Public Budgetary Roles in Iran: Perceptions and Consequences

Abstract

Purpose: This research examines the public budgeting process in the higher education and research sectors of Iran. It focuses on the actors’ budgetary roles and uses their perspectives to identify deficiencies in the budgeting process that cause delays in the transition to a performance-based system.

Design/Methodology/Approach: This research uses an interpretive research paradigm. It applies the grounded theory methodology to analyze the interviews conducted with those responsible for budgeting at Iranian public universities and research institutes. The results are interpreted using Wildavsky’s (1964) budgetary roles paradigm.

Finding: Using Wildavsky’s (1964) paradigm, “spenders” and “guardians” are identified and their perceptions about the public budgeting process are described. The results suggest a decoupling between the actors’ perceptions based on their budgetary roles. Spenders consider budgeting as a negotiation-based process, while guardians’ decisions are largely based on “outputs” and “information”. This research demonstrates that the disagreement over the perceived budget process was due to different budgetary roles. This disagreement lead to delays in the transformation of the budget process in Iranian public universities and research institutes.

Research Limitations/Implications: While efforts are made to obtain a sample of individuals with different roles and responsibilities, the selection is limited by subjects’ willingness and availability. Therefore, sample size and diversity are potential limitations of this study.

Practical Implications: When organizations attempt to transition to performance-based budgeting, it is critical to understand the current budgeting process to identify potential impediments. Understanding these impediments allows for alternative approaches to be considered. This is particularly important for universities that are mostly funded by government (such as those in Iran). The results of this study show that the contradictory perceptions among budget actors have a significant impact on budgeting transition and require attention to understand budgeting decisions.

Originality/Value: This study contributes to the budgeting literature in three ways. First, it examines the impact of endogenized shared values among budget participants on the budgeting transition process. Second, by focusing on budgetary roles, it contributes to the literature by examining disagreement on the perceived budgeting process and its implications for transforming the process into performance-based budgeting. Finally, to the authors’ knowledge, this is the first study to examine the public budgeting process in a developing country - Iran.

Keywords: Public Budgeting, Public Universities and Research Institutes, Wildavsky Budgetary Roles, Reality Construction in Budgeting, Grounded Theory
1 Introduction

Budgeting shapes the accountability relationships between governments and grassroots groups (Osborne, 2006; Wildavsky, 1964); hence, budgeting is a necessary condition for good governance (Ahrens & Ferry, 2015) and alternative ways of governing (Ahrens, Ferry & Khalifa, 2020). While budgets can help to forecast the operations of a firm, they are the result of processes through which units/departments with varying degrees of power try to prioritize the actions of an organization. The process of budgeting, in government institutions, can significantly affect the role of each organizational unit. When the government mandates a change in the budgeting process - and thus the allocation of resources to organizations - organizational units use their power to ensure that the new process does not adversely affect their position (Ahrens, Ferry & Khalifa, 2018). Indeed, budgeting processes do not change without recognizing their political impact (Wildavsky & Caiden, 2004), especially in organizations associated with government funding; this places budget at the heart of political processes (Ahrens & Ferry, 2015). Ahrens & Ferry (2015) assert that the government budget arises from the interaction between the actors of the budget process which take on certain roles, that are sometimes related to the administrative position of the budget actor, and each actor behaves according to the political position of that role. This paper examines the roles of budget actors regarding the changes in budgeting process in the higher education and research sectors of Iran.

Public Universities and Research Institutes (PURI) in Iran receive over seventy percent of their funding from the government (Islamic Parliament, 2018). Recent changes in both the source of funding and government’s fund allocation process require significant changes in PURI organizations. These include the central government’s pressure on PURI organizations to obtain most of their funding from non-government sources (Islamic Parliament, 2017; Article 60). In addition, the Fourth (Article 138), Fifth (Article 219) and Sixth (Article 7, Section P) Iran Development Plans (Islamic Parliament, 2004, 2010, 2017) indicate that PURI’s budgets should be based on their performance. The proposed transition to performance-based budgeting (hereafter PBB) indicates government’s desire to improve PURI’s performance reports (Parker, 2011). In addition, the government wants this sector to be more efficient and less dependent on government funds (Parker, 2011; Parker, 2013). The central budgeting and executive organizations in Iran have been working for nearly twenty years to prepare PURI to adapt their infrastructures and facilities for the transition to PBB, albeit with little success.

Literature on performance budgeting suggests that certain barriers arise during a budget process transition. These barriers range from the difficulty in creating performance measures and accrual systems (Schick, 2007), to creating compulsory provisions and adjustments (Schick, 2014), and to recognizing cultural considerations (Schick, 2007). Moynihan & Lavertu (2012) and Lu, Mohr, & Ho (2015) explain the importance of internal support for performance information usage, and Moynihan (2005) argues that the usage of information depends on actors’ understanding of budgeting process, which depends on their budgetary role. In this regard, institutional fields (Bourdieu, 1990) serve as a
network structure of social connections, that includes the conflict between actors with different positions. Examples of these conflicts of interest include those between the institutions offering public services (specifically education, social care, or welfare) and the governments providing the funds (Ahrens & Ferry, 2015). The conflict of interest also includes the identity and the interaction of actors working in the services field (Ahrens & Ferry, 2018) and these identities and interactions based on individuals’ roles are expected to impact upon their perceptions. Ahrens & Ferry (2018) emphasize the endogeneity of teleoaffective structures and the values that budget actors share. They also emphasize the impact of the budget actors’ values on budgetary changes. Similarly, Ahrens et al., (2018) show that budget actors’ understanding can influence their budgeting practices, which may lead to objective conflict and resistance to financial controls (Brignall & Modell, 2000). This argument can be interpreted using Berger & Luckmann’s (1991) “Social Construction of Reality” concept, which states that individuals shape their perceptions of the organization through their interactions (Covaleski, Dirsmith, & Samuel, 2017). Using this perspective, accounting and budgeting can be considered as a social phenomenon (Covaleski, Dirsmith, & Weiss, 2013).

Previous research does not examine the potential use of budgetary roles in endogenized perceptions of relevant actors and its impact on budgetary transformation. The purpose of this study is to examine how the perceptions of individuals in different roles affect the budgeting practices and the proposed transition toward a budget with performance-based measures. The study is also noteworthy as the budgetary actors operate in a developing country with a central government controlling allocation of the resources. In addition, the study uses the grounded theory methodology (Joannides & Berland, 2008), and employs an interpretive research paradigm (Lukka & Modell, 2017). Data is collected through in-depth interviews with university budget experts and managers in three different organizations: (1) PURI, (2) Minister of Science, Research and Technology (MSRT)1, and (3) Management and Planning Organization (MPO).2 The institutions and individuals selected are directly involved in PURI budgeting and cover the entire budgeting procedure in this sector.

This study makes three contributions to the budgeting literature. First, it examines the impact of disagreements on the perceived budgeting process using a social reality construction assumption (Berger & Luckmann, 1991) and the impact of these disagreements on budget practices and budget transformation. Second, it examines the budgeting issues in Iran, and the specific cultural and economic factors. The budgetary roles and the actors’ perceptions at PURI have not been recognized, and so the impact of factors specific to Iranian society have not yet been documented. Finally, it focuses on

1 MSRT is one of eighteen governmental ministries in Iran. This ministry is responsible for administration of the science and technology sector
2 MPO is a governmental organization and is responsible for the preparation of budgets for all public sector organizations in Iran.
individuals and their roles using the spender-guardians framework (Ahrens & Ferry, 2015; Wildavsky, 1964).

The remainder of this paper is organized as follows: The next section presents the theoretical framework and literature review in four parts, starting with the construction of reality in budgeting research, and ending with the expected behaviour of budget actors. Section 3 examines the cultural and economic features of Iran with specific emphasis on their impact on PURI. Section 4 presents the research methodology and section 5 discusses the results. Finally, section 6 offers the conclusion and the implications of the study.

2 Budgeting changes: social construction of reality and budgetary roles
2.1 Budgeting research evolution toward social construction of reality

Budgeting theories include those about normative budgeting processes and behavioural implications of the budgeting processes. The normative literature neglects human aspects of budgeting and focuses on the definitions of budgetary actions, including plans, outcomes, and financial recourse usage (Gonçalves, 2014). Normative studies also discuss a comprehensive plan of operations presented in financial language (Heiser, 1959). Behavioral budgeting research recognizes the importance of human behaviour in budgeting (Grønhaug & Ims, 1991). Argyris (1952) was one of the first scholars who discussed the budget preparers’ control over each other, and the behavioral effects on budgets. In addition, behavioral literature considers the budgeting process as a tool that creates different interactions rather than an instrument that controls individuals (Czarniawska-Joerges & Jacobsson, 1989). Behavioral studies are subclassified into traditional and emerging (Covaleski, Dirsmith, & Jablonsky, 1985). Traditional behavioral budgeting research focuses on budget preparers and considers budgeting as a process affected by - and affecting - individuals (Schiff & Lewin, 1970), while emerging studies consider budgeting as a subjective, complex and socially constructed phenomenon (Covaleski et al., 2017).

Hopper & Powell (1985) view behavioral measures from an interpretive paradigm and argue that social reality is individual consciousness. Covaleski et al. (2017) argue that individuals shape their perceptions of the organization through their interactions. The view that individuals create their own reality in organizations formulates the emerging theory in budgeting studies (Covaleski et al., 1985). Berger & Luckmann (1991) introduce the “social construction of reality” perspective, which treats accounting and budgeting as a social phenomenon (Covaleski et al., 2017; Covaleski et al., 2013; Jalali, Mashayekhi, & Gal, 2019). This notion contrasts with traditional budgeting research that views the reality of the organization as objective and rational.

2.2 Transition to PBB

The budgeting process in government funded organizations depends on the political process. Hence, budgeting process cannot change without understanding the political effects and realities of the
change (Wildavsky & Caiden, 2004). The significant role of individuals in budgeting process changes signifies the function of an agency and its internal actors (Moll & Hoque, 2011; Oliver, 1991; Ozdil & Hoque, 2017). This encourages researchers to use new methodologies and perspectives to clarify unidentified aspects of budgeting change. Some of these new perspectives include considering individual judgments and their impact on the political processes (Wildavsky & Caiden, 2004) and understanding individuals’ role in creating a separate budget reality (Covaleski et al., 2013). Other studies focus on the implication of teleoaffective structures (Schatzki, 2002) and the concept of practice memory (Ahrens & Ferry, 2018).

Significant changes accrue in the type of information needed in the process of transformation toward PBB (Ho, 2018; Moynihan, 2005; Moynihan & Lavertu, 2012), creating a serious obstacle in the process (Schick, 2007, 2014; Shaw, 2016). This shift requires consideration of organizational culture (Ho, 2018; Schick, 2007, 2014) and analysis of budgeting practice with focus on budgetary roles (Sicilia & Steccolini, 2017). In the context of developing countries, Ho (2018) explains that cultural issues are particularly important among institutional and organizational barriers in PBB implementation. Hence, Lu et al. (2015) calls for research on the barriers of PBB implementation across different cultures.

2.3 Budgetary roles and changes

This study employs Wildavsky’s (1964, 1986) framework to examine budgetary roles. The framework illustrates the budgeting process by dividing the actors into two groups: “spenders” and “guardians”. Spenders are the actors who want more funds than they have; guardians want to prevent spenders from getting more funds than they need (Wildavsky & Caiden, 2004). This is the basis for the intrinsic bargaining process in public budgeting that serves to distinguish between spenders and guardians (Brignall & Modell, 2000). Niskanen (1989) terms "Wildavsky" as the "Adam Smith" of the budgeting process because of his research on strategic interaction between budgeting actors. Wildavsky (1964, 1986) views actors’ understanding of their roles and budgeting as a political process (Gordon & Sellers, 1984). The Wildavsky’s framework incorporates essential elements of budgeting policies, including the relationship between guardians and spenders in the absence of formal financial controls, rules, and procedures (Kelly & Wanna, 2000). The framework enables us to view public budgeting policies as a game between two groups of actors with institutional roles. These roles affect their performance at every stage of the budgeting process, encompassing political and bureaucratic environments. Jönsson (1982) views budgetary roles as a solution to understand the complexity of the budgeting process.

The current study employs Wildavsky’s budgetary roles for two main reasons. First, it helps to decrease the complexity of understanding the public budgeting process in PURI in Iran, allowing for a deeper and potentially more meaningful analysis. Second, it helps to interpret the research outcome and
the deficiencies associated with each role in the budgeting process. Indeed, the framework helps to explain the failure in the PBB implementation.

2.4 Institutional roles and the expected behaviour in budgeting transition

The government of Iran exerts pressure on PURI to prepare performance-based budgets (Islamic Parliament, 2004, 2010, 2017). Institutions in developing countries consider transitioning into PBB; this calls for further studies to identify existing barriers and to consider potential barriers in different contexts (Lu et al., 2015). The budget performance can be analyzed by understanding the budget actors and their budgetary roles (Ahrens et al., 2018). Ahrens & Ferry (2015), suggest that budget actors behave in a way which is based on the political position of their role and the interaction between the actors with certain roles and position shape the budget. This is important because different perceptions and understanding of organizations can lead to objective conflict and decoupling between operational and administrative environments resulting in resistance to budgetary and financial controls (Brignall & Modell, 2000). Changes in budgeting processes have also been explained by Ahrens and Ferry (2018) through rules and teleoaffective structures. They illustrate that teleoaffective structures can be endogenized to bring institutional changes, and institutions produce and reproduce types of individuals and their issues. These structures shape the meanings and rules, and even the concept of power in organizations (Schatzki, 2006). Given that guardians and spenders have particular authority, and successful budgeting is a product of the cooperation between these groups, the potential conflict between the two groups can create barrier to budget transfer (Wildavsky, 1964). Budget actors are expected to have a different perception of budgeting given their role in the process. This difference is central to dialogue theory (Lu et al., 2015; Moynihan, 2005). Wildavsky’s (1964) view is that budgeting decisions made by budget actors, are not made without any intervention and in isolation, but their decisions are influenced by other actors’ anticipated decisions of the budgeting process. For instance, Burgess (2006) explains that budget players justify their decisions based on predictions of other actors’ behaviours. This interaction between actors depends on the organization structure and the budgeting rules.

Previous studies have noted the potential conflict between guardians and spenders leads to resistance to financial controls (Brignall & Modell, 2000). However, the budgetary responsibility at different levels reduces decoupling and increases cooperation for budgeting control (Covaleski & Dirsmith, 1986). In addition, the strict division of responsibilities in budgeting and hierarchical pressures can negatively affect the flexibility of the operational staff (Brignall & Modell, 2000), and the value placed on performance varies depending on the actors’ roles and culture (Moynihan, 2005). Indeed, it is to be expected that spenders and guardians assume their roles from their positions in the organization which can influence their perceptions of other budget actors and can influence the budget transition process. Therefore, it is reasonable to expect that as the conflict and decoupling between budget actors increases, their resistance and challenge to the budgeting process will increase. It can be
expected that disagreement between budgetary roles on the perceived budget can have a significant effect on budgeting process transformation.

The approach used in this study should allow an understanding of the individual roles in the budgeting process and the barriers they create in the transition toward PBB in a developing country. In this study, there is a view that the individuals’ perceptions are the product of their roles and relationship within the institution. The study examined the impact of this obtained identification on the budget transformation process. By focusing on budget actors, their perceptions, and their impact. Given certain obscure points in the budget transformation constraints in Iranian PURI, this article illustrates how disagreement among budget actors - in different roles - affects the budgeting practices and the PURI budget transformation process. Thus, the study addresses the following question: “how do perceptions of the budget among actors in various budgetary roles and their application to the organization’s budgeting practices affect the budget transformation at PURI in Iran”? We address this question by examining how the budgetary roles affect the perceptions of budget actors at PURI in Iran. Next, we examine how these perceptions affect the transition toward PBB.

3 Budgeting system in PURI in Iran

The Fourth and Fifth Development Plans of Iran (Islamic Parliament, 2004, 2010) emphasize the need to transition budgeting process toward PBB. Section 49 of the Fourth Development Plan obliges PURI to prepare performance-based budgets to measure the cost of education and research activities and determine students' capitation cost. The reforms are meant to allocate resources based on PURI performance criteria. Parker (2011) analyzes how governments in developed countries pressure institutions to make output-based decisions. The focus of the government is to minimize costs and increase accountability in universities (Parker, 2013). Universities in the United States have dramatically increased the use of performance budgeting, reflecting their emphasis on improving performance and accountability (Parker, 2013). This study extends this line of research by examining the Iranian government’s pressure on universities to make decisions based on their output. While PBB is mandatory, an examination of the current budgeting process at PURI in Iran illustrates that it is based on an incremental budgeting process and the information provided to organizations involved in the current process, including PURI, MSRT, and MPO, is essentially an update of the last year’s budget.

3.1 PURI budget in Iran

PURI in Iran operate under the supervision of MSRT, which has jurisdiction over universities and research institutes, medical science universities, and other private universities. A review of annual budgets in 2018-2020 shows that PURI in Iran account for about 2.5% of the country’s total budget;

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3 See Clauses 44 and 138 of the Fourth Development Plan.
4 See Clause 219 of the Fifth Development Plan.
the budgeting process in PURI is an incremental approach which is completed by three intervening organizations: MSRT, PURI and MPO (see Figure 1).

![Figure 1 - Organizations involved in PURI Budgeting](image)

The budgeting process begins with the release of a budget circular by MPO through all government organizations in September (Jalali & Gal, 2018). This is based on information from PURI budgeting departments that share predictions of revenue and expenses with MPO. PURI also send information about the number of students to MSRT’s budgeting department. Over the past decade, MSRT has been working to develop a model for calculating capitation of student and research projects which is yet to be finalized. MPO finalizes budget numbers by using information provided by PURI and MSRT’s budget suggestions which are based on capitation numbers.

The budgeting process for PURI suffers from a delay in the transition from incremental budgeting to PBB. According to Iran’s development plans, this transformation started in 2004 and is not yet complete. Central budgeting and executive organizations, such as MSRT and MPO, have made some progress. For instance, MPO has set up budgeting forms for PURI to complete based on their activities to determine drivers for performance budgeting. Also, MSRT has made improvements toward capitation calculations. In the following sections, we discuss MPO and MSRT along with their responsibilities in the budgeting process.

### 3.2 Management and Planning Organization of Iran (MPO)

MPO is directly overseen by the President of Iran (see Figure 2). The country’s President appoints its director, with the title of Vice-President. MPO was established in 1948 when it was titled the Plan and Budget Organization. It has been through several changes, including mergers, dissolution in 2007, and subsequent restoration in 2014. MPO is primarily responsible for the budget preparation of all Iranian public sector organizations. It performs several other tasks, which includes estimating the country’s resources, preparing the country’s annual economic report, preparing a budget circular, analyzing agencies’ proposed budgets, preparing the final budget bill for the Islamic Parliament, and developing and overseeing development plans.

MPO’s budgeting process begins when it releases budget circulars to all public organizations in September. In November, MPO receives the budget information from all public organizations. It then
reviews and finalizes the budget for each organization to prepare the budget bill, which it sends to the Islamic Parliament. The current MPO structure (adopted in 2014) is shown in Figure 2. As of 2014, the organization has seven deputies. The deputy of scientific and cultural development includes higher education affairs and technology and research affairs, which are responsible for PURI’s planning and budgeting. This study includes interviews of MPO’s budget experts, managers of higher education affairs, and technology and research affairs.

Figure 2- MPO Organization Structure

3.3 Ministry of Science, Research and Technology (MSRT)

Forty years after the establishment of the first Iranian university (The University of Tehran), the central committee of universities was formed in 1965 to coordinate the affairs of universities and higher education institutes. In 1967, the Islamic Parliament passed the law to establish the “Ministry of Science and Higher Education”. It was renamed in 2000 as the “Ministry of Culture and Higher Education”. MSRT is one of the eighteen ministries in Iran; the President appoints its minister and the Islamic Parliament approves the appointment. The ministry oversees the science and technology sector, that includes 137 universities and 33 research institutes. This ministry and its subsidiaries controlled approximately 1.2% of Iran’s annual budget during 2016-2018. The ministry’s budget structure is a combination of two important chapters, including Science and Research Development and Education. The development of science and research has received special attention from the Iranian government in recent years because of emphasis on improving Iranian research (Islamic Parliament, 2004, 2010, 2017).

MSRT contains five deputies. The planning and budget division is under the supervision of the Administration, Financial and Resource Management deputy (Figure 3). This section is responsible for budgeting and planning for all MSRT subordinates, including public universities (except medical schools), and research institutes. The planning and budgeting group deals with different planning and budgeting issues, including increasing research funding, taking advantage of MSRT strengths and reducing its weaknesses, analyzing MSRT budget share, and suggesting budget allocations. Its responsibility - which is relevant to this study - also includes gathering information from subsidiaries to prepare annual budgets and collaborate with MPO. We interview MSRT experts and managers in the plan, budget, and organization offices.
4 Research methodology

This study uses the interpretive research paradigm of Tomkins & Groves (1983). This methodology is beneficial in a few ways: it helps to interpret and understand organizational structure and process (Chua, 1986); it supports the extraction of a comprehensive meaning of the budgeting process (Elharidy, Nicholson, & Scapens, 2008); it also helps to understand how these meanings are created and reinforced by actors based on their beliefs and perceptions (Von Alberti-Alhtaybat & Al-Htaybat, 2010). Following Durocher (2009), this study uses the grounded theory methodology as an interpretive research tool (Elharidy et al., 2008). This tool allows tracking of the budgeting process at PURI in Iran. Among the grounded theory traditions (Elharidy et al., 2008; Gurd, 2008), this research employs the Strauss & Corbin (1990) coding procedure.

4.1 Research data

Data for this research are derived from in-depth interviews with individuals involved in PURI budgeting process in Iran. These individuals include budget experts and budget managers from one of the three organizations: (1) budget departments at PURIs, (2) the MSRT Planning and Budgeting Department, or (3) the MPO Higher Education and Research Division. Participants include eleven women and twelve men with a mean age of forty-three. Participant selection continues until theoretical saturation is achieved from individuals willing and available to participate (Table 1).

<table>
<thead>
<tr>
<th>Organizations</th>
<th>Budget Manager</th>
<th>Budget Deputy</th>
<th>Budget Expert</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHERI</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>MSRT</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>MPO</td>
<td>1</td>
<td>-</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>2</td>
<td>16</td>
<td>23</td>
</tr>
</tbody>
</table>

Interviews range from ten minutes to two hours with a mean of forty-eight minutes (Table 2). The interviews are semi-structured and unstructured because the purpose is to understand participants'
perceptions. Participants are asked to describe the budgeting process in their organization and their experience with the process. The questions allow participants to explain their daily activities and experiences with the budgeting process (Elharidy et al., 2008).

<table>
<thead>
<tr>
<th>Organization</th>
<th>Average duration of Interview (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURI</td>
<td>52.4</td>
</tr>
<tr>
<td>MSRT</td>
<td>31.8</td>
</tr>
<tr>
<td>MPO</td>
<td>51.8</td>
</tr>
<tr>
<td>Average</td>
<td>47.7</td>
</tr>
</tbody>
</table>

4.2 Data analysis

Interviews are recorded (except for one) and transcribed into text documents for use in coding. Next, the text documents are imported into MAXQDA to support automated coding procedures. Following the systematic process of grounded theory method (Elharidy et al., 2008), we apply three different coding procedures: open, axial and selective (Strauss & Corbin, 2016).

4.2.1 Open coding

Open coding – considered as the heart of grounded theory – breaks down the text into concepts. We employ two methods for the open coding: vivo and constructive (Strauss & Corbin, 2016). Vivo codes are selected from the text itself, while constructive codes are based on deep-rooted concepts from the budgeting literature. An example of a constructed code is as follow:

“the budget for different organizations of MSRT is prepared based on their last year’s budget [Incremental Budgeting] ...”

Since incremental budgeting is rooted in the public budgeting literature, it is considered a constructed code.

<table>
<thead>
<tr>
<th>Organizations</th>
<th>Number of open codes</th>
<th>Number of Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURI</td>
<td>633</td>
<td>9</td>
</tr>
<tr>
<td>MSRT</td>
<td>381</td>
<td>5</td>
</tr>
<tr>
<td>MPO</td>
<td>501</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>1515</td>
<td>23</td>
</tr>
</tbody>
</table>
4.2.2 Axial coding

Axial coding connects categories and subcategories based on their attributes. We combine all open codes into 220 groups. Some of these groups are used to develop the model. The frequency of the codes is determined and the relationship between selected codes and the paradigm model is determined.

4.2.3 Selective coding

This last phase in coding is to integrate the extracted concepts and generate a comprehensive model. This conceptual framework includes causal conditions, axial phenomenon, action/interaction strategies, and consequences. Data analysis, based on the various steps of coding the interviews, is based on the research questions. Hence, we look for the budgetary roles of participants.

5 Research results

The coding steps lead to the formation of categories including casual conditions, axial phenomenon, intervening conditions, strategies, and consequences (Figure 4). The research question focuses on axial phenomenon and their consequences as the most important parts of the model. The axial phenomenon with the highest frequency includes negotiation, output orientation, and information orientation. These affect casual conditions and lead to budget consequences (slack in budgeting and standardization of the budgeting process).

The comprehensive model presented in Figure 4 contains the concepts extracted from three different organizations: PURI, MSRT and MPO. The results section presents two main Wildavsky’s budgetary roles from the PURI budgeting process, namely spenders and guardians. Based on organizations’ positions and extracted concepts, we classify MSRT and MPO as guardians and PURI as spenders.
5.1 Budget Spenders

This section presents perceptions expressed by spenders concerning their roles in the budgetary process. Two concepts are evident in coding spenders’ interviews. First, spenders consider their role to be that of a negotiator. Second, spenders observe that budgetary slack is a consequence of this negotiation process.

5.1.1 Perception of budgeting as a "negotiation"

The axial phenomenon with the highest frequency from the coding of spenders’ interviews is "negotiation". This concept is mentioned as a tool to portray the importance of higher education and highlight its priority to government. For example, one of the budget deputies at university A states that:

"the most important part of university budgeting is negotiation and the ability to express the importance of higher education sector and make it as a priority for the government"

Another expert working in the budget section of research institute B believes:

"the ability to negotiate is essential for obtaining more budget for your institution...the influential groups and the power of negotiation discussed in policy making is also important in budgeting"

For spenders the importance of negotiation goes beyond planning as a basis for obtaining resources. This is indicated by a budget expert at Research Institute C:

"They don’t ask about our plans; it is more about our institution’s negotiation power".

The interviews with spenders in PURI illustrate the importance of negotiation. This focus exists despite regulations and instructions for these institutions to transition to PBB. This indicates the presence of a gap between budget actors’ perception and the government’s perception of their role. This perception could be one of the important reasons for the failure to implement new budgeting methods.

Several studies examine the importance of negotiation as part of the budgeting process. For example, Peffer (1996) discusses how negotiators’ power has a significant impact on the final budget, on slack in budgets, and the motivation to prepare budgets. Also, Sponem & Lambert (2016) present categories for budget negotiations that help to understand the complexity of budgeting. They recognize that during budget negotiations, high level of managers’ involvement and action plans reduce criticism of the final budget. However, Fisher, Frederickson, & Peffer (2000) conclude that budgets change when they are prepared through negotiation. According to Wildavsky's budgetary roles, budget spenders (PURI in this research) negotiate for more resources to improve their service (Wildavsky, 1964). The
results show that spenders perceive negotiation as a tool to maximize their organization’s share of the public budget.

5.1.2 Consequence: slack in budgeting

PURI spenders’ data reveals that negotiation leads to slack in budgeting. This is illustrated in the model (Figure 4) as the outcome of negotiation strategies. This implies that spenders prefer a budget with more resources than they need.

For instance, a budget manager at university C mentioned the following:

“it is common to enhance our budget more than our need, because we are confident that at the end the approved budget will be less that our budget proposal”

Like spenders in other organizations, PURIs increase their expenses to conduct more programs in the following year. Remarks below of a budget expert at research institute B reveal this.

“Some universities fear that if they declare less budget than they did last year, it may be thought that the university has failed to fulfil its duties. We are more likely to deliberately increase our budget”

Data shows that slack in budgeting at PURI in Iran is the consequence of budget negotiation. The budgeting literature discusses the concept of slack in budgeting from different perspectives. Dunk & Nouri (1998) indicate three main factors causing slack in budgeting: organizational factors, individual (risk preference) factors, and environmental factors (environmental uncertainty). Agency theory (Jensen & Meckling, 1976) suggests that slack in budgeting is a type of agency problem that arises out of participatory budgeting in organizations. Moll & Hoque (2011) argue that people overspend or underspend when they find the budgeting system inappropriate and against their values. Fisher, Frederickson, & Peffer (2002) also conclude that negotiation in budgeting increases information asymmetry, increasing slack. But when there is failure in negotiation, managers act fairly and justly to motivate their subordinates. Slack in budgeting can also be related to certainty of careers (Widanaputra & Mimba, 2014). Slack in budgets is more likely when managers are confident that they will remain in their position beyond the budget period. Although managers tend to prepare for slack in budgets, lack of planning, goals, and control mechanisms increase the slack. In contrast, Fisher, Maines, Peffer, & Sprinkle (2002) believe that using budgets to allocate scarce resources or performance evaluations lowers slack in budgeting and improves performance. The current research contributes to the literature on budgetary slack as a consequence of negotiation perceptions by budgeting actors. Specifically, when budget spenders perceive budgeting as a negotiation process, they tend to propose budgets with more resources than they need and resolve any slack through negotiation.
5.2 Budget Guardians

Unlike spenders, budget guardians see their role as limiting the use of resources provided to spenders.

5.2.1 Axial phenomenon in budget perception
5.2.1.1 MSRT: Budgeting as an output-oriented process

The MSRT is responsible for more than 137 public universities and 33 research institutes. Its position is not entirely that of a spender or a guardian, but has features from both roles. The data suggests that the perception of budget actors in MSRT is closer to that of guardians, since the axial phenomena “output orientation in budgeting process” were extracted from their interviews. MSRT actors highlight the importance of performance at PURI by acting as budget guardians for the PURI sector. For instance, one budget expert at MSRT states the following:

"An important part of educational budgeting is paying attention to human resources training [as output] ...as the investment [in education] increases, the output in the following years should be seen”

The budget deputy at MSRT further notes:

"It is very important for the MSRT to shift the goals of universities and research institutes toward measuring output and allocating budget[s] accordingly”

We can infer that MSRT budget actors have an output orientation; hence, we classify MSRT as budget guardian – based on the budgetary roles framework (Wildavsky, 1964). The MSRT’s perception helps budget experts to prepare efficient budgets and conserve government funds. In addition, output is a major concern in budgeting that leads to finding the right indicators for the performance of the organization. In fact, the budget perceived by MSRT actors is in line with the establishment of performance budgeting, which is the aim of budget transition for PURI in Iran.

Iran’s development plans require PURIs to provide performance budgets to measure the cost of education and research activities and determine the capitation cost of students with emphasis on outputs. The research results illustrate that the perception of budget actors at MSRT is very close to government’s budgeting goals. This perception contrasts with that of spenders (Figure 5).

Results suggest that implementing PBB requires not only an enhanced information infrastructure and expert staffing, but also the readiness to adopt new budgeting methods among the actors.

5.2.1.2 MPO: budgeting as an information-based process

The axial phenomenon indicates that the perceived concept of budgeting among MPO’s budget actors is the "information" orientation. This implies that MPO’s budget experts perceive that proper
budgeting is possible if sufficient and accurate information is available. For instance, one budget expert at MPO’s “higher education” sector notes the following:

"When it comes to budgeting for universities, we need to get as much information as possible”

This reflects the MPO expert’s view that there is “information asymmetry" between budget guardians and spenders, and better access to information will reduce this asymmetry. According to agency theory (Jensen & Meckling, 1976), agents (PURI) have more private information about their detailed plans and capabilities, and principals (MPO) must rely on these agents for information. Since agents can benefit from this information gap, principals seek more information to narrow this gap. For instance, a budget expert from higher education sector states the following:

"We [the MPO expert] need to get information [from university] according to specific criteria. Both performance and expenses frameworks and build a relationship between the two. So, we have to set policies, goals and budget. It is the same for research institutes."

We classify MPO actors as guardians that use information from institutions and try to create a budget that allocates resources efficiently. Covaleski & Dirsmith (1983) argue that access to relevant information allows budgets to be used as a tool to control the organization’s activities. The actions of MPO experts support this view because they perceive budgeting as a decision-making process that requires accurate information. The asymmetry of information between MPO guardians and PURI spenders reflects tension between the two groups of actors. However, the information asymmetry does not necessarily benefit spenders. Instead, MPO experts believe that in many cases this leads to fewer budgetary resources.

The agency theory (Eisenhardt, 1988; Jensen & Meckling, 1976) and budgeting negotiation (Fisher et al., 2002) can explain information-based budgeting. Fisher et al. (2002) demonstrate that information asymmetry influences the relationship between negotiation agreements and produces slack in budgeting. This research offers evidence of the role of MPO as the budget’s guardian. This research uses the perspective of budgetary roles and interpretive research to show that budget guardians at PURI in Iran perceive budgeting as an information-based process.
5.2.2 The Guardians’ perceptions’ consequence: toward standardization of universities' performance

Figure 4 shows that while MSRT experts regard the budgeting process as output oriented, MPO experts see it as information oriented; nonetheless, their perceptions lead to standardization of policy. For instance, a budgeting expert at MSRT identifies a standard university as a symbol to follow and another MSRT budget expert notes the following:

“This model [referred to the capitation model calculated by MSRT] was introduced because experts need to know that they have to move toward models and standards”

The data suggests that MSRT actors perceive that budgets should be output oriented. This creates focus of a certain level of efficiency and effectiveness that leads to standardization, as evident from the MSRT expert statement below:

“We believe there is a standard level of education in terms of its expenses for academic and professional staff, research and etc. .... These should be specified to create a standard”.

The data reveals that the main concern of budget guardians is to move PURI toward standardizing its activities. The guardians perceive this as a means of achieving efficiency to minimize resource usage. For instance, an MPO expert from the higher education sector states the following:

“The current capitation system divides the intended budget by the number of students. This process does not start at the micro level and standardization. If a university is standard, its funds will appropriately be spent for education ”.

This view indicates that in the absence of a standard university, practices like capitation would not be effective. MPO experts state that moving to standard-performing universities would initially be difficult and time consuming. For instance, a budget expert from the higher education department notes the following:

“There is a gap between our universities and standard ones. In fact, to standardize universities, they are pressured for a period of time that affect their performance at the time”

The following quote from an MPO expert implies that the use of systems and procedures such as capitation demonstrates a standard and makes the move towards standardization easier.

“We can multiply by the capitation rates for a university. If their spending is less than budget, it shows inefficient performance. This indicates that the dedicated recourses are more that its right or the model or statistics are not appropriate”

Moving toward standardizing the budget process at PURI in Iran will have a significant impact on their outcomes. Uniformity of thinking among all budget actors offers hope that the goals of new
budgeting method could be met. Conversely, spenders’ perceptions create slack, which can lead to decoupling between budgeting actors.

6 Discussion and conclusion

Iran’s recent development plan states that budgeting process should change in both structures and procedures. These plans indicate PURI’s need to transition from traditional incremental budgeting toward PBB. This budgeting transition has not been realized despite almost twenty years of efforts by central budgeting and executive organizations to prepare the required infrastructures and facilities. This study provides some insight into the reasons for the delay. This study focuses on the budget actors and their impact on the current budgeting system and the transition to PBB. Essentially, this research addresses two questions. First, what are the perceptions of budget actors according to their budgetary roles? Second, what is the impact of these role-based perceptions on Iran’s mandated budget transition?

The study uses social constructs of reality assumptions that budget actors use to interact and behave based on their political position and perception (Ahrens & Ferry, 2015). These perceptions and interactions produce their social realities (Covaleski et al., 2017). Literature suggests that budget actors create their own budget reality (Covaleski et al., 2013). Further, these actors have different identities and endogenized values (Ahrens & Ferry, 2015, 2018) given their budgetary roles (Ahrens et al., 2018; Brignall & Modell, 2000; Covaleski & Dirsmith, 1986; Lu et al., 2015; Moynihan, 2005; Sicilia & Steccolini, 2017). The potential conflict between Guardians and Spenders can also create barriers to the budgetary change processes (Ahrens & Ferry, 2015; Wildavsky, 1964). This is especially critical in a change toward PBB as this requires attention to changes in organizational culture (Schick, 2007, 2014; Shaw, 2016).

This research uses Wildavsky’s (1964) guardian-spender framework to distinguish between different budgetary roles based on the actors’ perception of budgeting. The Wildavsky framework reduces the complexity of the budgeting process (Jönsson, 1982) and helps to interpret the results and analyze the barriers delaying PBB implementation. We categorize experts and managers at PURIs as budget spenders while those at MPO and MSRT as budget guardians. The result illustrates that spenders perceive budgeting as a “negotiation-based process”, while guardians perceive it as an “outcome and information-based process”. We establish the conflict between the budget players from the literature (Ahrens et al., 2018; Brignall & Modell, 2000; Covaleski & Dirsmith, 1986; Lu et al., 2015; Moynihan, 2005; Sicilia & Steccolini, 2017). This conflict indicates a gap between budget actors’ perceptions regarding their roles that can be interpreted as incompatibility; this incompatibility impedes the implementation of PBB at PURIs.

Spenders’ perception of budgeting as a “negotiation-based process” indicates the existence of a decoupling between rules and routines. This decoupling is the second barrier toward reform of budgeting process in PURI. Spenders’ perception also results in the creation of budgetary slack. This result is consistent with budget spenders’ characteristics in the guardian-spender framework.
These include the expected resistance to financial and budget controls (Brignall & Modell, 2000; Covaleski & Dirsmith, 1986), and the different value given to performance information by different actors (Moynihan, 2005).

The identification of “output-oriented budget” and “information-based budget” perception by guardians implies that they place a greater importance in PBB than the spenders. This result is in accordance with Ahrens & Ferry (2018) that refer to the endogenized values among budget actors in institutionalized contexts; it also complements guardians characteristics in the guardian-spenders framework (Wildavsky, 1964; Wildavsky & Caiden, 2004). This evidence confirms the importance of information flow in the budgeting process. It is important to mention that although guardians request authentic information flows, spenders provide slack information. This creates information asymmetry as authentic information is not available to guardians. Dissimilar perceptions among spenders and guardians indicates a lack of trust. These conflicting perceptions create a vicious cycle as one group of actors sees a need for budgetary slack while the other looks for standardization of the budgeting process. Figure 6 shows that a transition to a PBB budgeting system is unlikely as long as the budget perceptions between spenders and guardians are inconsistent.

This study contributes to the public budget literature in several ways. First, it contributes to the PBB literature by illustrating the impact of reality construction and budgetary roles on PBB implementation. The results provide a practical understanding of budget actors and their roles that must be considered for a transition to PBB. Findings imply that budget actors build their own reality of budgeting processes via their perceptions and interactions according to their respective roles (Wildavsky, 1964). The study also illustrates that the actors’ perception of reality has its own effect on budgeting process. Although this study addresses the impediments to PBB process, the results are relevant to changes in other organizational processes.

This study also contributes by examining a new context for changes in budgeting processes. The literature on public budgeting in Iran is sparse. Its insights into the cultural impact on public budgeting
and transitions in the budgeting process by analyzing Iranian PURIs. This study enriches the budgeting literature’s international perspective by considering the interactions of three primary organizations in Iranian PURI and giving a comprehensive picture of this process. In addition, it adds evidence to the public budgeting process at universities and research institutes in developing countries, as suggested by Ho (2018).

Finally, this research adds an examination of a new context such as those studies which examined UK organizations (Ahrens et al., 2018; Rosenberg & Tomkins, 1983; Rosenberg, Tomkins, & Day, 1982), Swedish organizations (Jönsson, 1982; Larsson & Malmer, 1980), and Canadian organizations (Doern, Maslove, & Prince, 1988). Although the budgetary roles were found in the UK and in Sweden, Doern et al. (1988) did not find similar roles - indicated by the Wildavsky model - in Canada. This research applies Wildavsky’s budgetary roles framework as a useful tool to analyze the results of the budget actors’ perceptions. The approach is helpful in interpreting the relationship between the failure of PBB implementation and the actors’ perceptions of the current budgeting process. Our findings illustrate that studying budgeting practices by considering the budgetary roles is an effective way to conceptualize obstacles and problems in the transition. The disagreement among budgetary roles and its application in budgeting practices helps to understand the budget transformation process.

This study has several practical implications. First, change in budgeting processes need consideration of budgetary roles as well as the perception of actors. The transition to a PBB system requires different actors to be involved. Therefore, consideration of their constructed reality of budgeting process is essential. From the spenders’ point of view, efforts should be made by MPO and government to modify the perception of negotiating process-based budgeting to a performance-based process. This will help to alleviate slack in budgets. The budgeting process requires authentic information flow, which cannot be achieved with the perception of negotiation and slack. Spenders need to become more aware of PBB, which would increase their involvement in the process of implementing change. On the other hand, guardians understand that budgeting is an information-based process and output oriented. This aligns guardians’ perception of budget with PBB goals.

Limitations of this research stem from the method of research and data collection. This is primarily because the participants are selected based on their willingness and availability. In general, studies that require limited population participation suffer from this limitation. Regardless, authors made efforts to obtain diverse participants with different opinions in the three organizations.
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