

Mohamed Taysir A. El-Rajabi

Kuwait University, Kuwait

SETTING PRIORITIES FOR BUDGET CUTS: PERSPEC- TIVES OF MIS MANAGERS FROM JORDAN AND KUWAIT

Key Words

***Budget Cutbacks; Cross
Culture; Profit Center;
Jordan; Kuwait.***

Abstract

This paper presents a study examining priorities in budget cutbacks (BC) from the point of view of managers of management information systems (MIS) in Jordanian and Kuwaiti commercial banks. The responses of those managers are compared to highlight the effects of their nationality on their responses. The study used questionnaires to collect the responses of 52 MIS managers from 7 Jordanian banks and 38 managers from 5 Kuwaiti banks. Respondents recommended converting the MIS department into a profit center, increasing cooperation between banks and slimming down administrative expenses. However, they did not rank savings from hardware or software costs as being either very high or very low priority. The results indicate differences between the Jordanian and Kuwaiti responses with regard to operating expenses. The study is limited to MIS managers in commercial banks and this limits its generalizability to other departments inside the banks and other firms. The study concludes with the recommendation that banks should consider the relative importance of each item of expense when making budget cuts.

Introduction

Budgets are quantitative plans of how resources will be acquired and used during the budget period (Hilton, 2005). These management tools are used for planning, control, coordination and allocation of eco-

nomic resources and represent the benchmark for performance evaluation. Thus budgets are considered strategic and performance management tools and are connected to many decisions, including resource alloca-

tion, bonus payments and promotions (Douglas *et al.*, 2007). Preparing budgets requires forecasts of anticipated revenues, expenses, capital expenditures and cash flow. These initial estimates must be revised before the budgets receive approval (O'Connor, 1995; Goddard, 1997).

Chow *et al.* (1994) use the agency theory framework to highlight the possibility that managers involved in the preparation of the budget may intentionally introduce slack into the budgeted estimates. Dunk and Perera (1997) argue that subordinates will create budget slack intentionally when they know that their private information will be used later in their performance evaluation. Adding slack to the budgeted amount implies that the forecasts lack the required accuracy and this decreases the benefit of the budgets. Leach-Lopez, *et al.* (2007), Lau and Eggleton (2003), Douglas and Wier (2005) and Rayan (1989) suggest that the creation of budgetary slack makes it more likely that managers will be excluded from the process of generating the budget. However, slack can also be used to protect the firm from unforeseen events, and thus increase the probability of achieving the budget target (Marginson and Ogden, 2005). Empirical evidence of the relationship between the interests of those who

prepare the budget and the introduction of slack is mixed (Douglas *et al.*, 2007; Dunk and Perera, 1997).

The budgeting process encompasses several integral phases including preparing forecasts and discussing the forecasts to remove the intentional and non-intentional exaggeration in revenues and expense estimates. The existence of the slack makes it necessary for the management to adjust the budget estimates, by making budget cutbacks to increase the accuracy of budgeting system. Any laxity in the preparation of the budgets will adversely affect their usefulness in decision making. Therefore, the aim of the budget cutback process is to reduce or to eliminate slack and this is necessary to increase the accuracy of the budgeted numbers. Budget cutbacks can be achieved either by reducing each expense item by the same percentage or by cutting a different percentage from each expense item. Usually academics support the use of the latter approach as it takes into account the relative importance of the expenditure items to the MIS activities (Waldron, 2005). Such an approach is called "direct budget cutting".

On the other hand, information economists have proposed the use of "indirect budget cutting". This approach considers information as an economic good the collection of which

has a price, and calls for budget cuts to be made by using a minimum amount of information. This requires charging the users with the cost of information they require (Poston and Grabski, 2001; Lacity *et al.*, 1994). To achieve this target, Rezaee (2005) suggested converting the MIS department from being a cost-center into a profit center and making its manager responsible for the profitability of activities for which he or she is responsible. In addition, the autonomy of the profit center alerts MIS managers to the fact that they may lose their internal sales unless they can provide information at a lower cost than outsourced information (Dean 2003; Horngren, 2003; Lacity *et al.*, 1994; Holzer and Chandler, 1988). Consequently, this approach increases cost consciousness among users and MIS departments and thus achieves the objective of budget cuts indirectly.

Research Objectives

Banks in Jordan and Kuwait carry out their banking operations electronically and this increases the investment required in physical, electronic and human resources dramatically. Moreover, advances in information technology have given MIS departments opportunities to diversify their outputs to satisfy the different needs of user groups and this in turn has

increased the costs of those departments. Although senior managers know the intense demand for MIS activities, they subject their budgets to cutbacks in the same way as other departments (Leonard, 1993).

The objectives of this study are first to investigate the attitudes of MIS managers in Jordanian and Kuwaiti banks toward priorities in the budget cutback process, and then to examine the impact of their cultural backgrounds on these attitudes. This will be helpful for banks when developing a strategy for budget cutbacks. The results will also be important for international banks, especially those planning to launch businesses in these two countries, as they provide evidence about the attitudes of MIS managers in these two countries (Anderson and Lanen, 1999). To achieve these objectives, the study divided MIS expenses into 22 items of expenditure (variables) to examine the priorities of MIS managers in making budget cutbacks. The study also classified those items into operating expense items and assets items and subjected the two groups of items to factor analysis. The study also examined the impact of other variables on attitudes, such as the size of the bank, the size of the MIS department, the education level of the employees and the length of experience of the respondent. The results showed that the

respondents recommended that the greatest budget cutbacks would be achieved by converting MIS departments into profit centers, cutting back administrative expenses and cooperating with other banks. In addition, the results indicated that the nationality factor explains the differences between the Jordanian and Kuwaiti MIS managers in relation to operating expense and fringe benefits. In addition, the statistical analysis showed that the nationality factor is a moderator to the demographic variables.

The remainder of this paper is structured as follows: Section 3 presents the research background; Section 4 discusses the research methodology, the questionnaire and the sample selection; Section 5 reports the results of the statistical analysis; and Section 6 summarizes the findings and presents the conclusions.

Background for the Research

Studies of Budget Cutbacks

News reports of budget cutbacks in the public sector are common, but similar reports relating to the business sector are not (Rivenbark and Roenigh, 2006). Very few studies of cutbacks in the business sector were identified in a computer search of the literature. Consequently the present study can be considered to be exploratory. Khan and Kukalis (1989) inves-

tigated the attitudes of MIS managers in 250 corporations from the Fortune 500 list of companies. Their results indicated that respondents thought that the largest budget cutbacks could be made by eliminating or reducing external consultants, recruiting no additional programming staff and reducing the administrative costs, in that order of importance. Also, their results showed that the size of the organization, the MIS budget and the MIS managers experience have a significant statistical relationship with the budget cutback in the expenditure on external consultants.

King (2002) examined the practices that MIS managers adopt when making budget cutback decisions and reported that Eastman Kodak reduced the cost of MIS labor by converting 40% of the labor force into offshore contractors, while other companies achieved cutbacks by integrating existing systems, automating administrative tasks, inserting self-service capabilities, outsourcing and adopting common systems. Moad (1991) surveyed MIS executives and reported that respondents recommended making cutbacks from personnel costs, purchasing of products and services, development of new application projects and infrastructure development costs. Rinehart (2003) and Stokes (1990) criticized companies that focused on personnel costs when reviewing their budgets.

They suggested starting cutting the budget with other areas of expenditure including hardware and software maintenance agreements, insurance policies, freight and postage, memberships and subscriptions and fees for legal and other professional services. In this way banks can make budgetary cuts from any cost item but it is necessary to ensure that the cuts should not be detrimental to the activities of the MIS and user departments.

Comparative Studies

As mentioned above, accounting research on budgeting has covered several aspects of budgeting systems, especially participation in the preparation of the budget and the consequences of participation. This line of research has been extended to cover inter-country cultural comparisons. Harrison and McKinnon (1999) reviewed 20 cross-cultural accounting studies focusing on management control systems and compared Asian countries with the U.S.A. and Australia. These studies used Hofstede's cultural dimensions, which are power-distance, uncertainty avoidance, masculinity, and individualism. In sum, these studies document the statistically significant impact of cultural factors on the differences between the investigated countries. They criticized these studies for failing to consider the entire cultural domain, and secondly

for measuring the cultural domain in a simplistic manner according to them.

Hofstede (1980) defines culture as a collective programming of the mind that distinguishes the members of one group or category of people from another. Chanchani and MacGregor (1999: 23), Bagchi *et al.* (2004) and Askary (2006: 102) view the culture of any nation as a result of the interaction between several factors including language, religion, values, attitudes, laws, education, economic environment, national policies, political parties, technology, material culture and governmental regimes. Naturally when these factors differ across countries, culture will also differ among them. Hence, Kambayashi and Scarbrough (2001) classify culture into national, regional and organizational levels.

Bagchi *et al.* (2004) contended that economic measures, social values and institutional indicators affect the organizational culture level. Moreover, Hofstede (2001) argues that when the economic and technological variables predict country variables better than the cultural dimensions that Hofstede 1980 proposed, the latter variables are redundant. Morgan (1997) considered each organization as a mini-society whose own culture has been driven by institutional and socioeconomic factors, the interaction of individuals and management directions. Moreover, within any organization, subcul-

tures can be identified as a result of the professional or political affiliations of the employees (Joiner 2001).

Goddard (1997) presented a model hypothesizing that the beliefs and values of managers are a function of national and organizational cultures and that the beliefs of the managers and the contingent variables in turn, affect their budget related behaviour. Lenartowicz and Roth (1999: 795) contended that progress in understanding cultural influence will be hampered if the field continues to equate culture with national borders or rely dominantly on primarily on the benchmark provided by Hofstede (1980). They suggested that institutional and socioeconomic differences lead to differences in the organizational culture. This conclusion is consistent with contingency theory, which posits that there is no universally appropriate control system, since each system depends on the context of the surrounding environment. Based on the above review, we expect Jordan and Kuwait to be culturally different from each other since each country has its own legal, economic, social, and educational factors.

El-Rajabi (2007) is the only study that compares the impact of the nationality factor of Jordanian and Kuwaiti auditors on organizational-professional conflict, organizational commitment, professional commitment, job satisfaction, and job resigna-

tion intention. He suggested that economic and the institutional factors differ between these two countries, and this would affect the auditors attitudes toward the study variables. His results indicated that the nationality variable has statistically significant effects on the organizational-professional conflict and job resignation intention variables. Consequently, this study supports the claim that the MIS managers sampled in this study would have cultural differences.

Jordan and Kuwait

Jordan and Kuwait are Arab countries that speak the same language, and the majority of their peoples are Muslims. Nevertheless, Kuwait is an oil rich country, enjoying a yearly budget surplus, and is a member in the Gulf Cooperation Council (GCC), a fact that enhances the countrys economic and financial positions. These characteristics attract job seekers from different parts of the world. Thus, the percentage of expatriates working in Kuwait exceeds 60% of the labor force (center for Labor Market Research, 2003). It is therefore, expected that MIS managers in Kuwait will be reluctant to make BC from employees' budget salaries and their fringe benefits.

In contrast with Kuwait, Jordans economy is more diversified and usually suffers from yearly budget deficits

(Global Finance, 1997). Jordan labor market depends on indigenous workers and the unemployment rate is usually in double digits yearly. Moreover, Jordan banks have experienced merger activities to satisfy the requirements of the Basel2 Accord. In addition, Jordan privatized several government owned companies during the last two decades. These matters opened the door for laying off some employees, or offering them early retirement plans (Awamleh, 2002). Therefore, Jordanian respondents are trained to make BC from salaries. Based on the differences in the economic environments, institutional environments and the composition of the labor markets, the study expects to find differences between the attitudes of Jordanian and Kuwaiti MIS managers toward priorities in budget cutbacks. To proxy these differences the study uses the nationality factor (El-Rajabi, 2007).

Hypotheses

Based on the above review of the literature, the present study formulates the following two hypotheses in their null form:

H₁: There are no differences between Jordanian and Kuwaiti respondents with regard to the priority they attach to budget cutbacks in expense items.

H₂: There are no differences between Jordanian and Kuwaiti respon-

dents with regard to expense factors encompassing operating expense (OPEX), fringe benefits (FRBE), asset utilization (ASUT), and reorganization (REOG).

Several studies have examined demographic variables since they might have significant relationships with dependent variables. Lee and Kim (1992) examined the relation between the procedural formalization of the MIS and the sizes of the organization and its MIS department. Their results documented the statistical significance of these two demographic variables. Khan and Kukalis (1989), Ueno and Wu (1993) also examined the impact of the size variable measured by the number of the employees of the firm. On the basis of that evidence, this study uses the number of employees to measure the size of the bank and its MIS department. Other studies also investigated the impact of the educational levels and the length of experience of the employees (El-Rajabi 2007). These studies assume that the longer the employees' experience and the higher the level of their education the more likely it is that they will internalize the organizational values (Lok and Crawford 2004). To test the impact of the demographic variables, the study formulates the following null hypothesis.

H₃: The banks' size, the MIS departments' size, the experience of the

respondent and the educational levels of the respondents have no bearing on the attitudes of MIS managers in the Jordanian and Kuwaiti banks.

Research Methodology

Questionnaires' design

A questionnaire was used to collect data for this study. It includes two parts: the first part consists of 4 questions designed to measure demographic information; the second part includes 22 questions each one representing an expense account in the MIS cost pool. Some of the questions were adapted from Khan & Kukalis (1989) and the questions of the other expense items were acquired from the records of a Jordanian bank. The contents of these questions are shown in Tables 2 and 5. A pilot study was conducted to test the questionnaire for completeness, validity and readability. That pilot study used five MIS managers from a Jordanian bank and their comments were considered. The research instrument asks respondents to record their attitudes toward budget cutbacks using a 5-point Lickert scale ranging from 1 (strongly disagree) to 5 (strongly agree). To simplify the results presentation, responses were aggregated into three groups; agree (strongly disagree and disagree), neutral and agree (agree and strongly agree). Although, the statistical tests reported

in this article are based on analysis using the 5-point Lickert scale.

A covering letter distributed with the research instrument defined the points of the scale as follows: strongly disagree refers to the case where the respondents do not recommend making any BC from the expense item; disagree means BC from the expense item is at most 5% of the budgeted amount; neutral means that BC is more than 5% but less than 10% of the budgeted amount; agree means that the BC is more than 10% but less than 15% of the budgeted amount; Finally, strongly agree means BC from the expense item should be more than 15% of the budgeted amount.

Variables Measurement

The attitude toward the expense items were collected by the research instrument. These items (variables) were classified on the basis of their accounting nature into operating expense items and assets items. Each of these two groups is considered a construct. The Cronbach Alpha of these two constructs are 76.4% and 79%, respectively. This level of reliability is acceptable in empirical research (Lok and Crawford, 2004). Following Khan and Kukalis (1989), these two constructs were subjected to factor analysis to uncover the linear combination in the data. This analysis used the principal component model and factors with

Eigenvalue greater than one were retained. Also, the factor solutions were rotated using varimax orthogonal method (Joiner, 2001). Two factors from each construct emerged. These factors were used to compute four variables which are defined as operating expense (OPEX), fringe benefits (FRBE), assets utilization (ASUT), and reorganization (REOG).

Data Collection Procedures and the Samples

There are 15 banks in Jordan that are listed on the Amman Stock Exchange (ASE). Eleven of these banks are commercial banks and the remaining four specialize in Agricultural Lending, Industrial Development, Exports, and Islamic Financing. Two of the commercial banks were under reorganization schemes when this study started. In Kuwait, eight banks are listed on the Kuwait Stock Exchange (KSE), five of which are commercial banks and the remaining three specialize in Industrial Lending, Real Estate Banking and Islamic Financing. To maintain the homogeneity of the data, the study selected seven commercial banks from Jordan and

all the five commercial banks from Kuwait⁽¹⁾. This means that the study covered most of the population of banks in Jordan and Kuwait. After securing the approval of the banks management to participate in the study, the managers in the MIS department were approached via their managers. In Jordan, 70 questionnaires were distributed 52 of which were returned, yielding a response rate of 74.2%. Similarly, in Kuwait, 70 questionnaires were distributed and 38 responses were returned, yielding a response rate of 54.3%. These rates are considered acceptable in similar empirical studies (e.g., Askary, 2006; Chanchani and MacGregor, 1999).

Table 1 shows the demographic characteristics of the respondents of Jordanian and Kuwaiti MIS managers and their total sample. It shows that 62.2 % of the banks have more than 500 employees, and 46.7% of these banks have more than 50 employees in the MIS department. Also, 52.2% of the participants had more than 10 years of experience in their present banks. In addition, 82.2 % of the respondents had a bachelors de-

(1) In Jordan the stocks of 15 banks are traded on the Amman Stock Exchange (ASE) and their trading transactions represent 35% of the stocks traded in 2005 (\$7.9 billion) and their total assets at December 31, 2004 were \$38.9 billion (Jordanian Shareholding Public Companies Guide, 2004). In Kuwait, the stocks of 8 banks are traded on the Kuwait Stock Exchange (KSE) and their trading transactions represent 7.5% of the stocks traded in 2005 (\$7.5 billion) and their total assets at December 31, 2004 were valued at \$166.5 billion (Institute of Banking Studies, 2004). These figures indicate that the banking industry is a significant economic sector in Jordan and Kuwait.

Table 1
Demographic Characteristics of the Samples

Demographic variable	Variable description	Frequency		
		Total	Jordan	Kuwait
Number of employees in the bank	More than 500	62.2	61.5	63.2
	Less than 500	37.8	38.5	36.8
Number of employees in MIS department	More than 50	46.7	46.2	47.4
	Less than 50	53.3	53.8	52.6
The employees' experience in the bank	Less than 5 years	23.3	23.0	23.7
	5-10 years	24.4	19.2	31.6
	10-15 years	28.9	38.6	15.8
	more than 15 years	23.3	19.2	38.9
The employees' level of education	Less than bachelor	17.8	15.4	21.0
	bachelor degree	58.9	54.8	65.8
	higher than bachelor	23.3	30.8	13.2

gree or higher (e.g., Masters and PhDs). On the basis of these characteristics, it can be concluded that the MIS managers are stable in their jobs and they have strong educational profiles. These characteristics add to the credibility of their responses.

Data Analysis

Frequency distribution, t-test, and ANOVA analysis were employed to examine the expense items and the demographic variables. Also, hierarchical multiple regression analysis was used to test the impact of the demographic and nationality variables on the expense factors (Hartman and Moers 1999). In addition, this analysis examined whether the nationality variable moderates the relationship between the expense factors and

the demographic variables. A variable is considered a moderator when it modifies the strength of the relationship between the dependent and independent variables (Hartmann and Moers, 1999). Finally, the study has set the statistical significance level to test the null hypotheses at $p = 0.05$.

Results and Analysis

Budget Cutback Priorities

Table 2 shows the means (in column 6) and the responses frequency distributions (in columns (3 to 5) of the expense items for the combined sample. The first line in Table 2 presents the most preferable expense item for BC as its mean equals 3.66 and this is the highest numbers in column 6. For this expense item 12.2% of respondents

Table 2
Descriptive Statistics of BC Expense Items and Their Rank

Rank	Expense Item	Disagree 100%	Neutral 100%	Agree 100%	Mean
1	12. Restructuring the MIS Department	12.2	26.7	61.1	3.66
2	18. Cooperating with other banks	15.6	17.8	66.7	3.60
3	13. Paying exceptional compensation	26.6	16.7	56.7	3.42
4	22. Using arms-length transfer prices	23.3	21.1	55.6	3.40
5	19. Developing personal computer applications	27.8	22.2	50	3.31
6	11. Coordinating the use of the MIS facilities among departments	21.1	28.9	50	3.30
7	1. Consultants	30	17.8	52.2	3.27
8	20. Initiating employees early retirement plans	32.2	16.7	51.1	3.23
9	21. Leasing rather than buying expensive applications	33.3	18.9	47.8	3.19
10	14. Using overtime	28.9	23.3	47.8	3.16
11	10. Rescheduling buying of the expensive systems	27.8	25.6	46.7	3.16
12	3. Administrative expenses	34.4	23.4	42.2	3.10
13	15. Centralize the MIS applications in the headquarters	38.9	22.2	38.9	3.10
14	17. Converting the MIS department into a profit center	38.9	14.4	46.7	3.10
15	6. Programs production cost	43.3	21.1	35.6	2.91
16	7. Rescheduling buying hardware	44.4	17.8	37.8	2.88
17	4. Developing computer applications	37.8	26.7	35.5	2.87
18	2. Hiring new employees	51.1	16.7	32.2	2.74
19	8. Rationalizing the use of the computer resources	47.8	13.3	38.9	2.73
20	16. Hiring temporary employees	57.8	17.8	24.5	2.43
21	9. Firing some MIS employees	80	12.2	7.8	1.90
22	5. Employee training programs	85.6	10	4.4	1.77

disagreed to restructure the MIS department while 61.1% of them agreed to make such restructuring and the remaining 26.6% are neutral. Column 1 reflects the ranks or the level of

desirability of the BC from the expense items. The item with the highest mean is the most desirable item for BC and is given a rank of one and vice versa for the lowest mean. Column 3 shows the

"disagree" frequencies to make BC in relation to making budget cutbacks in the expense item, and in that column there are four expense items having frequencies of more than 50%. This means that respondents dislike subjecting these items to budget cutbacks. In contrast with this, Column 5 shows the frequencies of "agree" and indicates that eight items have frequencies exceeding 50%. This means that these items should be subjected to the highest BC and they include restructuring the MIS, increasing cooperation with other banks, and paying exceptional compensation.

These results are inconsistent with the result of Khan and Kukalis (1989) as many expense items are ranked differently. This difference is to be expected as the study period of the current study has seen subject to more rapid advancements in information technology. This motivates banks to strengthen their human and economic resources to increase the flexibility and the effectiveness of their MIS departments.

The Highest and Lowest Ranks of BC in Expense Items

Panel A of Table 3 presents the five lowest means of the expense items and their ranks for the Jordanian and Kuwaiti samples while Panel B presents the five highest means of the expense items and their ranks for the same samples. Panel A shows that

Jordanian and Kuwaiti respondents agree on the ranking of three variables. With regard to the other two variables, Jordanians recommended converting the MIS department into a profit center and rationalizing the use of the central computer services. Kuwaitis proposed making the lowest BC from hiring new employees and programs production costs.

Panel B shows that the Jordanian and Kuwaiti respondents agree on making the highest BC from two expense variables, and disagree on the other three variables. With regard to the latter three variables, Jordanian respondents prefer to make BC from MIS restructuring, administrative expenses, and initiating employee early retirement plans. Kuwaiti respondents, on the other hand, prefer to make the highest BC from paying exceptional compensations, converting MIS into a profit center, and using arm's-length transfer prices.

A possible explanation to these differences is that Jordanians have experience in cutting salary expenses through the use of employee early retirement plans or through restructuring processes. Moreover, most of the Jordanian banks have undergone a merger process to adapt to the Basel2 Accord for capital adequacy. In addition, the high unemployment rate in Jordan offers opportunities for the

Table 3
The Lowest and Highest Five Ranked Variables for BC

Panel A: The lowest Means and Highest Rank of Five Expense Items for BC				
Expense Item	Jordanian		Kuwaiti	
	Mean	Rank	Mean	Rank
5. Employees training programs	1.885	22	1.605	22
9. Firing some of MIS employees	2.077	21	1.657	21
2. Hiring new employees	NA*	NA*	2.447	20
16. Using temporary employees	2.385	20	2.500	19
6. Programs production costs	NA*	NA*	2.526	18
8. Rationalizing the use of the computer resources	2.615	19	NA*	NA*
17. Converting MIS into a profit center	2.731	18	NA*	NA*
Panel B: The Five Expense Items for BC with the Highest Means				
Expense Item	Jordanian		Kuwaiti	
	Mean	Rank	Mean	Rank
18. Cooperating with other banks	3.346	4	3.947	1
13. Paying exceptional compensations	NA**	NA**	3.789	2
17. Converting MIS into a profit center	NA**	NA**	3.605	3
22. Using arm's length transfer prices	NA**	NA**	3.579	4
12. Restructuring the MIS	3.731	1	3.553	5
3. Reducing Administrative expenses	3.462	2	NA**	NA**
20. Initiating employees early retirement plans for employees	3.423	3	NA**	NA**
11. Coordinating the use of the MIS facilities among departments	3.308	5	NA**	NA**

NA means that the rank is Not Applicable, * the variable is not ranked among the top five variables, ** the variable is not ranked among the lowest five variables.

banks to hire new employees when they need to do so. In contrast with this, the unprecedented increase in oil prices has prompted Kuwaiti banks to increase salaries rather than make budget cutbacks in salaries. In addition, most of the employees in Kuwaiti banks are foreigners seeking job security, so naturally BC from operating expenses in general and the salaries in particular is unpleasant for them. The nonpara-

metric sum rank test was used to examine the BC priorities and the result did not reveal statistically significant differences between the Jordanian and Kuwaiti MIS managers. To save space this result is not reported in detail.

Factor Analysis

To deepen our knowledge of budget cutbacks the operating expense items and assets items were subjected to factor

analysis. For the factors, the principal component analysis and varimax rotation method were used for factor extraction and eigenvalues over 1 were retained. OPEX and FRBE resulted from analyzing the operating expense construct and ASUT and REOG resulted from analyzing the asset items construct. Panel A of Table 4 shows the coefficients and the related statistics of the resulting factors. The two factors of the expense items construct explain 66%

(= .39 + .27) of its variance and the two factors of the assets construct explain 69% (= .35 + .34) of its variance. The Kaiser-Meyer-Olkin sampling adequacy test and Bartlett's test of sphericity indicate that factor analysis is useful for modelling the data and there is a significant relationship among the variables (Colbert and Know, 2000). Cronbach's alpha of these factors is above 0.64 which is acceptable in empirical research (Joiner 2001). Panel B shows

Table 4
Factor Analysis of the Expense Items

Pane A: Descriptive statistics of the factors				
	Expense items		Assets items	
	OPEX	FRBE	ASUT	REOG
2. Hiring new employees	.780			
3. Reducing administrative expenses	.868			
6. Programs production cost	.756			
13. Paying exceptional compensations		.833		
16. Hiring temporary employees		.630		
10. Rescheduling outsourcing expensive systems			.814	
8. Rationalizing the use of the computer resources			.849	
15. Centralizing the MIS applications				.796
1. Consultants' work				.778
% Variance explained	.39	.27	0.35	0.34
Cronbach Alpha	.72	.68	.64	.76
Eigenvalue	1.935	1.326	1.496	1.260
Panel B: Descriptive statistics of the expense factors				
	Min	Max	mean	Std
OPEX: Operating expense	0.8	4.01	2.345	0.0842
FRBE: Fringe benefits	0.73	3.66	2.195	0.073
ASUT: Assets utilization	0.083	4.016	2.445	0.0914
REOG: reorganization	0.79	3.96	2.520	0.086

summary statistics of the factors resulting from the factor analysis.

Nationality Variable

To examine the impact of the nationality variable, the two samples t-test (Ueno and Wu, 1993 and O'Connor, 1995) was conducted at the expense items level and at the expense factor scores level respectively. Table 5 Panel A shows the mean responses of the Jordanian and Kuwaiti MIS managers, the t-values and their significance. The results reveal that MIS managers differ on seven items. Jordanian managers have higher means on 4 expense items compared to Kuwaiti managers. These items include firing employees, administrative expenses, and hiring new employees. On the other hand, Kuwaiti managers recommend making more BC than the Jordanian managers from exceptional compensations, converting MIS departments into profit centres, and promoting cooperation with other banks. Thus it is possible to reject null Hypothesis 1 with respect to these seven expense items.

Panel B of Table 5 shows the results of using a t-test to examine the difference between Jordanian and Kuwaiti samples with respect to the expense factors. The mean of the responses of the OPEX factor in the Jordanian sample is higher than that in the Kuwaiti sample. The opposite is the case for the FRBE factor. This

indicates that these samples differ with respect to the OPEX and FRBE factors, but they agree with respect to the REOG and ASUT factors. Consequently, null Hypothesis 2 can be rejected with respect to the significance of the former two factors. The differences between the mean factors scores are in the expected direction since Jordanian MIS respondents are familiar with making budget cuts in salaries and related items while the Kuwaitis MIS managers do not like to make budget cuts from salary items. However, Panels A and B show that the nationality variable has a statistical significant impact on the operating expense construct whether its expense items are analyzed at the item level or using factor analysis. In contrast with this, there is little or no impact of the nationality variable on the asset item construct, and this is particularly true in the case of the factor analysis. The lack of a statistically significant effect of nationality on the asset construct might be due to rapid changes in information technology, intense competition among banks and the fact that expenditure on these items is not affected by labor market laws.

The Effects of Demographic and Cultural Variables

The study used multiple regression analysis to examine the impact of the demographic and nationality vari-

Table 5
The Difference between the Mean Response to Budget Cutbacks of Jordanian and Kuwaiti Samples, T-values and their Significance

Expense Item	Mean (Kuwaiti)	Mean (Jordanian)	t-value	Significance (2-tailed)
Panel A: t-test of the difference between expense items				
1.Consultants' work	3.42	3.15	.959	.340
2. Hiring new employees	2.45	2.96	-2.089	.040*
3. Reducing administrative expenses	2.61	3.46	-3.380	.001*
4. Developing computer applications	2.95	2.81	.580	.563
5. Employees training programs	1.61	1.88	-1.485	.141
6. Programs production cost	2.53	3.19	-2.634	.010*
7. Rescheduling buying hardware	2.92	2.85	.320	.749
8. Rationalizing the use of the computer resources	2.89	2.62	.953	.343
9. Firing some of MIS employees	1.66	2.08	-2.056	.043*
10.Rescheduling outsourcing expensive systems	3.26	3.08	.784	.435
11. Coordinating the use of the MIS facilities among departments	3.29	3.31	-.073	.942
12. Restructuring the MIS department	3.55	3.73	-.755	.452
13. Paying exceptional compensations	3.79	3.15	2.627	.010*
14. Paying overtime	3.05	3.23	-.706	.482
15. Centralize the MIS applications	3.24	3.00	.927	.356
16. Hiring temporary employees	2.50	2.38	.423	.673
17. Converting MIS department into a profit center	3.61	2.73	3.084	.003*
18. Cooperate with other banks	3.95	3.35	2.730	.008*
19. Developing Personal computer applications	3.47	3.19	1.163	.248
20. Initiating early retirement plans	2.97	3.42	-1.583	.117
21. Leasing the expensive applications	3.39	3.04	1.274	.206
22. Using arm's length transfer prices	3.58	3.27	1.196	.235
Panel B: t-test of the difference between study variables				
Expense Factors	Mean (Kuwaiti)	Mean (Jordanian)	t-value	Significance (2-tailed)
OPEX: Operating expense	2.027	2.578	-3.471	0.001
FRBE: Fringe benefits	2.370	2.068	2.194	0.031
ASUT: utilization	2.557	2.362	1.071	0.287
REOG: reorganization	2.636	2.437	1.229	0.222

Significant at $p < 0.05$

ables on the study factors. Demographic variables included the size of the banks, the size of the MIS department, and level of education, and experience of MIS manager. Four regression models were used to regress the factor scores as dependent variables on the demographic variables, and nationality variable as the predictor variables. Following Ueno and Wu (1993) and El-Elrajabi (2007), the nationality variable was measured using a dummy variable with 0 referring to Kuwait and 1 referring to Jordan. The size of the banks and the size of the MIS department were measured also by using dummy variables with 0 referring to the bank size and MIS size when they are more than 500 employees and 50 employees re-

spectively, and 1 referring to the bank size and MIS size when they are less than 500 employees and 50 employees respectively. Each regression was applied five times; the first one included all the demographic variables and the nationality variable. In the second regression the education variable was dropped. Regressions three, four and five dropped experience, MIS department size, and the size of the banks respectively.

To save space, Table 6 shows only the statistically significant regression models. The results show that the five multiple regression models for OPEX are statistically significant and in each of these models the coefficient of the nationality variable (NV) is statistically significant. However, education

Table 6
Multiple Regression Analysis of the Expense Factors on Demographic and Nationality Variables

Factors	Serial	NV	BS	MIS S	EX	ED	F-value	SIG
OPEX	1	.301	-	-.271	-	.226	3.991	.003
	2	.341	-	-	-	-	3.655	.009
	3	.341	-	-	-	-	4.036	.010
	4	3.42	-	-	-	-	5.783	.004
	5	.342	-	-	-	-	11.688	.001
FRBE	1		-	-	-	-.360	3.788	.004
	5	-.217	-	-	-	-	4.367	.040
ASUT		-	-	-	-	-	-	-
REOG	4	-	.244	-	-	-	3.491	.035

Where: Serial is the regression model number, NV nationality variable; BS size of the banks; MIS S size of the MIS department; EX experience; ED education; OPEX operating expenses factor; FRBE fringe benefits factor; REOG reorganization; ASUT assets utilization.

(ED) and the MIS size (MIS S) are significant only in the first regression for OPEX, and they are not significant in the other regressions. The coefficient of ED is significant in the first regression for FRBE, and the nationality variable is significant in the fifth regression. However, the regressions for REOG are not significant except for the fourth one, and none of the regression models for ASUT are statistically significant.

Table 7 presents the results of the ANOVA analysis of the demographic variables. This analysis examines the impact of each demographic variable on the expense items level. Panel A shows the result of the banks' size, as measured by the number of employees, on these items. The bank is considered to be large when it has more than 500 employees. Otherwise, the bank is considered small. The results show that this variable has a statistically significant impact on three expense items which measure consultancy expenses, cooperation with other banks, and making more use of personal computers. However, small banks have higher tendencies to make BC from consultancy expenses than large banks, which mean they would suggest strengthening the human resources of the MIS department.

Panel B shows the results of examining the impact of the size of the MIS department on the expense items. The size of this department is considered

large when it has more than 50 employees; otherwise it is considered small. The results indicate that this factor has a statistically significant impact on three expense items, namely developing personal computer applications, using temporary employees, and cooperating with other banks.

Panel C shows the effects of the employees' experience on BC expense items. The results indicate that experience has a statistically significant impact on six variables, including hiring new employees, cutting training programs, cutting program production costs, rationalizing the use of MIS facilities, use of overtime, and the use of the arm's length transfer pricing. Respondents with more than 10 years of experience have higher means on five variables, whereas the less experienced respondents have higher means on variable 8 only, which calls for the rationalization of the use of central computers.

Panel D shows that the respondents' education has a statistically significant impact on administrative expenses, coordinating the use of MIS facilities, restructuring the MIS department, paying exceptional compensations, employing temporary employees, and developing personal computer applications.

Overall, the results of the ANOVA analysis of the expense items indicate that each demographic variable has statistically significant effects on cer-

Table 7
ANOVA Analysis for the Demographic Variables Which are Significant
at the 5% Level

Panel A: The effects of culture and the bank size on the expense variables				
Variable	Sum of squares		F - statistic	Sig P < 0.05
	Between groups	Within groups		
Panel A: Size of the bank measured by number of employees				
1.Consultants’ work	6.731	144.869	4.089	.046
18. Cooperating with other banks to improve bank- ing services	5.113	108.487	4.147	.045
19. Developing personal computer applications	12.748	114.541	9.794	.002
Panel B: Size of the MIS measured by number of employees				
4. Developing computer applications	5.016	107.384	4.111	.046
16. Hiring temporary employees	7.314	136.786	4.706	.033
18. Cooperating with other banks	14.145	99.455	12.515	.001
Panel C: Experience of the respondents				
2. Hiring new employees	12.170	122.952	2.838	.043
5. Employees training programs	8.373	61.727	3.888	.012
6. Programs production cost	14.727	118.562	3.561	.018
8. Rationalizing the use of the computer resources	19.166	148.434	3.701	.015
14. Paying overtime hours	12.130	111.692	3.113	.030
22. Using arm’s length transfer prices	17.418	114.182	4.373	.006
Panel D: Educational level of respondents				
3.Administrative expenses	9.473	130.627	3.155	.048
11. Coordinating the use of the MIS facilities among departments	10.535	108.365	4.229	.018
12. Restructuring the MIS	11.622	96.700	5.228	.007
13. Paying exceptional compensations	10.001	111.955	3.886	.024
16. Using temporary employees	22.670	121.430	8.121	.001
19. Developing personal computer applications	8.603	118.686	3.153	.048

tain expense items and none of the expense items is affected by more than one demographic variable.

Discussion and Conclusions

The main objectives of this study were firstly to examine the priorities of

managers when seeking budget cut-backs in expense items, from the view-point of Jordanian and Kuwaiti MIS managers, and secondly to compare their responses. This extends budgeting research to include the budget preparation phase, using data from

emerging markets in Jordan and Kuwait. Responses from seven Jordanian banks and five Kuwaiti banks were collected and analyzed.

The major findings of the combined sample indicate that respondents tend to make the smallest BC from employees training programs, firing of MIS employees, or hiring temporary employees. This may be due to the fact that banks' managements previously reduced such expenses when they started using Automated Teller Machines and providing internet services to clients (Dean, 2003). This result supports the findings of Rinehart (2003) and Stokes (1990) who criticized companies that look for budget reductions by cutting the or eliminating training costs. However, the results are in contrast with those of Khan and Kukalis (1989) who found that their respondents preferred to give priority to budget cuts in salaries expense.

A possible explanation of this difference is that making BC from employees' salaries will produce more harmful effects on manpower in developing countries (e.g. Jordan and Kuwait) than in developed countries like the USA (Rinehart, 2003; Holzer and Chandler, 1988 as well as Hindus, 1993). In addition, the difference in results may be attributed to rapid changes in information technology that have been occurring in the period

of this study. Respondents in this study preferred to make BC by converting MIS into a profit center, using arm's length transfer pricing, increasing the cooperation between banks, and finally slimming down the administrative expenses. These items reflect the tendency to improve the effectiveness and the efficiency of the MIS as banks are facing fierce international competition. Again, the respondents in the study by Khan and Kukalis (1989) study ranked the reorganization of MIS as the lowest priority for BC.

The five expense items ranked as having the highest priority for BC indicate that there are differences between Jordanian and Kuwaiti respondents. Kuwaiti respondents prefer to make the highest BC from paying exceptional compensation, converting the MIS center into a profit center, and making arm's length negotiations when determining the transfer price. On the other hand, Jordanian respondents prefer to make the highest BC from restructuring the MIS, reducing administrative expenses, and making early employees retirement. Consequently, Jordanian MIS managers focus on the need to control operating expenses, including administrative expenses, while Kuwaitis strive to make BC through reorganizing the activities of the MIS department. However, the sum rank test does not support the existence of

a statistical difference between the ranks of expense items of the Jordanian and Kuwaiti MIS managers.

The results of a two samples t-test indicate that Kuwaiti and Jordanian MIS managers have a statistically significant difference in relation to seven expense items. Generally, these expense items are basic elements in the operating expense items construct. The OPEX scores have the lowest mean among the expense factors, and the ASUT factor scores have the highest mean; this implies that respondents prefer to make the highest BC from latter factor. The Jordanian and Kuwaiti MIS managers have statistically significant differences with regard to OPEX and FRBE. This supports the results of the analysis at the individual expense level. Jordanian respondents suggest making more BC from operating expenses than Kuwaiti respondents, and the reverse is true with respect to the fringe benefits factor. This means that Kuwaiti respondents are more conservative with respect to making BC from salaries than Jordanian respondents, and recommended making BC by organizational changes in banks.

The results of regression analysis indicate that the nationality factor has a statistical significant effect on the OPEX and FRBE factors but it has no effect on the other expense factors.

In Jordan, as they have experienced laying-off the employees, operating expenses can be reduced by more than the level that Kuwaiti respondents prefer. This result highlights the impact of the labor market organization and wealth differences between the two countries. In Kuwait, the labor market depends heavily on foreign labor and the laws that organize the labor market complicate the hiring and firing the employees. Consequently, respondents recommend making the lowest possible BC from the salaries variable. However, AUST and REOR are not affected by the nationality variable as they are more affected by other factors such as rapid changes in information technology and intense competition, and are not affected by labor market laws. Finally, ANOVA analysis indicates that the demographic variables, when they are tested independently, affect certain expense items. However, when the demographic variables are considered with the nationality variable in multiple regression analysis, their statistical significance disappears. This indicates that the nationality variable moderates the effects of the demographic variables

Limitations and implications

This study suffers from three limitations. First, it employed non-random samples of MIS managers from commercial banks in Jordan and Ku-

wait to investigate the BC priorities in making budget cutbacks. This excluded managers of other departments in the commercial banks and did not cover the specialized banks and consultancy firms. Second, this study did not explore the perceptions of the users of MIS services of budget cuts. Accordingly, these limitations affect the generalizability of the results to other departments in the commer-

cial banks as well as to other specialized banks. Finally, this study did not address the consequences of BC on manpower, competition, and the market share of the banks. Other studies are needed to cover other departments in commercial banks, other business firms, and the governmental sectors, in order to enhance our knowledge of the budget preparation process and budget cutback phases.

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الملخص

أولويات خفض الموازنة من وجهة نظر مديري أنظمة المعلومات في الأردن والكويت

محمد تيسير عبدالحكيم الرجبي
جامعة الكويت

تهدف هذه الدراسة إلى فحص أولويات خفض الموازنة من وجهة نظر مديري أنظمة المعلومات في البنوك التجارية الأردنية والكويتية، كما تقارن بين هذه الردود للوقوف على أثر عامل الوطنية (الجنسية) على ردود المديرين. واستخدمت الدراسة الاستبانة لتجميع الردود من اثنين وخمسين مديراً من سبعة بنوك تجارية أردنية، وثمانية وثلاثين مديراً من خمسة بنوك تجارية كويتية. وأوصى المشاركون في الدراسة بتحويل إدارات أنظمة المعلومات إلى مراكز أرباح، وزيادة التعاون بين البنوك وتقليص المصروفات الإدارية. ولكن لم يحصل خفض موازنة البرامج أو أجهزة الحاسب على أولوية. وأشارت النتائج إلى وجود اختلاف بين استجابات الأردنيين والكويتيين بخصوص المصروفات التشغيلية. واقتصرت الدراسة على استطلاع آراء مديري أنظمة المعلومات في البنوك التجارية، وهذا يحد من إمكانية تعميم النتائج على الإدارات الأخرى في البنوك أو في المنشآت الأخرى. وأوصت الدراسة البنوك باعتبار الأهمية النسبية لكل بنود المصروفات قبل اتخاذ قرارات خفض الموازنة.

Mohamed Taysir A. El-Rajabi Professor, Department of Accounting, College of Business Administration, Kuwait University. His research interests include management, auditing, capital markets, and accounting education. He has published in several international and regional journals including Managerial Auditing Journal, Accounting and Finance, Dirasat Journal, Abhath Al-Yarmouk, and the Arab Journal of Administrative Sciences.