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# The effect of administrative actions on satisfaction of primary and secondary public school principals

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## Abstract

**Purpose:** The aim of this study is to record the perceptions of school principals, in order to improve the quality of the provided services. The administrative factors under investigation are the mode of administration, the efficiency of procedures, ICT skill enhancement and employees' performance, technological modernization efforts, and customer participation in decision-making. The study examines how these variables, affect the level of satisfaction of school principals.

**Methods:** Regression analysis and the maximum frequency of answers within the rating range of the six-level Likert scale are used. Pprimary data was obtained by using an electronic questionnaire which allows for the use of econometric techniques. The school principals of the Primary and Secondary Directorates of Education in Eastern Thessaloniki comprise the survey population.

**Results:** Results of the analysis show that administrative factors have a major impact and summatively affect customer satisfaction. Current demands render the function of education more complex since it is asked to move beyond the simple experiential approach of administrative action that was based on the experience of older members of staff and to combine it with enhanced knowledge and skills.

**Implications:** A management system that valorizes technology and human resources, develops mechanisms for open communication and dialogue and examines the views of the users of services in an organized manner is considered to be essential.

**Keywords:** quality of public administration, administrative procedures, modernisation, ICT, customer participation, customer satisfaction.

**JEL Classification:** I20, I25

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## 1 INTRODUCTION

At a time of social and economic crisis in Greece, the efficiency of public policy, operational competence and the quality of public services constitute vitally important factors that determine the relevant response to the changing needs and expectations of citizens and businesses (Ministry of Interior, 2017). The imperative need for public services that focus on the needs of their customers and all stakeholders necessitates the adoption and implementation of the best administrative practices used in modern governance, and of measurement tools from the European common framework on Public Administration, adapted to a cohesive Greek public

policy based on a strategy with clear goals that monitors and objectively evaluates management. Education is a focal point of any change, since it plays a role in current social, political, economic and cultural developments, and also lays the foundations for the human intellect, knowledge and skills. Modern developed societies try to resolve their problems by improving their educational system. According to the OECD (2009), the importance of education in paving a course of sustainable growth for Greece, requires adherence on the one hand to the principles of quality and excellence and, on the other hand, to the policies of the European Union (EU), with the common goal to reform the Greek educational system according to European Educational standards and global



trends in the labour market. The international bibliography agrees that the application of Total Quality Management (TQM) tools can be conducive to the modernisation of education and the satisfaction of all stakeholders in the field of education (managers, teachers, administrative staff, associated bodies and society) and can also enhance the quality of administrative and learning processes and their relevant outcomes.

An important parameter in achieving this goal is the contribution of the management system of the administrative support bodies of schools that are aligned with the reforms and innovation presented by the national educational system, and of the educational guidelines provided by the EU. Educational structures are called upon to address a large number of strategic and operational issues of Administration, on a daily basis, such as decision-making on educational matters, improvement of procedures, valorisation of human resources, provision of material resources, introduction of New Technologies and cooperation with the supervisory authorities, schools, parents and the broader local community.

The administration of education is practiced by a number of educational and administrative bodies on various levels of the national educational system, ranging from the Ministry of Education to the school unit. The structure of the educational system consists of interrelated entities. With regard to schools, according to the National Educational System, the administrative bodies for Primary and Secondary Education which are responsible for management and governance on a central, regional and local level are deployed respectively by A) the Ministry of Education and Religious Affairs (central level), B) Regional Directorates of Education (regional level), C) Directorates of Primary and Secondary Education (prefectural level) and D) Schools (Eurydice, 2019).

The Ministry of Education and Religious Affairs, with the support of collective advisory and institutional bodies, is in control of the main decisions related to the long-term goals and operation of the educational system. On a regional level, the Regional Directorates of Education are responsible for management issues and for providing scientific and pedagogical guidance to the region; they also supervise the implementation of the national educational policy and link regional educational services with central educational authorities. On a local level, administrative services are provided and educational policies implemented by the Directorates of Primary and Secondary Education, which support and supervise administrative, economic and educational issues, and also guide and coordinate the work of schools.

According to the structure of the Educational system, direct communication and the support and supervision of schools by the Educational Directorates, on the one hand impact on the smooth operation and enhance the quality of their educational services and, on the other hand, influence the satisfaction of School Principals as customers/users of their services, so that they may focus on learning goals and their mission to society, without being distracted by administrative problems and bureaucratic hurdles. Thus, a depiction of the views of the School Principals can contribute to a systematic upgrading of the performance of direct administrative bodies

governing schools, through continuous improvement of the management system and the valorization of human resources.

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## 2 THEORETICAL FRAMEWORK

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The theoretical framework is based on the increasingly active role that the customers/users of services are playing as essential partners of the public sector; the relevant term refers to the whole spectrum of roles covered by the users of such services ranging from stakeholders to external customers (Ministry of Interior, 2017). Furthermore, the assumption that the structure of the educational system consists of interrelated bodies and that schools are organisations with complex social systems, which form part of a broader open environment that consists of interrelated subsystems, serves to widen the role of school Principals (Saiti A., 2012).

Within the framework of these complex and interrelated subsystems and structures, the perceptions of school Principals become ever important (as internal customers) due to their capacity to formulate a general but reliable picture of an organization, with regard to the way certain organizational aspects are managed, because of the daily and direct communication, cooperation and support in conjunction with the Directorates of Education, in the sector of school governance.

According to MD F.353.1/324/105657/D1/8-10-2002, school Principals comprise the top of the school community; they are responsible for all administrative and pedagogical issues and their competencies include adherence to and implementation of the law, presidential decrees, ministerial decisions, circulars and official decisions, thus rendering them associates of Directorates of Primary and Secondary Education. In addition, in cooperation with the Teachers' Association, Directorate of Education and the Educational Project Coordinators, school Principals endorse the operation of all school classes and educational innovations in order to jointly fulfil the goals of education. Within this context, the Principals' satisfaction with the services provided by the Educational Directorates as external customers is under investigation in this study, in the framework of transforming schools into self-managed units. As executives of such self-managed units, Principals are the direct recipients of certain services from the Directorates of Education, which means that their views (as external customers) can contribute to the improvement of the organization.

According to Law 4547/2018, such a step leads to decentralization and strengthens the educational system and the role of the Principal and teachers' association (Ministry of Education and Religious Affairs, 2018). Recent reforms have redefined the role of educational bodies, giving schools a greater degree of autonomy and the possibility to plan, organize and evaluate their work (Eurydice, 2019). Moreover, the operational goal of any Directorate of Primary and Secondary Education is the supervision and smooth operation of the schools under its jurisdiction and of the supporting decentralized structures of primary and secondary education respectively (Ministry of Education and Religious Affairs, Gazette 32\_A, 2018).

TQM in Education: The role of Administration is to make a committed effort in order to achieve the agreed goals and

activities linked to the quality management and strategy of an Organisation; it is also to communicate with all its members in order to infuse them with its quality values and the corresponding organizational culture (Ali & Zairi, 2006). According to an article by Saiti A. (2012: 111), "several researchers (Crawford and Shutler, 1999; Creech, 1994; Deming, 1986; Mullins, 2007; Powell, 1995) claim that human resources are an "asset" for any organization rather than a "liability" and that within a satisfactory work environment that contributes to the development of knowledge and skills, active participation and commitment by employees and the implementation of new ideas, human resource management (HRM) and quality all converge towards TQM".

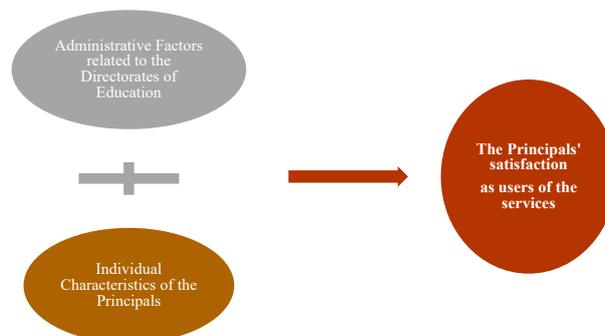
Within the framework of this philosophy, educational organisations constitute an integral social system within which two-way relations develop between members (regional directors, directors of education, department heads, school principals, school advisors, administrative staff, teachers, students, parents, the local community). The work carried out by the executives in the field of education, is multifaceted and includes: i) management of educational services (HRM, learning and evaluation), ii) organizational behaviour, school management, interpersonal biases (communication in school, conflicts, encouragement), iii) academic law and legislation, iv) finance of education, v) introduction of technologies in school management, and vi) crisis management at school (deviant behaviours, accidents) (Paraskeva & Papagianni, 2008; Saitis, 2002). "Given that the vast majority of organisational activities depend on the knowledge and the capabilities of human resources, there is no rational reason why a school system cannot apply total quality" (Saiti A., 2012:111). Furthermore, according to Crawford and Shutler (1999), in a 'total quality' school, not only is the process of learning constantly improved, but so is the school management, thereby supporting these school processes. Satisfying the needs of all members of the school community and implementing actions according to the strategic planning of each educational body are measures directly linked to quality improvement and efficiency.

The Common Assessment Framework (CAF) as a TQM tool and Customer Focus: Customers are at the centre of the transformations that affect organisations which adopt TQM (Michalopoulos, 2003). The CAF was introduced in 2000 as the first quality management tool for Public Administration on a European level and is the result of intensive collaboration between the European Public Administration Network (EUPAN) and the European Data Management Centre of CAF, which is based at the European Institute of Public Administration (EIPA) in Maastricht, with the aim to develop common tools, activities and visions under a joint agenda. It is based on the Excellence Model of the European Foundation Quality Management (EFQM) and on the assumption that optimum results with regard to organizational performance, customers/citizens and society, are inextricably linked to the leadership that drives the strategy and planning, human resources, cooperation, resources and administrative procedures (EFQM, 2013). It complies with the fundamental principles of excellence which mark the difference between a traditional bureaucratic public organization and one that is focused on Total Quality.

According to the principle of excellence "Customer Focus", public organisations target the needs of both existing and potential customers and promote their active participation in the development and continuous improvement of the products and services provided (EUPAN & EIPA, 2013). Satisfaction surveys and management evaluation are best practices for a more specific appraisal and targeted improvement of organizational performance. The direct measurement of satisfaction and the depiction of needs, expectations and customer perceptions require direct research, feedback and information provision regarding various aspects of the organization in question (EUPAN & EIPA, 2013).

Measuring the satisfaction of external customers/users of services is related to the overall impression created by the relevant organization and its reputation regarding the dimensions of service quality which are tangibles, responsiveness, communication, credibility, security, competence, courtesy, understanding/knowing the customer and accessibility (Parasuraman A., Berry L., Zeithaml V., 1991; EIPA & EUPAN, 2013). In addition, according to the perceptual theory of internal customers in line with the approach of Koberg et al. (1999), it is claimed that individual customer characteristics (educational level, period of employment at the organization, gender, and hierarchical position) affect both their perception of organizational outputs (perceived labour productivity/efficiency) and their satisfaction. The administrative factors that impact on the overall satisfaction of Public Administration customers, according to the CAF, are examined in this study a) as a single dimension and b) per each factor individually. The theoretical framework is presented in Figure 1.

**Figure 1.** Theoretical Framework



The feedback originating from the participation of customers through the submission of complaints, ideas and proposals is seen as playing a significant role in the improvement of services. Their role can be viewed from four different viewpoints: as co-planners, as co-participants in decision-making, as co-producers and as co-evaluators (EIPA & EUPAN, 2013).

The mode of administration involves: realizing the mission and vision of the public organization, defining its strategy and the goals to be achieved, providing suitable guidelines and stipulating options and priorities, based on public policies and the needs and effective interaction with its customers and all stakeholders, while also taking into account available resources (Ministry of Interior, 2015).

According to Tonchia & Tramontano (2004), efficient processes for an organization can be viewed as the main factor that defines customer satisfaction; their sound management, continuous monitoring and improvement assists the organization in resolving problems related to its organizational structure. The complexity of administrative procedures, apart from the hardship it causes to citizens and businesses, as well as to staff, hinders the smooth operation of businesses by leading to severe failures, time delays, etc. All these parameters have a grave social and economic impact that discourages any sort of service-related initiative, and also form barriers for increasing employment and economic growth in general (Ministry of Interior, 2016).

The proper HR management and development can have a positive effect on employees' performance and efficiency, on process management and the provision of quality services (Rammata, 2019). The shift of schools towards quality comprises a continuous improvement process, which depends on HRM (Rousi, 2007). Thus, a competent workforce and the establishment of suitable working conditions comprise the most important factors for a school to perform successfully (Saiti A., 2012)

Leadership that behaves in a transparent way and is based on mutual feedback through dialogue and open communication mechanisms provides incentives to human resources and can contribute to the success of the organisation (EIPA & EUPAN, 2013). Within a culture of open dialogue and communication, the competencies of all employees are aligned with the operational goals and strategy of the organisation (Kaplan & Norton, 2004). "Within the framework of TQM, it is important to realize that only satisfied employees can keep the organisation's customers satisfied" (Ministry of Interior, 2015:25).

Technological modernization efforts, through the sound management of Information and Communication Technologies (ICT) that comply with the organisation's strategy, are a driving force for simplifying procedures, exploiting the resources, providing e-governance and improving organizational performance (EIPA & EUPAN, 2013). The New Public Management and the introduction of information systems, are basic preconditions for the provision of integrated and citizen-oriented services (Makrydimitris A., 1991). In addition, the introduction of information systems presupposes continuous staff training on technological skills in order to promote the improvement of customer-focused services (Prastakos G., 2000; Spanou, C. 2008).

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### 3 METHODOLOGY AND SAMPLE

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The research tool is based on the CAF questionnaire and examines the school principals' perception, as internal customers, on factors related to organisational performance and to what extent they are satisfied as recipients of the provided services. More specifically, from the CAF questionnaire of sub-criterion 7.1 (19 questions in total) that examines the views of internal customers, only seven (7) questions were selected that concern the organizational aspects under study. The questionnaire of sub-criterion 6.1 which examines customer satisfaction and the results

achieved by the public organization in order to meet the needs and expectations of the direct beneficiaries of its services was used in its complete form (Ministry of Interior, 2017). One question was added in order to examine the views of school Principals on whether the use of a Quality Management and Management by Objectives System can improve organizational performance.

Certain general principles were applied during the elaboration and distribution of the data collection tool (questionnaire) in order to safeguard its qualitative criteria (Paraskevopoulos, 1993): a) The anonymity of the questionnaire was maintained, since this method is considered to lead to more honest answers by the interviewees, b) Efforts were made to avoid a too lengthy questionnaire and c) the Likert-scale was used (value 0=strongly disagree, value 1=disagree, value 2=slightly disagree, value 3=slightly agree, value 4=agree, value 5=strongly agree (Ministry of Interior, 2015). The questionnaire is divided into 3 sections: The questions in the 1st section study the Principals' perceptions regarding the degree of implementation of organizational factors used pertaining to the Directorates of Education. The 2nd section consists of questions that examine how satisfied the Principals are with the services provided by the Directorates of Education and the 3rd section presents the individual characteristics of the interviewees. A reliability test was conducted based on Cronbach's alpha and the coefficient (a) showed a high level of reliability: 0.9516 (see Annex). In addition, values of Pearson's correlation coefficient were close +1 which indicate a strong linear association between the variables (see Annex Table 3).

According to the methodological approach, the regression was estimated using the ordinary least squares method (ols); with regard to the standard errors, autocorrelation (A/C) and/or heteroscedasticity (H/C) were taken into account. The method of pseudo-variables (dummies) is applied in order to measure the effect: 1st case) of the independent variable as one dimension and 2nd case) in relation to each question individually (8 independent variables). Since the scale ranges from 0–5 (6 values in total), we use 5 dummies in order to avoid the "dummy trap" (Damodar N. Gujarati, 2004). 1) In the first case, the effect of each rating (scale level) of the independent variable as one dimension on the mean value of the dependent variable is under investigation (Table 1). Each dummy can only take two values (0 or 1). Along these lines, dummy1 takes the value 1 whenever one of the 8 questions ("independent variables") has been answered using the scale 1, and the value 0 for all other answers. Correspondingly, dummy 2 takes the value 1 whenever one of the 8 questions has been answered using the scale 2, and the value 0 for all other answers, etc. Therefore, each dummy will show us the effect of the relevant rating (0–5) on customer satisfaction, i.e. the extent to which a higher rating given by the school Principals to the independent variable has a significant effect on their satisfaction, which is the dependent variable. B) In the second case, the effect of each question which is regarded as a single variable (8 independent variables) on the mean value of the dependent variable is under investigation (Table 2). For example, column A represents the first question. Dummy1 is a variable that takes the value 1 each time scale

1 is linked to the first question, and the value 0 in all other cases (i.e. scale of 2-5). Similarly for dummy2 etc.

The research questions include:

- The effect of the degree of implementation of Administrative factors on the satisfaction of customers/the school Principals.
- The effect of the school Principals' individual characteristics (Professional Experience and Educational Level) on their perception of the degree of implementation of the Administrative factors by the Directorates of Education under study.
- The effect of the school Principals' individual characteristics on their satisfaction with the services provided by the Directorates of Education.

Furthermore, a descriptive analysis of the answers in the 1st section is provided per question on a rating level of low-medium with a range of answers 0-2 and medium-high with a range of answers 3-5.

The field of research only involved the Directorates of Primary and Secondary Education of Eastern Thessaloniki, since the interviewed Principals belonged to their area of jurisdiction. In total, the questionnaire was sent to Public schools (284) and more specifically to Primary schools (147) of the Directorate of Primary Education of Eastern Thessaloniki and to Lower Secondary Schools (Gymnasia) (70), General Upper Secondary Schools (GEL) (57) and Vocational Upper Secondary Schools (EPAL) (15) of the Directorate of Secondary Education of Eastern Thessaloniki to be completed only by the schools' Principals. Kindergartens, Special Vocational Education and Training Centres (EEEEK), and Second Chance Schools (SDE) were excluded because of the different legislation used for the selection of their Principals and the different mode of operation they employ; the aim is to ensure the greatest level of homogeneity among the interviewees. The initial delivery of the electronic questionnaire via google forms took place in spring 2019, and 104 (37% of the total) correctly completed questionnaires were collected. The highest response rate (53%) was from Principals of Secondary Education schools.

**4 RESULTS AND DISCUSSION**

The effect of the degree of implementation of the Administrative factors by the Directorates of Education, as a single dimension, appears statistically significant with regard to school Principals satisfaction, as a result of the regression analysis presented in Table 1. Dummy1 has a negative impact on satisfaction at a significance level 1% (p<0.01). Dummy2 has a negative impact on satisfaction at a significance level of 5% (p<0.05). Dummy3 has a positive impact but is not statistically significant. Dummy4 has a positive impact on satisfaction at a significance level of 5% (p<0.05). Dummy5 has a positive impact on satisfaction at a significance level of 1% (p<0.01). The standard errors are presented in parentheses in the Table. The statistical methodology used in order to calculate the statistical significance (asterisks) is t-statistics. Therefore, the higher the rating for the Administrative factors, the higher the customer satisfaction.

Table 1: Results for independent variable as one dimension

Dependent: quest. 1-8	mean	(1) Model 1
dummy1		-0.634*** (0.137)
dummy2		-0.502** (0.224)
dummy3		0.0156 (0.185)
dummy4		0.336** (0.129)
dummy5		0.401* (0.221)
Constant		3.032*** (0.303)
Observations	104	
R-squared		0.471

Note: Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

The inclusion of the Principals' individual characteristics does not affect the interpretation of the results. A study of the model indicates that there is no statistically significant, either negative or positive, correlation between the individual characteristics of the interviewees and their perceptions about the degree of implementation of the administrative factors or their satisfaction about the quality of services. The specific outcome that shows that Principals do not vary their answers in relation to their personal characteristics probably occurs because they present a high degree of homogeneity with regard to their professional experience and educational level, which is due to the fact that both these criteria are evaluated and awarded extra credit points for their selection as school principals.

Table 2: Results for each question individually (8 independent variables)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent : mean quest. 1-8	A	B	C	D	E	F	G	H
dummy1	0.247 (0.214)	0.444 (0.308)	-0.0469 (0.147)	-0.0125 (0.173)	0.617*** (0.281)	-0.114 (0.262)	0.246 (0.262)	-
dummy2	0.748*** (0.206)	0.868*** (0.288)	0.625*** (0.0971)	0.616*** (0.0833)	1.035*** (0.267)	0.537** (0.246)	0.757*** (0.244)	0.142 (0.258)
dummy3	1.113*** (0.223)	1.439*** (0.294)	1.056*** (0.0815)	1.060*** (0.106)	1.240*** (0.282)	0.764*** (0.247)	1.272*** (0.250)	0.435** (0.218)
dummy4	1.722*** (0.325)	2.103*** (0.334)	1.955*** (0.165)	1.604*** (0.230)	2.064*** (0.329)	1.745*** (0.286)	2*** (0.461)	0.663*** (0.239)
dummy5	2.938*** (0.259)	3.375*** (0.332)	2.675*** (0.331)	2.616*** (0.219)	2.688*** (0.401)	3*** (0.232)	3.250*** (0.232)	1.033*** (0.373)
Constant	1.812*** (0.184)	1.375*** (0.278)	1.625*** (0.333e-08)	1.687*** (0.0455)	1.458*** (0.253)	1.937*** (0.228)	1.688*** (0.228)	2.083*** (0.194)
Observations	104	104	104	104	104	104	104	104
R-squared	0.477	0.564	0.560	0.565	0.494	0.558	0.477	0.100

Note: Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 2 can be interpreted as follows: as the number of answers with 1 increases, satisfaction is positively affected (coefficient: +0.247) but is not statistically significant. As the number of answers with 2 increases, satisfaction is positively affected (coefficient: +0.748) and is statistically significant at a significance level of 1% (p.<0.01). As we progress along the scale towards 5, it can be observed that the statistical significance is at 1% and satisfaction is affected more and more positively, as the coefficients increase. The same phenomenon is observed for all variables. Therefore, the results are what we expected in theory. Probably, the negative (-) sign in the questions concerning the effectiveness of procedures (factor 3) and technological modernization efforts (factor 6) reflect the negative effect of these factors on satisfaction when the rating level is 1, but the results are not significant. The R-squared shows the interpretability level of

all independent variables in the regression in relation to the dependent one. For example, question B has a higher R-squared than A. This means that question B (dummy1 – dummy6) in total is more significant as regards satisfaction than question A.

Column 8: There is no coefficient for dummy1 in relation to the final question. This is due to the fact that any interviewee answered the scale 0 for this question. Therefore, the total number of answers is 5 (1-5) [and not 6 (0-5) as with the other questions] and the dummies were reduced by one, in order not to fall into the “dummy trap”.

The descriptive analysis of the factor (8) regarding the Principals' perception on the degree to which the application of a TQM and Management by Objectives System improves the performance of an organization, shows that the holders of PhDs give a high rating compared to the other interviewees who award a medium rating. In addition, from the descriptive analysis of the rating level low-medium (range of answers 0-2) and medium-high (range of answers 3-5), we can conclude that the related factors require further improvement are : (1). active customer participation in decision-making, (5). internal dialogue-communication mechanisms and (7). ICT skills among administrative staff, since they received the lowest ratings by the majority, with low-medium level ratings. The factor (6) related to efforts towards technological modernization received a medium level rating. Most probably, this leads to the conclusion in this study that the application of e-governance methods and new technological tools presupposes relevant staff training in ICT. The factors (2). Mode of administration, (3). The effectiveness of procedures and (4). Employee performance and efficiency received a medium-high level rating.

According to the principle of evidence-based management (EBM), an organization should not make suppositions regarding the level of satisfaction of its customers but should collect objective information from them instead. In most cases, this is done through surveys that focus on customers, while target groups or special user groups (other stakeholders) are also used for this purpose (EIPA & EUPAN, 2013). A weakness of the present study was that it examined only the school principals' perceptions and their satisfaction with the Directorates of Education. Further research could investigate the administrative employees' perceptions and the impact of each factor on their satisfaction, too. Thus, future research on both school principals' and administrative employees' perceptions can shed more light on the sources (causes) of the Administration's weaknesses, in relation to the internal customers' needs and expectations. Moreover, further research into a larger group of school Principals and Directorates of Education from all over Greece and per educational region could provide a better picture of the existing level of satisfaction with the administrative services in the field of education in Greece. This research highlights the need for a systematic elaboration of surveys depicting the perceptions of customers, with the aim to identify any gaps in management goals and continuously improve the services provided by the Directorates of Education.

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