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**PSYCHOLOGICAL AND SOCIOLOGICAL
DETERMINANTS OF EDUCATIONAL
MANAGEMENT AND LEADERSHIP IN CROATIA
AND BOSNIA & HERZEGOVINA: RESULTS OF
EMPIRICAL RESEARCH**

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Abstract

In this study, authors analyze the practices and effectiveness of educational management and leadership, according to the selected psychological and sociological characteristics of school principals in Croatia and Bosnia & Herzegovina. The selected psychological traits have been already analyzed in the case of entrepreneurial orientation and proved to be relevant for differentiation of schools and principals, according to their inclination to entrepreneurship. In this paper, more comprehensive, analytic criteria are used to explore the effectiveness of educational management and leadership practices in the sample of Croatian and B&H principals. The objective of the study is to determine the significance of the psychological and sociological variables for the practice of school management and leadership, as well as to suggest potential implications for school leaders' professional orientation and development.

Keywords: school principals, psychological traits, social relationships

1. INTRODUCTION

In the previous decade, school management became an increasingly difficult profession, with multiple stakeholders raising their expectations toward the school principals, which resulted in a high stress and inadequate supply of new candidates (see, e.g. DiPaola & Tschannen-Moran, 2003). The ‘softer’ view of a profession, characterized by the transformation of the perceived governing role of a principal, toward a leading position, which involves multiple roles and a wealth of stakeholders’ expectations, has started to develop in UK, around 1988 (Hall & Southworth, 1997). Such a view of a principal, emphasizing the multi-faceted leadership role, has been often associated with professionalization and the licensing imperatives (once, again, with the UK as a benchmark – see, e.g. Bolam, 2004). The ‘new’ principal is a professional leader, engaging in both instructional and transformational leadership practices, which is a significant departure from the traditional view of principalship as a simple transmission of educational policy to the school level (Bush & Glover, 2014).

Challenges of principal professionalization in the transitional and post-transitional societies are as complex as those, faced by the advanced market societies, although the additional issues could be coming into play, as well. For instance, in Slovenia, candidates for new principals still seem to be adopting a more hierarchical view toward of the principal’s role (Trnavčević & Roncelli Vaupot, 2009), which could be attributed to the differences in the educational tradition and social context. Due to the influence of the political elites to the educational processes, this type of an environment also fosters development of the principals’ political skills, aimed at ‘power brokerage’ and manoeuvring among powerful stakeholders (Trnavčević & Roncelli Vaupot, *op. cit.*).

In addition, the political dimension of the job significantly increases the personal dimension of principals’ effectiveness. This might not be acknowledged in (post) transitional environments, which are often characterized by reliance on the standard Anglo-Saxon literature in educational training and emphasis on the managerial dimension of a principal’s job. Such an assessment has been made for the case of Slovenia (Sentočnik & Rupar, 2009), which was the first country in the South-East Europe to introduce a national program of professionalization and licensing in educational management.

1.1. Theoretical background, research question and hypothesis

The Croatian context of managing schools has been characterized by a range of activities, aiming to develop a national professionalization framework, similar to the Slovenian. Different public policy actors were involved in the policy development, although without enough transparency (Alfirević, Pavičić & Relja, 2016) and, mostly, without real support from the powerful actors from the educational policy arena. Analysis of the key policy documents also reveals that Croatian education is still centralized, with school principals expected to serve

as a transmission of national educational policy. Nevertheless, decentralization and principal professionalism/autonomy have been proclaimed as the goals of the ongoing educational reform (Varga, Peko & Vican, 2016).

The professionalization framework has been developing for as long as twelve years (since 2005, when the first working group, hosted by the Croatian Teacher training agency, created the draft of the national training program for principals – see: AZOO, 2005). The formal requirements for principal training and licensing have been included into the strategy for development and reform of science and education, as well as into the national legal framework. However, in practice, the educational authorities postponed the actual implementation of the framework (at least) until 2021.

In Bosnia and Herzegovina, principals' role is, primarily, political, although an unintended advantage has been created by the creators of the complex institutional and political system of the country. Due to the lack of consensus in the national communities in B&H, many public policies, including the educational one, have been thoroughly decentralized and left to regional authorities, at least in a part of the country (Federation B&H), which is a positive driver of principals' autonomy.

A recent study (Alfirević, 2017), compared the Croatian and B&H contexts, including the principals' perceptions of their educational and training needs, as well as forms of support, received from the educational policy level. Regardless of differences in the institutional, political and social environment(s), surprisingly similar patterns of principals' behavior were established across Croatian and two B&H educational systems (in Federation B&H and Republika Srpska, as constitutional elements of the B&H).

These results can be interpreted in terms of empirical results, to be discussed by a forthcoming study (currently available as an extended abstract by Alfirević, Pavičić & Petković, 2016), analyzing the principals' entrepreneurial drive in schools across Croatia and B&H. This study indicates that the entrepreneurial behavior could be considered as a way of 'patching up' the institutional deficiencies of the educational systems and the weaknesses of the educational policies at the school level. The entrepreneurial behavior of a principal is, further, dependent on a range of individual principal characteristics, i.e. different psychological and social drivers. Factors, such as perception of own social status, personal satisfaction and the perception of social contribution, proved to be significant predictors of the entrepreneurial orientation.

An interesting analogy could be made between the behavior of entrepreneurs and school principals, once the entrepreneurial behavior becomes the topic of research. Namely, it has been suggested that, in institutionally unstable environments, entrepreneurs adopt behaviors, aimed at getting around the obstacles, created by the institutional context (Alfirević, Gonan Božac & Krmeta, 2013).

Different theories have been developed to describe the emergence of entrepreneurial behavior. One of those is related to the 'entrepreneurial personality', i.e. to developing profiles of appropriate psychological and

sociological determinants of successful entrepreneurs. In a theory review, in the context of student entrepreneurship, Alfirević, Umihanić & Rendulić (2015) analyze such theories. Those suggest that relevant personal characteristics and social inclinations of entrepreneurially inclined personalities include the internal locus of control, risk propensity, tendency to behave in an innovative and non-conformist way, etc. (as based on a range of classical studies, including: Hornaday & Bunker 1970; de Vries, 1977; Brockhaus & Horwitz, 1986; Rauch & Frese, 2007).

In addition, personality is considered to be one of key components for the successful leadership, in general (Judge, Bono, Ilies & Gerhardt, 2002), which is applicable to the school context and leadership, as well (Goldring, Huff, May & Camburn, 2008; Leithwood, Harris & Hopkins, 2008).

In analogy with the entrepreneurship and leadership studies in the private sector, as well as studies, dealing with the entrepreneurial and leadership behavior of school principals, the research question has been developed. It can be formulated as follows: *What are the individual and social characteristics, determining the effectiveness of principals' work?*

Namely, if entrepreneurial orientation seems to be a useful construct for the study of educational management in the SEE region, as the inefficient official governance systems and approaches need to be 'patched up', success in managing an educational institution remains heavily dependent on the individual principal and his/her personal characteristics. As to operationalize the research question, the following hypothesis has been developed:

HYPOTHESIS: Selected principals' psychological and sociological characteristics can serve as empirical predictors of their educational management and leadership effectiveness.

1.2. Key constructs and measures

The selected psychological and social dimensions of principals' effectiveness were constructed according to Gunn & Holdaway's (1986) idea that the overall job satisfaction can be derived from a group of relevant, job-related perceptions. Different studies emphasized a range of applicable indicators, including the nature of the principal's work, status of the profession, interactions with other actors, salary, working conditions, etc. (Friesen, Holdaway & Rice, 1983).

In this study, several psychological and social characteristics, have been selected. They have been previously identified as predictors of principals' entrepreneurial behavior (Alfirević, Pavičić & Petković, 2016). According to their hypothesized influence to principals' effectiveness, the same items are included into this study, as well. Those include: status of the profession in the local community and society, feeling of contribution to the local community and society, job compensation and benefits, as well as the resulting individual satisfaction – both personal and professional.

The effectiveness of principals' work has been, also, previously successfully measured by two empirical constructs, composed of items, related to educational management and leadership effectiveness. There are several empirical studies in Croatia and B&H, employing those measures, such as those by Alfirević, Pavičić & Relja (2016), as well as Alfirević & Petković (2016).

All constructs are measured by standard 5-point Likert scales and are included into a research instrument, which has been deployed across schools in Croatia and B&H, as described in the following section.

1.3. Research population and sample

Population for the study consisted of all primary and secondary schools in Croatia and B&H. The sampling frames for schools in Croatia and Republika Srpska (RS) in B&H are available from relevant educational authorities (Ministries of education), while sampling proved to be much more difficult in Federation B&H (FB&H). Namely, educational policy in FB&H is decentralized to regional level, without much authority at the level of federal government. Due to the lack of the sampling frame for FB&H, an unofficial list of schools, available from the non-governmental organization and the on-line portal for educational professionals Školegijum (as available from: www.skolegijum.ba), has been used to determine the research sample.

Data has been collected both by using an online survey, as well as by using the paper-based questionnaire, which were distributed to principals by postal mail, or fax, in case they had no Internet access, or skill/motivation to participate in the online survey. All data were consolidated into a single dataset and entered into the IBM SPSS/PASW software, which was used for statistical analysis.

Random sampling has been used to select approximately 20% of items from sampling frames for Croatia, RS and FB&H in Bosnia & Herzegovina. The selected schools were contacted by e-mail, or phone, depending on the availability of their e-mail to the researchers, with prior permission being received from educational authorities. Authors received responses from 68 schools in RS and 55 in FB&H (15.2% of the overall B&H sampling frame) and 246 schools in Croatia (19% of the entire school population), which is the response rate, comparable to previously cited empirical studies, dealing with principals in Croatia and Slovenia.

2. EMPIRICAL RESULTS

Descriptive statistics for key constructs is presented by Tables 1 and 2, which provide an interesting insight into the satisfaction and its drivers. The level of principals' satisfaction with their profession, as well as their overall personal satisfaction, are quite high. Principals in B&H are somewhat more satisfied with their profession, while their Croatian peers have a marginally higher overall personal satisfaction.

In both countries, principals' social status in the wider social structure is

perceived to be below average, while the status in their local communities seem to be somewhat higher. This is not a surprising finding, since the actors in local communities do seem to have a better insight, as well as a higher understanding and appreciation for principals' work. At the other hand, principals' perception of own social contribution is also high, which hints of their intrinsic motivation, in terms of Herzberg's theory. Both in Croatia and B&H, principals' compensations are perceived to be inadequate, thus, confirming the conclusion of intrinsic motivation.

Table 1

Descriptive statistics for the key constructs in Croatia

Descriptive statistics - Croatia	Min.	Max.	Mean	Std. Dev.
Educational leadership index	24.00	55.00	40.35	5.40
Educational management index	28.00	55.00	42.03	4.86
Social standing in local community	1	5	3.14	0.822
Social standing in society	1	5	2.55	0.804
Compensation	1	5	2.06	0.917
Contribution to local community	1	5	4.26	0.587
Contribution to society	1	5	4.22	0.646
Principals' professional satisfaction	1	5	3.92	0.762
Principals' personal satisfaction	1	5	3.87	0.774

Source: Authors' calculations

The principals' effectiveness was measured by two indexes, constructed by multiple questionnaire items, which had been previously validated in studies, conducted by Alfirević, Pavičić & Relja (2016) and Alfirević & Petković (2016). Once again, there are very small variations in perceptions of effectiveness in educational leadership and management in two analyzed countries.

Further analysis concentrated on linear correlations among the key constructs, in order to reveal the existence of statistically significant empirical relationships. It also involved preliminary analysis of the obtained empirical distributions, by using the Kolmogorov-Smirnov tests. None of the variables involved conformed to the presumption of normal distribution, which required the use of non-parametric statistical methods in further analysis.

Table 2

Descriptive statistics for the key constructs in B&H

Descriptive statistics – FB&H	Min.	Max.	Mean	Std. Dev.
Educational leadership index	19.00	55.00	41.49	6.82
Educational management index	24.00	55.00	42.50	5.96
Social standing in local community	1	5	3.15	0.989
Social standing in society	1	4	2.60	0.830
Compensation	1	4	1.89	0.896
Contribution to local community	4	5	4.44	0.501
Contribution to society	3	5	4.38	0.561
Principals' professional satisfaction	1	5	3.98	0.707
Principals' personal satisfaction	1	5	3.76	0.881
Descriptive statistics – RS B&H	Min.	Max.	Mean	Std. Dev.
Educational leadership index	27.00	53.00	41.52	5.46
Educational management index	30.00	54.00	41.20	4.82
Social standing in local community	1	5	3.31	0.868

Social standing in society	1	5	2.93	0.903
Compensation	1	5	2.25	0.983
Contribution to local community	3	5	4.32	0.502
Contribution to society	3	5	4.25	0.608
Principals' professional satisfaction	2	5	4.03	0.646
Principals' personal satisfaction	1	5	3.82	0.845

Source: Authors' calculations

Table 3 presents the value of linear correlation coefficient (calculated by using the rank-based Spearman method), which provide interesting conclusions about the association of principals' satisfaction drivers with the measures of their effectiveness.

Table 3
Linear correlations among key constructs (Spearman coefficient)

	Educational leadership index	Educational management index
Social standing in local community	0.055	0.062
Social standing in society	0.020	0.016
Compensation	-0.068	-0.123*
Contribution to local community	0.285**	0.273**
Contribution to society	0.262**	0.273**
Principals' professional satisfaction	0.221**	0.222**
Principals' personal satisfaction	0.194**	0.221**

Notes: *Significant at the 0.01 level. **Significant at the 0.05 level.

Source: Authors' calculations

While social status seems to be irrelevant, the feeling of social contribution provides a relatively weak, but highly statistically significant correlation with the effectiveness measures. The same applies to the correlation among principals' satisfaction and effectiveness. Once again, principals' compensation is proved as inappropriate by the negative influence to effectiveness.

Causality of identified relationships was assessed by using the simple linear stepwise regression model, in line with the hypothesis of the psychological and social determinants of principals' work, serving as potential predictors of effectiveness. Table 4 presents results of regression analysis for the case of effectiveness in educational management.

All obtained statistical models were significant ($p < 0.01$), without any detected problems of multicollinearity (judged by the values of tolerance and VIF), or the assumption of independent errors (Durbin-Watson/DW value of 1.739). The assumptions of linearity and homoscedasticity have been checked by the visual inspection of the P-P plot of regression standardized residuals. Although all the statistical preconditions were met by the three regression models, their predictive power (measured by the R^2) is relatively low – with 7.1% of variance explained by Model 1, 8.8% by Model 2 and, finally, 10.4% by Model 3.

Table 4

Linear stepwise regression model of educational management

	Model	B	Std. Error	Beta	Sig.
1	(Constant)	31.807	1.853		0.000
	Contribution to local community	2.364	0.428	0.266	0.000
2	(Constant)	30.099	1.943		0.000
	Contribution to local community	1.998	0.446	0.225	0.000
	Principals' personal satisfaction	0.854	0.314	0.136	0.007
3	(Constant)	31.686	2.017		0.000
	Contribution to local community	1.883	0.444	0.212	0.000
	Principals' professional satisfaction	0.946	0.314	0.151	0.003
	Compensation	-0.696	0.260	-0.128	0.008

Notes: $R^2 = 0.071$ for Step 1; $\Delta R^2 = 0.017$ ($p=0.007$) for Step 2; $\Delta R^2 = 0.016$ ($p=0.008$) for Step 3

Source: Authors' calculations

The best fit with the empirical data is provided by Model 3, using the contribution to local community, principals' professional satisfaction and compensation as predictors. While the feelings of social contribution and professional satisfaction increase the effectiveness, the inadequate compensation serves as a source of demotivation and performance reduction.

Table 5 provides results of regression analysis for the case of effectiveness in educational leadership. Once again, all statistical preconditions were met by two obtained models of linear regression, as both models were significant ($p<0.01$). No multicollinearity was detected (judged by the values of tolerance and VIF) and the assumption of independent errors has been accepted, as well (Durbin-Watson/DW value of 1.681). The visual inspection of the P-P plot of regression standardized residuals also provides assurance for a statistically acceptable procedure. Nevertheless, predictive power of the obtained models is even lower, than in the case of educational management effectiveness, as the value of R^2 equals 5.9% for Model 2 and a somewhat higher value of 7.4% for Model 2.

Regression analysis singles out the perceptions of principals' contribution to their local community and their professional satisfaction as drivers of effectiveness. This applies both to the 'hard' factors (addressed by the management dimension), as well as to 'soft' factors, represented by the leadership dimension. At the other hand, inadequate compensation proves to be negatively influencing the principals' managerial performance, which is not the case with the leadership dimension of the principals' effectiveness.

Table 5

Linear stepwise regression model of educational leadership

	Model	B	Std. Error	Beta	Sig.
1	(Constant)	30.311	2.077		0.000
	Contribution to local community	2.418	0.480	0.244	0.000
2	(Constant)	28.236	2.224		0.000
	Contribution to local community	2.018	0.503	0.203	0.000
	Principals' professional satisfaction	0.961	0.385	0.126	0.013

Notes: $R^2 = 0.059$ for Step 1; $\Delta R^2 = 0.014$ ($p = 0.013$) for Step 2

Source: Authors' calculations

Based on empirical results, selected personal characteristics of school principals in Croatia and Bosnia & Herzegovina proved to be relevant predictors of their managerial and leadership effectiveness. *This leads to the conclusion that the proposed hypothesis needs to be accepted, which has interesting implications, both for the academic discipline, as well as for the practice of educational management.* Those are further discussed in the following section.

3. CONCLUSIONS, IMPLICATIONS AND FUTURE RESEARCH TASKS

This study proposed and, partially, supports a theoretical position that *the ineffective and unsystematic approaches, used by the educational (and, potentially, other public policies) in different countries in South-East Europe, are 'patched' by the entrepreneurially oriented principals* (and, probably, other public sector managers). In the uncertain and undeveloped environment/context, the managerial effectiveness seems to be dependent on the individual characteristics of a manager/leader and his/her skills to 'navigate' and 'broker' the requirements of powerful stakeholders.

The described theoretical position cannot be fully supported by the empirical results, presented in this study alone, although the overall empirical research of school principals (especially the arguments of Alfirević, Pavičić & Relja, 2016) seem to be affirmative. Nevertheless, future research, to be conducted in Croatia, as well as in other countries in the South-East European region, needs to be directed toward the discussion of the described problem.

There seem to be several promising fields of future research in the fields of educational administration/management and leadership, related to the presented empirical results. The promising future direction of empirical inquiry could include the analysis of principals' personal traits and social inclinations, not only in the context of leadership, but also in the analysis of the managerial/administrative behavior. In addition, the 'principals as entrepreneurs' topic is quite neglected within the contemporary literature on educational management and leadership. Within this (sub)topic, the analysis of individual principals' characteristics seem to be promising, as well.

Implications for educational practice are, also, based on the notion that the official educational policy does not seem to be especially eager to implement the professionalization and licensing programs, aimed toward the principals. In such an environment, school principals, as well as other public managers, should be advised to independently upgrade their managerial and leaderships skills and competencies. This should be done regardless of the potential licensing requirements, which could (or could not) be implemented at some point in the future. Namely, development of a personal visibility and *habitus* within the profession, seem to be the correct pathway for navigating the public policy landscape and ensuring long-term success in managing individual educational institutions.

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