FISCAL DECENTRALIZATION AND ECONOMIC GROWTH IN INDONESIA: A SIGNIFICANT REPRESENTATION OF ACHIEVING AUTONOMIC MANAGEMENT

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Abstract

Considering the utmost significance of fiscal decentralization in creating and enhancing the effectiveness and efficiency of funds management leading to economic growth, the current study aims to address several concerns regarding the delegation of authority to the regional governments by conducting two independent studies in a developing nation, Indonesia. Study 1 examines the influence of FD on the economic growth of six provinces of Sulawesi Island, Indonesia, using secondary data from 2011 to 2020 regarding the support of the central government to the regional government via fund transfer schemes, i.e., General Fund Allocation (GFA), Special Fund Allocation (SFA), and Revenue Sharing Fund (RSF). Study 2 used data obtained from websites using the internet or relevant institutions' documentation comprising official publications/reports, i.e., regional regulations, budget documents, accountability reports, etc., to analyze the significance of FD in creating and enhancing community welfare. Study 1 results revealed the significant impact of transferred funds to different regions/provinces on their economic growth, depicting the independent nature of the regional ability. Study 2 showed the significant influence of FD on budget management and high economy capacity, resulting in enhanced community welfare. Hence, conducting two independent studies regarding regional economic growth and community welfare based on FD is a valuable addition to the existing literature addressing budget allocation and issues of unequal wealth distribution.

Keywords: Fiscal Decentralization; Regional Economic Growth; Fund Allocations; Economic Capacity; Community Welfare; Autonomic Management.

1. INTRODUCTION

The concept of decentralization, as articulated in regional autonomy policies, experiences various dynamics all over the globe. The process of distributing or delegating activities more specifically linked with decision-making and planning from the central government to the local regions is known as decentralization (Sun et al., 2022). In principle, regional autonomy allows the local government to organize and manage the house's ladder (Dolo, 2022). Moreover, decentralization can be economical, fiscal, administrative, or political. Whereas the main focus of the current study is fiscal decentralization. Transferring the expenditure responsibilities and revenue assignments to the local governments presents fiscal decentralization (Martínez-Vázquez et al., 2017). Considering a nation's welfare and economic prosperity, the central government's role in passing on the financial management authority to the regional governments is of utmost significance (Wang et al., 2021).

The decentralization or delegation of authority to local administrative governments all over the globe, including various islands in Indonesia, has prevailed for many years. In this regard, the insurance law of No. 22/1999 presented the concept of Fiscal Decentralization (FD) in Indonesia to encourage economic growth efficiently and effectively. However, there are several unanswered questions regarding the delegation of authority in contributing to regional economic growth and community welfare, which the current study aims to answer by conducting two independent studies (Aritenang & Chandramidi, 2022; Saputra & Setiawan, 2021). In Indonesia, the decentralization concept started during the Dutch East Indies era (Triyono et al., 2022). Besides, the central government adopted the decentralization policy in 1995 (Siburian, 2022).

However, based on a higher degree of financial centralization in considering the new government orders, the economic structure change from centralized to decentralized remained slow (Aritenang & Chandramidi, 2022). When the New Order's Rule in 1998 ended, the need for regional empowerment to achieve community welfare and economic growth and the demand for democracy became very powerful. As a result, a new law regulating regional autonomy, i.e., Law Number 22 of 1999, was issued during the administration of President Habibie (Saputra & Setiawan, 2021). This law asserted the clause related to fiscal decentralization and redistributed the authorities in the bureaucracy as a function of economic development (Haryanto & Tenrini, 2021). Besides, it states the concept of vertical accountability, financial management authority allocation to the local governments, and clear instructions regarding the fund's allocation from the central to regional governments (Suhyanto et al., 2021).

Subsequently, the regional autonomy law, a complete paradigm shift from centralized to decentralized governments in 2001, was evident. This implementation of decentralization further accelerated the achievement of community welfare with several measures to reduce poverty and provide the basic necessities to the community (Syahza et al., 2020). These objectives were executed based on the government's
attention to principles of democracy, Justice, equity, increasing competitiveness, community empowerment, and service improvement in all sectors with utmost regional diversity (Arends, 2020). At the same time, the delegation of authorities to the local governments to manage and receive regional finances independent of public services acts as an important predictor of economic growth and community welfare in the country (Saputra & Setiawan, 2021). Scholars regard this decentralization of finances to the local government as a potential solution to the development problems directly linked with the economic growth and structures in any area (Aritenang & Chandramidi, 2022; Haryanto & Tenrini, 2021; Triyono et al., 2022).

Moreover, with rapid technological advancements and advancing economies, economic structural changes are important for local governments to invest in primary sectors of an area to make them processing industries to achieve prosperity in a nation (Dalle et al., 2020; Mansoor, 2021; Wisnumurti et al., 2018). The primary sectors, i.e., mining, fisheries, forestry, agriculture, etc., drastically impact regional developments (Mandeli, 2019). The decline of these primary sectors directly affects public consumption and investments, resulting in a decrease in local taxes, leading to lower revenues (Guo & Shi, 2021). Hence, the prime solution to all issues is embedded in the freedom of the regions to independently utilize their resources and import their role in regional development, which collectively results in the country's development (Arends, 2020). Furthermore, the decentralization theorem presented by Oates (1993) demonstrates the significance of a decentralized system and its efficiency more than the centralized system regarding the provision of multiple services asking for public demand.

Additionally, the regional expenditures and income budget allocation come from the main budget categories, including infrastructure and postal services, administrative departments, health, education, and provision of basic needs in terms of food, shelter, etc., to achieve the regional development goals (Fuhelo et al., 2022). Previously, researchers reported one of the major challenges in terms of Indonesian regions, the funds’ utilization rather than allocation on the access of poor communities towards public services, resulting in low community welfare (Suhyanto et al., 2021). However, these issues have been resolved to a significant extent after the advent of regional autonomy and the decentralization concept (Saputra & Setiawan, 2021). Regardless of these facts and figures, most of the previous research is based on the presentation of the available literature and qualitative findings regarding decentralization and regional autonomy (Azizah et al., 2022; Purbadharmaja et al., 2018). In contrast, the main focus of the current study is to provide empirical evidence regarding the significance of financial decentralization in bringing economic development and community welfare at regional levels in Indonesia. Moreover, the underlying mechanisms like budget allocation and economic stability to transmit the significance of financial decentralization in bringing community welfare have been assessed in the current study. Hence, establishing in the decentralization governance theory, the current study aims;
To examine the influence of fiscal decentralization on the economic growth in Indonesia.

To examine the influence of fiscal decentralization on the community welfare in Indonesia.

To examine the underlying mechanisms of budget allocation and economic capacity between the association of fiscal decentralization and community welfare in Indonesia.

To achieve these objectives, the current research conducted two independent studies using two different data collection and analysis methodologies. Based on the significance of the ability of the central government to transfer funds to empower the local governments, the current study results would be a valuable addition to the existing literature regarding achieving economic growth in the developing nation context. Besides, the current study will present valuable policy implications by addressing the issues of income inequality and poverty reduction at regional levels, which are developing community welfare. Simultaneously, the estimation of the financial role of the government in terms of budget allocation and economic capability to bring community welfare at the regional level will be helpful for the local and central governments, policymakers, practitioners, and academicians to devise and implement policies and regulations to achieve the human development index outcomes and facilitate the low-income families to achieve empowerment.

2. LITERATURE REVIEW

Fiscal Decentralization and Economic Growth

Regarding the delegation of authority from the central to the regional governments, the fiscal decentralization policies facilitate effective and efficient public goods provision based on a better understanding of the local governments regarding the preferences of their people (Wang et al., 2021). On the other hand, researchers reported the significance of public goods availability at government levels to enhance the region’s economic growth. For that purpose, the central governments must allocate the revenues to the regional governments to meet the needs of regional expenditures on public goods (Martínez-Vázquez et al., 2017). Previously, researchers have highlighted the direct associations of fiscal decentralization with economic growth (Purbadharmaja et al., 2018). This direct association further reflects that in the fiscal decentralization policy, public goods provision enhances the efficiency of economic growth. However, many researchers further recommended the development of this direct association of fiscal decentralization with economic growth in multiple contexts.

Simultaneously, the scholars also recommend the development regarding the potential need for an indirect relationship of fiscal decentralization with economic growth (Azizah et al., 2022). Additionally, most previous studies have focused on fiscal decentralization
in developed nations like the United States, China, etc. (Gadenne & Singhal, 2014; Hankla, 2009; Kuai et al., 2019). However, the results were not significant in both countries regarding the influence of fiscal decentralization on economic growth. Likewise, in a study conducted in the Russian context, Yushkov (2015) reported insignificant results for the impact of fiscal decentralization on economic development. In contrast to these previous studies in recent years, research conducted by Ewetan et al. (2020) and Timushev (2021) revealed a significant influence of fiscal decentralization on expenditure, consumption, and resultant economic growth of a region.

In Indonesia, the fiscal decentralization policy system came into existence through the issuance of law #22 of 99, and the government implemented it in 2001 (Yusri, 2022). It is clearly stated in the law that for the delegation of authority linked with financial management from central to regional governments, there is a need to focus on regional capacity, regional expenditure, the ability of regional government regarding its own revenue, etc., to accelerate their contribution towards economic growth (Digdowiseiso, 2022). Regardless of the presence of the law, many potential problems regarding fiscal decentralization implementation in Indonesia have been reported by previous researchers (Azizah et al., 2022; Triyono et al., 2022). Moreover, various Indonesian regions have been discussed by researchers in terms of regional decentralization and underdeveloped primary sectors (Azizah et al., 2022). Considering those regions underdeveloped economy compared to the other Indonesian regions, researchers asserted the need to determine the significance of fiscal decentralization in achieving and enhancing economic growth in the area (Sarlina, 2022; Windyastuti et al., 2021).

For this purpose, the implementation of regional autonomy law 2004 laws #32 and 33 issued by the government regarding the provision of finances is a considerable change to the financial system of Indonesia. These two laws provide great authority to the regional governments for managing their household and allocating finances (Sarlina, 2022). These laws provide hope to the regional governments to improve their economic growth by reducing the dependence on the central governments. Since the regional autonomy purpose is confined to delegating authority from central to regional governments, the main aim of this decentralization is to enhance the effectiveness and efficiency of managing financial resources in providing public services and the welfare of the people (Timushev, 2021). This objective is also well mentioned in government regulation #58 Article 4 of 2005 concerning regional finance dispersion.

Hence, considering the significance of fiscal decentralization in encouraging economic growth based on structural changes in a region's economy (Triyono et al., 2022), the central focus of attention of the current study is a developing nation, Indonesia. Moreover, to analyze the influence of fiscal decentralization on the region's economic growth, several fiscal decentralization ratios need to be calculated on behalf of the delegation of authority from central to regional governments. Thus, to address this issue, the current study posited the following hypothesis for Study 1;
HI: Fiscal decentralization has a positive influence on economic growth in Indonesia.

Fiscal Decentralization, Budget Allocation, Economy Capacity, and Community Welfare

Regional autonomy has been significantly linked with public welfare and the reduction of regional disparity (Elia et al., 2020). Simultaneously, fiscal decentralization as a main pillar of regional autonomy has been regarded as an important predictor of community welfare (Purbadharmaja et al., 2018). Previously researchers have reported the significance of fiscal decentralization on quantitative databases and literature reviews in enhancing the community welfare often the nation (Fuhelo et al., 2022; Utomo & Dewi, 2022; Wang et al., 2021). In contrast, the current study adapted quantitative research methodology by empirically examining the influence of fiscal decentralization in minimizing the inequality in wealth distribution and achieving community welfare in terms of poverty reduction and providing basic necessities to low-income families.

At the same time, research shows that if the regional infrastructure development is unequal and human resources are not well managed, it may directly affect the main objectives of decentralization in a region, creating income disparity (Triyono et al., 2022). Research also revealed that interregional financial capability plays an important role in transmitting the benefits of regional autonomy in developing and enhancing the community welfare of that region (Haryanto & Tenrini, 2021). In connection with that, Purbadharmaja et al. (2018) reported that the underlying mechanism of inequality is based on the financial incapability of a region to cater to the needs of the people. The regions that are available with an abundance of resources to provide the basic necessities in terms of food, shelter, education, health, etc., to low-income families are considered capable of addressing public needs (Azizah et al., 2022; Ewetan et al., 2020). Besides, researchers have revealed mixed findings regarding the direct impact of budget allocation at regional levels on community welfare.

Research reports that budget allocations based on fiscal decentralization from the center to the regional governments greatly affect the regional budget structures, particularly for the regions with fewer natural resources (Miao et al., 2021). Previously, based on the governor's scores, which are below 50% for the six main indicators in Indonesia, it is recommended that the public services of local governments be improved (Purbadharmaja et al., 2018). Additionally, in the economic field, good governance it's regarded as a central pillar of facing competition in the globalized world (Hartanto et al., 2021). Similarly, Indonesia requires financial decentralization and efficient budget allocation, especially to regions with limited resources, to bring economic prosperity and community welfare to the region. It further helps to reduce the extortion inefficiency and uncertainty in terms of finances in a region, resulting in two community welfares (Siburian, 2022).
Along with the direct influence of fiscal decentralization on community welfare in a region, the current study also extends the existing body of literature by presenting the underlying mechanism of budget allocation and economic capacity in transmitting the positive influence of fiscal decentralization in developing and enhancing community welfare in a region. Hence, grounded in the decentralization governance theory, the above arguments and literature support the following hypotheses posited for Study 2:

**H2:** fiscal decentralization has a significant direct influence on community welfare in the region.
**H3:** fiscal decentralization has a positive impact on regional budget allocation.
**H4:** fiscal decentralization positively influences the regional economic capacity.
**H5:** a) Budget allocation and b) the economic capacity positively influences the community welfare in the region.
**H6:** a) Budget allocation and b) the economic capacity significantly mediates the association of fiscal decentralization with community welfare in a region.

3. METHODOLOGY

STUDY 1

Study 1 was conducted to determine the influence of fiscal decentralization on the economic growth of the six provinces of Sulawesi, Island, and Indonesia from 2011 to 2020, utilizing random and fixed effects methods of selecting data. The Feasible Generalized Least Squares (FGLS) approach was used to analyze the data by adopting a demand-side economic growth model (Bai et al., 2021). Moreover, following the methods used by Akai et al. (2007), the following equation was used:

\[
GrY_{it} = a_0 + \beta_1RB_{M_{it}} + \beta_2Al_{l_{it}} + \beta_3Al_{l{lt}} + \beta_4(GrG)_{it} + \beta_5(GrI)_{it} + \beta_6(GrNX)_{it} + \varepsilon \ldots (1)
\]

The economic growth described by GRDP in each of the six provinces of Sulawesi Island was considered a dependent construct. At the same time, the independent variables of the study include government spending, investment growth, and net export growth for the control variables using Capital Expenditure Ratio (CER), Alr, and Alrr constructs.

**Where:**

- **Economic Growth** = Gross regional domestic product growth.
- **Government Spending** = Capital Expenditure Ratio (CER) is linked with the authority delegation from central to regional government and is assessed as capital expenditures/total expenditures.
- **Authority Indicator (AI)** = Regional ability of transfers and is obtained from the regional government's own revenue/total revenue (excluding federal grants).
- **Total Revenue from the Provincial Authority Indicator (AIıı)** = Ability of the regional government's own revenue the contribution to economic growth.
- **Regional government spendings growth (GRG)** = The level of development of total regional spending each year.
- **Regional Government Investment Growth (GRI)** = The level of investment development of a region/total income.
- **Government Net Export Growth (GRNX)** = The level of development of the region's net exports/total income.

**STUDY 2**

Study 2 was also conducted among the six provinces of Sulawesi Island, Indonesia, based on the limited resources available in the area and the significance of fiscal decentralization highlighted by several scholars to accelerate economic growth and community welfare in the area. This study's main objective was to determine the influence of fiscal decentralization on budget allocation, economic capacity, and community welfare in six provinces off Sulawesi Island, Indonesia, for the data collected from 2011 to 2020. The current study used the secondary data extracted from websites choosing Internet browsing, relevant institutions, and official publications/reports, i.e., documents related to the budget development of the regional economy, regional regulations, accountability reports, and information regarding regional budgets (Purbadharmaja et al., 2018). The Partial Leaves Square (PLS) analysis technique was used for the analysis purpose. For that, we assessed the measurement model and structural model (Mansoor et al., 2022; Sarstedt et al., 2022). The measurement model calculates the validities and reliabilities of the data. At the same time, the structural model tests the hypothesized relationships between the study variables.

The exogenous construct of the current study includes;

- **Fiscal decentralization** (X1) comprises of three items, (X1.1= fiscal decentralization degree ratio; X1.2 = fiscal independence degree ratio; and X1.3= DAU ratio).
- **Budget Allocation** (X2) comprises of three items, (X2.1= basic need expenditure ratio; X2.2 = Government administrative expenditure ratio; and X2.3 = infrastructure expenditure ratio).
- **Economic Capacity** (X3) also comprises of three items, (X3.1= Per capita income; X3.2 = Theil Entropy Index; X3.3 = Real GDP rate).

Moreover, the endogenous construct of the current study includes;

- **Community Welfare (Y1)** comprising of two items, (Y1.1= HDI; and Y1.2 = Poor people ratio).
4. RESULTS

Fiscal decentralization from central to regional governments results in significant economic development in that region, exploiting the overall potential of the region. It further results in the empowerment of the regional governments to utilize their budgets to improve community activities and public services. Besides economic growth of a region should be the prime focus of central governments via financial management. This research shows that several central governments provide economic expansion and acceleration policies to empower a region economically and enhance the standards of living in that area. Likewise, the fiscal decentralization policy in Indonesia is an initiative taken at certain government levels to maximize the allocation of resources per the region's potential and scarcity (Siburian, 2022). This fiscal decentralization is further expected to enhance the public sector services in various regions to attract investors, which will further lead to the region's prosperity.

In this regard, the increase in capital investment in terms of fixed assets to encourage the increase in capital expenditure at the regional government level is a good initiative to improve public services. Besides, the central governments should provide balanced funding per the region's requirements to enhance that region's economic growth. In addition, the general allocation of funds has been found to be one of the good contributors to balanced fund allocation that further consists of the Revenue Sharing Fund (RSF), the General Allocation Fund (GAF), and the Special Allocation Fund (SAF). Besides, one of the major advantages of fiscal decentralization lies in the region's independence to manage the regional affairs in the people's best interest.

Table 1. Balance Funds Development in Six Provinces in Sulawesi Island, Indonesia (Billion Rupiah)

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</thead>
<tbody>
<tr>
<td>South Sulawesi</td>
<td>2,490</td>
<td>2,500</td>
<td>2,501</td>
<td>2,577</td>
<td>2,594</td>
<td>2,435</td>
<td>2,560</td>
<td>2,551</td>
<td>2,824</td>
<td>2,912</td>
<td>260</td>
<td>275</td>
<td>240</td>
<td>278</td>
<td>265</td>
</tr>
<tr>
<td>North Sulawesi</td>
<td>1,288</td>
<td>1,367</td>
<td>1,420</td>
<td>1,455</td>
<td>1,470</td>
<td>995</td>
<td>1,015</td>
<td>971</td>
<td>1,123</td>
<td>1,201</td>
<td>104</td>
<td>112</td>
<td>133</td>
<td>117</td>
<td>123</td>
</tr>
<tr>
<td>West Sulawesi</td>
<td>993</td>
<td>1,008</td>
<td>1,025</td>
<td>1,064</td>
<td>1,123</td>
<td>421</td>
<td>498</td>
<td>452</td>
<td>613</td>
<td>671</td>
<td>22</td>
<td>26</td>
<td>19</td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>Southeast Sulawesi</td>
<td>1,432</td>
<td>1,563</td>
<td>1,576</td>
<td>1,614</td>
<td>1,682</td>
<td>1,002</td>
<td>1,041</td>
<td>1,165</td>
<td>1,256</td>
<td>1,301</td>
<td>69</td>
<td>71</td>
<td>125</td>
<td>160</td>
<td>151</td>
</tr>
<tr>
<td>Gorontalo</td>
<td>956</td>
<td>997</td>
<td>1,007</td>
<td>1,043</td>
<td>1,100</td>
<td>367</td>
<td>393</td>
<td>370</td>
<td>456</td>
<td>478</td>
<td>20</td>
<td>26</td>
<td>22</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>Central Sulawesi</td>
<td>1,533</td>
<td>1,546</td>
<td>1,586</td>
<td>1,638</td>
<td>1,720</td>
<td>930</td>
<td>955</td>
<td>949</td>
<td>1,249</td>
<td>1,288</td>
<td>121</td>
<td>125</td>
<td>196</td>
<td>206</td>
<td>224</td>
</tr>
</tbody>
</table>
Table 1 presents the proportions of different funds in six provinces of Sulawesi Island for ten years from 2011 to 2020 (Table 1 presents results for 5 years). Results revealed a higher proportion of GFA than that of SFA and RSF. RSF presents the funds collected from natural resources and taxes, including from Land and Building Tax (PBB), Customs on Land and Building Rights Acquisition (BPHTB), and Income Tax (PPh) as per chapters 25 and 29 for Individual Domestic Taxpayers and chapter 21 Income Tax. Besides, these funds also come from mining, fisheries, forestry, agriculture, etc. Results further reveal that from 2011 to 2020, RSF in each Sulawesi province was different, with higher values for Central, Southeast, and North Sulawesi. This might be because of higher revenues collected from the regional taxes. Besides, Results reveal the fluctuations for RSF for Gorontalo, West, and South Sulawesi provinces.

Moreover, the GFA comes from the ABPN revenues allocation to provide finances as per regional needs, implementing fiscal decentralization leading to the region's economic growth. In Indonesia, approximately 26% of the net domestic revenue in ABPN is allocated to GFA. Results also revealed that for the six provinces in Sulawesi Island from 2011 to 2020, GFA increased. This might be due to increased administrative burden and regional needs resulting in GF grabbing from the central government. Besides, the fiscal gap is considered an important predictor of allocating the deaf to the regions. This gap is further created based on the differences between regional fiscal capacity and fiscal needs (funding needs). These fiscal needs are further determined based on the human development index, gross regional domestic product per capita, construction cost index, and regional population (Runtunuwu & Kotib, 2021). In the case of zero fiscal gaps, regions received GFA as per basic allocations. Regions with greater fiscal needs as compared to fiscal potentials most probably receive quantities of GFA, depicting the equitable distribution of the fiscal capacity of GAF.

Furthermore, SFA is sourced from APBN revenues allocated to support special regional activities based on central government priorities. Three different criteria, including technical specifications and general, are used to allocate funds in the case of SAF. These criteria are further based on considering the financial capacity, regional characteristics, and statutory regulations the Ministry of State sets (Yushkov, 2015). At the same time, to receive SFA, regions are required to match funds of at least 10% of the budget allocated in the APBD. Furthermore, results revealed that from 2011 to 2020, there was a potential decrease of two point 7% of balancing firms from central governments to the regional governments, presenting a decreased dependence of regional governments on the central government. Furthermore, results showed the independence of regional governments to bear their household expenditures independently.

In contrast to other islands like the Island of Java (53%) (Azizah et al., 2022), Sulawesi Island revealed a great dependency of about 75% on the central government. Simultaneously, the GFA proportion allocated by the central government was higher than the regional government's revenue, reflecting the high level of dependency of regional
governments. This issue can be addressed by quantitative and qualitative improvement in adequate regional infrastructure, encouraging them to attain independence and higher economic growth. This can further be achieved by encouraging the regional governments to explore their household income potential in terms of helping in regional developments and encouraging them to explore and exploit their regional resources.

**Table 2. Regression Outputs for Selecting Best Model**

<table>
<thead>
<tr>
<th>Constructs</th>
<th>1.1</th>
<th>1.2</th>
<th>1.3</th>
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<tbody>
<tr>
<td>CER</td>
<td>0.12</td>
<td>0.12</td>
<td>-0.05</td>
</tr>
<tr>
<td></td>
<td>(0.00) *</td>
<td>(0.00) *</td>
<td>(0.64)</td>
</tr>
<tr>
<td>AIı</td>
<td>-0.35</td>
<td>-0.20</td>
<td>-0.06</td>
</tr>
<tr>
<td></td>
<td>(0.69)</td>
<td>(0.69)</td>
<td>(0.57)</td>
</tr>
<tr>
<td>AIıı</td>
<td>2.41</td>
<td>2.56</td>
<td>2.80</td>
</tr>
<tr>
<td></td>
<td>(0.00) *</td>
<td>(0.00) *</td>
<td>(0.00) *</td>
</tr>
<tr>
<td>GrG</td>
<td>-0.02</td>
<td>-0.21</td>
<td>-8.31</td>
</tr>
<tr>
<td></td>
<td>(0.01) *</td>
<td>(0.01) *</td>
<td>(0.01) *</td>
</tr>
<tr>
<td>GrI</td>
<td>4.23</td>
<td>7.23</td>
<td>-0.00</td>
</tr>
<tr>
<td></td>
<td>(0.95)</td>
<td>(0.05) *</td>
<td>(0.21)</td>
</tr>
<tr>
<td>GrNx</td>
<td>-0.03</td>
<td>-0.11</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>(0.70)</td>
<td>(0.70)</td>
<td>(0.86)</td>
</tr>
<tr>
<td>Coef.</td>
<td>3.02</td>
<td>3.54</td>
<td>3.14</td>
</tr>
<tr>
<td></td>
<td>(0.00) *</td>
<td>(0.00) *</td>
<td>(0.00) *</td>
</tr>
<tr>
<td>R2</td>
<td>0.62</td>
<td>0.88</td>
<td>0.56</td>
</tr>
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Furthermore, Study 1 applied three tests to select the best model with β-coefficient values and t-statistics with a significant level of 5% (*) to assess the GRDP growth from 2011 to 2020 for the six provinces in Sulawesi Island, Indonesia. Results showed that fiscal decentralization in Indonesia resulted in several changes in the financial management of the regional governments based on the facilities provided to them while managing the fund transfers from the central government. The current study utilized the Akai et al. (2007) variable control model with the addition of a dependent variable, i.e., economic growth concerning each region. As presented in Table 2, six independent variables were considered to assess the economic development in six provinces of Sulawesi Island, Indonesia, for 10 years. We considered three scenarios to obtain a complete picture of fiscal decentralization in Sulawesi Island. Results present the best fit for column 1.2 with a greater influence and significant values compared to the 1.1 and 1.3.

The capital Expenditure Ratio (CER) significantly describes the capability of regions to implement their capital expenditures based on the decentralization of authorities from the central to the regional Government, enhancing the region's economic growth (Ishak et al., 2021). It further depicts that citizens' income and consumption increase
based on higher capital expenditure of the regional governments, increasing the area's economic growth. This reflects that the fulfillment of the regional government's needs is based on the transfer of funds from the central government based on fiscal decentralization, which hampers the region's economic growth.

Moreover, the analysis results revealed non-significant values for \( A_{II} \), reflecting that the elimination of funds transfer from the central to local governments enhances the revenue of the regional governments, hampering economic growth in the region. This further reflects the limited acceptability of fiscal decentralization or higher dependence of regional governments on the central government. At the same time, analysis results for the influence of \( A_{III} \) on regional economic growth presented significant values reflecting the significance of fiscal decentralization in the area. It further depicts the regional government's high dependence on the central government to provide finances for the area's economic growth. Simultaneously, significant analysis results are found for the impact of local government spending (GrG) on economic growth but, with negative results presenting a negative influence of regional government spending on the region's economic growth. These results further revealed that certain government spendings hinder the area's growth because of the inclusion of net exports or investments that are not spent to provide basic necessities to the public for a shorter period of time.

Finally, it can be asserted that fiscal decentralization in terms of delegations of authorities from central to regional government has a significant impact on the economic growth of the regions. However, the spending patterns of the digital governments regarding infrastructure development, public interests, and development of the area matter in terms of the delegation of authorities at regional levels. Additionally, human resource development is also an important sector for enhancing the economic growth of an area that is highly dependent upon the financial capacity of the local governments concerning the delegation of authorities.

**Table 3. Outputs pooled Regression**

<table>
<thead>
<tr>
<th>Region</th>
<th>Random Effect of Pooled Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Sulawesi</td>
<td>0.091</td>
</tr>
<tr>
<td>North Sulawesi</td>
<td>0.052</td>
</tr>
<tr>
<td>West Sulawesi</td>
<td>-0.044</td>
</tr>
<tr>
<td>Southeast Sulawesi</td>
<td>0.056</td>
</tr>
<tr>
<td>Gorontalo</td>
<td>-0.140</td>
</tr>
<tr>
<td>Central Sulawesi</td>
<td>-0.013</td>
</tr>
</tbody>
</table>

Finally, the results presented in Table 3 regarding the pooled regression outputs reveal higher values for the South Sulawesi province and lower values for the Gorontalo province. This further reflects the significance of the intercept in the regression results affecting the
economic growth of all the regions. The economic growth of the South Sulawesi province is higher than that of other regions, presenting clear differences in terms of the availability of regional decentralization and utilization of resources independent of the central government for the region's development. It further reflects the availability of natural resources in the area, meeting household expenses and generating local revenues by region. The ability of the regions to utilize their own revenues for constructive processes in the region reflects the highest economic growth (Triyono et al., 2022). Results also showed that the local revenues and funds are insufficient to meet the Sulawesi Islands’ and all six regions' basic standards of economic growth. Instead, the transfer of funds from the central government for the area developments out of significance is important.

**Measurement Model**

SmartPLS v.4.0 has been applied to analyze the data regarding study constructs. To establish the reliabilities and validities of the measures, we assessed the psychometric properties of the variables. Hence, “Average Variance Extracted (AVE), Cronbach’s α (CA), and Composite Reliability (CR)” were calculated (Henseler et al., 2015; Mansoor et al., 2021). The results are presented in Table 4. All the values of AVE are greater than 0.50, as suggested by the scholars. Simultaneously, the CA and CR values are higher than 0.70, reflecting the good validity and reliability of the collected data (Hair et al., 2017; Mansoor et al., 2022). The factor loadings are also presented in Figure 1.

**Table 4: Factor loadings, reliability, and validity**

<table>
<thead>
<tr>
<th>Constructs/Indicators</th>
<th>Factor Loadings</th>
<th>AVE</th>
<th>CR</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal Decentralization</td>
<td></td>
<td>0.592</td>
<td>0.813</td>
<td>0.772</td>
</tr>
<tr>
<td>FD1</td>
<td>0.791</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FD2</td>
<td>0.770</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FD3</td>
<td>0.746</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budget Allocation</td>
<td></td>
<td>0.609</td>
<td>0.823</td>
<td>0.786</td>
</tr>
<tr>
<td>BA1</td>
<td>0.806</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA2</td>
<td>0.717</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA3</td>
<td>0.815</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Capacity</td>
<td></td>
<td>0.528</td>
<td>0.770</td>
<td>0.716</td>
</tr>
<tr>
<td>EC1</td>
<td>0.710</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC2</td>
<td>0.761</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC3</td>
<td>0.707</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Welfare</td>
<td></td>
<td>0.562</td>
<td>0.719</td>
<td>0.702</td>
</tr>
<tr>
<td>CW1</td>
<td>0.711</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CW2</td>
<td>0.786</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: CR, composite reliability; CA, Cronbach Alpha; AVE, average variance extracted.*
The current study also assessed the discriminant validity among the constructs by calculating Heterotrait-Monotrait (HTMT) (Akrim & Dalle, 2021; Noor et al., 2022). The findings, as presented in Table 5, showed that HTMT values for the association of all variables were less than 0.85 presenting no issues of multicollinearity among the study variables (Mansoor et al., 2022; Sarstedt et al., 2022).

Table 5: Heterotrait-Monotrait Ratio

<table>
<thead>
<tr>
<th>Constructs</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal Decentralization</td>
<td>0.769</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budget Allocation</td>
<td>0.647</td>
<td>0.780</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Capacity</td>
<td>0.532</td>
<td>0.502</td>
<td>0.726</td>
<td></td>
</tr>
<tr>
<td>Community Welfare</td>
<td>0.563</td>
<td>0.571</td>
<td>0.440</td>
<td>0.749</td>
</tr>
</tbody>
</table>

*Note: The square roots of AVEs of the constructs are shown in bold in diagonal.*

Structural Model

To measure the associations among the study constructs based on hypothesized paths, the current study assessed the values of “ß -coefficient, p-value, and t-value.” Simultaneously, the Coefficient of Determination (R2) was assessed to report the overall model fitness. The results revealed that fiscal decentralization brings a variance of about 50% (R2=0.508) in budget allocation and 42% (R2=0.423) in the economic capacity of the regional governments. Simultaneously, a variance of approximately 63% (R2=0.626) has been observed in community welfare in six provinces of Sulawesi Island, Indonesia, based on the influence of fiscal decentralization, budget allocation, and economic capacity of the regions. These results depict the good fitness of the proposed model.

![Figure 1: Full Measurement Model](image-url)
Hypotheses Testing

Results (see Table 6) show that fiscal decentralization has a positive influence on community welfare ($\beta = 0.362^{***}$, $t = 7.867$), budget allocation ($\beta = 0.290^{***}$, $t = 6.921$), and economic capacity ($\beta = 0.150^{**}$, $t = 3.201$) of the regional governments based on the delegation of authority and financial management. Simultaneously results also revealed a significant positive influence of the budget allocation ($\beta = 0.403^{***}$, $t = 8.456$) and economic capacity ($\beta = 0.305^{***}$, $t = 7.034$) on community welfare in a region. Hence, the study results support hypotheses H2, H3, H4, H5a, and b. In addition to these direct associations, the results also showed a significant positive mediating role of budget allocation ($\beta = 0.280^{***}$, $t = 6.561$) and economic capacity ($\beta = 0.246^{**}$, $t = 5.234$) in transmitting the significance of fiscal decentralization in developing and enhancing the community welfare in the region. Hence supporting the H6a and b of the study.

Table 6: Hypothesis Testing Results

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Std. Beta</th>
<th>t-Value</th>
<th>p-values</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2</td>
<td>FD→CW</td>
<td>0.362</td>
<td>7.867</td>
<td>0.000</td>
</tr>
<tr>
<td>H3</td>
<td>FD→BA</td>
<td>0.290</td>
<td>6.921</td>
<td>0.000</td>
</tr>
<tr>
<td>H4</td>
<td>FD→EC</td>
<td>0.150</td>
<td>3.201</td>
<td>0.007</td>
</tr>
<tr>
<td>H5 a</td>
<td>BA→CW</td>
<td>0.403</td>
<td>8.456</td>
<td>0.000</td>
</tr>
<tr>
<td>b</td>
<td>EC→CW</td>
<td>0.305</td>
<td>7.034</td>
<td>0.000</td>
</tr>
<tr>
<td>H6 a</td>
<td>FD→BA→CW</td>
<td>0.280</td>
<td>6.561</td>
<td>0.000</td>
</tr>
<tr>
<td>b</td>
<td>FD→EC→CW</td>
<td>0.246</td>
<td>5.234</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Where: FD=Fiscal Decentralization; BA= Budget Allocation; EC= Economic Capacity; CW= Community Welfare.

5. DISCUSSION

Study 2 results revealed a significant direct influence of fiscal decentralization on community welfare offered to regions. These results further depict that when regions are provided with a delegation of authorities and allowed to manage their resources to conduct regional development programs, the community welfare of the region is achieved. Previously researchers have reported mixed findings regarding the direct influence of fiscal decentralization on community welfare in a region (Kleider, 2022). For instance, Digdowiseiso (2022) revealed the direct positive influence of fiscal decentralization on regional community welfare. In contrast, Purbadharmaja et al. (2018) reported insignificant findings regarding the direct influence of fiscal decentralization on public welfare in different regions of Bali, Indonesia. This might be because of the region's availability of resources and infrastructure.

Results also showed a significant positive influence of fiscal decentralization on budget allocation. This further reflects the autonomy of the regions to allocate the
budget as per the needs of the society in the region based on their financial capability arising from high income. Regional governments also can pay more attention and assign a significant portion of the budget to public services and regional development to cater to the need of society (Miao et al., 2021). Previous studies also support the current study's findings, backed by law number 25 of 1999, that regional autonomy facilitates the allocation of budget to the various sectors of the region as per the requirement (Martinez Guzman, 2020; Miao et al., 2021). Besides, based on dynamic circumstances, regions might face a fiscal gap due to financial pressures, which can be adjusted through efficient and effective budget allocation policies (Saputra & Setiawan, 2021).

Moreover, fiscal decentralization was positively related to a region's economic capacity based on enhancing economic growth. Since economic capacity is directly linked with improved standards of life in a local community (Purbadharmaja et al., 2018), it presents a significant part of regional government. At the same time, regional financial management largely depends upon fiscal decentralization. Previously researchers have also affiliated the fiscal grounds from the central to the regional governments based on the economic capacity of those regions. Central governments pay more attention and allocate more budgets to the regions, having more absorptivity of funds and utilization of those funds for the development of society and meeting the needs of the people (Seran, 2021). These findings are in line with the previous studies that have asserted the significant positive influence of fiscal decentralization on the economic capacity of a region (Seran, 2021; Timushev, 2021). These results further imply that the regions with the more absorptive power of funds transfer from the central government are in a better position to utilize those funds in infrastructure development, leading to the area's prosperity.

Results also showed the significant positive influence of budget allocation and economic capacity on community welfare in a region. These results further showed that the transfer of funds from the central government and allocation of budgets by the regional governments to the different areas as per their capabilities and capacities helps in the utilization of the funds in the right areas to enhance the living standards of the people, resulting in community welfare. Finally, the results also revealed the mediating role of budget allocation and the region's economic capacity in transmitting the significant influence of fiscal decentralization on community welfare. These results can be related to the previous studies which asserted the indirect influence of fiscal decentralization on the community welfare of a region (Digdowiseiso, 2022; Purbadharmaja et al., 2018).

Hence, rather than just focusing on the funds received from the central government as per the capacity of a region, the exploitation of the existing resources is also very important in addition to the economic growth of that region. Since an increased level of income in a region facilitates that region's economic growth (Wang et al., 2021), it
is of significant importance to use the funds for the community welfare by providing quality education, health services, and education of poverty with equal distribution of wealth in the area. Besides, an enhanced level of economic capacity in a region acts as a stimulus to attract investments from the private sector, resulting in a conducive dynamic economy and enhanced community welfare.

6. RESEARCH IMPLICATIONS

Theoretical Implications

Establishing in the decentralization governance theory, the current study adds to the existing literature by presenting empirical evidence in terms of the significant influence of fiscal decentralization on economic growth and community welfare of the region. In addition to the direct influence of fiscal decentralization on the community welfare of a region, the underlying mechanisms of budget allocation and economic capacity are also studied. Simultaneously, results reveal that fiscal decentralization not only deals with the issues related to fiscal transfer but also enhances the regional abilities to develop human resources by enhancing their skills, knowledge transfer, and increased quality of public services. This transfer of knowledge and skills of individuals greatly influences the community welfare of a region. For the success of fiscal decentralization, fiscal quality, and budget allocation as per the area requirement are also very important and determined by good governance practices at the central government level. Results also show that there is a need to harmonize the budget allocation structure to bring improvements in different sectors, leading to economic prosperity and community welfare. Finally, the significant role of society in the economic capacity of a region presents a new theoretical perspective of using fiscal decentralization and enhancing prosperity in an area.

Practical Implications

The current study is a valuable addition for governments, practitioners, policymakers, and regional authorities in presenting a consolidated framework to improve a region's economic growth and community welfare. The central government should focus on the skills and knowledge transfer along with the funds transfer from central to the regional governments to enhance the development processes and infrastructure building in a region. Simultaneously, more attention must be paid to the utilization of resources at the regional level to grab the benefits of regional prosperity. It is also very important for the authorities to allocate the budgets based on an area's needs and available resources to maximize the utilization of transfer funds for community welfare. For this purpose, a good budget structure is important to formulate with a collection of all the necessary information regarding the weak areas of a region to strengthen them and provide a consolidated landscape for people to utilize their skills and knowledge to enhance their living standards. Also, there is a need for a balanced
decentralization policy to generate revenues from regional resources and utilize regional capital expenditure. A good budget allocation and enhanced regional capacity bridge the economic growth gap among the various regions in the same central authority. Besides, private sectors are attracted to invest based on good budget allocation policies to contribute to regional development, resulting in economic prosperity and public welfare.

7. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Certain limitations need to be covered in future studies. For instance, two different aspects, economic growth and community welfare, are assessed in two studies using data from different resources. In the future, both aspects can be combined and analyzed based on the available data to determine the significance of fiscal decentralization at the regional level. Secondly, the main focus of the current study remained the accountability aspect to evaluate the significance of fiscal decentralization in enhancing the economic growth and community welfare of a region. In contrast, future research can consider other elements of good governance, including transparency and responsiveness, to evaluate their impact on economic prosperity and community welfare. Finally, the current study has only considered the underlying mechanisms of budget allocation and economic capacity with a limited number of indicators to present these constructs. In contrast, future researchers can explore the role of digital technologies, financial management systems, and regional administration in developing and enhancing economic growth and community welfare in an area.

8. REFERENCES


