control would strengthen the relationship between entrepreneurial propensity and professionalism.
H5: Learned resourcefulness would strengthen the relationship between entrepreneurial propensity and self-leadership.
H6: Learned resourcefulness would strengthen the relationship between entrepreneurial propensity and professionalism.
H7: Locus of control and learned resourcefulness together would moderate the relationship between self-leadership and professionalism on the one hand, and entrepreneurial propensity on the other hand.

Participants and Procedure

The survey was prepared on www.surveey.com with an informed consent and administered to the teachers attending to graduate program of Institute of Social Sciences in one of the foundation universities in Istanbul, Turkey. It took 20 minutes to complete the data set. Considering the confidentiality of the data, no questions requiring information about participants' identity were asked. All participants took part in the study voluntarily. The Principles of Helsinki Declaration were complied throughout the study.

Participants were composed of 229 teachers (160 women, 69 men). Majority of (180) of the teachers have been working at the private schools. 7% (16) of them were working at the preschool, 22.7% (52) at the elementary school, 38.9% (89) at the secondary school, 31.4% (72) at the high school. 27.5% (63) of the teachers had five years and below teaching experience, 29.7% (68) 6-10 years of experience, 19.2% (44) 11-15 years of experience, 9.6% (22) 16-20 years of experience, 14% (32) 21 and above years of experience. While 64.6% (148) had not experience in administration, 35.4% (81) had administration experience. 68.1% (156) wants to be an administrator in the future, but 31.9% (73) do not have a plan to be an administrator in the future.

Data Collection Instruments

Self-Leadership Questionnaire Occupational Professionalism scale, Entrepreneurial Propensity Scale scale, Rosenbaum's Learned Resourcefulness scale, and Rotter's Locus of Control scale were used to collect data in the study.

Self-Leadership (SL) Questionnaire. The SL questionnaire was developed by Anderson and Prussia (1997) and translated into Turkish by Tabak, Sığrı and Türköz (2013). It consists of 3-dimension (behavior-focused strategies, natural reward strategies and constructive thought

pattern strategies) and 29-items. 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The total scale score ranges from 29 to 145 with higher scores representing higher self-leadership skills. The Cronbach alpha internal consistency coefficient of the scale was found to be as .88 indicating a very high reliability.

Occupational Professionalism (OP) Scale. The OP scale is a 24-item and 4-factor scale (Personal Development, Professional Awareness, Contribution to Professional Community and Emotional Labor) developed by Yılmaz and Altınkurt (2014). It measures the extent of teacher's professionalism. The total scale score ranges from 24 to 170 with higher scores representing higher degree of professionalism. The Cronbach alpha internal consistency coefficient of the scale was found to be as .78 indicating a high reliability in the current study.

Entrepreneurship Propensity (EP) Scale. The EP scale is an instrument designed to measure entrepreneurial attitudes. In this scale, latent entrepreneurial propensity is operationalized as an individual's propensity to engage in entrepreneurial activity. It is developed and validated in Turkish by Aktürk (2012) and consists of 13 items. The first four items assess the behavioral, subsequent five items assess cognitive, and the last four items assess affective entrepreneurship tendencies. It is a 5-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The total scale score ranges from 13 to 65 with higher scores representing higher entrepreneurship tendencies. The Cronbach alpha internal consistency coefficients of the sub-scales were found to be as .73 for behavioral, .70 for cognitive and .71 for affective sub-scales, indicating high reliabilities to be used in the study in the current study.

Learned Resourcefulness (LR) Scale. LR scale is a 36-item, 12-factor scale. It was originally developed by Rosenbaum (1990) as a 6-point Likert-type scale but translated into Turkish as a 5-point Likert-type scale ranging from 1 (does not describe me at all) to 5 (describe me very well) by Dağ (1991). The total scale score ranges from 36 to 180 with higher scores representing higher learned resourcefulness possessed by the individuals. Cronbach's alpha for LRS was found as .82 in the current study.

Locus of Control Scale (LOC). LOC scale is a 29-item scale prepared in a forced-choice structured-alternative item response format in which participants are forced to choose between two opposing statements. It was developed and validated by Rotter (1966) and translated into Turkish by Dağ (1991). The minimum score that can be obtained from the scale is 0 while the maximum score is 23. A low score indicates an internal control while a high score indicates external control. The Cronbach alpha internal consistency coefficient of the scale was found to be .78 which indicates a high reliability.

Data Analysis

Skewness (>2) and kurtosis (>5) values of the variables in the current study indicated non-normality of the variables (Table 1). Multivarite normality was assessed through the use of Mahalonobis distance which should not exceed the critical chi-square value with df (7) equal to the number of predictors and .001 alpha level (Tabachnick & Fidell, 2001). Mahalonobis distance, which was found as 49.238, exceeding the cut-off value of 24.322 with $p<.001$ and therefore 6 subjects among 235 participants were excluded from the data because of being outliers. The relationship among variables was examined by Pearson correlation. Results of

correlation matrix (r<.85) revealed that multicollinearity was not an issue in this study (Kline 2011).

Table1. Skewness, Kurtosis, Means, Standard Deviations and Correlations at Study Variables

N=235	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.SL	1	.66**	.59**	.62**	-.30**	.85**	.71**	.83**	.55**	.54**	.60**	.55**	.54**	.50**	.50**
2. OP		1	.59**	.64**	-.31**	.50**	.58**	.63**	.80**	.82**	.91**	.83**	.54**	.51**	.51**
3. EP			1	.55**	-.26**	.52**	.47**	.53**	.52**	.46**	.55**	.45**	.80**	.81**	.81**
4. LR				1	-.44**	.52**	.49**	.56**	.54**	.48**	.58**	.56**	.53**	.50**	.50**
5. LOC					1	-.31**	-.16	-.25**	-.29**	-.14*	-.32**	-.27**	-.27**	-.29**	-.29**
6. BFS						1	.53	.60**	.45**	.42**	.43**	.42**	.50**	.46**	.46**
7. NRS							1	.63**	.42**	.57**	.52**	.51**	.43**	.38**	.38**
8. CTPS								1	.52**	.50**	.60**	.58**	.47**	.43**	.43**
9. PD									1	.54**	.67**	.54**	.52**	.47**	.47**
10. PA										1	.66**	.81**	.36**	.42**	.42**
11. CPC											1	.66**	.56**	.44**	.44**
12. EL												1	.38**	.43**	.43**
13. BE													1	.69**	.72**
14. CE														1	.74**
15. AE															1

Skewness	-.551	-1.541	-1.28	.179	.049	-.212	1.1	.595	-.529	2.444	.835	2.13	.594	2.444	.160
Kurtosis	1.23	4.57	3.471	-.054	-.376	.397	1.70	1.38	.449	8.44	.159	6.245	.415	8.44	.316
Mean	113.12	100.6	75.29	131.7	9.75	48.18	8.54	56.40	19.20	22.86	31.61	26.97	24.01	22.86	25.34
Std.Dev	**14.4**	**13.9**	**10.89**	**17.68**	**3.97**	**6.17**	**1.44**	**8.72**	**3.63**	**3.12**	**5.65**	**3.84**	**4.37**	**3.12**	**3.89**

Note. SL:Self-leadership; OP:Occupational Professionalism; EP:Entrepreneurship Propensity; LR: Learned Resourcefulness; LOC: Locus of Control; BFS: Behavior-Focused Strategies; NRS: Natural Reward Strategies; CTPS: Constructive Thought Pattern Strategies; PD: Personal Development; PA: Personal Awareness; CPC: Contribution to Professional Community; EL: Emotional Labor; BE: Behavioral Entrepreneurship; CE: Cognitive Entrepreneurship; AE: Affective Entrepreneurship

Multi-group invariance analysis was employed in order to assess the moderating role of learned resourcefulness and locus of control on the relationship among self-leadership, professionalism and entrepreneurship. Firstly, the proposed model was investigated for the entire data set (N=229). After the model was validated, the moderating variables of learned resourcefulness and locus of control were divided into four separate groups by means of cluster analysis. Cluster analysis is a statistical technique that places respondents into groups based on similarities on certain characteristics (Wedel & Karakura, 2000). The moderating variables were divided into categories based on the results of descriptive statistics (mean). The participants below the one standard deviation of the mean in locus of control variable is considered as having external locus of control and one standard deviation above the mean is considered as having internal locus of control internal. Similarly, the participants below the one standard deviation of the mean learned resourcefulness variable is considered as having low level of learned resourcefulness and one standard deviation above the mean is considered as having high level of learned resourcefulness. These four groups were categorized as internal and high level of resourcefulness, external and high level of resourcefulness, internal and low level of resourcefulness, and external and low level of resourcefulness. It is recommended to use groups of similar size, but two groups have larger samples than other two groups in this study. A multigroup analysis was conducted in six steps. First, the theoretical model, which contains the four groups, runs without constraining any parameters, and serves as the base model (Model 1 in Table 2). Second, all regression paths are constrained (Model 2). Third, all measurement items are constrained (Model 3). Fourth, all regression paths and measurement items are constrained (Model 2 and Model 3 run together). Fifth, all measurement items, regression paths and covariance are constrained (Model 2, Model 3, and Model 4 run together). Sixth, Models 2,3,4, and 5 are compared with the base model (Model 1) to examine whether χ^2 values are significantly increased.

Table 2. Comparisons of constrained models with the base model

	χ^2(df)	**Normed χ2(df)**	**$\Delta\chi^2$(Δ df)**	**CFI**	**RMSEA**

Model 1. Base model (unconstrained)	460.8(174)	2.65		.903	.076
Model 2. Regression paths (constrained)	461.2(176)	2.62	.386(2)	.902	.075
Model 3. Factor loading (constrained)	466.4(181)	2.58	5.6(7)	.900	.074
Model 4. Factor loading and regression paths (constrained)	469.6(183)	2.57	8.76(9)	.898	.073
Model 5. Factor loadings, regression paths, and covariance (constrained)	477.3(186)	2.57	16.53(12)	.892	.073

In order to determine the fit of the data to the overall model, chi-square statistics (χ^2) was used. However, χ^2 is sensitive to large sample size. A sample size becomes greater than 200 indicate a significant probability level whereas, a sample size lower than 100 demonstrate a non-significant probability level (Schumacker & Lomax, 1996). Hence, additional fit indices were utilized to evaluate model fit, including comparative fit index (CFI), Tucker-Lewis Index (TLI), > .90 for acceptable and >.95 for excellent fit; and the root mean square of approximation (RMSEA), between <.05 and .08 for close and reasonable fit (Hu & Bentler 1995).

Sample size is also an important factor for the multi-group invariance analysis. According to Bentler and Chou (1987), a ratio of five or ten participants per free parameters is needed to obtain stable and reliable results. There are 18 observed indicators which means that 36 parameters in this study. Applying Bentler and Chou's (1987) 5:1 or 10:1 rule of thumb, a sample size between 180 and 360 was required to obtain trustworthy estimates. The present study has adequate sample size. Descriptive and inferential statistics were performed by using SPSS-19 and Multi-group Invariance Analysis (MIA) by using AMOS-21.

4. RESULTS

Preliminary analysis

The skewness, kurtosis, means, standard deviations, and Pearson correlations among all the variables are presented in Table 1. Significant correlations among variables, in the expected direction, were found.

Multi-Group Invariance Analysis

The findings of the main effects from the entire sample size is presented in Figure 1. These findings indicated that the proposed model is meaningful for understanding the factors that impact the entrepreneurship propensity of the teachers. The proposed model explains 65% of the entrepreneurship of the entire sample.

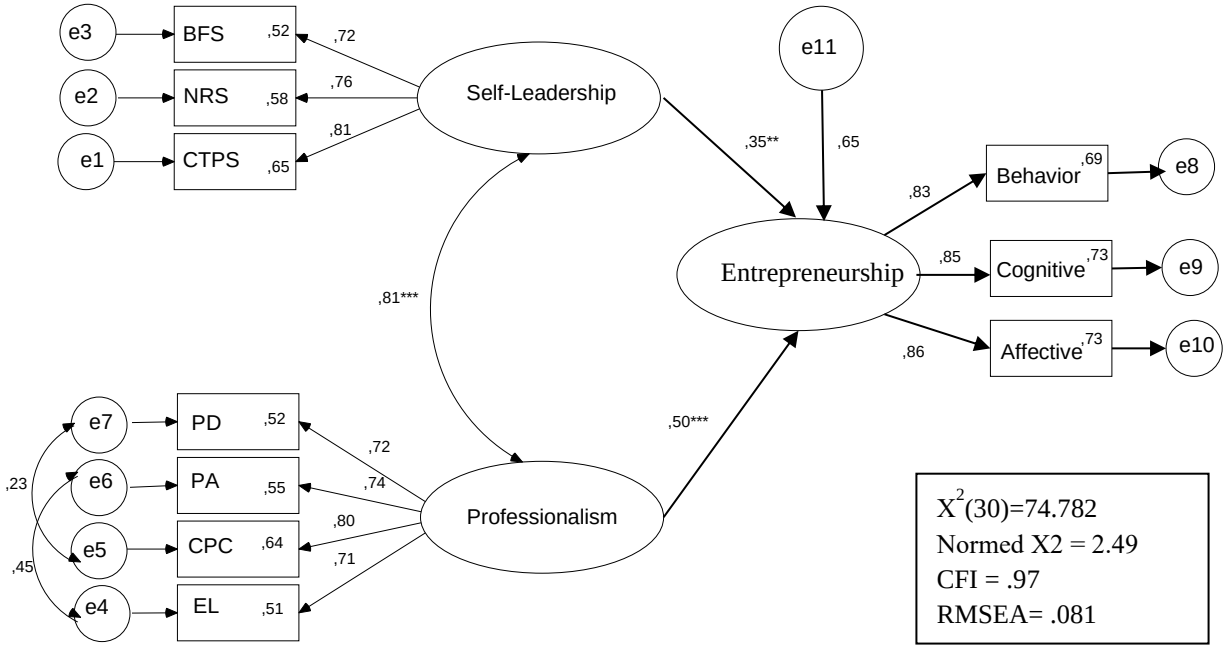

Figure 1. Findings of the main effects

Figure 2 demonstrates the results from subgroup analysis. The proposed model explains teachers having external locus of control and high level of resourcefulness are different than other three groups. Specifically, the regression paths of teachers having external locus of control and high level of resourcefulness are significant, and 80% of variances of their entrepreneurship is explained by the proposed model. Although the covariance between self-leadership and professionalism is the strongest other three groups than the second group, they have the weakest regression path between self-leadership and entrepreneurship, and professionalism and entrepreneurship. Similarly, external locus of control and high level of resourcefulness group has the strongest regression path between professionalism and entrepreneurship propensity. However, the regression path between self-leadership and entrepreneurship propensity is weak in the external locus of control and high level of resourcefulness group.

Figure 2 indicated that the regression paths of the second group (external and highly resourceful) appear to be very different than other three groups, but it requires statistical significance test in order to claim group differences. A series of χ^2 analysis would provide the required support. To do that, each regression path is constrained one at a time. The obtained $\chi 2$ value from the constrained regression path is compared with that of the base model. If the difference is statistically significant, the three groups of the constrained regression path are claimed to be different (Arbuckle, 2008).

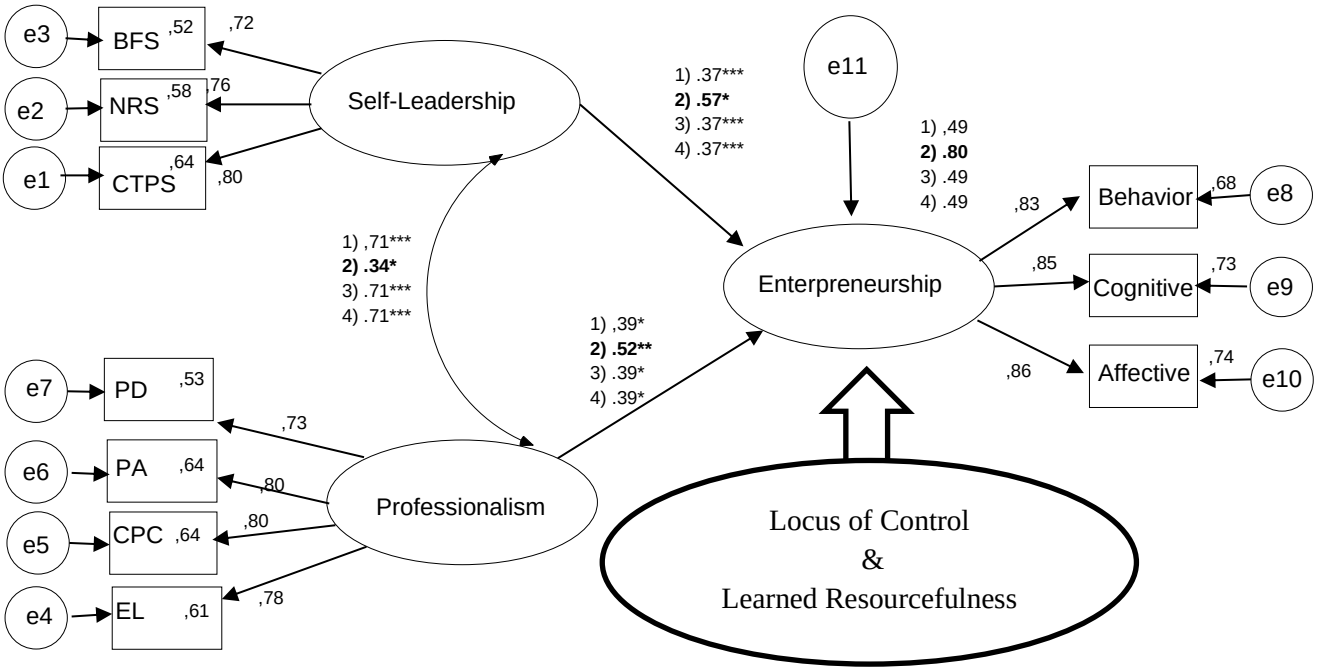

Figure 2. Findings of the interaction effects of the subgroups

Note.
1) Internal locus of control and Low level of resourcefulness (N=37)
2) External locus of control and High level of resourcefulness (N=47)
3) Internal locus of control and High level of resourcefulness (N=74)
4) External locus of control and Low level of resourcefulness (N=71)

More specific discussion is provided by the invariance of regression paths demonstrated in Table 3.

Table 3. Tests for invariance of regression paths.

	Comparisons	**χ2(df)**	**$\Delta\chi$2(Δ df)**
Model 1. Base model (unconstrained)	No constraint	460.8(174)	
Model 2. Constrained between SL and EP	Four groups constrained	460.9(175)	.082(1)
Model 3. Constrained between OP and EP	Four groups constrained	461.2(175)	.354(1)

Note. *p=0.01, **p=0.05, ***p=0.001

Model 1 is the base model which simultaneously analyzes all three groups without constraining any parameters (Byrne, 2001). To observe the regression path difference between self-leadership and entrepreneurship, the path between self-leadership and entrepreneurship is set to equal across all four groups (Byrne, 2001). The base model of $\chi^2(174)$ is 460.8, the constrained model between the self-leadership and entrepreneurship $\chi^2(175)$ is 460.9, and the $\Delta\chi^2(1)$ is .08 (p=.37). Similarly, the constrained model between professionalism and entrepreneurship $\chi^2(175)$ is 461.2, and the $\Delta\ \chi^2\ (1)$ is .354 (p=.39). The significant $\Delta\chi 2$ value indicates that the regression path of the four groups is the same for all groups. In other words, a significant difference is not observed among four groups. Since the regression path is not significant, no further analysis is required (Byrne, 2004).

As a result, the findings indicated that the hypothesis of learned resourcefulness and locus of control would moderate the relationship between self-leadership and professionalism on one hand, and entrepreneurship propensity on the other hand is not supported. To be more precise, learned resourcefulness and locus of control would not moderate the relationship between self-leadership and professionalism on one hand, and entrepreneurship propensity on the other hand.

5. DISCUSSION & CONCLUSION

Promoting self-leadership skills and professionalism among teachers can pave the ways for entrepreneurial economies by giving teachers the opportunity to rapidly adapt to changing conditions and breaking the over-reliance on old ways of doing things. Self-leadership is defined as the practice of intentionally influencing your thinking, feeling and actions towards your objective/s (Bryant & Kazan, 2012). Self-leadership is indeed the answer to how do we develop ourselves to survive and thrive in a VUCA (Volatile, Uncertain, Complex and Ambiguous) world. Self-leadership is about constantly developing the 'inner game' of intention, self-awareness, self-confidence and self-efficacy (self-belief) to achieve *personal* mastery (Bryant & Kazan, 2012) and the good news is that we can all learn how to become better at self-leadership by practice.

People with professional mindset perform their work with full dedication. They never lose their focus from their goals and put persistent efforts leading them to produce high-quality work consistently. In today's VUCA world, where directions might not be clear, lines are blurred and situations appear grey, professional entrepreneurs who will perform while abiding by the professional code of ethics, commitment, and resilience have become even more essential than ever before. Professionalism can, indeed, be taught just like self-leadership. Professionalism can be taught in the hidden curriculum at the workplace, where professional behaviors are recognized and promoted while unprofessional practices get penalized.

In the present study, a theoretically derived structural model is developed that investigated the relationship among leadership, professionalism, and entrepreneurship of teachers. The relationship among these constructs are complex and moderated by the some of the psychological characteristics of teachers such as learned resourcefulness and locus of

control. More specifically, it was hypothesized that the type of locus of control (internal or external) and the level of learned resourcefulness (high or low) have a significant, moderating effect on the relationship among leadership, professionalism, and entrepreneurship propensity. Contrary to the expectations, the results revealed that locus of control and learned resourcefulness would not moderate the relationship among self-leadership, professionalism and entrepreneurship propensity. The significant role of professionalism and self-leadership may explain the unexpected results found in the current study. Our findings showed that regardless of locus of control or learned resourcefulness, adherence to professional codes and self-leadership qualities improves entrepreneurial mindset in individuals. In other words, as long as the person has a professional mindset and possess self-leadership qualities, whether or not s/he believes in the powerful others has no significant effect on her/his entrepreneurship tendencies. Likewise, as long as the person has a professional mindset and possess self-leadership qualities, whether or not s/he is high in resourcefulness has no significant effect on her/his entrepreneurship tendency either. These findings have important implications on entrepreneurship literature. First of all, although the previous studies states that resourceful people with internal locus of control have higher tendency to exhibit entrepreneurship tendencies, the findings of this study showed that people with external locus of control and people with lower level of resourcefulness exhibit similar levels of entrepreneurship tendencies as long as they have a professional attitude and excelled at self-leadership skills. This means that if the educational institutions encourage professional mindset and help its members learn the ways to achieve self-leadership qualities, they can help create an entrepreneurial workforce no matter the society values the entrepreneurship endeavor or not. This finding is especially important for higher education institutions because of the role they play in the societies. If the higher education institutions can instill a sense of professional ethics and nurture self-leadership competencies in its students, then we can create a workforce with entrepreneurial mindset. Likewise, if the leaders set high professional standards at the workplace and ensure that the employees abide by the professional code of ethics, the marketplace itself then can create its own workforce with an entrepreneurial mindset. Moreover, giving training to the employees on self-leadership might be a good way to improve entrepreneurship tendencies. Hence, at a great deal, it is on the hands of higher education institutions and the marketplace to create a well-versed workforce with an entrepreneurial mindset.

Our findings suggest that it may be useful to go beyond learned resourcefulness and locus of control in explaining the relationship among entrepreneurship, professionalism and leadership. Therefore, future research needed to better understand the effects of learned resourcefulness and locus of control on leadership, professionalism, and entrepreneurship. Further research also may investigate how other personality characteristics such as self-efficacy, self-esteem may influence the relationship between professionalism, self-leadership on the one hand and entrepreneurship tendencies on the other hand.

REFERENCES

Aktürk, E. (2012). *Üniversite öğrencilerinin kişilik özelliklerinin girişimcilik eğilimleri üzerindeki etkisi: Düzce üniversitesinde bir araştırma* (Unpublished master's thesis, Düzce Üniversitesi) Sosyal Bilimler Enstitüsü, Düzce. https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=ehYvEbSrK2glwCxQepwq-w&no=2G50U6JNCS6aoAIJj4hmHg

Anderson, J. S., & Prussia, G. E. (1997). The self-leadership questionnaire: Preliminary assessment of construct validity. *The Journal of Leadership Studies, 4*(2), 119-143. https://doi.org/10.1177/107179199700400212

Arbuckle, J. L. (2007). *AmosTM 16 user's guide.* Chicago: SPSS.

Baron, R. A. (2000). Psychological perspectives on entrepreneurship: cognitive and social factors in entrepreneur's success. *Current Directions in Psychological Science, 9*(1), 15-18. https://doi.org/10.1111/1467-8721.00050

Bentler, P. M., & Chou, C-P. (1987). Practical issues in structural modeling. *Sociological Methods & Research, 16*(1), 78–117. https://doi.org/10.1177/0049124187016001004

Bryant, A., & Kazan, A. (2012). *Self-Leadership: How to Become a More Successful, Efficient, and Effective Leader from the Inside Out.* McGraw-Hill Education.

Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming.* Mahwah, NJ: Erlbaum.

Byrne, B. M. (2004). Testing for multigroup invariance using AMOS Graphics: A road less traveled. *Structural Equation Modeling, 11*(2), 272–300. https://doi.org/10.1207/s15328007sem1102_8

Chan, K., Uy, M.A. Chernyshenko, O.S., Ringo, M., & Sam, Y. (2015). Personality and entrepreneurial, professional and leadership motivations. *Personality and Individual Differences, 77*, 161-166. https://doi.org/10.1016/j.paid.2014.12.063

D'Intino, R. S., Goldsby, M.G.G., Houghton, J.D., & Neck, C. P. (2007). Self-Leadership: A process for entrepreneurial success. *Journal of Leadership and Organizational Studies, 13*(4), 105-120. https://doi.org/10.1177/10717919070130040101

Dağ, İ. (1991). Rosenbaum'un öğrenilmiş güçlülük ölçeğinin üniversite öğrencileri için güvenirliği ve geçerliği. *Türk Psikiyatri Dergisi, 2*(4), 269-274. http://www.ihsandag.gen.tr/index_dosyalar/Dag1991rogo.pdf

Diefendorff, J.M., Croyle, M. H., & Gosserand, R. H. (2005). The dimensionality and antecedents of emotional labor strategies. *Journal of Vocational Behavior, 66*, 339-357. https://doi.org/10.1016/j.jvb.2004.02.001

Frese, M. & Gielnik, M. M. (2014). The Psychology of Entrepreneurship. *The Annual Review of Organizational Psychology and Organizational Behavior, 1*, 413-38. http://doi.org/10.1146/annurev-orgpsych-031413-091326.

Frey, T. (2015). *Future jobs: Preparing for jobs that don't yet exist.* Futurist Speaker. http://www.futuristspeaker.com/2014/03/162-future-jobs-preparing-for-jobs-that-dont-yet-exist

Gartner, W.B. (1985). A conceptual framework for describing the phenomenon of new venture creation. *Academy of Management Review, 10*(4), 696-706. http://doi.org/10.2307/258039

Hu, L-T., & Bentler, P. M. (1995). *Evaluating model fit. In R. H. Hoyle (Ed.), Structural equation modeling: Concepts, issues, and applications* (p. 76–99). Thousand Oaks, CA: Sage.

Isenbarger, L. & Zembylas, M. (2006). The emotional labour of caring in teaching. *Teaching and Teacher Education, 22* (1),120-134. http://doi.org/10.1016/j.tate.2005.07.002

Jackson, P. (n.d). *Tomorrow's world today.* Creative Blueprint. http://creative-blueprint.co.uk/thinkpieces/item/tomorrows-world-today

Kalkan, M. & Kaygusuz, C. (2012). The psychology of entrepreneurship. In Burger-Helmchen, T. (Ed.), *Entrepreneurship - Born, Made and Educated*. http://www.intechopen.com/books/entrepreneurship-born-made-and-educated/the-psychology-ofentrepreneurship

Kaufmann, P.J., Welsh, D.H.B., & Bushmarin, N. (1995). Locus of control and entrepreneurship in the Russian Republic. *Entrepreneurship Theory and Practice, 20*(1), 43-56. http://doi.org/10.1177/104225879502000103

Kirchhoff, B.A. (1991). Entrepreneurship's contribution to economics. *Entrepr. Theory Pract. 16*(2), 93–112. http://doi.org/10.1177/104225879201600207

Mahoney, M. J., & Arnkoff, D. B. (1979). Self- management: Theory, research, and application. In J. P. Brady & D. Pomerleau (Eds.), *Behavioral medicine: Theory and practice* (pp. 75-96). Williams and Williams.

Manz, C. C. (1986). Self-leadership: Toward an expanded theory of self-influence processes in organizations. *Academy of Management Review, 11*(3), 585-600. http://doi.org/10.2307/258312

Manz, C. C. (1992). *Mastering self-leadership: Empowering yourself for personal excellence.* Prentice Hall.

Manz, C. C., & Neck, C. P. (1999). *Mastering self-leadership: Empowering yourself for personal excellence* (2nd ed.). Prentice Hall.

Manz, C. C., & Neck, C. P. (2004). *Mastering self-leadership: Empowering yourself for personal excellence* (3rd ed.). Pearson Prentice Hall.

Manz, C. C., & Sims, H. P., Jr. (1980). Self- management as a substitute for leadership: A social learning perspective. *Academy of Management Review*, *5*, 361-367. http://doi.org/10.2307/257111

Manz, C. C., & Sims, H. P., Jr. (2001). *The new Superleadership: Leading others to lead themselves.* Berrett-Koehler.

Manz, C.C. (1992), *Mastering Self-Leadership: Empowering Yourself for Personal Excellence*. Prentice-Hall.

McClelland, D.C. (1967). *The Achieving Society*. Free Press

McMahon, E., & Hoy, W. K. (2009). Professionalism in teaching: Toward a structural theory of professionalism. In W. K. Hoy & M. DiPaola (Eds.), *Studies in school improvement* (pp. 205-230). Information Age.

Murphy, G. A., & Calway, B. A. (2008). Professional development for professionals: beyond sufficiency learning. *Australian Journal of Adult Learning, 48*(3), 424-444. https://files.eric.ed.gov/fulltext/EJ828982.pdf

Neck, C. P., & Manz, C. C. (1992). Thought self-leadership: The impact of self-talk and mental imagery on performance. *Journal of Organizational Behavior*, *12*, 681-699. http://doi.org/10.1002/job.4030130705

Ortmans, J. (2015). *Is-education-the-real-beneficiary-of-an-entrepreneurial-economy*. Kauffman Foundation. http://www.kauffman.org/blogs/policy-dialogue/2015/june/is-education-the-real-beneficiary-of-an-entrepreneurial-economy

Prussia, G. E., Anderson, J. S., & Manz, C. C. (1998). Self-leadership and performance outcomes: The mediating influence of self-efficacy. *Journal of Organizational Behavior, 19*(5), 523–538. http://doi.org/10.1002/(SICI)1099-1379(199809)19:5<523::AID-JOB860>3.0.CO;2-I

Rosenbaum, M. (1990). The role of learned resourcefulness in the self-control of health behavior. In M. Rosenbaum (Ed.), *Learned resourcefulness: On coping skills, self- control, and adaptive behavior* (pp. 3-30). Springer Publishing Co.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monograph*, *80*(1), 1-28. http://doi.org/10.1037/h0092976

Schumacker, R. E., & Lomax, R. G. (2004). A beginner's guide to structural equation modeling (2nd ed.). Mahwah, NJ: Erlbaum.

Schumpeter, J.A. (1934). *The theory of economic development*. Harvard Univ. Press

Seashore-Louis, K. & Kruse, S.D. (1995). *Professionalism and community: Perspectives on reforming urban schools.* Corwin Press. Inc.

Shapero, A. (1975). The Displaced, Uncomfortable Entrepreneur (1975). University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship. https://ssrn.com/abstract=1506368

Shaver, K.G., & Scott, L.R. (1991). Person, process, choice: The psychology of new venture creation. *Entrepreneurship Theory and Practice, 16* (2), 23-45. http://doi.org/10.1177/104225879201600204

Tabachnick, B.G., & Fidell, L.S. (2001). *Using Multivariate Statistics*. 4th Edition, Allyn and Bacon, Boston

Tabak, A., Sığrı, Ü. & Türköz, T. (2013). Özliderlik Ölçeğinin Türkçeye Uyarlanması Çalışması. *Bilig, 67*, 213-246. http://bilig.yesevi.edu.tr/yonetim/icerik/makaleler/2388-published.pdf

Tschannen-Moran, M. (2009). Fostering teacher professionalism in schools: The role of leadership orientation and trust. *Educational Administration Quarterly, 45*(2), 217-247. http://doi.org/10.1177/0013161X08330501

Wedel, M., & Kamakura, W. A. (2000). *Market Segmentation: Conceptual and Methodological Foundations*, Dordrecht: Kluwer Academic Publishers.

Yılmaz, K., & Altınkurt, Y. (2014). *Validity and reliability study for the occupational professionalism of teachers' scale (OPTS). Uluslararası İnsan Bilimleri Dergisi, 11*(2), 332-345. https://www.j-humansciences.com/ojs/index.php/IJHS/article/view/2967