

A Comparative Analysis of Budget Management in General High Schools¹

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ABSTRACT

The purpose of this research is to describe the income and expenditures of Anatolian High Schools in Turkey. School principals' views on budget management in terms of "competence, effectiveness, participatory budget, accountability, transparency, and flexibility," are presented in order to identify problems originating from school budgets and to determine solution proposals. In addition, the study describes the school budget management system designed by school principals, and their views on their role in budget management as a reflection of key stakeholders of school budgeting (principals, teachers, students, parents, school council members). Quantitative and qualitative research methods have been used together in order to describe budget management in Anatolian High Schools in Turkey, based on the views of school principals, and to reveal the effects of budget applications on stakeholders through looking at their experiences. Survey method is used for this research. In order to determine the sample size that would best represent the target population in the quantitative dimension of the study, the number of samples was determined as 1,180 using layered sampling method. The collection of data from the selected sample was conducted using the "Questionnaire Survey of Anatolian High School Principals on Budget Management", which was developed by the first author. In the qualitative dimension of the study, interviews were conducted with 60 school participants (12 school principals, 12 teachers, 12 students, 12 student parents and 12 school council members) in three different socioeconomic regions using maximum diversity sampling type. Semi-structured interview forms created by the first author were used during the interviews. The results of the research determined that the Ministry of National Education budget that all schools are provided with is inadequate and that there are concerns regarding expenditure procedures. Also, according to the views of school principals and other stakeholders, it was concluded that budgetary problems were experienced in schools, that the resources of the schools were limited, and that there were differences seen between regions. In light of the findings, it is deemed necessary to design a system involving more stakeholders, with central and local budget resources pooled to better meet the needs of schools.

Key Words: Education finance, Education expenditures, Budget, Budget management, General high schools

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INTRODUCTION

The extent of the provision of education opportunities depends on whether or not sufficient resources are allocated to education. When determining the extent of resources to be allocated to education, indicators such as the percentage of these resources in the Gross National Product (GNP), schooling rates in different education levels, distribution of people who attend schools based on gender can be used. Whether resources are distributed equally and fairly, are of concern both to those who are included in the education system and those who are not due to the resource distribution processes at a personal and organizational level. Additional revenue resources are sought to alleviate the unfair situation caused by insufficient resources allocated to education. The education industry is so immense that for years policymakers have had many difficulties in obtaining additional revenues for schools (Guthrie, 1997).

In addition to the public resources allocated to them, schools try to create other resources. States concentrate and rely mostly on taxes to create additional revenues for schools, whereas schools use different methods to find resources. Finance mechanisms of public schools differ from region to region, and are often extremely complex. Generally, states contribute a small amount to a school's budget and the remaining budget is evenly met between local contributions (created primarily through local property taxes) and state contributions (created mainly through the State's revenue taxes and sales taxes) (Howell, & Miller, 1997).

Socioeconomic differences in resources provided to schools are seen in the varying contributions of families to schools. Parents with a good higher education contribute to the school to which their children attend via Parent and Teacher Associations (PTAs) and by organizing fundraising and donations (Brighouse, 2007). Kozol's study titled "The Shame of the Nation" (2005) includes an addendum which demonstrated the level of unequal resource distribution in five metropolitan areas and additionally socioeconomic differences between school districts (and thus between schools). According to Kozol, the financing of school districts where child poverty was more widespread was relatively low, whilst schools in districts where child poverty was less received higher level funding per student. This supports the hypothesis that an inequality in the distribution of resources among schools is also reflected in the future lives of children.

Considering the importance of resources for schools, there is a need for an in-depth review of schools' budgets and budget management processes. A budget should have a legal basis and a spending procedure. Budget management, as well as the budget itself, entails assuming legal responsibility. Budget management creates the necessary environment for public preferences that will together provide economic and social efficiency (Karakütük, 2012, p. 305) and provides guidance for the distribution of the budget in a balanced and accountable manner. In budget management, the state's approach to which services resources will be allocated is important; therefore, budget management is important for the resource management of organizations.

The school budgeting system means that schools have flexibility and play a more influential role in deciding how their allocated resources will be spent to achieve the greatest

success (Poston, 2010). It is possible to say that schools have increased responsibilities with the school-based budgeting approach. With school-based budgeting, previously centralized power is distributed to schools (Wohlstetter, & Kirk, 1995), with how resources are allocated for investment and how they are distributed among the most important issues. In 1992, Odden stated that in order to solve this problem, school funding in the 1990's should go beyond financial inequalities and determine the link between student outcomes, educational progress and educational funding.

As in other countries, it is important to evaluate the case of Turkey with regard to the challenges experienced in school budget management. Today, management in schools are actively involved in budgeting and budget management processes, and although budgeting and budget management processes are very important for the education process, legal regulations and research is inadequately focused on the budgets of schools, which are the most important educational institutions. In order to minimize budget-related problems, it is necessary to investigate the situation thoroughly by hearing the opinions of all school stakeholders. However, to the authors' knowledge, there is no study found in the literature which investigates the finance structure of high schools, whether school stakeholders' school lives are affected by budgets and budget management, and the kinds of problems budgets and budget management processes can cause revenues and expenses of schools with different socioeconomic status. This gap in the literature provides the basis for this current study

The objective of the study is to describe and explain the revenue streams and expenditures of high schools; to give examples of school principals' views on budget management in terms of competency, efficiency, participatory budgeting, accountability, transparency, and flexibility; to identify problems experienced in relation to budget management; and to examine the reflections of budget management processes in schools on the school lives of school stakeholders (principals, teachers, students, parents, PTA members) according to their experiences.

METHOD

Qualitative and quantitative research methods are used to explain budget management processes in public high schools (Anatolian high schools) in Turkey, based on the opinions of school principals, to understand reflections of budgetary implementations on school stakeholders' daily lives, according to their experiences. The reason for the selection of high schools in this study is that budgets are only allocated directly to high schools in Turkey.

The first part of the study was planned to describe the opinions of high school principals about budgetary management in terms of competency, efficiency, participatory budget, accountability, transparency, and flexibility; and to demonstrate the problems experienced and to provide solution suggestions. Screening model was used in this study, with quantitative data collected through a questionnaire developed by the first author.

In the second part of the study, the impact of budgetary management processes in high schools on the school lives of stakeholders (principals, teachers, students, parents, and

PTA members), according to their experiences, were investigated. Phenomenology was used as the qualitative method of this study. A phenomenological study defines the common meaning of several people's experiences of a phenomenon or concept (Creswell, 2016). As school stakeholders shared their experiences on budget management processes during the interviews, this study can be considered as a phenomenological study.

Population, sampling and study group

Population and sampling

The study population consisted of the principals of 2,322 Anatolian High Schools in Turkey during the 2015-2016 academic school year. Since the number of principals of Anatolian high schools was very high, a sample was drawn from the population. The stratified sampling method was used in order to determine a sample to represent the population (Apaydın, Kutsal, & Atakan, 2002). In the determination of the layers in the sample, the distribution percentages according to Levels one to three of the Statistical Region Units Classification are given in the sample.

Using Cochran's (1977, p. 75) sample size formula, the sample size was found to be 1,180 with 2% acceptable margin of error. Questionnaires completed by 1,180 principals in 81 cities across Turkey were evaluated.

In this study, 3.4% of the 1,180 principals included in the sample were women and 96.6% were men. 18.4% of the school principals included in this study were History Teachers, 17.6% were Turkish Language and Literature Teachers, 13.4% were Teachers of Religious Culture, 9.2% were Geography Teachers, 6.9% were Physics Teachers, 6.2% were Mathematics Teachers, 5.8% were Physical Education Teachers, 5.5% were Chemistry Teachers, 5.2% were Biology Teachers, 3.6% were Philosophy Teachers, 1.8% were English Language Teachers, 1.3% were German Language teachers, 1.4% were School Counsellors, 1.2% were Imam Hatip Vocational Teachers, 0.4% were French Language teachers, 0.4% were Music Teachers, and 0.3% were Computer Science Teachers. As seen, most of the school principals are teachers of social sciences.

72.5% of the school principals had a Bachelor's degree, 26.5% had a Master's degree and 1.0% had a Doctoral degree. 34.0% of the school principals had 1-5 years of experience, 22.6% had 6-10 years of experience, 17.8% had 11-15 years of experience, 11.0% had 16-20 years of experience, and 14.6% had 21 years or more experience.

Study Group

A study group was formed to obtain qualitative data in the study. When forming the study group, "purposive sampling technique" was used to find the opinions of school stakeholders (principals, teachers, students, parents, and PTA members) about the impact of problems caused by budgets and budget management in their school lives. Interviews were undertaken with 12 principals, 12 teachers, 12 students, 12 parents, and 12 PTA members in schools in regions with low, mid and high socioeconomic levels in order to achieve the highest (maximum) diversity. As the number of people interviewed was considered sufficient to achieve the objective of the study and sufficient information was obtained from these people, these were also considered as sufficient to represent the stakeholders.

Data collection tools

The quantitative data of the study was collected using the 33-item “Questionnaire for the opinions of Anatolian High School Principals on Budget Management” developed by the first author. Qualitative data was collected using semi-structured interview forms developed by the first author. In order to validate the content validity of the data collection tools, 20 experts in this field and three measurement and evaluation experts were consulted. Regarding quantitative data, the constant comparative method was used for the reliability in the data coding process. According to this approach, interview data coded in a certain category are compared with data of the same person previously coded in the same category (Glasser, & Strauss, 1967, as cited in: Türnüklü, 2000). Furthermore, data of different people coded in the same category are constantly compared among them to ensure that the researcher was reliable and consistent in the data coding process.

Data collection

Official permissions were obtained from the Department of Secondary Education of the Turkish Ministry of National Education (MoNE) to use the “Questionnaire for the opinions of Anatolian High School Principals on Budget Management” and semi-structured forms in schools managed by the MoNE. As the study also included students, necessary permission was obtained from the Ethics Committee of Ankara University. The data was collected between July 2016 and February 2017. Qualitative and quantitative data of the study was collected through face-to-face interviews in sample units.

Data analysis

Descriptive statistics including frequency, percentage, chi-square, one-way variance analysis (ANOVA), correlation analysis and regression analysis which were suitable for the objective of the study and study questions were used for statistical analysis. Descriptive analysis technique was used to analyze the data obtained with the semi-structured interview form. MAXQDA qualitative data analysis program was used to decipher, code data and create themes. Separate categories were developed for each school stakeholder group and the values of each category are presented in graphical form.

FINDINGS

Findings on the revenues and expenses and findings on competency, efficiency, participatory budgeting, accountability, and flexibility are included in this study.

Revenues and expenditures of high schools

The school principals were asked about school revenues and expenditures, with their answers presented in Table 1.

Table 1. Distribution of high school revenues

School Revenues	0		TL 1 - 50,000		TL 50,001 - 100,000		TL 100,001 - 150,000		TL 150,001 - 200,000		TL 200,001 or more	
	n	%	n	%	n	%	n	%	n	%	n	%
MoNE	-	-	508	43.1	422	35.8	113	9.6	32	2.7	105	8.9
PTA	85	7.2	986	83.6	84	7.1	19	1.6	5	0.4	1	0.1
Donations	839	71.1	335	28.4	5	0.4	-	-	-	-	1	0.1
Rental	524	44.4	612	51.9	37	3.1	4	0.3	3	0.3	-	-
Local government	1,135	96.2	43	3.6	2	0.2	-	-	-	-	-	-
Events held	1,086	92	94	8.0	-	-	-	-	-	-	-	-
Book sales	1,171	99.2	9	0.8	-	-	-	-	-	-	-	-
Projects	1,127	95.5	52	4.4	1	0.1	-	-	-	-	-	-
Other	1,078	91.3	78	6.6	8	0.7	6	0.5	1	0.1	9	0.8
Total	-	-	265	22.4	428	36.3	220	18.6	97	8.2	170	14.4

As seen in Table 1, all high schools included in this study received funding from the MoNE. 43.1% of the high schools received a funding of TL 1-50,000; 35.8% received TL 50,001-100,000; 9.6% received TL 100,001-150,000; 2.7% received TL 150,001-200,000; and 8.9% received TL 200,001 or more from the MoNE.

For the revenues of the high schools' PTAs, 7.2% had no revenue. This demonstrates that these schools did not receive any financial support from parents or through their PTA's activities. 83.6% of the high schools had a PTA revenue of TL 1-50,000; 7.1% had a PTA revenue of TL 50,001-100,000; 1.6% had a PTA revenue of TL 100,001-150,000; 0.4% had a PTA revenue of TL 150,001-200,000; and 0.1% had a PTA revenue of TL 200,001 or more. The fact that there was no or a low level of revenue from PTA activities either indicates that the schools were in low socioeconomic status districts or that the cooperation between PTA and the school principal was ineffectual. In their study, Akbaşlı and Kavak (2008) reported that parents with low socioeconomic status and an insufficient sharing of information with parents during PTA meetings had an impact on the ideas and opinions of the PTA. Özdemir (2011) concluded that the revenues of PTAs increase in line with the improved socioeconomic status of schools. Revenues from school PTA activities can vary due to different factors.

Schools receive their donations and rental revenues through PTAs. However, rent and donations were separated in the data collection tool in order to see the breakdown of expenditures in this revenue stream. 71.1% of the high schools included in the sample reported no revenue received from donations, 28.4% reported donations of TL 1-50,000; 0.4% reported donations of TL 50,001-100,000; and 0.1% reported donations of TL 200,001 or more. When the rental revenues of schools are considered, 44.4% did not report any revenue from rental; 5.19% reported a rental revenue of TL 1-50,000; 3.1% reported a rental revenue of TL 50,001-100,000; 0.3% reported a rental revenue of TL 100,001-150,000; and 0.3% reported a rental revenue of TL 150,001-200,000. In the study of Kayıkçı and Akan (2014), elementary schools principals included in the study reported revenues from the renting of school canteen services as their only source of revenue.

96.2% of the schools included in the sample reported no financial contribution from local governments; 3.6% reported a local government contribution of TL 1-50,000; and 0.2% reported a local government contribution of TL 50,001-100,000. This indicates that local governments' financial contribution/support to schools is negligible. However, support from local government plays an important role in creating financial resources for schools and taking timely actions. Arslan (2013) reported that the problem of insufficient funding can be eliminated, existing sources used more efficiently and correctly, and participation and contribution of the public to education services can be increased if local governments are authorized to support education services.

When the revenues from events organized by high schools are considered, 92% did not have any events revenue and 8% had an events revenue of TL 1-50,000. 99.2% of the schools reported no revenue from the sales of books, magazine etc., and only 0.8% reported TL 1-50,000 revenue from book sales.

99.5% of the high schools did not have any revenue from projects, 4.4% of the schools had a projects revenue of TL 1-50,000 and 0.1% had a projects revenue of TL 50,001-100,000. Projects of these high schools were mostly carried out under the ERASMUS student exchange program.

When the total revenues of the high schools in the sample are considered; 22.4% of the schools had a total revenue of TL 1-50,000; 36.3% had a total revenue of TL 50,001-100,000; 18.6% had a total revenue of TL 100,001-150,000; 8.2% had a total revenue of TL 150,001-200,000; and 14.4% had a total revenue of TL 200,001 or over. Each high school has one or several different sources of revenue. There may be several reasons for schools to have different sources of revenues. Revenue sources for a school can vary depending on the school's region, parent profile, requirements, school's own resources and many other factors. In the study conducted by Kavak, Ekinci, and Gökçe (1997), the most common revenue sources for elementary education schools were from the sales of magazines, diplomas and school report cards and registration fees, donations and membership fees for the School Preservation Association. In the study conducted by Gökçeli (2014), school principals reported thirty-three different revenue sources. The five most important revenue sources as determined by school principals were monies requested from parents for mandatory expenses, voluntary donations, revenues from social events, photocopy fees, and monies requested from parents for cleaning materials. These revenues are actually small, short-term revenues for schools.

In this current study, it was tried to see if there was any difference in the total revenues of high schools depending on their socioeconomic status (SED). One-way analysis of variance (ANOVA) was used to compare total revenues of schools based on their low, medium, or and high socioeconomic status. Findings of the analysis are presented in Table 2.

Table 2. ANOVA findings: Total annual revenue based on school socioeconomic status

Socioeconomic Status	KT	df	Mean Squares	F	p
Intergroup	216020757123.000	2	108010378561.5	3.872	
Intragroup	32834621853540.380	117	27896874981.77		
Total	33050642610663.380	1179			

* $p < .05$

According to the findings of a One-way analysis of variance, there is a significant difference between the total revenues of the schools of different socioeconomic status ($p < 0.05$). The comparison values between groups were reviewed in order to determine the differences between groups. The results of comparisons between groups are shown in Table 3.

Table 3. ANOVA findings: Multiple comparisons between total annual revenues based on school socioeconomic status

SED	SED	Difference in Means	p
Low	Medium	-24,022.20	0.096
	High	-63,031.01	0.038
Medium	Low	24,022.21	0.096
	High	-39,008.80	0.244
High	Low	63,031.01	0.038
	Medium	39,008.80	0.244

As shown in Table 3, there is a significant difference between the mean total annual revenues of schools in districts of low and high socioeconomic status. Mean annual revenues of the high schools in the districts of high socioeconomic status are higher than those in the districts of low socioeconomic status.

Revenues other than funding from the MoNE play an important role in the difference of total revenues between districts of low and high socioeconomic status. Apart from the MoNE funding, total revenues generated by personal efforts of school principals and school management are thought to differ according to the socioeconomic environment of schools. The study conducted by Kiraz (2014) in poorer districts and in relatively distinguished public schools within the city of Ankara concluded that distinguished schools had better facilities both from external and internal funding when compared to schools in the poorer districts.

In the qualitative part of the study, schools in the sample were asked about their expenditure. Findings from the answers are shown in Table 4.

Table 4. Distribution of school expenditure

High school expenditures	0		TL 1- 50,000		TL 51,001-100,000		TL 100,001-150,000		TL 150,001-200,000		TL 200,001 or over	
	n	%	n	%	n	%	n	%	n	%	n	%
Personnel	750	63.5	219	18.6	119	10.0	53	4.5	22	1.9	17	1.4
Social security	964	81.7	201	17.0	13	1.1	2	0.2	-	-	-	-
Supplies	-	-	811	68.7	259	21.9	52	4.4	20	1.7	38	3.2
Cleaning	615	52.1	543	46.0	16	1.3	2	0.2	2	0.2	2	0.2
Goods & Mtnc.	330	28.0	793	67.2	43	3.6	9	0.8	1	0.1	4	0.3
Cash transfer	1,076	91.2	55	4.7	4	0.3	7	0.6	7	0.6	31	2.6
Capital expend.	604	51.2	514	43.6	43	3.6	9	0.8	4	0.3	6	0.5
Other	755	64.0	366	31.0	29	2.4	14	1.2	8	0.7	8	0.7
Total	-	-	233	19.7	406	34.4	192	16.3	110	9.3	239	20.3

Note: "Goods & Mtnc." includes Movable goods, royalty costs, repair, and maintenance costs

As seen in Table 4, high school expenditures are for personnel, social security payments, purchasing of materials and supplies, purchasing of services, royalty costs, cash transfer and capital expenditures. When personnel expenses are examined, it can be seen that 63.5% of schools reported no personnel expenses, 18.6% reported TL 1-50,000; 10% reported TL 50,001-100,000; 4.5% reported TL 100,001-150,000; 1.9% reported TL 150,001-200,000; and 1.4% reported TL 200,001 or more personnel expenses. The school principals reported only the remuneration paid to the support staff (office employees, janitors, security etc.) because their salaries were paid directly by the schools, unlike teachers and educational staff were are paid centrally by the MoNE (hence 63.5% of schools reported no personnel expenses). It should be noted that teacher salary payments were not evaluated in order to prevent any confusion in the study and to focus on school-based budgets. However, this expense was specifically included in order to determine payments made to temporary staff directly employed by the schools.

81.7% of the schools reported that they paid no social security premiums; with 17.0% reported TL 1-50,000 social security payments; 1.1% reported TL 50,001-100,000 social security payments; and 0.2% reported TL 100,001-150,000 social security payments. The reason is that schools only have to pay social security premiums for support staff they directly employ. It was therefore concluded that some schools reported making no social security payments because they used third-party service providers to employ temporary personnel.

Although schools have other expenses apart from personnel expenses such as cleaning expenses, repairs and maintenance costs, no funds are allocated to schools to pay for such expenses (Ebcim, 2016). Funds provided by the MoNE to schools are mainly used to pay for priority needs (utilities, fuel etc.). Therefore, schools strive to pay for other types of expenditures with revenues they generate in addition to their centrally allocated MoNE funds. However, one of the main financial needs of schools is paying for cleaning services. As the number of janitors in schools on the permanent payroll is insufficient, PTAs employ

seasonal cleaning personnel, paying them at minimum wage or higher. According to Turkish labor law, every employee employed within public institutions (including schools) is required to be registered under the social security system, therefore, social security premiums of such temporary employees must also be paid. This means additional expenditure for schools. It is known that schools use almost all of their additional revenues to pay for these expenses (İlçe, 2003).

All of the schools included in the sample used funds from their budgets to buy supplies and materials. 68.7% of the schools spent TL 1-50,000 on supplies and materials; 21.9% of the schools spent TL 50,001-100,000 on supplies and materials; 4.4% of the schools spent TL 101,001-150,000 on supplies and materials; 1.7% of the schools spent TL 150,001-200,000 on supplies and materials; and 3.2% of the schools spent TL 200,001 or more to purchase necessary supplies and materials for their schools. Purchase of materials includes stationery and office supplies, printing and binding services, water and cleaning supplies, energy, food, beverages, clothing and sports items, special materials, laboratory materials and other purchases. Therefore, these are the main expenditures faced by all schools.

When school cleaning service costs are considered, 52.1% of the schools did not report any school cleaning costs. 46.0% of the schools reported TL 1-50,000 school cleaning costs; 1.3% reported TL 50,001-100,000 school cleaning costs; 0.2% reported TL 100,001-150,000 school cleaning costs; 0.2% reported TL 150,001-200,000 school cleaning costs; and 0.2% reported TL 200,001 or more in school cleaning costs. Schools having no school cleaning costs does not mean that they do not need this service. No allocation can be made for the purchase of services due to many reasons including insufficient budget or based on priority needs.

When movable goods, royalty, repair and maintenance costs (goods and maintenance) are considered, 28% of the schools included in this study reported no cost/expenditure. 67.2% of the schools had TL 1-50,000 of goods and maintenance costs; 3.6% had TL 50,001-100,000 of goods and maintenance costs; 0.8% had TL 100,001-150,000 of goods and maintenance costs; 0.1% had TL 150,001-200,000 of goods and maintenance costs; and 0.3% had TL 200,001 or more in goods and maintenance costs. These costs include movable goods, royalty costs, repair and maintenance costs, office equipment, machinery and equipment, machinery repair and maintenance materials and costs of other repair and maintenance activities.

91.2% of the schools did not report any cash transfer costs. 4.7% had TL 1-50,000 cash transfer costs; 0.3 had TL 50,001-100,000 cash transfer costs; 0.6% had TL 100,001-150,000 cash transfer costs; 0.6% had TL 150,001-200,00 cash transfer costs; and 2.6% had TL 200,001 or more in cash transfer costs. Cash transfer costs refer to the cash payments made from the budget to pay for cash expenses (Dayar & Esenkar, 2008). Cash transfers include expenditures such as transfers made to households, duty losses, and international transfers.

Capital expenditures include the purchasing of finished goods, purchasing of royalty rights, computer software programs, major repair and maintenance costs and similar expenses. 51.2% of the schools involved in this study reported no capital expenditure. 43.6% had TL 1-50,000 capital expenditure; 3.6% had TL 50,001-100,000 capital expenditure; 0.8% had TL 100,001-150,000 capital expenditure; 0.3% had TL 150,001-200,000 capital expenditure;

and 0.5% had TL 200,001 or more in capital expenditure. Cash and capital expenditures of the schools could have been met by the Provincial Governor's office or special provincial administrations, therefore the following results were found.

Other than the aforementioned expenditure types, 36.0% of school principals also reported different expenditure types, grouped under the title "others". 31% of the schools reported TL 1-50,000 of other expenditure; 2.4% of the schools reported TL 50,001-100,000 of other expenditure; 1.2% of the schools reported TL 100,001-150,000 of other expenditure; 0.7% of the schools reported TL 150,001-200,000 of other expenditure; and 0.7% of the schools reported TL 200,001 of other expenditure. Other expenditures included expenses for projects, event organization, and accommodation.

When total expenditures are considered, 19.7% of the high schools had TL 1-50,000 total expenditure; 34.4% had TL 50,001-100,000 total expenditure; 16.3% had TL 100,001-150,000 total expenditure; 9.3% had TL 150,001-200,000 of total expenditure; and 20.3% had TL 200,001 or more in total expenditure. The schools' expenditures were equal to their revenues; however, this does not mean that the expenses actually met all of their needs. Therefore, it is important for these schools to have revenues sufficient to meet all of their needs.

The study conducted by Özer, Demirtaş, and Ateş (2015) found that schools had very high expenditures which included fuel, utilities, communication costs, repairs, purchase costs for furniture and fixtures, purchase of cleaning services, cleaning materials, stationery and office supplies, and consumables for photocopiers. A school's ability to pay for these expenses is important for them in providing a sound education process.

Budget sufficiency findings

The budgets of the high schools included in the study were reviewed, the extent to which the funds provided by the MoNE covered total expenditures, and the extent to which the total revenues covered the total expenditures were evaluated. The findings are shown as percentages in Table 5.

Table 5. Funds provided by the MoNE and other revenues covering school expenses

	n	%
<i>Extent MoNE Funds Covers Total Expenditure</i>		
Does not cover	1,019	86.4
Covers	161	13.6
<i>Total</i>	<i>1,180</i>	<i>100.0</i>
<i>Extent Total Revenue Covers Total Expenditure</i>		
Does not cover	448	38.0
Covers	732	62.0
<i>Total</i>	<i>1,180</i>	<i>100.0</i>

As seen in Table 5, funds provided by the MoNE only covered 13.6% of the high schools' total expenditures. This shows that the schools need additional revenues. Furthermore, when the extent to which total revenues cover total expenses are examined, 38.0% of the schools included in this study could not pay for their expenses. This can be interpreted that the schools' revenues are insufficient to cover their expenditures. In a study conducted by Zoraloğlu, Şahin, and Şahin Fırat (2005), the researchers concluded that almost all of the needs apart from the remunerations paid to education staff and teachers were covered by other revenues of schools and in general, the schools' revenues were not sufficient to cover all expenses.

The qualitative findings of the current study support its quantitative findings. The opinions of the participants in the study group about whether or not their schools' budgets were sufficient are presented in Table 6.

Table 6. *Study group opinions on school budgets sufficiency*

<i>Study Group Member</i>		<i>Fully</i>	<i>Mostly</i>	<i>Partially</i>	<i>Low</i>	<i>None</i>
PTA member	Low socioeconomic area school	0	0	2	0	2
PTA member school	Medium socioeconomic area	0	1	1	2	0
PTA member	High socioeconomic area school	1	1	1	1	0
Parent	Low socioeconomic area school	0	0	0	0	0
Parent school	Medium socioeconomic area	0	0	0	0	0
Parent	High socioeconomic area school	0	0	0	0	0
Student	Low socioeconomic area school	1	0	3	0	0
Student school	Medium socioeconomic area	1	1	1	1	0
Student	High socioeconomic area school	3	1	0	0	0
Teacher	Low socioeconomic area school	0	0	2	2	0
Teacher school	Medium socioeconomic area	0	1	0	3	0
Teacher	High socioeconomic area school	2	1	1	0	0
Principal	Low socioeconomic area school	0	1	2	1	0
Principal school	Medium socioeconomic area	0	1	1	2	0
Principal	High socioeconomic area school	0	1	3	0	0

As shown in Table 6, the number of school stakeholders who thought that school budgets are completely sufficient is quite low. Similarly, only two of the stakeholders reported that their school budget was completely insufficient. It is possible to conclude that school budgets are sufficient to meet the main needs, but not enough to meet all the needs of the schools.

In order to determine which needs are not met due to insufficient budgets, school principals were asked questions about the expenses they had the most difficulty in paying through school budgets. The answers are presented in Table 7.

Table 7. *Expense difficulties for high school principals*

<i>Expenses Not Covered by Revenue</i>	<i>n</i>	<i>%</i>
Personnel	220	18.6
Social Security	96	8.1
Materials (including costs related to movable property)	804	68.1
Services (including Maintenance and Repair costs)	429	36.3
Cash transfer	276	23.4
Capital Expenditure	27	2.3
Other	495	41.9

As seen in Table 7, 68.1% of the school principals reported that they had difficulty to pay for the costs of purchasing materials; 36.3% reported difficulty paying for service costs; 23.4% reported difficulty paying for cash transfer costs; 18.6% reported difficulty paying for personnel expenses; 8.1% reported difficulty paying for social security expenses; 2.3% reported difficulty paying for capital expenditures; and 41.9% reported difficulty paying for other expenses. The expenses/costs that the school principals included in other expenses were cleaning services, security services, Internet connection fees for the Fatih project (Turkish government project to integrate computer technologies into public education), costs associated with social events, repair and maintenance costs, occupational health and safety costs and stationery and office supplies. In a study conducted by Saka (2007), school principals reported that they had problems at a moderate level in student services, personnel services, education services, managerial and general services.

Efficiency findings

The high school principals were asked the following question in order to determine whether they used their budgets efficiently to match their strategic plan goals: “To what extent does the fund you have requested from the MoNE match with the goals in your strategic plan?” Their responses are presented in Table 8.

Table 8. *Extent MoNE funds match strategic plan goals*

<i>Matching Extent</i>	<i>n</i>	<i>%</i>
Low	73	6.2
Partial	268	22.7
Moderate	484	41.0
Mostly	331	28.1
Full	24	2.0
<i>Total</i>	<i>1,180</i>	<i>100.0</i>

As shown in Table 8, only 2.0% of the high school principals reported that the funding from the MoNE fully matched with the goals of their strategic plan; 6.2% reported that it matched only with a low percentage; 22.7% reported that it partially matched with the goals; 41.0% reported that it moderately matched with the goals; and 28.1% reported that the funding mostly matched with the goals. It is therefore possible to comment that the funds from the MoNE, are not used efficiently.

Findings of participatory budgeting

The school principals were asked about the people who were involved in the annual budget planning process, budget requesting process and identification of needs. Their answers are presented in Table 9.

Table 9. *Involvement in school budget management*

<i>People Involved</i>	<i>n</i>	<i>%</i>
School Principals and Vice Principals	354	30.0
PTA	25	2.1
Parents	2	0.2
School Principal and Teachers	193	16.4
School Principal and PTA	154	13.1
School Principal and Parents	38	3.2
PTA and Teachers	16	1.4
Teachers and Parents	6	0.5
School Principal, Teachers and PTA	165	14.0
School Principal, Teachers and Parents	16	1.4
School Principal, Teachers and Students	20	1.4
School Principal, Teachers, PTA, Parents, and Students	56	4.7
Provincial Directorate of National Education	40	3.4
MoNE – Secondary Education Department	26	2.2
Municipalities	6	0.5
Alumni Association	1	0.1
Philanthropists	1	0.1
All stakeholders	61	5.2
<i>Total</i>	<i>1,180</i>	<i>100.0</i>

As shown in Table 9, 30.0% of the school principals reported that only themselves and vice principals were involved in budget planning and allocation processes; 16.4% reported the school principal and teachers; 14.0% reported school principal, teachers, and PTA ; 13.1% reported the school principal and PTA members; 5.2% reported that all stakeholders; and 4.7% reported that the school principals, teachers, PTA members and students were involved in budget planning and allocation processes. 3.4% of the school principals reported that Provincial Directorates of National Education continued the process and 2.2% reported that the MoNE Secondary Education Department were involved in the process. 2.1% of the school principals reported only PTA and 0.2% reported only parents were involved. 3.2% of the school principals gave the answer of school principal and parents; 1.4% gave the answer of PTA and teachers; 1.4% gave the answer of principal, teachers, parents and 1.4% gave the answer of principal, teachers, and students. 0.5% of the school principals reported that teachers and parents were involved, and 0.5% reported that municipalities were involved. 0.1% said philanthropists and 0.1% said alumni associations.

Participatory budgeting ensures exchange of information and ideas, enabling managers to have more effective budget planning, coordination, and audit (Tanç & Dikicioğlu, 2012). Participatory budgeting is also important in order to share and communicate the ideas of those involved in the budgeting process. Therefore, participation in the budgeting process is important.

Accountability findings

The high school principals were asked about which answers in the questionnaire used as the data collection tool reflected their schools' situation for accountability. The distribution of the answers is presented in Table 10.

Table 10. *Distribution of school principals answers on accountability*

<i>Accountability</i>	<i>n</i>	<i>%</i>
Accountability ensured with documents on use of MoNE funds	977	82.8
PTA accountable for non-MoNE budget resources	547	46.4
School revenues and expenditures reported in TEFBIS system	956	81.0
MoNE funds spent in transparent manner	822	69.7
Authorities informed by school management on spending processes, procedures, tenders, contracts and revenue receipts	446	37.8
School budget usage based on equitable principles	581	49.2
Other	14	1.2

When the results of Table 10 are examined, 82.8% of the principals reported that they ensure accountability with written documents on the use of education funds provided by the MoNE; 81.0% reported that their schools' revenues and expenditures are entered in the TEFBIS system; 67.9% reported that funds from the MoNE are spent within a transparent process; 49.2% reported that their school budgets are used based on equitable principles; 46.4% reported that the PTA is held accountable for the use of budget resources other than the MoNE funding; 37.8% reported that authorities are informed about the procurement processes, contracts, all spending processes, procedures and the revenues obtained. Explanations provided by those who chose the "others" option (1.2%) were that teachers and students are informed, anyone who requires information is given information, the school budget is used for the emergency needs of the school, the requirements in the laws and regulations are met, parents are informed during parent-teacher meetings, revenues and expenditure of the school are displayed on boards in the school every three months, all purchases made are documented and justifiable, budget is spent in accordance with the total quality approach, the school strives to make budgetary savings, the school's purchases are always transparent, understandable and accountability is well-established, tender commission members, PTA members perform audits, all purchases have necessary documents, all purchases are made through the system, parents are informed about the spending, and the school is audited by the state's audit office.

Accountability is one of the core elements in a democratic system and it is also a financial reporting activity (Gedikoğlu, 2012). Based on the accountability approach which gives new roles to educational leaders, such leaders are responsible for developing and communicating standards and also for creating accountability awareness in everyone involved (Balci, 2011). Therefore, with this accountability approach, educational leaders should cooperate and work together with other stakeholders.

Findings of flexibility

The high school principals were asked about which answers in the questionnaire reflected their schools' status in terms of budgetary flexibility. The distribution of their answers is presented in Table 11.

Table 11. *Distribution of school principals answers about budget flexibility*

<i>Findings of Budget Flexibility</i>	<i>n</i>	<i>%</i>
MoNE funding can be used for certain expenditure items	905	76.7
MoNE funding can be used on different items depending on needs	431	36.5
Non-MoNE funded revenues can be used for certain expenditure items	354	30.0
Non-MoNE funded revenues can be used on different items depending on needs	326	27.6
Re-planning permitted for unexpected expenditure to allocate resources	244	20.7
Expenditure determined at beginning of school year cannot be changed	182	15.4
Other	11	0.9

As shown in Table 11, of the school principals included in the study, 76.7% reported that funding from the MoNE is used on certain expenditure items; 36.5% reported that funding from the MoNE is used on different items depending on the needs; 30.0% reported that revenues other than the funding are used on certain expenditure items; 27.0% reported that revenues other than the funding are used on different items depending on the needs; 20.7% reported that when an unexpected expenditure occurs during a year, re-planning can be made to allocate resources to this new expenditure; 15.4% reported that the expenditure items determined at the beginning of a school year may not be changed during the year; and 0.9% reported as other. Those who chose the option 'other' gave the following explanations: PTA revenues are used for areas not covered by the fund; school principals should have the authority to decide on which expenditure items the fund will be used; expenditure items should be changed according to changing needs; transfers should be made between funds reserved for different expenditure items; money is spent in accordance with the strategy; the expenditure items from the general budget cannot be changed; principals are expected to generate revenues for occupational safety-related costs; and funds can only be spent on the codes/items determined by the MoNE.

CONCLUSION AND RECOMMENDATIONS

This study concluded that the funds provided by the MoNE could only cover 13% of the high school expenditures. This has a significant importance. Most of the high schools cannot pay for their expenditures unless they find other revenue streams in addition to the fund provided by the MoNE and as a result, experience problems due to insufficient budgets. The schools experience the greatest difficulty in paying for purchases of materials and service expenses.

This study has shown that high school principals partially use the funds they receive from the MoNE efficiently, and that the funds that high schools receive from the MoNE only partially match their strategic plan's budgetary requirements. This demonstrates that budgeting is not well-planned. The high schools in this study were unable to achieve goals set out in their strategic plans due to insufficient budgets or spending process inefficiencies.

Participatory budgeting is important. The high school principals are predominantly involved in the budgeting processes. This study also found that vice principals and teachers participate in the budgeting processes; whereas, students and local governments rarely participate. PTA members have a rather effective role in the budgetary process, except for the funds provided centrally by the MoNE. In some schools, senior office employees and sponsors are also involved in budget management processes. However, this is not true for all schools since not every school has office employees.

The high school principals use written documents, TEFBIS and other types of reporting for accountability purposes. Most of the high school principals keep the relevant processes transparent and some principals employ school budget processes based on equality principles.

Flexibility is one of the problems experienced by principals in their budgeting processes. Most of the high school principals can only use the funds from the MoNE for certain expenditure items. There are difficulties in changing expenditure items to which funds are allocated, making transfers between expenditure items from time to time, and when no money is spent to meet a certain need although the budget is sufficient. Therefore, flexibility in budgeting plays an important role in being able to make changes in expenditure items based on needs.

High school principals and other school stakeholders experience problems in finding resources. First, all school principals should be informed about the criteria used to determine the funds provided by the MoNE and the criteria used to allocate resources to schools.

Local government should assume some part of the responsibility for paying for repair and maintenance costs with which the schools have problems the most. Municipalities can pay for repair and maintenance costs of the schools in their jurisdictions.

Another problem experienced by the schools is that funds are not transferred on time to the schools or budgets met within the school year. This is the same for all public institutions. Therefore, training could be provided to school principals to allow them to control the process better.

This study found that school stakeholders want centralized employment of temporary school (non-educational) personnel. The MoNE can provide funds to the Provincial Directorates of National Educations in order to enable the Directorates to manage the process and hire temporary personnel for schools. Taking into account the needs of the schools during summer months, the service of temporary personnel could be purchased through public bidding.

Supportive course materials, which are among the expenses that the schools have difficulty to pay, could be identified by the MoNE at the beginning of each school year and sent to all of the schools. Thus, course materials needed by the schools could be provided.

In order to meet the emergency needs of schools, additional funds can be requested from and sent by the Provincial Directorates of National Education to be placed in Emergency school funds.

Training could be provided to school principals and other stakeholders involved in budgetary management of schools.

Plan/program budgeting model could be developed, and the model evaluated using a good monitoring and evaluation system. Certain standards could be developed in order to evaluate budgets and evaluations made for each budget and program.

Another way to solve financing problems in schools is to investigate the public resources which schools can use to cover their expenditures.

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