The Strategic Planning Attitude Scale: A Study of Exploratory and Confirmatory Factor Analyses

Nuri BALOĞLU*, Engin KARADAĞ**, Hasan KARAMAN***

Abstract

The aim of this study was to develop a scale measuring attitudes toward strategic planning for primary and secondary school administrators. In the research, 498 school administrators (77 females, 421 males; 140 principles, 56 vice and 302 assistant administrators) consisted of the sampling group in three districts of Istanbul/Turkey according to the three different income levels. Study was completed at eight steps: (*i*) items were consisted, (*ii*) the study of content validation , (*iii*) the study of item-total point and item-remainder correlations, (*iv*) defining item-discrimination, (*v*) defining structure validation [(*a*) exploratory factor analysis, (*b*) confirmatory factor analysis (*vi*) defining Cronbach Alpha coefficient, (*vii*) correlations between sub-scales and (*viii*) the level of confidence was explained with the method of test retest. Item- total point and item-remainder correlations of the scale were found to be statistically significant. Item discrimination index was significant at the level of p < .01 for all items and they were found significant for sub and top 27% group meanings. As a result of the exploratory factor analysis, it was observed that the scale had a five-factor structure. The subscales are named as (*i*) Organizational Development, (*ii*) Distrust, (*iii*) Productivity, (*iv*) Efficiency and (*v*) Resistance. Factor loadings of the sub-scales ranged from .41 to .87. Self value of scale was 20.33 and percent of variance explained was 58.11. Result of confirmatory factor analysis showed that the value of chi-square (X^2) and level of statically meaningful were enough for model suggested. Cronbach alpha coefficients of subscales ranged from .72 to .94 and for the total scale, it was .82. The test-retest coefficients ranged from .70 to .87. Findings showed that the scale had high internal consistency and validity in measuring the attitudes of school administrators towards strategic planning.

Key Words

Strategic Planning, Attitudes, Factor Analysis, Exploratory and Confirmatory Factor Analysis, Validity, Reliability

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Today's schools are in a big change process. They need to be organizations that manage themselves effectively (Erdoğan, 2002). For that reason, school administrators have to make better planning (Adem, 1997). In educational organizations, the studies of strategic planning have been occurred as an alternative approach to traditional planning process (Aksu, 2002; Bircan, 2002; Çalık, 2003). Strategy means to develop thinking, its changing and concomitance (Bryson, 1995). Strategic planning is reproducing an organization's itself in the eyes of its stakeholders in order to move the organization to the future (Alexander & Serfass, 1999). Basham and Lunenburg (1989) indicate that strategic planning was defined well for industrial organizations but lack a great deal in educational institutions. According to Cooper (1985), planning is usually used to develop the organizational aims. As to plan, it is an action put forth. If school administrators do not have enough knowledge about strategic planning they should be very careful in the process of strategic planning.

According to Bryson and Alston (1996), Bryson (1995) and Romney (1996), the willingness of administrators is very important for a successful strategic planning. If strategic planning is used well, it can be a very effective instrument for organizational success (Hallinan, 2006). In addition, strategic planning can also create a team culture in organizations (Johnson, 2007). Although it was mainly employed in industrial organizations in the 50s (Mintzberg, 1994), strategic planning has also been integrated into educational organizations since the 90s (Birnbaum, 2003). As mentioned above, this method was mainly transferred from industrial organizations to educational organizations. According to many, strategic planning has just become a systematic means of analysis for schools in time (Davies & Ellison, 1997). These activities are also used as an input in educational management. In schools, all activities are collected in a strategic plan. However, whether the particular activity is to be adapted to the school has been still questioned by educators (Davies, & Ellison, 1997). For example, Hamel and Prahalad (1989) pointed out that strategic planning make shorter horizons of organizations. Bryson and Alston (1996), Valentine (1991) and Brown (1996) pointed out a limited budget is an important disadvantage for the study of strategic planning in educational institutions. According to Bryson (1995), strategic planning can also be a reason not to reach

school aims and Evans (2007) indicated that there were many people against strategic planning for educational organizations. Mintzberg (1994) concludes that "the term is an oxymoron-that strategy cannot be planned because planning is about analysis and strategy is about synthesis (p. 25)". That is why he asserts that the process has failed so often and so dramatically.

Bell (2004) emphasized that strategic planning can be a reason for organizational efficiency problems. According to the Hambright and Diamontes findings (2004) in primary and secondary schools (K-12), empiric research for strategic planning concentrates only in the area of higher education as far as educational institutions concerned. There is not enough empirical research in primary and secondary schools in relation to strategic planning. Anderson, Johnson, and Milligan (1999) examined 12 schools' strategic plans in Australia and found that plans were not clear, stakeholders were not made aware of them and there was no their financial infrastructure.

In Turkey, a legit regulation (5018) commands making strategic plans for all educational organizations. However, it can be said that most important problem in terms of putting such regulations into practice as a strategic plan is psychological obstacles. Many school administrators start strategic planning with a negative attitude. In addition, there is not much in the literature as far as evaluating the attitudes of administrators toward strategic planning. Therefore, the purpose of the present study was to develop a strategic planning attitude scale for school administrators.

Method

Population and Sample

There are a total of 5.531 school administrators working at the 1.829 primary and secondary schools in the city of Istanbul in Turkey. To define the sampling group, first, provinces were classified as per the level of socio-cultural structures, (TÜİK, 2008) then, a district (Sarıyer, Ümraniye and Sultanbeyli) was chosen from every category via cluster sampling method. Sampling group of the research was consisted of 498 volunteer school administrators who were working at these schools in three school districts. Four hundred ninety eight school administrators were taken part in the sampling group. Of the

sample, 77 were females and 421 were males. One hundred forty school principles, 56 vice principles and 302 assistant principles participated in the current research. Data were collected by survey technique.

Procedure

First of all, a comprehensive literature search was conducted on strategic planning and the Strategic Planning Attitude Scale was developed in eight main steps. They are: (*i*) 350 items were prepared based on the relevant literature. Next, 60 school administrators who were not in the validation group, participated in the process of brainstorming to narrow down these questions. As a result of brainstorming 74 items were evaluated as fit to scale by the participating administrators. Finally, 74 items were reduced to 35 items by educational administration experts, (*ii*) the study of content validation was conducted based on 35 items, *(iii)* the study of item-total point and item-remain correlations were calculated, *(iv)* item discrimination index was computed, (*v*) structure validity of the scale was studied by [(*a*) exploratory factor analysis and (*b*) confirmatory factor analysis], (*vi*) Cronbach Alpha coefficient was calculated for the total scale items as well as the sub-scale items, (*vii*) correlations between sub-scales were computed and (*viii*) the level of confidence was controlled with the method of test retest.

Results

Item- total point and item-remainder correlations of the scale were found upon .29 and all items were statistically significant. Item discrimination index was significant at the level of p <.01 for all items and they were found significant in the subscale and top %27 group meanings. As a result of the exploratory factor analysis, it was found that the scale has a five-factor structure. The subscales are labeled as (*i*) Organizational Development, (*ii*) Distrust, (*iii*) Productivity, (*iv*) Efficiency, and (*v*) Resistance. Factor loadings of subscales ranged from .41 to .87. Self value of the scale was 20.33 and variance explained was 58.11. The result of confirmatory factor analysis showed that the value of chi-square (X^2) and level of statically meaningful enough for model suggested. Cronbach alpha coefficients of

subscales ranged from .72 to .94. For the total scale score, internal consistency coefficient was found to be .82. As a result of test-retest analysis, it was found that the coefficients ranged from .70 to .87 for the subscales. Findings showed that the scale had high internal consistency and validity in measuring the attitudes of school administrators toward strategic planning (Balcı, 2000, Büyüköztürk, 2002, Karadağ, 2007).

Discussion

In this study, a strategic planning attitude scale was developed and the scale's validity and reliability were studied with the responses of 498 primary and secondary school administrators. Exploratory factor analysis results showed that scale consisted of five components. They are (*i*) Organizational Development, (*ii*) Distrust, (*iii*) Productivity, (*iv*) Efficiency, and (*v*) Resistance. Factor loadings of the subscales ranged from .41 to .87. According to Kline (1994) if the factor loading of a variable is lower than .30, it has to be dropped off from scale. As seen in the results, factor loadings of the scale items were found between .41 and .87. In addition, Tosun and Karadağ (2008) pointed out that structural validity of a scale can be accepted if it is explaining 30 % of the variance. This shows that structure validation is adequate for the scale developed. Self value of the scale was 20.33 and the percentage of variance explained was 58.11. Results of confirmatory factor analysis showed that the value of chi-square [X^2 = 263.41, *df* = 141] and level of statically were meaningful enough for model suggested. Low chi-square (X^2) value shows that suggested model is fair enough (Anderson, & Gerbin, 1984; Jöreskog, & Sörbom, 2001; Schumacker, & Lomax, 1996). In addition, the index of consistency shows that model is employable [*GFI* = .91, *AGFI* = .93, *RMSR* = .05]. Standard value of measure for index is fit. GFI [Goodness-of-fit index], [Adjusted Goodness-of-fit index]. According to the relevant literature, if the calculated fit index is .85, it is very optimum for the scale (Anderson, & Gerbing, 1984; Cole, 1987; Marsh, Balla, & McDonald, 1988). RMSR [Root Mean Square Residual] changes between 0 and 1 and low value shows better fit (Jöreskog & Sörbom, 2001). Cronbach alpha coefficients of the subscales ranged from .72 to .94. For the total scale items, the coefficient was .82. As a result of test-

retest study, test-retest coefficients were found to range between .70 and .87 for the sub-scales. Findings showed that the scale had high internal consistency and validity in measuring the attitudes of school administrators toward strategic planning. Consequently, a scale to measure attitudes of school administrators towards strategic planning was developed in this study and a Likert (1-5 point) scale was used to measure the level of attitudes. This scale can be used by other stakeholders of schools. In addition, there is not any scale to measure attitudes towards strategic planning in the literature. For this reason, the scale can be used in general management purposes as well.

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EK
Stratejik Planlama Tutum Ölçeği

A	Kurumu Geliştirme	Tamamen katılıyorum	Katılıyorum	Bazen katılıyorum	Katılmıyorum	Hiç Katılmıyorum
15.	Stratejik planlama okulun denetlenmesini kolaylaştırır.	☐	☐	☐	☐	☐
25.	Stratejik planlama okul çalışanlarının standardını yükseltir.	☐	☐	☐	☐	☐
26.	Stratejik planlama yöneticilerin yeteneklerini ortaya çıkarır.	☐	☐	☐	☐	☐
27.	Stratejik planlama eğitim ihtiyaçlarının (bina, donanım, personel vb.) gerçekçi bir şekilde tespit edilmesini sağlar.	☐	☐	☐	☐	☐
28.	Stratejik planlama eğitimde yeni projeler üretmeye yardımcı olur.	☐	☐	☐	☐	☐
29.	Stratejik planlama okuldaki etkili iletişim düzeyini artırır.	☐	☐	☐	☐	☐
30.	Stratejik planlama yöneticilerin sorumluluk duygusunu geliştirir.	☐	☐	☐	☐	☐
31.	Stratejik planlama gurup çalışmalarını etkin kılar.	☐	☐	☐	☐	☐
32.	Stratejik planlama kurumun başarısını artırır.	☐	☐	☐	☐	☐
33.	Stratejik planlama geleceğe ilişkin alternatif politikalar üretir.	☐	☐	☐	☐	☐
34.	Stratejik planlama bir yönetim planlaması modelidir.	☐	☐	☐	☐	☐
35.	Stratejik plan hazırlamayla ilgili her dönem başında eğitim verilmelidir.	☐	☐	☐	☐	☐
B.	**Güvensizlik**					
5.	Stratejik planlama bir hayal ürünüdür.	☐	☐	☐	☐	☐
6.	Stratejik planlamada planı hazırlamak daha kolay olur.	☐	☐	☐	☐	☐
7.	Stratejik planlama zaman israfıdır.	☐	☐	☐	☐	☐
17.	Stratejik planlama kaynakların boşa harcanmasıdır.	☐	☐	☐	☐	☐
18.	Stratejik planlama kendini kandırmadır.	☐	☐	☐	☐	☐
19.	Stratejik planlama, sorumluluğu başkasının üzerine atmaktır.	☐	☐	☐	☐	☐
20.	Stratejik planlama bir oyalama taktiğidir.	☐	☐	☐	☐	☐
21.	Stratejik planın hazırlanmasına öğretmenler yardımcı olmalıdırlar.	☐	☐	☐	☐	☐
23.	Stratejik planlama, günü kurtarmaya yönelik olarak yapılır.	☐	☐	☐	☐	☐
C.	**Verimlilik**					
8.	Stratejik planlama kaynakların etkin kullanımını sağlar.	☐	☐	☐	☐	☐
9.	Stratejik planlama gerçekçi ve ulaşılabilir hedeflerle oluşturulur.	☐	☐	☐	☐	☐
10.	Stratejik planlama görev dağılımında işe uygun personel seçimini sağlar.	☐	☐	☐	☐	☐
11.	Stratejik planlama eğitimin kalitesinde belirgin bir artış sağlar.	☐	☐	☐	☐	☐
12.	Stratejik planlama günlük işlerin kolaylaşmasını sağlar.	☐	☐	☐	☐	☐
22.	Stratejik planlama maddi kaynakların öncelik sırasına göre kullanılmasında etkilidir.	☐	☐	☐	☐	☐
24.	Stratejik planlama işlemlerinde mutlak uyum aranmalıdır.	☐	☐	☐	☐	☐
D.	**Etkililik**					
1.	Stratejik planlama teknolojinin kullanımını kolaylaştırır.	☐	☐	☐	☐	☐
2.	Stratejik planlama mali kaynakların verimliliğini artırır.	☐	☐	☐	☐	☐
3.	Stratejik planlama eğitimde yeni projeler üretmeye yardımcı olur.	☐	☐	☐	☐	☐
4.	Stratejik planlama okulun karşılaşacağı belirsizlikleri ortadan kaldırır.	☐	☐	☐	☐	☐
E.	**Direnç**					
13.	Stratejik planlama yapanlar, bu planlar yoluyla hep kendi düşüncelerini gerçekleştirmek isterler.	☐	☐	☐	☐	☐
14.	Stratejik planlama, çalışanlar arasında guruplaşmalara neden olur.	☐	☐	☐	☐	☐
15.	Stratejik planlama özelleştirmenin bir parçasıdır.	☐	☐	☐	☐	☐