The Integration between Financial Sustainability and Accountability in Higher Education Institutions: An Exploratory Case Study

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This study aims to explore the relationship between the financial sustainability and accountability function under the university autonomy and empirically evaluate the extent of the financial sustainability of public higher education institutions in Iraq. To this end, the paper adopts an exploratory approach using semi-structured interviews and content analysis procedures. We introduce a theoretical model to explain the relationship between financial sustainability and accountability function, and use a solvency ratio to evaluate the financial sustainability using the financial data of the university of Kufa for three years 2015-2017. The results indicate that financial sustainability and accountability are interdependent, and in order to ensure adequate funding, management must provide the necessary financial information for accountability function and legitimate its activities. We found that the sample university has a poor financial sustainability forecasts and accordingly it cannot continue as a financially independent unit without the governmental financial support. The further analysis reveals that the financial deficit in the financial position during the time of the study is an inevitable consequence of lack of financial and administrative authorities. The results also provide information and data to other governmental higher education institutions needed to evaluate their own institutions' financial sustainability.

Key words: University autonomy; Tuition fees; financial sustainability; accounting system; accountability.
Introduction

Higher education has undergone radical modifications in many nations since the 1990s, when reforms inspired by new public administration needed the development of university management techniques (Modugno and Di Carlo 2019). Partnership between educational organizations and the state is one of the topics that has generated great controversy in recent years and has been seen as a cornerstone in the emergence of autonomy literature at universities (van Vught and Neave 1991). The change in the traditional role of universities from non-profit organizations offering their services free of charge to a central role in which they play a major role in the economies of countries (Markkula and Kune 2015). This idea is the starting point in drawing the relationship between governments and universities and represents a transition in the justification of the legitimacy of the public sector universities. In the market economy, the connection between the state and the university should be based on offering legal protection to higher education organizations (Johnstone and Bain 2002).

In order to make a better contribution to attaining the goals of society, these organizations try to enhance the mechanism for allocating funds to universities and to build a government accounting system appropriate to the nature of this partnership. Similar to other public administration industries, higher education (HE) has been pressured to become more effective and efficient while preserving or improving the quantity and quality of services provided. Government agencies have supported these objectives by implementing fresh financing systems based on measurable goals; these policies have often been accompanied by resource reductions (Modugno and Di Carlo 2019). In past few years, excellent attempts have been made to explore various consequences of university autonomy, financial sustainability in public sector units, and accountability, such as (Ödemiş, Beytekin et al. 2016, Rodriguez Bolivar, Navarro Galera et al. 2016, Bisogno, Cuadrado-Ballesteros et al. 2017, Ntim, Soobaroyen et al. 2017, Aleixo, Leal et al. 2018, Ferry and Murphy 2018, Jacob and Gokbel 2018, Caruana, Brusca et al. 2019, Irvine and Ryan 2019, Kleanthous, Paton et al. 2019), these attempts have attracted developments in the aspects of university autonomy. However, most previous studies have overlooked the relationship between financial sustainability and the Autonomy of public sector universities as well as the overlap between independence, financial sustainability and the role of financial reporting in achieving accountability in public sector universities. This study attempts to assess the interaction between university autonomy, Financial sustainability, and financial reporting for accountability in public sector universities. In addition, it seeks to reveal the university's ability to act as a financially independent unit by relying on its own financial resources.
Literature Review

Financial sustainability and Accountability

The notion of university autonomy is an increasingly significant issue in the field of business and accounting literature because of the rapid shift in the role of universities that has appeared over the last years (Bugaian, Cotelnic et al. 2016). Michavila and Martinez (2018) show that universities’ present social expectations involve making a significant shift in the organizational structure and functioning of the university in order to be eligible to properly meet social requirements. Recently, this notion has gained more attention from scientists and governmental officials around the globe. In this context, many governmental bodies in the European Union acknowledged the significance of university autonomy as a key move towards modernizing higher education in the new millennium (Felt and Glanz 2002, Estermann, Nokkala et al. 2011).

The European University Association submitted several studies that analysed the effect and growth of university autonomy as a regulatory reform in separate European nations. University autonomy has four prevalent characteristics: institutional independence, academic autonomy, staff autonomy, and financial autonomy (Estermann and Nokkala 2009). Thus, university autonomy reflects the university's ability to freely decide on setting objectives, recurring employees, introducing fresh academic programs, and budgeting. Thus, we suggest a theoretical model to explain the nature of the relationship between financial sustainability of universities and the accountability function. This model includes 5 logically interrelated premises as shown in Figure 1, combine together the need to provide the University with appropriate funding sources, transparency, accountability and financial reporting requirements. These premises are;

- **Premise one: University Under public accountability and stakeholder pressure.** The university is under pressure to control public funds and the public university is controlled by the general community. Stakeholder positions and their assessment of the reliability of financial information determine the size and nature of funding.

- **Premise two: Public University has to gain the stakeholder attitudes.** In order to ensure continuity and stability of funding, the public university needs to improve its relations with stakeholders. The university also needs to build credibility with stakeholders and provide reliable financial information in order to improve stakeholder positions as the original funders of public universities.

- **Premise three: Transparency and financial reporting increase stakeholder confidence.** Transparency often helps build confidence with stakeholders through financial reporting that reduces community pressure on universities and the resulting political costs. To build confidence with stakeholders, the University must provide reliable financial information

- **Premise four: Stakeholder confidence has a positive impact on public funding.** Positive attitudes of stakeholders create a supportive environment for the university. Improving stakeholder confidence removes restrictions on public funding and helps attract different sources of funding by improving the university's financial reputation.
- **Premise five: - Revenue stability increase the financial sustainability.** Stable public funding contributes to the financial sustainability of public universities. The diversity of revenue sources helps the long-term financial sustainability of the public university.

Through its five premises, the model illustrates the nature of the complementary relationship between financial sustainability and accountability. Usually, the financial autonomy involves a strict system of accountability and performance evaluation for the management of government educational institutions. Society legitimate universities and the universities should be accountable for society either because they derive their resources from government funds or because they derive their legitimacy from meeting society needs. Moreover, since public fund is the main source of funding for the public universities, society has the right to hold the administration accountable for how to manage the public money granted to them. In addition, accountability is an essential procedure to protect the rights of information users. Then, the accountability function requires a financial reporting system that can provide users with the reliable information they need to perform the accountability function and assess the performance of governmental units. Moreover, the financial reporting is also important whereby all independent universities are subject to government and public oversight through financial reporting mechanisms including annual financial statements as well as annual university reports. Finally, the model indicates that financial sustainability is an outcome of the transparency and positive financial reporting for accountability.
Figure 1. The theoretical model for the relationship between financial sustainability and accountability

1. Public Accountability and stakeholder pressure
   Premise 1: University. Under public accountability and stakeholder pressure
   - The university is under pressure to control public funds and the public university is controlled by the general community.
   - Stakeholder attitudes and their assessment of the reliability of financial information determines the size and nature of financing.

2. Stakeholder attitudes
   Premise 2: Public University has to gain the stakeholder attitudes
   - University need to improve stakeholder relationships
   - University needs to build a credibility with the stakeholders
   - Providing a reliable financial information improve the stakeholder attitudes

3. Transparency and financial reporting
   Premise 3: Transparency and financial reporting increase stakeholder confidence
   - Transparency help to build the confidence with the stakeholders.
   - Financial reporting reduces the society pressure
   - Building stakeholder confidence requires reliable financial information.

4. Public Funding
   Premise 4: Stakeholder confidence has a genuine impact on public funding
   - Positive attitudes of stakeholders create a supportive environment for the university
   - Improved stakeholder confidence lifts constraints on public funding
   - The university’s good financial reputation attracts different funding sources

5. Financial sustainability
   Premise 5: Reverse stability increase the financial sustainability
   - Stable public funding contributes to financial sustainability
   - The diversity of revenue sources helps the long-term financial sustainability of the public university.
Financial Autonomy and Financial Reporting

Although the function of accounting has been solely concerned with the creation of a suitable theoretical framework for annual financial reporting, the interest of academicians and professionals around the globe is focused increasingly focused on wider data than traditional financial reporting objectives. Especially with respect to the time horizon for financial reporting through emphasizing the long term financial sustainability (Caruana, Brusca et al. 2019). The financial autonomy is an important element of university autonomy, which is related to the ability of universities to conduct as financially independent entities and their ability to borrow money from banks or other financial institutions. It requires the university to be recognized as a legally independent unit with full freedom to make decisions regarding the exploitation of its available financial resources. However, there is no full financial autonomy of universities since they cannot afford the financial liabilities required to their long-term survival (Pruvot and Estermann 2017). In most countries, government or other private organizations provide financial assistance in the form of block grants to public universities that allow them to carry out their duties efficiently and fulfil the academic objectives they aim to accomplish. Internationally, the financial sustainability of educational institutions is the main problem of public and private universities in the last years. Therefore, UK and European Union have created a permanent program to achieve financial sustainability of higher education institutions. The main focus is to maintain and strengthen domestic sources of funding without any future financial commitments (Afriyie 2013). Providing funding for educational and research activities for universities requires them to provide reliable information to users on how to manage the money. Recently, there has been a growing interest in accounting publications to improve the financial reporting system in higher education institutions. this is due to the growing information needs of stakeholders for accountability as well as the development of financial sustainability indicators for such institutions. The financial reporting represents an effective mean for providing of financial information to the public authorities, and it is a form of ensuring periodic accountability of universities for their financial activities. The Governmental Accounting Standards Board indicates that financial reporting is the means of disseminating the financial information to users. Allison (2015) identifies four types of users of university financial statements are as follows:

- **The general public**: is the most important user of university financial information, all public universities and other educational institutions are subject to accountability of it.

- **Legislative and oversight bodies**: those who represent the general public directly, such governmental auditing bodies or the parliament.

- **Education researchers**: those who use the university financial information for academic research.

- **Investors and creditors**: those who lend the educational institutions or participate in lending agreements, such banks, investors or other funding institutions.
The university financial reporting system is an important source of financial information on financial position and business outcome in each university. Recently, the focus on accountability has led to the highlight of the university financial performance with emphasizing on how much the acceptable level of education services does cost (Martinaitis, Gaušas et al. 2016). To achieve the accountability function, the independent university should provide the annual financial reports that present a reliable and relevant information that satisfy diverse and numerous needs of various users (Ntim, Soobaroyen et al. 2017). The transition towards financial autonomy of public universities will lead to radical change in the financial accounting and reporting system by which the university presents their financial reports due to that change the objective of the university form profitable to non-profit unit. As a result, the independent university should apply the international accounting standards in achieving the financial reporting system that controls the utilization of financial resources and ensure the compliance with GAAP.

Thus, the public universities under FASB are required to present four financial statements:
- Balance sheets
- Income statement
- Statement of changes in resources
- Cash flow statement

Although the above statements do not follow all GAAP requirements for accounting and reporting process, but they represent the means by which the university can explain its financial position to the general public. In all cases, the accounting and financial system in educational institutions requires that the international accounting standards setters and local bodies interested in financial reporting in universities work on the issuance of international accounting standards for educational institutions. These standards will necessarily contribute to better accountability function by focusing on providing relevant and reliable information for information users in higher education institutions.

Financial Sustainability in Public Universities

A public sector entity's financial sustainability involves its ability to manage its short-and long-term financial capacity while preserving the level of services. It requires measures to guarantee the provision of public services to the current generation as much as possible while protecting the requirements of the future and maintaining equity between generations (Caruana, Brusca et al. 2019). Thus, the financial sustainability can be defined as the ability to cover annual budgets without restrictions. It states that the income earned by the institution is greater than the operating expenses (Pollinger, Outhwaite et al. 2007). In the context of higher education institutions, financial sustainability means that these institutions generate higher revenues than the provision of educational services. In other words, the income generated by these universities is more than what is required to meet the needs of staff payroll, wages of employees as well as the purchase
of educational supplies and services. Therefore, ensuring the financial sustainability has become the primary objective of all higher education institutions in the world, both of those working as a private or public institution. Usually, problems of financial sustainability in educational institutions arise as a result of general financial crises or problems of the institution itself that make it difficult to cover the administrative costs and development activities that aim to achieving their goals (Jean-François 2014). The routine solution is to enter into negotiations with donors or government bodies for financial support (Leon 2001). The sustaining to the financial sustainability still one of the main challenges for higher education institutions in developing countries since the lack of it will lead to deteriorating its ability to implement the activities required to fulfil its goals. Moreover, developed countries also consider the financial sustainability as a crucial part of university sustainability, and represent a threat to the ability of higher education institutions to carry out their duties in an efficient manner and respond to the changes in the surrounding environment. Consequently, financial sustainability seeks to ensure that higher education institutions have the ability to generate sufficient revenues to be able to do the academic activities and scientific research without relying on external donors such as the government. In most universities throughout the world, and the European Union universities in particular begin to receive the governmental funding in a form of block grants instead of funding by line –item budget which doesn’t permit the university to shift funds from the budget line to another (Estermann 2015).

Materials and Methods

An exploratory qualitative case study1 approach was used to conduct this research, which is commonly used to explore cases where the intervention of the researcher does not produce one specific set of results. This type of case study is relevant to exploratory research cases in which the question of what and how (Baxter and Jack 2008). This methodology has been adopted in our current study as it fits with the nature of the research that addressed the autonomy of universities and its relationship to financial sustainability and accountability and work to explore the interrelationships between these variables. In order to assess the financial sustainability of University of Kufa as starting point to determine the university’ capabilities to continue as a financially independent unit a case study approach is adopted.

The selection of exploratory case study as research methodology could support the data examination and analysis because this will help to understand the challenges of funding sources in the university and the possible strategies to practically address them. Similar to Rymanov (2010); Sazonov and Kharlamova (2014); Sazonov, Kharlamova et al. (2015) this study employs

1 Exploratory research performs an assessment of a problem that has not been analyzed more clearly, directed at setting priorities, creating organizational definitions and enhancing the final composition of the work Yin, R. K. (2017). Case study research and applications: Design and methods, Sage publications.
the solvency as measure of financial sustainability. The university’s solvency represents the university’s ability to cover its financial liabilities. It is measured using different rates, including; general rate of solvency, current assets to equity ratio, the equity ratio, and the debt to equity ratio. The simple form of solvency is adopted in this study for two reasons:

1. UOK relies on the governmental accounting system, which does not provide reliable information about university’s equity and debts.
2. UOK does not have the financial authorities to lend money from local or foreign banks. Consequently, it is not possible to use debt-based financial sustainability measures.

The simple rate of solvency is calculated by dividing the annual net income by the short-term and long-term financial liabilities. Accordingly, the financial sustainability index is calculated using the following equation:

\[ FS = \frac{\text{Total Funding Sources}}{\text{Current Financial Liabilities}} \times \geq 1 \]

Based on the above equation, the university should have at least 1 score of the FS index to achieve the short-term financial sustainability. The main source of data in the case study analysis applied in this study is the financial reports of UOK for the years 2015-2017. In addition, the analysis also depends on semi-structured interviews with UOK financial officials to ensure the potential financial capability of the university and the future trends of funding in the case of transition to the full financial autonomy.

University of Kufa is a public sector university established in 1987 and expanded later to be one of the biggest universities in Iraq. It contains of 21 faculties and 900 faculty members; each faculty represents an independent accounting unit. As indicated in Table 1, the total undergraduate and postgraduate student for the year 2015-2017 were (22,303), (23,741), and (24,341) respectively.

**Table 1: Students No. per faculty**

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Faculty Code</th>
<th>Students No. 2015</th>
<th>Students No. 2016</th>
<th>Students No. 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty of medicine</td>
<td>MEDC</td>
<td>873</td>
<td>1,020</td>
<td>1,034</td>
</tr>
<tr>
<td>Faculty of Dentistry</td>
<td>DENT</td>
<td>480</td>
<td>559</td>
<td>550</td>
</tr>
<tr>
<td>Faculty of Pharmacy</td>
<td>PHAR</td>
<td>797</td>
<td>825</td>
<td>850</td>
</tr>
<tr>
<td>Faculty of Veterinary Medicine</td>
<td>VETR</td>
<td>223</td>
<td>238</td>
<td>212</td>
</tr>
<tr>
<td>Faculty of Nursing</td>
<td>NURS</td>
<td>599</td>
<td>555</td>
<td>509</td>
</tr>
<tr>
<td>Faculty of Engineering</td>
<td>ENGN</td>
<td>1,875</td>
<td>1,747</td>
<td>1,514</td>
</tr>
<tr>
<td>Faculty of Science</td>
<td>SCIN</td>
<td>1,144</td>
<td>1,385</td>
<td>1,784</td>
</tr>
<tr>
<td>Faculty of Computer Science and Math</td>
<td>COMP</td>
<td>549</td>
<td>598</td>
<td>610</td>
</tr>
</tbody>
</table>
To assess the financial sustainability of the UOK using solvency index, it is necessary to identify the main funding sources in the case of transition to financial autonomy. The main sources of funding currently available at the University of Kufa consist of three main sources:

- Tuition fees
- Fees for services
- Other income

The transition to financial autonomy requires full reliance on tuition as a major source of funding rather than federal budget allocations. Tuition fees are usually received in the form of government grants, which are calculated based on the number of students admitted to the university multiplied by annual fees for each program. Table 2 shows the size of tuition fees for each of the university colleges for the years 2015-2017.
Table 2: Tuition total revenue (the amounts in thousands of Iraq dinars)2

<table>
<thead>
<tr>
<th>Faculty Code</th>
<th>Annual Tuition (1000)</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDC</td>
<td>15,000</td>
<td>873</td>
<td>13,095,000</td>
<td>1,020</td>
</tr>
<tr>
<td>DENT</td>
<td>13,000</td>
<td>480</td>
<td>6,240,000</td>
<td>559</td>
</tr>
<tr>
<td>PHAR</td>
<td>10,000</td>
<td>797</td>
<td>7,970,000</td>
<td>825</td>
</tr>
<tr>
<td>VETR</td>
<td>2,000</td>
<td>223</td>
<td>446,000</td>
<td>238</td>
</tr>
<tr>
<td>NURS</td>
<td>5,000</td>
<td>599</td>
<td>2,995,000</td>
<td>555</td>
</tr>
<tr>
<td>ENGN</td>
<td>4,400</td>
<td>1,875</td>
<td>8,250,000</td>
<td>1,747</td>
</tr>
<tr>
<td>SCIN</td>
<td>2,000</td>
<td>1,144</td>
<td>2,288,000</td>
<td>1,385</td>
</tr>
<tr>
<td>COMP</td>
<td>3,350</td>
<td>549</td>
<td>1,839,150</td>
<td>598</td>
</tr>
<tr>
<td>PLAN</td>
<td>1,500</td>
<td>301</td>
<td>451,500</td>
<td>350</td>
</tr>
<tr>
<td>ECON</td>
<td>2,400</td>
<td>2,129</td>
<td>5,109,600</td>
<td>2,168</td>
</tr>
<tr>
<td>AGRI</td>
<td>2,000</td>
<td>927</td>
<td>1,854,000</td>
<td>992</td>
</tr>
<tr>
<td>ARCH</td>
<td>1,500</td>
<td>480</td>
<td>720,000</td>
<td>419</td>
</tr>
<tr>
<td>LAW</td>
<td>2,600</td>
<td>875</td>
<td>2,275,000</td>
<td>858</td>
</tr>
<tr>
<td>EDUG</td>
<td>1,500</td>
<td>2,773</td>
<td>4,159,500</td>
<td>3,186</td>
</tr>
<tr>
<td>BEDU</td>
<td>2,000</td>
<td>1,597</td>
<td>3,194,000</td>
<td>1,599</td>
</tr>
<tr>
<td>EDUB</td>
<td>2,000</td>
<td>1,640</td>
<td>3,280,000</td>
<td>1,681</td>
</tr>
<tr>
<td>SPOR</td>
<td>1,500</td>
<td>347</td>
<td>520,500</td>
<td>389</td>
</tr>
<tr>
<td>POLT</td>
<td>1,500</td>
<td>509</td>
<td>763,500</td>
<td>675</td>
</tr>
<tr>
<td>ARTS</td>
<td>2,350</td>
<td>2,683</td>
<td>6,305,050</td>
<td>2,873</td>
</tr>
<tr>
<td>LANG</td>
<td>2,000</td>
<td>75</td>
<td>150,000</td>
<td>132</td>
</tr>
<tr>
<td>ISLSC</td>
<td>1,400</td>
<td>1,427</td>
<td>1,997,800</td>
<td>1,492</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22,303</td>
<td>73,903,600</td>
<td>23,741</td>
</tr>
</tbody>
</table>

Note: The primary data of this table are extracted from the financial books of UOK, Financial Reports, student affairs department, and finance manager.

The analysis reveals that Medicine, Dentistry, and Pharmacy Faculties have the highest shares of competitive funds in the last three years. This can be partially justified by the nature of the labour market in Iraq, which gives priority to hire the graduates of medical faculties (Medicine, Dentistry, and Pharmacy) as well as the Iraqi government ensure the direct recruitment for their graduates. Therefore, these faculties are attractive to students and their tuition fees are high compared to other faculties. In addition, it is clear from the table above that the total tuition fees for the faculties of UOK reached 73,903,600, 79,138,950, and 79,969,050, respectively. It is known that public universities offer their services free of charge, but the transition to financial

2 All figures in this paper are shown in Iraqi Dinars. Every $ 1 is equivalent to approximately 1200 dinars according to the conversion rates in August 2019
autonomy requires the university to impose its students to pay the tuition fees. However, in the case of public sector university the government usually pays the tuition fees to the university instead of the students in the form of annual block grants commensurate with the number of students. The negotiations should be taken place between the university and the Ministry of Higher Education to determine tuition fee for each program annually and accordingly to identify the total annual grant of the university. In this study, the prices of university programs for all colleges were determined based on the market price, which reflects the tuition fees of the similar program in the private universities. Table 3 shows the university's total funding sources which include, tuition fees, service revenue and other income.

Table 3: Total Funding Sources

<table>
<thead>
<tr>
<th>Year</th>
<th>Tuition</th>
<th>Services Fees</th>
<th>Other revenues</th>
<th>Total Funding Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>73,903,600</td>
<td>5,176,637</td>
<td>530,313</td>
<td>79,610,550</td>
</tr>
<tr>
<td>2016</td>
<td>79,138,950</td>
<td>5,510,404</td>
<td>564,506</td>
<td>85,213,860</td>
</tr>
<tr>
<td>2017</td>
<td>79,969,050</td>
<td>5,649,667</td>
<td>578,772</td>
<td>86,197,489</td>
</tr>
</tbody>
</table>

The data in table 3 indicate that the income from tuitions increased in 2017 from about 74,903m to 79,969 (+7.6%), mainly as a result of the increase in the number of students in recent years in various faculties of the university. Service fee income and other revenues have also increased for the same reason, and it is expected to increase due to the financial authorities gained from the government as well as the long-term upward trend in the number of graduate students. It is known that the main source of funding for the UOK is budget allocations, which is spent entirely on various educational and research activities. This has an impact on the University's accounting system and consequently, on the financial management as a whole. Table 4 shows the actual expenses of UOK for the years 2015-2017, which include three basic categories: Staff costs, operating expenses and capital expenses.

Table 4: Total Annual Expenses

<table>
<thead>
<tr>
<th>Year</th>
<th>Staffing costs</th>
<th>Operating Exp.</th>
<th>Capital Exp.</th>
<th>Total Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>85,709,667</td>
<td>14,231,129</td>
<td>1,052,212</td>
<td>100,993,008</td>
</tr>
<tr>
<td>2016</td>
<td>86,256,650</td>
<td>4,645,294</td>
<td>101,692</td>
<td>91,003,636</td>
</tr>
<tr>
<td>2017</td>
<td>90,197,589</td>
<td>2,801,906</td>
<td>899,169</td>
<td>93,898,664</td>
</tr>
</tbody>
</table>

The findings from the analysis of total actual expenses of UOK (which is received from the governmental allocations in line-item budget) show that staff costs account for 85% of the university's total expenses in 2015. This percentage increased in the years 2016 and 2017 to reach 95% and 96%, respectively. It is noted from the table above that the staff costs have increased significantly during the years of research despite the decrease in other operating and investment capital as well as the decline in the total annual expenditure of the University. This is because the
authority to determine the amounts of salaries and pension benefits does not fall under the authority of the university itself, but is governed by certain laws, such as the law of university service and the law of retirement.

**Figure 2.** Governmental funding levels

![Governmental funding levels](image)

In addition, university staff are civil servant employees with legally defined rights that the university cannot change. In term of the rapid decrease in UOK allocations of governmental funds as shown in figure 2, it is clear that there is governmental policy to decrease the public funding as a result of the financial crisis in Iraq since 2014 resulted from the decline in oil prices. The results, as shown in Table 5, show that the UOK's financial ability failed to cover its financial obligations in the last three years. The results also showed that the sustainability index for the years 2015, 2016, 2017, which reached (0.79), (0.94), (0.92), respectively. These findings reveal that the transition from the governmental supervision to full financial autonomy will expose UOK to a financial difficulties and lack of financial sustainability, which is the basis for financial autonomy. The findings of the financial sustainability analysis indicate that the financial sustainability index of UOK was less than 1 in the last three years. Such outcome is a clear indication that there is a high level of financial obligations with limited funding sources.

**Table 5:** Financial sustainability results (solvency scores)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total funding sources</th>
<th>Total Expenses</th>
<th>Outcome Surplus- Deficit</th>
<th>Financial sustainability Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>79,610,550</td>
<td>100,993,008</td>
<td>(21,382,458)</td>
<td>0.79</td>
</tr>
<tr>
<td>2016</td>
<td>85,213,860</td>
<td>91,003,636</td>
<td>(5,789,776)</td>
<td>0.94</td>
</tr>
<tr>
<td>2017</td>
<td>86,197,489</td>
<td>93,898,665</td>
<td>(7,701,176)</td>
<td>0.92</td>
</tr>
</tbody>
</table>
The findings above imply that UOK is not financially sustainable and does not have a financial stability in the short term. The further analysis reveals that the financial deficit in the last three years is an inevitable consequence of lack of financial and administrative authorities, and most the decisions that have financial implications either require a governmental approval or are not with the university authority. Thus, the main reasons of this problem can be summarized as follows:

- The entire dependence on the governmental budget allocations as a main funding sources, which has led to unplanned spending in various budget lines.
- Unplanned staff costs that have deteriorated the financial ability of UOK is an outcome of incorrect governmental staffing policy which does not consider the actual requirements of staff.
- UOK has a limited funding sources because it does not have the financial authorities to lend, borrow, invest, and set tuition fees.
- Staff costs constitute about 96% of total financial obligations, which is cannot be changed, because the setting of staff wages and salaries is determined by civil servant law.

To overcome these obstacles, it is necessary to give the university the required financial and administrative authorities through which it can increase its internal income sources and reduce the costs of its services. The diversification of income sources is one of the most important solutions required by the university to ensure long-term financial stability. In order to reduce the gap between the total funding sources and the total financial obligations, the university should have the authorities regarding; staffing, setting of tuition fees, setting of other service fees, and setting of the wages and salaries. The financial accounting and reporting is also need to be changed toward adopting the international accounting standards, which improve the university financial reporting and transparency and help to achieve an effective accountability function. In addition, the university financial system should depend on the block grants instead of line-item budget allocations, this will give the university the financial flexibility to set its own financial budgets and plans.

**Conclusions and discussion**

Previous accounting research in higher education institutions concentrates on financial reporting processes as one of the main accountability instruments. Higher education institutions' accountability is a legal and ethical obligation for universities that receive financial resources to carry out their tasks, and financial reports provide the rationale for how these resources are managed. Higher education institutions should report their operations because if stakeholders realize how to manage their financial activities, they will be more confident that public funds will be used reliably and appropriately. Financial statements should provide regular and timely information about these institutions and their funds, enabling stakeholders to have sufficient disclosures to improve their understanding of financial position. This paper utilizes an
exploratory case study to explore the integration between university autonomy, financial sustainability, and financial reporting and accountability in public higher education institutions. Furthermore, it also seeks to assess the financial sustainability of public universities that enable them to act as a financially independent unit and paying off their long-term financial obligations. In order to achieve the objectives of this study, the case study methodology was adopted using the solvency rate as a measure of financial sustainability.

The main source of data in the exploratory case study analysis applied in this study was the financial reports of UOK for the years 2015-2017. In addition, the analysis also depends on semi-structured interviews with UOK financial officials to ensure the potential financial capability of the university and the future trends of funding in the case of transition to the full financial autonomy. The results suggest that financial sustainability has an integral relationship with accountability. Financially and administratively independent universities are accountable and continuously monitored by stakeholders throughout the community because they use public money to perform their activities. Therefore, universities seek to gain the trust of stakeholders by providing reliable information about the financial situation and business outcome of the university. In addition, winning stakeholder positions requires an effective financial reporting system that increases stakeholder confidence and promotes public funding for universities, ensuring a stable financial position for the university. Providing reliable information for accountability is therefore the starting point in achieving the University financial sustainability. The analysis of financial sustainability shows that Medicine, Dentistry, and Pharmacy Faculties have the highest shares of competitive funds in the last three years. This can be partially explained by the nature of the labour market in Iraq, which gives priority to hire the graduates of medical fields as well as the Iraqi government ensure the direct recruitment for their graduates. Therefore, these faculties are attractive to students and their tuition fees are high compared to other faculties. In addition, it is clear from the table above that the total tuition fees for the faculties of UOK reached 73,903,600, 79,138,950, and 79,969,050, respectively.
REFERENCES


