

The Relationship between Social Entrepreneurship Characteristics and the Personal Innovativeness of Prospective Teachers

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ABSTRACT The purpose of the present study is to determine the relationship between social entrepreneurship characteristics and the personal innovativeness of prospective teachers. The study sample involves 303 students studying at the Sakarya University Faculty of Education. In the present study, the data was collected through the Innovativeness Scale and Personal Innovativeness Scale (PIS). The study exhibits that “inquisitive” is the state of innovativeness of prospective teachers that male prospective teachers are primarily leaders, and that female prospective teachers are primarily inquisitive according to their personal innovativeness states. The findings also demonstrate that the social entrepreneurship features of innovative prospective teachers are higher, and that there is a positive and statistically significant relationship between social entrepreneurship features and the personal innovativeness of prospective teachers. Further, the social entrepreneurship characteristics of prospective teachers can be reinforced by some projects increasing their personal innovativeness.

INTRODUCTION

While rapid change and advancement in science and technology are altering the structures of societies and job opportunities at a rapid pace, the importance that institutions like UNESCO, OECD attaches to entrepreneurship is increasing. The entrepreneurship value of individuals, a part of the society, is measured in economic and social terms in accordance with the lifelong learning policies of today’s world. Bozkurt (2000) defines the concept of entrepreneurship, a rising term in today’s world, as noticing opportunities, bringing projects into everyday life by making plans according to opportunities, and therefore making life more livable. Contrastingly, The Ministry of Education (MEB), (2005) defines it as “a main skill field, comprised of sub-

skills like developing empathy, behaving compatibly in human relations, making plans, putting plans into practice, taking risks, foreseeing the necessity of a product to a particular field, planning the product, manufacturing, conducting market research, and being able to bring the product market”. Within this framework, entrepreneurship is more generally affording to take economic, psychological, and social risks, and creating new and different value through spending time and effort (Carikci and Koyuncu 2010: 6).

Although the concept of entrepreneurship has been used in business and economics for many years, it is a new concept in social terms. Within the past decade, the new phenomenon of “global stage social entrepreneurship” has reshaped how scholars think about creating social values (Mair et al. 2006: 1). Social entrepreneurship, defined as “a process consisting of making social change, creating social value, or using resources innovatively to satisfy the needs of the society” (Konakli and Gogus 2013: 374), is appearing as a field in academic study. Social entrepreneurship is an activity of creating social value and innovativeness in business and public sectors that do not seek profit (Aus-

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tin et al. 2006). Social entrepreneurs manage or create innovative entrepreneurial organizations or investments (Konakli and Gogus 2013). Innovativeness is regarded as one of the most important characteristics of entrepreneurs (Herron 1992). A study conducted by Johnson and Hayes (1996) found 88 percent of corporations in America prefer hiring innovative and entrepreneurial individuals (Oktug and Ozden 2013: 5). The entrepreneurial situations and innovativeness characteristics of an individual are positively correlated; they interact with each other to help an organization flourish (Kazancioglu and Candemir 2010).

One of the key ideas in social entrepreneurship is innovativeness; from this perspective, personal innovation may have an important role within the concept of social entrepreneurship. Personal innovativeness relates to the willingness of the individual towards innovation and creates a difference by acting positively towards innovation (Uzkurt 2008). The social entrepreneur takes initiative to start a social change and to maintain it by noticing social problems; the social entrepreneur also sets up a formation to satisfy social needs or makes a sustainable innovation in the current enterprise (Cetindamar et al. 2010). Entrepreneurship occurs with the supportive effects of teachers, schools, and education. Hence, gains in programs should be developed in accordance with the level of the student, teachers should create settings that support entrepreneurship, and families should complement these processes (Eraslan 2011).

It is also expected that teachers and prospective teachers who will train entrepreneur individuals in the next generation are themselves social entrepreneurs and personally innovative. Within this scope, studies have explored the personal innovativeness of prospective teachers (Uras 2000; Bayraktar 2012; Atali and Sertbas 2013; Celik 2013; Cuhadar et al. 2013; Gur-Erdogan and Zafer-Gunes 2013; Kert and Tekdal 2012; Ozgur 2013; Yilmaz and Bayraktar 2014) and the entrepreneurship of the teachers and prospective teachers (Bayrak and Terzi 2004; Bacanak and Ulkudur 2012; Akyurek and Sahin 2013). However, a study conducted to identify the relation between prospective teachers' innovativeness and social entrepreneurship characteristics was not found in Turkey.

Aim of the Paper

The aim of the present paper is to identify the relationship between prospective teachers' innovativeness and social entrepreneurship characteristics. In accordance with this aim, answers to the problems and sub-problems below have been sought.

Problem Statement

Is there a relationship between prospective teachers' innovativeness and social entrepreneurship?

Sub-problems

1. How is the state of personal innovativeness of prospective teachers?
2. Do prospective teachers' social entrepreneurship characteristics and its sub-dimensions differ according to their personal innovativeness conditions?
3. Is there a relation between prospective teachers' social entrepreneurship characteristics and their personal innovativeness states?

METHODOLOGY

Sample and Population

The population of the study was 4279 students at *Sakarya University Faculty of Education* during the 2013-2014 academic year; the sample involves 303 students chosen through simple random sampling, which is used when the number of individuals in a population is known.

Data Collection Tools

In the current study, data were collected through the Innovativeness Scale developed by Konakli and Gogus (2013) and Personal Innovativeness Scale (PIS) developed by Hurt et al. (1977) and adapted into Turkish by Kilicer and Odabasi (2010).

“Innovativeness Scale” and “Personal Innovativeness Scale (PIS)”

The “Innovativeness Scale,” developed by Konakli and Gogus (2013), is composed of three

sub-dimensions (self-confidence, personal creativity and taking risks) and 21 items (in five point Likert-type scales), with the aim of evaluating the scale of social entrepreneurship characteristics of prospective teachers and the innovativeness of individuals in general terms. This was developed by Hurt et al. (1977) and adapted into Turkish by Kilicer and Odabasi (2010) as the “Personal Innovativeness Scale (PIS),” which is composed of 20 items and 4 sub-dimensions, 12 of which are positive and 8 of which are negative (resistance to change, idea leadership, openness to experimenting and taking risks) in a five-point, Likert-type scale, has been used.

In the PIS, innovativeness is calculated by adding 42 to the score calculated by subtracting the total score gained from negative items from the total score gained from positive items. With the help of the scale, a minimum of 14 points and maximum of 94 points are obtainable. Individuals can be categorized in the context of innovativeness according to their scores calculated by the scale. According to these, individuals are “Innovators” if the calculated score is above 80, “Early Adopters” if they are between 69 and 80 points, “Early Majority” between 57 and 68, “Late Majority” between 46 and 56, “Laggards” if they scored below 46. It is also possible, with the help of the scale, to assess an individual’s levels of innovativeness in general. According to this assessment, individuals scoring 68 and above are assessed as innovative, and individuals scoring below 64 are interpreted as low in innovativeness.

While the Cronbach’s alpha value of the prospective teachers’ social entrepreneurship characteristics developed by Konakli and Gogus is found as 0.85, the Cronbach’s alpha value of this study is 0.89; while the Cronbach’s alpha value in the adaptation of the Personal Innovativeness Scale by Kilicer and Odabasi is 0.82, the Cronbach’s alpha value of this study is 0.78.

FINDINGS

Table 1 shows that generally, no prospective teacher is a traditionalist. Gender wise, 44.6% of male prospective teachers are “Early Adopters,” and 4.1% of them are “Late majority;” 48.5% of female prospective teachers are “Early Majority,” and 4.4% of them are “Late Majority.” It is seen that most of male prospective teachers are early adopters while most of female prospective teachers are late majority. By teaching specialization, 52.2% of prospective first grade teachers are “Early Majority” and 7.5% of them are “Late Majority.” 41.8% of prospective teachers studying at the second grade level are “Early Majority” and 3.6% of them are “Late Majority.” At the third grade level, 52.4% of the prospective teachers are “Early Majority” and 1.2% of them are “Late Majority.” However, 50.0% of the prospective teachers studying at the fourth grade level are “Early Adopters,” and 6.8% of them are “Late Majority.” In sum, most of the prospective teachers studying at the first, second, and third grades are early majority while half of fourth grade prospective teachers are early adopters.

As shown in Table 2, there is a significant difference in the social entrepreneurship characteristics of prospective teachers according to their states of personal innovativeness [$F(3-299) = 43.923; p < 0.01$] and its sub-dimensions, taking risk [$F(3-299) = 31.421; p < 0.01$], personal creativity [$F(3-299) = 15.601; p < 0.01$], and self-confidence [$F(3-299) = 32.879; p < 0.01$]. The social entrepreneurship characteristics of prospective teachers and their sub-dimensions differ according to their personal innovativeness states. Dunnet’s C test has been used to find out where do these differences exist, in the multiple comparison of the average scores on the circumstances of group variance regarding the distribution of scores are not equal. Scheffe’s test has been used

Table 1: Personal innovativeness states of prospective teachers

		Innovators		Early adopters		Early majority		Late majority		Laggards		Total	
		N	f (%)	N	f (%)	N	f (%)	N	f (%)	N	f (%)	N	f (%)
Gender	Male	10	13.5	33	44.6	28	37.8	3	4.1	0	0	74	100
	Female	24	10.5	84	36.7	111	48.5	10	4.4	0	0	229	100
Grade	1	8	11.9	19	28.4	35	52.2	5	7.5	0	0	67	100
	2	18	16.4	42	38.2	46	41.8	4	3.6	0	0	110	100
	3	4	4.9	34	41.5	43	52.4	1	1.2	0	0	82	100
	4	4	9.1	22	50.0	15	34.1	3	6.8	0	0	44	100

Table 2: Anova results of the prospective teachers according to their states of social entrepreneurship characteristics and its sub-dimensions

Variable		N	X	SD	df	F	p (Dunnet-c)
SEC	Innovators	34	91.9590	5.2945	3-299	43.923	.000*
	Early Adopters	117	83.1676	9.2702			
	Early Majority	139	77.6482	7.9829			
	Late Majority	13	65.7582	10.045			
	Total	303	80.8752	9.9849			
Risk Taking	Innovators	34	31.3235	2.4211	3-299	31.421	.000*
	Early Adopters	117	27.7200	4.1466			
	Early Majority	139	25.9756	3.3475			
	Late Majority	13	21.5385	3.6881			
	Total	303	27.0589	4.1201			
Variable		N	X	SD	df	F	P (Scheffe)
Personal Creativity	Innovators	34	25.6433	2.5831	3-299	15.601	.000*
	Early Adopters	117	24.0160	2.6917			
	Early Majority	139	22.8901	2.8568			
	Late Majority	13	20.4505	3.0387			
	Total	303	23.5291	2.9664			
Self-confidence	Innovators	34	34.9922	3.2394	3-299	32.879	.000*
	Early Adopters	117	31.4317	4.4709			
	Early Majority	139	28.7825	4.2091			
	Late Majority	13	23.7692	4.6931			
	Total	303	30.2871	4.8648			

p<0.01 there is a significant relation*

where the multiple comparison of the average scores on the circumstances of group variance regarding the distribution of scores are equal.

Dunnet's C test on the "taking risk" sub-dimension shows that innovative prospective teachers have the characteristics of social entrepreneurship and taking risks more than leader, inquisitive, and skeptical prospective teachers, while leader prospective teachers possess these characteristics to a greater degree than inquisitive and skeptical prospective teachers, and inquisitive prospective teachers have these characteristics more than skeptical ones.

Sheffe's test on the "self-confidence" sub-dimension shows that innovative prospective teachers have the characteristics of personal creativity and self-confidence more than leader, inquisitive, and skeptical prospective teachers, while leader prospective teachers have more of these characteristics than inquisitive and skeptical prospective teachers, and inquisitive prospective teachers have these characteristics more than skeptical ones.

Table 3 shows a positive and significant relationship between social entrepreneurship and the personal innovativeness characteristics of

Table 3: The correlation table between social entrepreneurship characteristics of the prospective teachers and their innovativeness characteristics

	Sec	Risk taking	Personal creativity	Self-confidence	Pis	Resistance	Leadership	Openness	Risk taking	
SEC	Pearson Correlation	1								
Risk taking	Pearson Correlation	.849**	1							
Personal Creativity	Pearson Correlation	.721**	.438**	1						
Self-confidence	Pearson Correlation	.894**	.628**	.499**	1					
PIS	Pearson Correlation	.583**	.528**	.383**	.516**	1				
Resistance	Pearson Correlation	-.049	-.012	-.040	-.066	.630**	1			
Leadership	Pearson Correlation	.718**	.593**	.440**	.703**	.661**	-.039**	1		
Openness	Pearson Correlation	.707**	.625**	.499**	.618**	.619**	-.107**	.640**	1	
Risk Taking	Pearson Correlation	.563**	.533**	.401**	.461**	.574**	-.026**	.504**	.603**	1

p<0.05 there is a significant relation*

the prospective teachers, $r = 0.583$, $p < 0.05$. This indicates that, when personal innovativeness rises, social entrepreneurship characteristics also rise as well. When the determination coefficient ($r^2 = 0.34$) is considered, 34% of the total variance of the condition of being a social entrepreneur results from personal innovativeness.

DISCUSSION

Examining the personal innovativeness states of prospective teachers, 11.2% of them are labeled innovative, 38.6% of them are labeled leaders, 45.9% of them are labeled inquisitive, and 4.3% of them are labeled skeptical. This result matches the finding that the majority of the participants has inquisitive characteristics found in the studies of prospective teachers by Gur-Erdogan and Zafer-Gunes (2013); Kert and Tekdal (2012); and Kilicer (2011). Yilmaz-Ozturk and Summak (2014) find similarly. In this study, teachers have also inquisitive characteristics.

Examining states of personal innovativeness of the prospective teachers according to gender variance female prospective teachers show inquisitive characteristics most, while male prospective teachers show leader characteristics. Although these findings are supported by the findings of Gur-Erdogan and Zafer-Gunes's (2013) study, that reveals female prospective teachers are inquisitive, they contrast with findings in the same study that describe male prospective teachers are also inquisitive.

In the present paper, innovative prospective teachers are more often social entrepreneurs, take more risks, and have higher personal creativity and self-confidence levels than leader, inquisitive and skeptical prospective teachers. In studies conducted by different researchers (Herron 1992; Geisler 1993; Drucker 1998; Daft 2005; Hisrich et al. 2005; Hitt et al. 2005) entrepreneurs are described as innovative (Bozkurt and Alparslan 2012: 10). The characteristics of individuals having the potential for entrepreneurship are described as openness towards innovations, tendency towards taking risks, creativity, skillfulness, and being focused on opportunities (Cansiz 2007: 28).

In this paper, there is a positive and significant relation between social entrepreneurship and personal innovativeness states of prospective teachers, with 34% of the total variance in the state of being a social entrepreneur result-

ing from being innovative. Social entrepreneurship is a unique idea among entrepreneurship, innovation, and social change (Bornstein 2004). Innovativeness is one of the three key factors in entrepreneurship, representing creative, unique and distinctive solutions should be sought for problems and needs (Boru 2006).

CONCLUSION

The present research finds that most male prospective teachers are early adopters, while most of female prospective teachers are late majority. It also shows that most of the prospective teachers studying at the first, second, and third grade levels are early majority while half of fourth grade level prospective teachers are early adopters.

The social entrepreneurship characteristics of prospective teachers and their sub-dimensions differ according to their personal innovativeness states. According to the results, innovative prospective teachers are pioneers who have the characteristics of social entrepreneurship, risk-taking, creativity, and self-confidence more than the others do.

Finally, there is a positive and significant relationship between social entrepreneurship and the personal innovativeness characteristics of the prospective teachers: while personal innovativeness rises, social entrepreneurship characteristics increase as well.

RECOMMENDATIONS

The present research investigated that the innovativeness states of prospective teachers are especially inquisitive. However, in an era in which the information is consumed and innovations advance rapidly, teachers are expected to be innovative individuals who adapt their society into innovations. From this view, the personal innovativeness states of prospective teachers should include innovative characteristics. Supportive programs and projects that will convert prospective teachers' personal innovativeness states from inquisitive characteristics into an innovative state ought to be promoted.

Further researches should examine the reasons why male prospective teachers are more often leaders and female prospective teachers are more often inquisitive when it comes to their personal innovativeness states. Factors nega-

tively affecting this characteristic can be identified, and the required education studies can be conducted to handle this matter.

Given the finding that the social entrepreneurship features of innovative prospective teachers is higher and in accordance with a positive and significant relationship between social entrepreneurship features and personal innovativeness, the social entrepreneurship characteristics of the prospective teachers can be reinforced through projects increasing the personal innovativeness of prospective teachers.

FOR FUTURE STUDIES

The research can be extended by scrutinizing the socio-economic level, parents' education level, settlement, and academic achievement level of prospective teachers. Additionally, studies related to the comparison of prospective teachers' social entrepreneurship and personal innovativeness states can be carried out.

LIMITATIONS

The present research is limited to the prospective teachers studying at Sakarya University Faculty of Education in the 2013-2014 academic years. Also the results are limited to the data collected through the Innovativeness Scale and Personal Innovativeness Scale (PIS).

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